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5G System;  
Usage of the Unified Data Repository services  
for Subscription Data;  
Stage 3  
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# Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
  - 1 presented to TSG for information;
  - 2 presented to TSG for approval;
  - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

In the present document, modal verbs have the following meanings:

- shall** indicates a mandatory requirement to do something
- shall not** indicates an interdiction (prohibition) to do something

The constructions "shall" and "shall not" are confined to the context of normative provisions, and do not appear in Technical Reports.

The constructions "must" and "must not" are not used as substitutes for "shall" and "shall not". Their use is avoided insofar as possible, and they are not used in a normative context except in a direct citation from an external, referenced, non-3GPP document, or so as to maintain continuity of style when extending or modifying the provisions of such a referenced document.

- should** indicates a recommendation to do something
- should not** indicates a recommendation not to do something
- may** indicates permission to do something
- need not** indicates permission not to do something

The construction "may not" is ambiguous and is not used in normative elements. The unambiguous constructions "might not" or "shall not" are used instead, depending upon the meaning intended.

- can** indicates that something is possible
- cannot** indicates that something is impossible

The constructions "can" and "cannot" are not substitutes for "may" and "need not".

- will** indicates that something is certain or expected to happen as a result of action taken by an agency the behaviour of which is outside the scope of the present document
- will not** indicates that something is certain or expected not to happen as a result of action taken by an agency the behaviour of which is outside the scope of the present document
- might** indicates a likelihood that something will happen as a result of action taken by some agency the behaviour of which is outside the scope of the present document

**might not** indicates a likelihood that something will not happen as a result of action taken by some agency the behaviour of which is outside the scope of the present document

In addition:

**is** (or any other verb in the indicative mood) indicates a statement of fact

**is not** (or any other negative verb in the indicative mood) indicates a statement of fact

The constructions "is" and "is not" do not indicate requirements.

---

# 1 Scope

The present document specifies the usage of the Unified Data Repository services for subscription data. It provides the resource definition and data model for subscription data used over the Nudr Service Based Interface. The protocol definition for Nudr Service Based Interface which is specific to subscription data is also specified in the present document.

The stage 3 protocol definition for Nudr Service Based Interface which is common for subscription data, policy data, structure data and application data for exposure is specified in 3GPP TS 29.504 [2].

---

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 29.504: "5G System; Unified Data Repository Services; Stage 3".
- [3] 3GPP TS 29.571: "5G System; Common Data Types for Service Based Interfaces Stage 3".
- [4] 3GPP TS 23.501: "System Architecture for the 5G System; Stage 2".
- [5] 3GPP TS 23.003: "Numbering, addressing and identification".
- [6] 3GPP TS 29.503: "Unified Data Management Services".
- [7] 3GPP TS 29.501: "5G System; Principles and Guidelines for Services Definition; Stage 3".
- [8] 3GPP TS 29.500: "5G System; Technical Realization of Service Based Architecture; Stage 3".
- [9] 3GPP TS 33.501: "Security architecture and procedures for 5G system".
- [10] 3GPP TS 33.102: "3G Security; Security architecture".
- [11] 3GPP TS 35.206: "An example algorithm set for the 3GPP authentication and key generation functions f1, f1\*, f2, f3, f4, f5 and f5\*; Document 2: Algorithm specification".
- [12] 3GPP TS 35.231: "A second example algorithm set for the 3GPP authentication and key generation functions f1, f1\*, f2, f3, f4, f5 and f5\*; Document 1: Algorithm specification".
- [13] 3GPP TS 29.518: "5G System; Access and Mobility Management Services; Stage 3".
- [14] 3GPP TR 21.900: "Technical Specification Group working methods".
- [15] 3GPP TS 29.509: "Authentication Server Services; Stage 3".
- [16] IETF RFC 3986: "Uniform Resource Identifier (URI): Generic Syntax".
- [17] 3GPP TS 29.519: "5G System; Usage of the Unified Data Repository service for Policy Data, Application Data and Structured Data for Exposure; Stage 3".
- [18] 3GPP TS 23.316: "Wireless and wireline convergence access support for the 5G System (5GS); Stage 2".

- [19] Void
- [20] 3GPP TS 29.563: "Home Subscriber Server (HSS) services for interworking with Unified Data Management (UDM); Stage 3".
- [21] 3GPP TS 29.508: "5G System; Session Management Event Exposure Service; Stage 3".

---

## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

**pointer of attribute:** The pointer of the attribute identifies the location of the attribute in the JSON object. The pointer of the attribute is a string with one or more segments, each segment is the name of an attribute within that JSON object, different segments are separated with a "/".

### 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

|      |                                         |
|------|-----------------------------------------|
| 5GC  | 5G Core                                 |
| AMF  | Access and Mobility Management Function |
| DNN  | Data Network Name                       |
| GPSI | Generic Public Subscription Identifier  |
| JSON | Javascript Object Notation              |
| SMF  | Session Management Function             |
| SMS  | Short Message Service                   |
| SMSF | SMS Function                            |
| SUPI | Subscription Permanent Identifier       |
| UDM  | Unified Data Management                 |
| UDR  | Unified Data Repository                 |

---

## 4 Overview

The resources, data model and usage defined in the present document are used by the 5GC NFs (e.g. UDM) to access the subscription data via the Unified Data Repository services specified in 3GPP TS 29.504 [2].

---

## 5 Usage of Nudr\_DataRepository Service

### 5.1 Introduction

The following clauses specify the usage of Nudr\_DataRepository service for subscription data. The principles specified in 3GPP TS 29.504 [2] are followed unless explicitly specified otherwise in the following clauses.

## 5.2 Resources

### 5.2.1 Overview

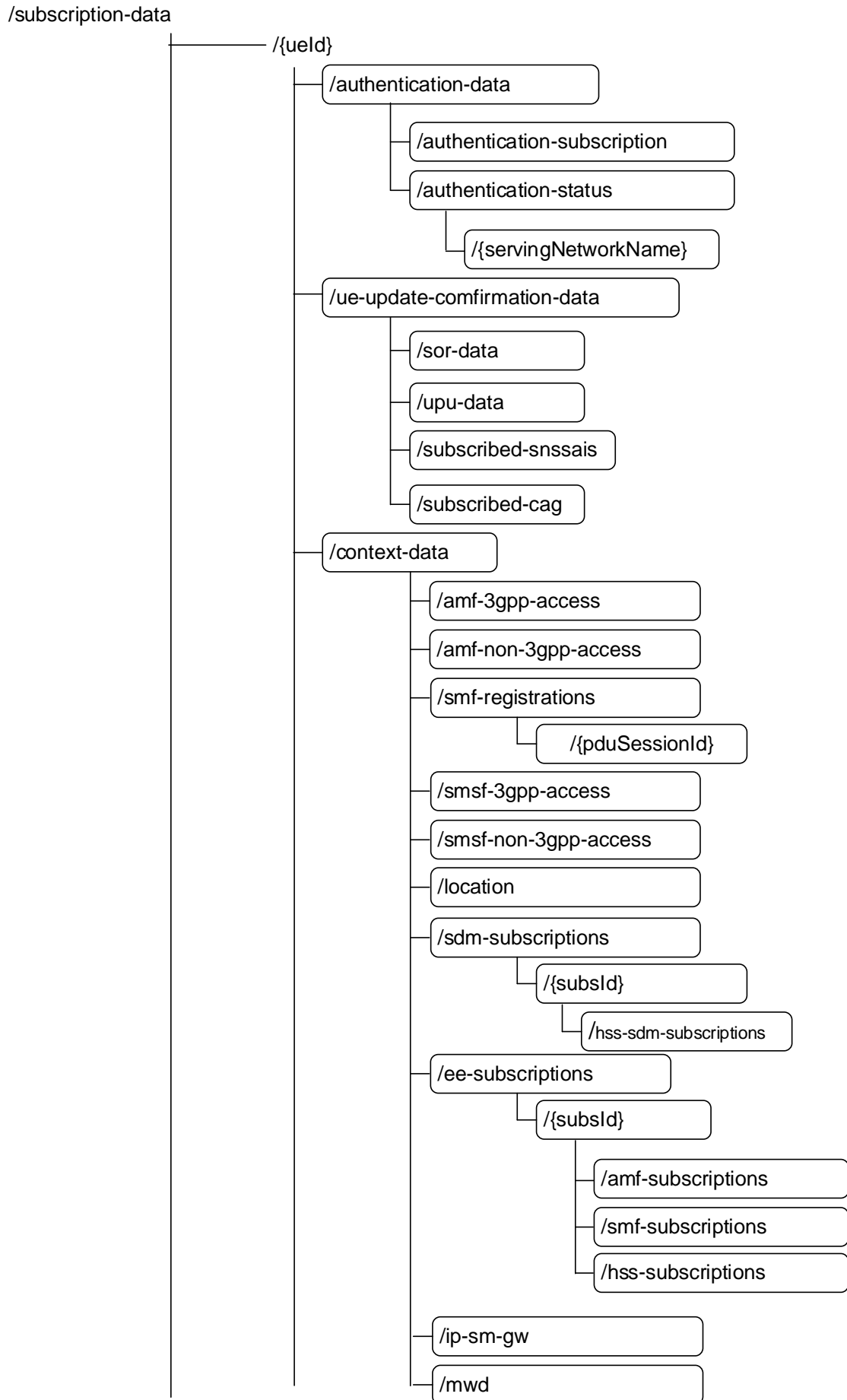




Figure 5.2.1-1: Resource URI sub-level structure for subscription data

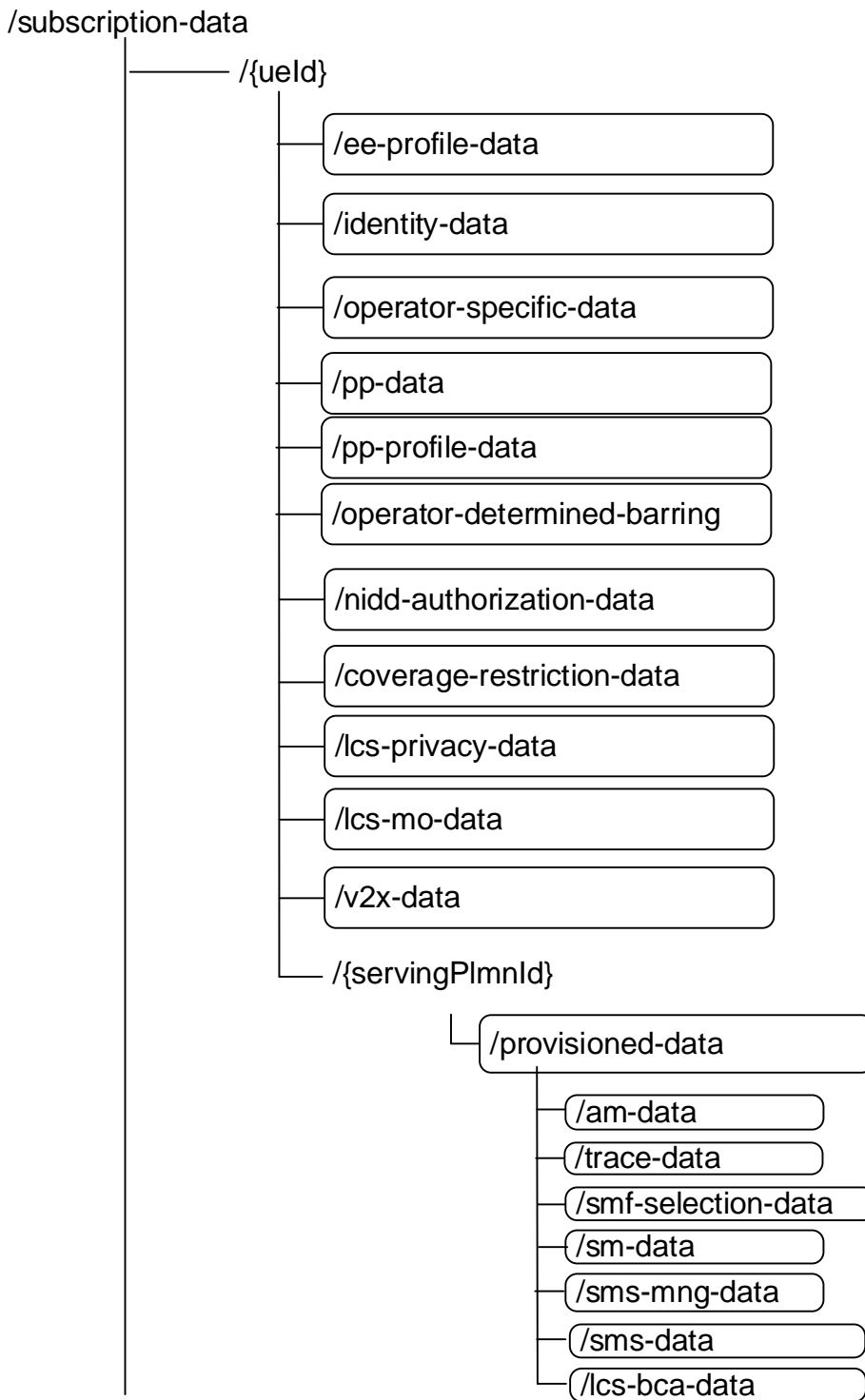
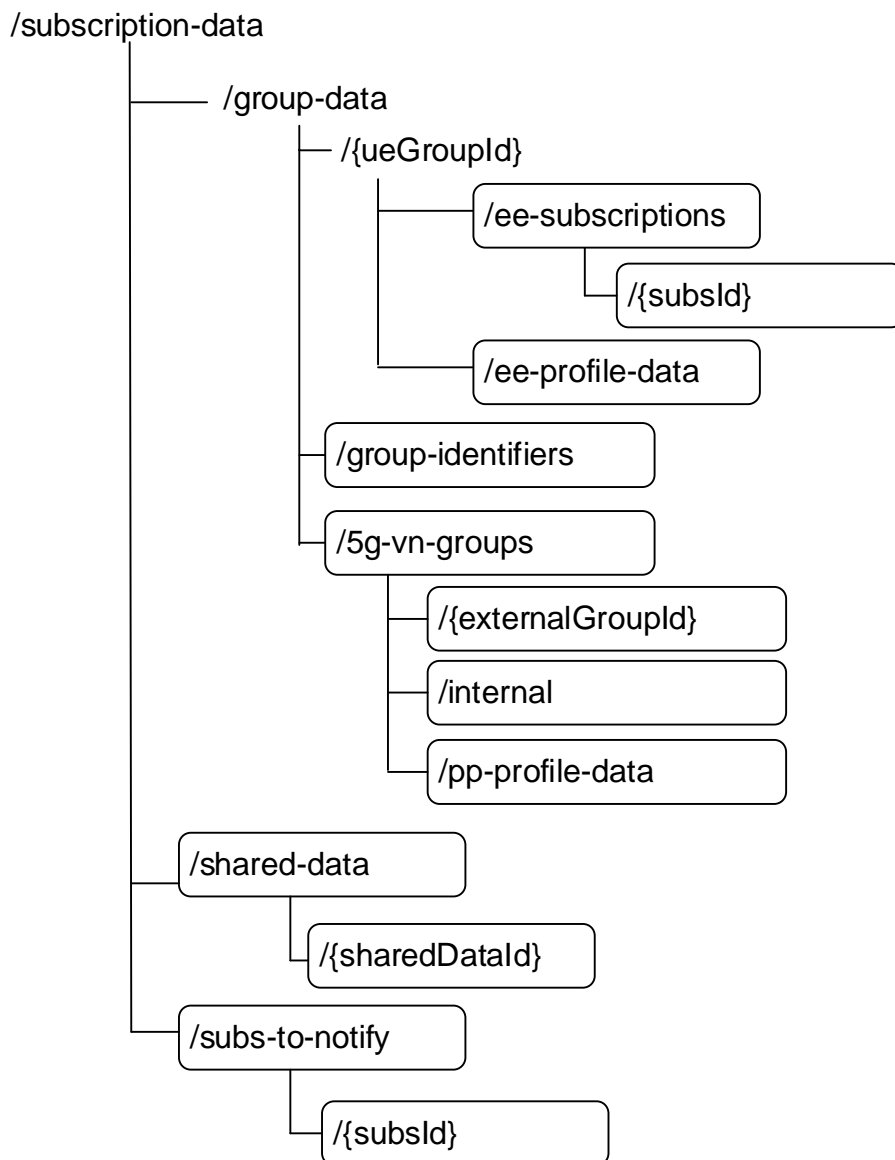


Figure 5.2.1-2: Resource URI sub-level structure for subscription data (cont.)



**Figure 5.2.1-3: Resource URI sub-level structure for subscription data (cont.)**

Table 5.2.1-1 provides an overview of the resources and applicable HTTP methods.

**Table 5.2.1-1: Resources and methods overview**

| Resource name              | Resource URI                                                              | HTTP method | Description                                                                                                                                                                     |
|----------------------------|---------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AuthenticationSubscription | /subscription-data/{ueid}/authentication-data/authentication-subscription | GET         | Retrieve a UE's authentication subscription data                                                                                                                                |
|                            |                                                                           | PATCH       | Update a UE's authentication subscription data<br>Updates shall be limited to the sequenceNumber attribute. Attempts to patch any other attribute shall be rejected by the UDR. |

|                                |                                                                          |        |                                                                                                        |
|--------------------------------|--------------------------------------------------------------------------|--------|--------------------------------------------------------------------------------------------------------|
| AuthenticationSoR              | /subscription-data/{ueId}/ue-update-confirmation-data/sor-data           | PUT    | Store UE's SoR acknowledgement information (SoR-XMAC-IUE)                                              |
|                                |                                                                          | GET    | Retrieve UE's SoR acknowledgement information                                                          |
| AuthenticationUPU              | /subscription-data/{ueId}/ue-update-confirmation-data/upu-data           | PUT    | Store UE Parameter Update acknowledgement information (UPU-XMAC-IUE)                                   |
|                                |                                                                          | GET    | Retrieve UE Parameter Update acknowledgement information                                               |
| SubscribedSNSSAIs              | /subscription-data/{ueId}/ue-update-confirmation-data/subscribed-snssais | PUT    | Store UE-acknowledgement info for change of subscribed S-NSSAIs                                        |
|                                |                                                                          | GET    | Retrieve UE-acknowledgement info for change of subscribed S-NSSAIs                                     |
| SubscribedCAG                  | /subscription-data/{ueId}/ue-update-confirmation-data/subscribed-cag     | PUT    | Store UE-acknowledgement info for change of subscribed CAG                                             |
|                                |                                                                          | GET    | Retrieve UE-acknowledgement info for change of subscribed CAG                                          |
| AuthenticationStatus           | /subscription-data/{ueId}/authentication-data/authentication-status      | PUT    | Store a UE's authentication status                                                                     |
|                                |                                                                          | GET    | Retrieve a UE's authentication status                                                                  |
|                                |                                                                          | DELETE | Delete a UE's authentication status                                                                    |
| IndividualAuthenticationStatus | /subscription-data/{ueId}/authentication-status/{servingNetworkName}     | PUT    | When the feature "PerUePerSnAuthStatus" is supported, store a UE's Individual authentication status    |
|                                |                                                                          | GET    | When the feature "PerUePerSnAuthStatus" is supported, retrieve a UE's Individual authentication status |
|                                |                                                                          | DELETE | When the feature "PerUePerSnAuthStatus" is supported, delete a UE's Individual authentication status   |

|                                   |                                                                                           |        |                                                                   |
|-----------------------------------|-------------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------|
| ProvisionedData                   | /subscription-data/{ueld}/{servingPlmnl}/provisioned-data                                 | GET    | Retrieve the UE's subscribed Provisioned Data                     |
| AccessAndMobilitySubscriptionData | /subscription-data/{ueld}/{servingPlmnl}/provisioned-data/am-data                         | GET    | Retrieve the UE's subscribed Access and Mobility Data             |
| SmfSelectionSubscriptionData      | /subscription-data/{ueld}/{servingPlmnl}/provisioned-data/smf-selection-subscription-data | GET    | Retrieve the UE's subscribed SMF Selection Data                   |
| SessionManagementSubscriptionData | /subscription-data/{ueld}/{servingPlmnl}/provisioned-data/sm-data                         | GET    | Retrieve the UE's subscribed SM Subscription Data                 |
| ContextData                       | /subscription-data/{ueld}/context-data                                                    | GET    | Retrieve the UE's context Data                                    |
| Amf3GppAccessRegistration         | /subscription-data/{ueld}/context-data/amf-3gpp-access                                    | PUT    | Create and Update the AMF registration for 3GPP access            |
|                                   |                                                                                           | PATCH  | Modify the AMF registration for 3GPP access                       |
|                                   |                                                                                           | GET    | Retrieve the AMF registration information for 3GPP access         |
| AmfNon3GppAccessRegistration      | /subscription-data/{ueld}/context-data/amf-non-3gpp-access                                | PUT    | Update the AMF registration for non 3GPP access                   |
|                                   |                                                                                           | PATCH  | Modify the AMF registration for non 3GPP access                   |
|                                   |                                                                                           | GET    | Retrieve the AMF registration information for non 3GPP access     |
| SmfRegistrations                  | /subscription-data/{ueld}/context-data/smf-registrations                                  | GET    | Retrieve the list of the SMF registrations                        |
| IndividualSmfRegistration         | /subscription-data/{ueld}/context-data/smf-registrations/{pduSessionId}                   | PUT    | Store an individual SMF registration identified by PDU Session Id |
|                                   |                                                                                           | DELETE | Delete an individual SMF registration                             |
|                                   |                                                                                           | GET    | Retrieve individual SMF registration                              |
| OperatorSpecificData              | /subscription-data/{ueld}/operator-specific-data                                          | GET    | retrieve the operator specific subscription data of a UE          |
|                                   |                                                                                           | PATCH  | modify the operator specific subscription data of a UE            |
| OperatorDeterminedBarringData     | /subscription-data/{ueld}/operator-determined-barring-data                                | GET    | Retrieve the UE's Operator Determined Barring                     |
| SMSManagementSubscriptionData     | /subscription-data/{ueld}/{servingPlmnl}/provisioned-data/sms-mng-data                    | GET    | Retrieve the UE's subscribed SMS management subscription data.    |
| Smsf3GppAccessRegistration        | /subscription-data/{ueld}/context-data/smsf-3gpp-access                                   | PUT    | Create or Update the SMSF registration                            |
|                                   |                                                                                           | DELETE | Delete the SMSF registration for 3GPP access                      |
|                                   |                                                                                           | GET    | Retrieve the SMSF registration information                        |
| SmsfNon3GppAccessRegistration     | /subscription-data/{ueld}/context-data/smsf-non-3gpp-access                               | PUT    | Create or Update the SMSF registration for non 3GPP access        |
|                                   |                                                                                           | DELETE | Delete the SMSF registration for non 3GPP access                  |

|                           |                                                                                          |        |                                                                |
|---------------------------|------------------------------------------------------------------------------------------|--------|----------------------------------------------------------------|
|                           |                                                                                          | GET    | Retrieve the SMSF registration information for non 3GPP access |
| IpSmGwRegistration        | /subscription-data/{ueld}/context-data/ip-sm-gw                                          | PUT    | Create or Update the IP-SM-GW registration                     |
|                           |                                                                                          | DELETE | Delete the IP-SM-GW registration                               |
|                           |                                                                                          | PATCH  | Modify the IP-SM-GW registration                               |
|                           |                                                                                          | GET    | Retrieve the IP-SM-GW registration information                 |
| MessageWaitingData        | /subscription-data/{ueld}/context-data/mwd                                               | PUT    | Create or Update the SMS Message Waiting Data                  |
|                           |                                                                                          | DELETE | Delete the SMS Message Waiting Data                            |
|                           |                                                                                          | PATCH  | Modify the SMS Message Waiting Data                            |
|                           |                                                                                          | GET    | Retrieve the SMS Message Waiting Data                          |
| SdmSubscriptions          | /subscription-data/{ueld}/context-data/sdm-subscriptions                                 | GET    | Retrieve SDM subscriptions                                     |
|                           |                                                                                          | POST   | Create an individual SDM subscription                          |
| IndividualSdmSubscription | /subscription-data/{ueld}/context-data/sdm-subscriptions/{subslid}                       | PUT    | Update an individual SDM subscription                          |
|                           |                                                                                          | DELETE | Delete an individual SDM subscription                          |
|                           |                                                                                          | PATCH  | Update an individual SDM Subscription                          |
|                           |                                                                                          | GET    | Retrieve an individual SDM subscription                        |
| HssSdmSubscriptionInfo    | /subscription-data/{ueld}/context-data/sdm-subscriptions/{subslid}/hss-sdm-subscriptions | PUT    | Store information related to the Hss-SDM-Subscriptions         |
|                           |                                                                                          | DELETE | Delete the Hss-SDM-subscriptions                               |
|                           |                                                                                          | GET    | Retrieve Hss-SDM-subscriptions                                 |
|                           |                                                                                          | PATCH  | Update Hss-SDM-subscriptions                                   |
| EeSubscriptions           | /subscription-data/{ueld}/context-data/ee-subscriptions                                  | GET    | Retrieve EE subscriptions                                      |
|                           |                                                                                          | POST   | Create an EE subscription                                      |
| IndividualEeSubscription  | /subscription-data/{ueld}/context-data/ee-subscriptions/{subslid}                        | PUT    | Update an individual EE subscription                           |
|                           |                                                                                          | DELETE | Delete an individual EE subscription                           |
|                           |                                                                                          | PATCH  | Update an individual EE subscription                           |
|                           |                                                                                          | GET    | Retrieve an individual EE subscription                         |
| AmfSubscriptionInfo       | /subscription-data/{ueld}/context-data/ee-subscriptions/{subslid}/amf-subscriptions      | PUT    | Store information related to the Amf-EE-Subscriptions          |
|                           |                                                                                          | DELETE | Delete the Amf-EE-subscriptions                                |
|                           |                                                                                          | GET    | Retrieve AMF-subscriptions                                     |
|                           |                                                                                          | PATCH  | Update AMF-subscriptions                                       |

|                                        |                                                                                   |        |                                                                                                                   |
|----------------------------------------|-----------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------------------------------------|
| SmfSubscriptionInfo                    | /subscription-data/{ueId}/context-data/ee-subscriptions/{subId}/smf-subscriptions | PUT    | Store information related to the Smf-EE-Subscriptions                                                             |
|                                        |                                                                                   | DELETE | Delete the Smf-EE-subscriptions                                                                                   |
|                                        |                                                                                   | GET    | Retrieve SMF-subscriptions                                                                                        |
|                                        |                                                                                   | PATCH  | Update SMF-subscriptions                                                                                          |
| HssSubscriptionInfo                    | /subscription-data/{ueId}/context-data/ee-subscriptions/{subId}/hss-subscriptions | PUT    | Store information related to the Hss-EE-Subscriptions                                                             |
|                                        |                                                                                   | DELETE | Delete the Hss-EE-subscriptions                                                                                   |
|                                        |                                                                                   | GET    | Retrieve Hss-EE-subscriptions                                                                                     |
|                                        |                                                                                   | PATCH  | Update Hss-EE-subscriptions                                                                                       |
| EeProfileData                          | /subscription-data/{ueId}/ee-profile-data                                         | GET    | Retrieve the UE's subscribed EE profile data.                                                                     |
| ProvisionedParameterData               | /subscription-data/{ueId}/pp-data                                                 | PATCH  | Update of provisioned parameters.                                                                                 |
|                                        |                                                                                   | GET    | Retrieves the UE's provisioned parameters.                                                                        |
| PpProfileData                          | /subscription-data/{ueId}/pp-profile-data                                         | GET    | Retrieve the UE's subscribed PP profile data.                                                                     |
| SMSSubscriptionData                    | /subscription-data/{ueId}/{servingPlmId}/provisioned-data/sms-data                | GET    | Retrieve the UE's subscribed SMS subscription data.                                                               |
| SubscriptionDataSubscriptions          | /subscription-data/subs-to-notify                                                 | GET    | Retrieve existing subscriptions                                                                                   |
|                                        |                                                                                   | POST   | Create a subscription, i.e. subscribe a node to receive notification for change of data                           |
|                                        |                                                                                   | DELETE | Deletes multiple subscriptions for a given UE.                                                                    |
| IndividualSubscriptionDataSubscription | /subscription-data/subs-to-notify/{subId}                                         | DELETE | Delete the subscription identified by {subId}, i.e. unsubscribe a node to receive notification for change of data |
|                                        |                                                                                   | PATCH  | Update an individual Subscription to notification                                                                 |
|                                        |                                                                                   | GET    | Retrieve an individual Subscription to notification                                                               |
| EeGroupSubscriptions                   | /subscription-data/group-data/{ueGroupId}/ee-subscriptions                        | GET    | Retrieve EE subscriptions for groups of UEs                                                                       |
|                                        |                                                                                   | POST   | Create an EE subscription for groups of UEs                                                                       |
| IndividualEeGroupSubscription          | /subscription-data/group-data/{ueGroupId}/ee-subscriptions/{subId}                | PUT    | Update an individual EE subscription for a group of UEs                                                           |
|                                        |                                                                                   | DELETE | Delete an individual EE subscription for a group of UEs                                                           |
|                                        |                                                                                   | PATCH  | Update an individual EE subscription for a group of UEs                                                           |

|                                        |                                                                        |        |                                                                                             |
|----------------------------------------|------------------------------------------------------------------------|--------|---------------------------------------------------------------------------------------------|
|                                        |                                                                        | GET    | Retrieve an individual EE subscription for a group of UEs                                   |
| EeGroupProfileData                     | /subscription-data/group-data/{ueGroupId}/ee-profile-data              | GET    | Retrieve the subscribed EE profile data for a group of UEs.                                 |
| TraceData                              | /subscription-data/{ueId}/{servingPlmnl}/provisioned-data/trace-data   | GET    | Retrieve the UE's trace configuration data                                                  |
| IdentityData                           | /subscription-data/{ueId}/identity-data                                | GET    | Retrieve identity data that corresponds to the provided ueId                                |
| SharedData (Collection)                | /subscription-data/shared-data                                         | GET    | Retrieve shared data                                                                        |
| IndividualSharedData (Document)        | /subscription-data/shared-data/{sharedDataId}                          | GET    | Retrieve the individual Shared Data                                                         |
| GroupIdentifiers                       | /subscription-data/group-data/group-identifiers                        | GET    | Retrieve group identifiers and the UE identifiers belong to the group identifiers.          |
| 5GVnGroups                             | /subscription-data/group-data/5g-vn-groups                             | GET    | Retrieve 5G VN Groups                                                                       |
| Individual5GVnGroup                    | /subscription-data/group-data/5g-vn-groups/{externalGroupId}           | PUT    | Create a 5G VN Group                                                                        |
|                                        |                                                                        | PATCH  | Update a 5G VN Group                                                                        |
|                                        |                                                                        | DELETE | Delete a 5G VN Group                                                                        |
|                                        |                                                                        | GET    | Retrieve a 5G VN Group                                                                      |
| 5GVnGroupsInternal                     | /subscription-data/group-data/5g-vn-groups/internal                    | GET    | Retrieve 5G VN Group Data based on Internal Group Identifier(s)                             |
| Pp5gVnGroupProfileData                 | /subscription-data/group-data/5g-vn-groups/pp-profile-data             | GET    | Retrieve the UE's subscribed PP profile data for accessing 5G VN Groups service operations. |
| LcsPrivacySubscriptionData             | /subscription-data/{ueId}/lcs-privacy-data                             | GET    | Retrieve the UE's subscribed LCS privacy Subscription Data                                  |
| LcsMobileOriginatedSubscriptionData    | /subscription-data/{ueId}/lcs-mo-data                                  | GET    | Retrieve the UE's subscribed LCS Mobile Originated Subscription Data                        |
| NiddAuthorizationData                  | /subscription-data/{ueId}/nidd-authorization-data                      | GET    | Retrieve the UE's NIDD Authorization Data                                                   |
| CoverageRestrictionData                | /subscription-data/{ueId}/coverage-restriction-data                    | GET    | Retrieve the UE's subscribed enhanced Coverage Restriction Data                             |
| Location                               | /subscription-data/{ueId}/context-data/location                        | GET    | Retrieve the UE's Location Information                                                      |
| V2xSubscriptionData                    | /subscription-data/{ueId}/v2x-data                                     | GET    | Retrieve the UE's subscribed V2X Data                                                       |
| LcsBroadcastAssistanceSubscriptionData | /subscription-data/{ueId}/{servingPlmnl}/provisioned-data/lcs-bca-data | GET    | Retrieve the UE's subscribed LCS Broadcast Assistance subscription data                     |

## 5.2.2 Resource: AuthenticationSubscription

### 5.2.2.1 Description

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

NOTE 1: This resource contains security-sensitive attributes, such as the long-term key of the UE (see "encPermanentKey" attribute of the AuthenticationSubscription data type in clause 5.4.2.2). Read/write access can be authorized by means of OAuth2.

NOTE 2: Although these security-sensitive attributes are stored in an encrypted form in the UDR, operators can consider its storage separately from other types of subscription data. How to achieve this in a secure way is implementation-specific; a description of a typical mechanism can be found in the informative Annex X in 3GPP TS 29.500 [8].

## 5.2.2.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/authentication-data/authentication-subscription

This resource shall support the resource URI variables defined in table 5.2.2.2-1.

**Table 5.2.2.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                                                                                                                                                                            |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                                                                                                                                                                   |
| ueId    | Represents the Subscription Identifier of the UE.<br>It may be the SUPI (see 3GPP TS 23.501 [4], clause 5.9.2) of the UE or a pseudonym in SUPI format (e.g. the GLI or GCI of the UE; see 3GPP TS 23.316 [18], clauses 4.7.3 and 4.7.4).<br>Pattern: See pattern of type Supi in 3GPP TS 29.571 [3]. |

## 5.2.2.3 Resource Standard Methods

### 5.2.2.3.1 GET

This method shall support the URI query parameters specified in table 5.2.2.3.1-1.

**Table 5.2.2.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.2.3.1-2 and the response data structures and response codes specified in table 5.2.2.3.1-3.

**Table 5.2.2.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.2.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                |
|----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------|
| AuthenticationSubscription                                                       | M | 1           | 200 OK         | Upon success, a response body containing the AuthenticationSubscription shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                            |

### 5.2.2.3.2 PATCH

This method is used to modify the authentication data of UE in the UDR.

This method shall support the URI query parameters specified in table 5.2.2.3.2-1.



**Table 5.2.2.3.2-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.2.3.2-2 and the response data structures and response codes specified in table 5.2.2.3.2-3.

**Table 5.2.2.3.2-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                                        |
|------------------|---|-------------|--------------------------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the authentication subscription of a UE |

**Table 5.2.2.3.2-3: Data structures supported by the PATCH Response Body on this resource**

| Data type      | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                               |
|----------------|---|-------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a            |   |             | 204 No Content | Upon successful modification there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                           |
| PatchResult    | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                  |
| ProblemDetails | O | 0..1        | 403 Forbidden  | If one or more attributes are not allowed to be modified according to e.g. policy or local configuration, then the invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified and the cause attribute shall be set to "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1. |

NOTE 1: In addition common data structures as listed in table 5.5-1 are supported.

NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult.

## 5.2.3 Resource: AccessAndMobilitySubscriptionData

### 5.2.3.1 Description

This resource represents the subscribed AccessAndMobilitySubscriptionData for a SUPI for use in a serving PLMN. It is queried by the AMF via the UDM after registering.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.3.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/{servingPlmnId}/provisioned-data/am-data

This resource shall support the resource URI variables defined in table 5.2.3.2-1.

**Table 5.2.3.2-1: Resource URI variables for this resource**

| Name          | Definition                                                                                                                                           |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot       | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                  |
| ueId          | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeId 3GPP TS 29.571 [3] |
| servingPlmnId | Represents the Serving PLMN ID (<MCC><MNC>)<br>pattern: "^{0-9}{5,6}\$"                                                                              |

### 5.2.3.3 Resource Standard Methods

#### 5.2.3.3.1 GET

This method shall support the URI query parameters specified in table 5.2.3.3.1-1.

**Table 5.2.3.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                               |
|--------------------|-------------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the " fields " query parameter shall be included. The " fields " query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                         |

This method shall support the request data structures specified in table 5.2.3.3.1-2 and the response data structures and response codes specified in table 5.2.3.3.1-3.

**Table 5.2.3.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.3.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                         | P | Cardinality | Response codes | Description                                                                                           |
|-----------------------------------|---|-------------|----------------|-------------------------------------------------------------------------------------------------------|
| AccessAndMobilitySubscriptionData | M | 1           | 200 OK         | Upon success, a response body containing the Access and Mobility Subscription Data shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

## 5.2.4 Resource: SmfSelectionSubscriptionData

### 5.2.4.1 Description

This resource represents the subscribed SmfSelectionSubscriptionData for a SUPI. It is queried by the UDM triggered by the AMF after registering.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.4.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/{servingPlmnId}/provisioned-data/smf-selection-subscription-data

This resource shall support the resource URI variables defined in table 5.2.4.2-1.

**Table 5.2.4.2-1: Resource URI variables for this resource**

| Name          | Definition                                                                                                                                              |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot       | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                     |
| ueId          | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |
| servingPlmnId | Represents the Serving PLMN ID (<MCC><MNC>)<br>pattern: "^{0-9}{5,6}\$"                                                                                 |

### 5.2.4.3 Resource Standard Methods

#### 5.2.4.3.1 GET

This method shall support the URI query parameters specified in table 5.2.4.3.1-1.

**Table 5.2.4.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                               |
|--------------------|-------------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the " fields " query parameter shall be included. The " fields " query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                         |

This method shall support the request data structures specified in table 5.2.4.3.1-2 and the response data structures and response codes specified in table 5.2.4.3.1-3.

**Table 5.2.4.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.4.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                    | P | Cardinality | Response codes | Description                                                                                                  |
|------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------|
| SmfSelectionSubscriptionData | M | 1           | 200 OK         | Upon success, a response body containing the SMF Selection Subscription Data for the user shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

## 5.2.5 Resource: SessionManagementSubscriptionData

### 5.2.5.1 Description

This resource represents the subscribed SessionManagementSubscriptionData for a SUPI. It is queried by the UDM triggered by the SMF during session setup, using one or both of query parameters representing the selected network slice and the DNN.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.5.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/{servingPlmnId}/provisioned-data/sm-data

This resource shall support the resource URI variables defined in table 5.2.5.2-1.

**Table 5.2.5.2-1: Resource URI variables for this resource**

| Name          | Definition                                                                                                                                              |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot       | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                     |
| ueId          | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |
| servingPlmnId | Represents the Serving PLMN ID (<MCC><MNC>)<br>pattern: "^{0-9}{5,6}\$"                                                                                 |

## 5.2.5.3 Resource Standard Methods

### 5.2.5.3.1 GET

This method shall support the URI query parameters specified in table 5.2.5.3.1-1.

**Table 5.2.5.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                               |
|--------------------|-------------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| single-nssai       | Snsai             | O | 0..1        | When present without Slice Differentiator (sd), all slices identified by the given Slice/Service Type (sst) and any sd value (if any) shall be considered matching the query parameter.                   |
| dnn                | Dnn               | O | 0..1        |                                                                                                                                                                                                           |
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the " fields " query parameter shall be included. The " fields " query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                         |

If "single-nssai" is not included, and "dnn" is not included, UDR shall return all DNN configurations for all network slice(s).

If "single-nssai" is included, and "dnn" is not included, UDR shall return all DNN configurations for the requested network slice identified by "single-nssai".

If "single-nssai" is not included, and "dnn" is included, UDR shall return all DNN configurations identified by "dnn" for all network slices where such DNN is available.

If "single-nssai" is included, and "dnn" is included, UDR shall return the DNN configuration identified by "dnn", if such DNN is available in the network slice identified by "single-nssai".

This method shall support the request data structures specified in table 5.2.5.3.1-2 and the response data structures and response codes specified in table 5.2.5.3.1-3.

**Table 5.2.5.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.5.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                          |
|----------------------------------------------------------------------------------|---|-------------|----------------|------------------------------------------------------------------------------------------------------|
| array(SessionManagementSubscriptionData)                                         | M | 1..N        | 200 OK         | Upon success, a response body containing the Session Management Subscription data shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                      |

## 5.2.6 Resource: Amf3GppAccessRegistration

### 5.2.6.1 Description

This resource is used to represent AMF registrations to be stored in the UDR by the UDM.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.6.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/amf-3gpp-access

This resource shall support the resource URI variables defined in table 5.2.6.2-1.

**Table 5.2.6.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                  |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.6.3 Resource Standard Methods

#### 5.2.6.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.6.3.1-1.

**Table 5.2.6.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.6.3.1-2 and the response data structures and response codes specified in table 5.2.6.3.1-3.

**Table 5.2.6.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type                 | P | Cardinality | Description                                                                     |
|---------------------------|---|-------------|---------------------------------------------------------------------------------|
| Amf3GppAccessRegistration | M | 1           | The AMF registration for 3GPP access is replaced with the received information. |

**Table 5.2.6.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                 | P | Cardinality | Response codes | Description                                                                                                                               |
|---------------------------|---|-------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| n/a                       |   |             | 204 No Content | Upon success, an empty response body shall be returned                                                                                    |
| Amf3GppAccessRegistration | M | 1           | 201 Created    | Upon success, a response body containing a representation of the created Individual Amf3GppAccessRegistration resource shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

#### 5.2.6.3.2 PATCH

This method is used to modify AMF registration data for 3GPP access in the UDR.

This method shall support the URI query parameters specified in table 5.2.6.3.2-1.

**Table 5.2.6.3.2-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.6.3.2-2 and the response data structures and response codes specified in table 5.2.6.3.2-3.

**Table 5.2.6.3.2-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                                          |
|------------------|---|-------------|----------------------------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the AMF registration data for 3GPP access |

**Table 5.2.6.3.2-3: Data structures supported by the PATCH Response Body on this resource**

| Data type                                                                                                                                                                                                                                                                                                                                                                                   | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a                                                                                                                                                                                                                                                                                                                                                                                         |   |             | 204 No Content | Upon successful modification there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                           |
| PatchResult                                                                                                                                                                                                                                                                                                                                                                                 | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                  |
| ProblemDetails                                                                                                                                                                                                                                                                                                                                                                              | O | 0..1        | 403 Forbidden  | If one or more attributes are not allowed to be modified according to e.g. policy or local configuration, then the invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified and the cause attribute shall be set to "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1. |
| NOTE 1: In addition common data structures as listed in table 5.5-1 are supported.                                                                                                                                                                                                                                                                                                          |   |             |                |                                                                                                                                                                                                                                                                                                                                           |
| NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult. |   |             |                |                                                                                                                                                                                                                                                                                                                                           |

### 5.2.6.3.3 GET

This method shall support the URI query parameters specified in table 5.2.6.3.1-1.

**Table 5.2.6.3.3-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                           |
|--------------------|-------------------|---|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the "fields" query parameter shall be included. The "fields" query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                     |

This method shall support the request data structures specified in table 5.2.6.3.3-2 and the response data structures and response codes specified in table 5.2.6.3.3-3.

**Table 5.2.6.3.3-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.6.3.3-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                               |
|----------------------------------------------------------------------------------|---|-------------|----------------|-------------------------------------------------------------------------------------------|
| Amf3GppAccessRegistration                                                        | M | 1           | 200 OK         | Upon success, a response body containing the Amf3GppAccessRegistration shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                           |

## 5.2.7 Resource: AmfNon3GppAccessRegistration

### 5.2.7.1 Description

This resource is used to represent AMF registrations to be stored in the UDR.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.7.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/amf-non-3gpp-access

This resource shall support the resource URI variables defined in table 5.2.7.2-1.

**Table 5.2.7.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                  |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.7.3 Resource Standard Methods

#### 5.2.7.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.7.3.1-1.

**Table 5.2.7.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.7.3.1-2 and the response data structures and response codes specified in table 5.2.7.3.1-3.

**Table 5.2.7.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type                    | P | Cardinality | Description                                                                         |
|------------------------------|---|-------------|-------------------------------------------------------------------------------------|
| AmfNon3GppAccessRegistration | M | 1           | The AMF registration for non 3GPP access is replaced with the received information. |

**Table 5.2.7.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                    | P | Cardinality | Response codes | Description                                                                                                                                  |
|------------------------------|---|-------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| n/a                          |   |             | 204 No Content | Upon success, an empty response body shall be returned                                                                                       |
| AmfNon3GppAccessRegistration | M | 1           | 201 Created    | Upon success, a response body containing a representation of the created Individual AmfNon3GppAccessRegistration resource shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

#### 5.2.7.3.2 PATCH

This method is used to modify AMF registration data for non-3GPP access in the UDR.

This method shall support the URI query parameters specified in table 5.2.7.3.2-1.

**Table 5.2.7.3.2-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.7.3.2-2 and the response data structures and response codes specified in table 5.2.7.3.2-3.

**Table 5.2.7.3.2-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                                              |
|------------------|---|-------------|--------------------------------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the AMF registration data for non-3GPP access |

**Table 5.2.7.3.2-3: Data structures supported by the PATCH Response Body on this resource**

| Data type      | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                                |
|----------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a            |   |             | 204 No Content | Upon successful modification there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                            |
| PatchResult    | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                   |
| ProblemDetails | O | 0..1        | 403 Forbidden  | If one or more attributes are not allowed to be modified according to e.g. policy or local configuration, then the invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified, and the cause attribute shall be set to "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1. |

NOTE 1: In addition common data structures as listed in table 5.5-1 are supported.

NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult.

### 5.2.7.3.3 GET

This method shall support the URI query parameters specified in table 5.2.7.3.1-1.

**Table 5.2.7.3.3-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                               |
|--------------------|-------------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the " fields " query parameter shall be included. The " fields " query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                         |

This method shall support the request data structures specified in table 5.2.7.3.3-2 and the response data structures and response codes specified in table 5.2.7.3.3-3.

**Table 5.2.7.3.3-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |



**Table 5.2.7.3.3-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                               |
|----------------------------------------------------------------------------------|---|-------------|----------------|-------------------------------------------------------------------------------------------|
| AmfNon3GppAccessRegistration                                                     | M | 1           | 200 OK         | Upon success, a response body containing the Amf3GppAccessRegistration shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                           |

## 5.2.8 Resource: SmfRegistrations

### 5.2.8.1 Description

This resource is used to represent SMF registrations to be stored in the UDR.

This resource is modelled with the Store resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.8.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/smf-registrations

This resource shall support the resource URI variables defined in table 6.2.3.4.2-1.

**Table 5.2.8.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See clause 6.4.1                                                                                                                                     |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.8.3 Resource Standard Methods

#### 5.2.8.3.1 GET

This method shall support the URI query parameters specified in table 5.2.8.3.1-1.

**Table 5.2.8.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.8.3.1-2 and the response data structures and response codes specified in table 5.2.8.3.1-3.

**Table 5.2.8.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.8.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                                  |
|----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------|
| SmfRegList                                                                       | M | 1           | 200 OK         | Upon success, a response body containing the list of SMF registrations of the relevant UE shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                              |

## 5.2.9 Resource: IndividualSmfRegistration

### 5.2.9.1 Description

This resource is used to represent individual PDU session SMF registrations to be stored in the UDR.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.9.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/{ueId}/context-data/smf-registrations/{pduSessionId}

This resource shall support the resource URI variables defined in table 5.2.9.2-1.

**Table 5.2.9.2-1: Resource URI variables for this resource**

| Name         | Definition                                                                                                                                           |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot      | See clause 6.4.1                                                                                                                                     |
| ueId         | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |
| pduSessionId | The pduSessionId identifies an individual SMF registration.                                                                                          |

### 5.2.9.3 Resource Standard Methods

#### 5.2.9.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.9.3.1-1.

**Table 5.2.9.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.9.3.1-2 and the response data structures and response codes specified in table 5.2.9.3.1-3.

**Table 5.2.9.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type       | P | Cardinality | Description                            |
|-----------------|---|-------------|----------------------------------------|
| SmfRegistration | M | 1           | The registration that is to be created |

**Table 5.2.9.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                                                     |
|----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------------------------------------------------------------------------------|
| SmfRegistration                                                                  | M | 1           | 201 Created    | Upon success, a response body containing a representation of the created Individual SmfRegistration resource shall be returned. |
| n/a                                                                              |   |             | 204 No Content | Upon success, an empty response body shall be returned.                                                                         |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                                                 |

#### 5.2.9.3.2 DELETE

This method shall support the URI query parameters specified in table 5.2.9.3.2-1.

**Table 5.2.9.3.2-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.9.3.2-2 and the response data structures and response codes specified in table 5.2.9.3.2-3.

**Table 5.2.9.3.2-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.9.3.2-3: Data structures supported by the DELETE Response Body on this resource**

| Data type | P | Cardinality | Response codes | Description                                             |
|-----------|---|-------------|----------------|---------------------------------------------------------|
| n/a       |   |             | 204 No Content | Upon success, an empty response body shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

### 5.2.9.3.3 GET

This method shall support the URI query parameters specified in table 5.2.9.3.3-1.

**Table 5.2.9.3.3-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                               |
|--------------------|-------------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the " fields " query parameter shall be included. The " fields " query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                         |

This method shall support the request data structures specified in table 5.2.9.3.3-2 and the response data structures and response codes specified in table 5.2.9.3.3-3.

**Table 5.2.9.3.3-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.9.3.3-3: Data structures supported by the GET Response Body on this resource**

| Data type       | P | Cardinality | Response codes | Description                                  |
|-----------------|---|-------------|----------------|----------------------------------------------|
| SmfRegistration | M | 1           | 200 OK         | The SMF registration that is to be retrieved |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

## 5.2.10 Resource: OperatorSpecificData

### 5.2.10.1 Description

This resource represents the UE's operator specific data.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

## 5.2.10.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/operator-specific-data

This resource shall support the resource URI variables defined in table 5.2.10.2-1.

**Table 5.2.10.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                  |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

NOTE: The content of ueId SUPI or GPSI depends on the service.

## 5.2.10.3 Resource Standard Methods

### 5.2.10.3.1 GET

This method is used to retrieve operator specific data from the UDR.

This method shall support the URI query parameters specified in table 5.2.10.3.1-1.

**Table 5.2.10.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                               |
|--------------------|-------------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the " fields " query parameter shall be included. The " fields " query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                         |

This method shall support the request data structures specified in table 5.2.10.3.1-2 and the response data structures and response codes specified in table 5.2.10.3.1-3.

**Table 5.2.10.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.10.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                          | P | Cardinality | Response codes | Description                                                                                                                                                                        |
|------------------------------------|---|-------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| map(OperatorSpecificDataContainer) | M | 1..N        | 200 OK         | Upon success, a response body containing a map shall be returned. The key of the map is operator specific data element name and the value is the operator specific data of the UE. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

### 5.2.10.3.2 PATCH

This method is used to modify operator specific data in the UDR.

This method shall support the URI query parameters specified in table 5.2.10.3.2-1.

**Table 5.2.10.3.2-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.10.3.2-2 and the response data structures and response codes specified in table 5.2.10.3.2-3.

**Table 5.2.10.3.2-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                           |
|------------------|---|-------------|-------------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the operator specific data |

**Table 5.2.10.3.2-3: Data structures supported by the PATCH Response Body on this resource**

| Data type                                                                                                                                                                                                                                                                                                                                                                                   | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a                                                                                                                                                                                                                                                                                                                                                                                         |   |             | 204 No Content | Upon successful modification there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                            |
| PatchResult                                                                                                                                                                                                                                                                                                                                                                                 | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                   |
| ProblemDetails                                                                                                                                                                                                                                                                                                                                                                              | O | 0..1        | 403 Forbidden  | If one or more attributes are not allowed to be modified according to e.g. policy or local configuration, then the invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified, and the cause attribute shall be set to "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1. |
| NOTE 1: In addition common data structures as listed in table 5.5-1 are supported.                                                                                                                                                                                                                                                                                                          |   |             |                |                                                                                                                                                                                                                                                                                                                                            |
| NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult. |   |             |                |                                                                                                                                                                                                                                                                                                                                            |

## 5.2.11 Resource: Smsf3GppAccessRegistration

### 5.2.11.1 Description

This resource represents registered SMSF for 3GPP access.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).-

### 5.2.11.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/smsf-3gpp-access

This resource shall support the resource URI variables defined in table 5.2.11.2-1.

**Table 5.2.11.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                  |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.11.3 Resource Standard Methods

#### 5.2.11.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.11.3.1-1.

**Table 5.2.11.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.11.3.1-2 and the response data structures and response codes specified in table 5.2.11.3.1-3.

**Table 5.2.11.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type        | P | Cardinality | Description                                                                                |
|------------------|---|-------------|--------------------------------------------------------------------------------------------|
| SmsfRegistration | M | 1           | The SMSF registration for 3GPP access is created or updated with the received information. |

**Table 5.2.11.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type        | P | Cardinality | Response codes | Description                                                                                                                                      |
|------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a              |   |             | 204 No Content | Upon success, an empty response body shall be returned                                                                                           |
| SmsfRegistration | M | 1           | 201 Created    | Upon success, a response body containing a representation of the created Individual SmsfRegistration for 3GPP access resource shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

### 5.2.11.3.2 DELETE

This method shall support the URI query parameters specified in table 5.2.11.3.2-1.

**Table 5.2.11.3.2-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.11.3.2-2 and the response data structures and response codes specified in table 5.2.11.3.2-3.

**Table 5.2.11.3.2-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description                      |
|-----------|---|-------------|----------------------------------|
| n/a       |   |             | The request body shall be empty. |

**Table 5.2.11.3.2-3: Data structures supported by the DELETE Response Body on this resource**

| Data type | P | Cardinality | Response codes | Description                                             |
|-----------|---|-------------|----------------|---------------------------------------------------------|
| n/a       |   |             | 204 No Content | Upon success, an empty response body shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

### 5.2.11.3.4 GET

This method shall support the URI query parameters specified in table 5.2.11.3.4-1.

**Table 5.2.11.3.4-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                               |
|--------------------|-------------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the " fields " query parameter shall be included. The " fields " query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                         |

This method shall support the request data structures specified in table 5.2.11.3.4-2 and the response data structures and response codes specified in table 5.2.11.3.4-3.

**Table 5.2.11.3.4-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.11.3.4-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                            |
|----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------|
| SmsfRegistration                                                                 | M | 1           | 200 OK         | Upon success, a response body containing the SMSF registration for 3GPP access Data shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                        |

## 5.2.12 Resource: SmsfNon3GppAccessRegistration

### 5.2.12.1 Description

This resource represents registered SMSF for Non 3GPP access.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.12.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/smsf-non-3gpp-access

This resource shall support the resource URI variables defined in table 5.2.12.2-1.

**Table 5.2.12.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                  |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.12.3 Resource Standard Methods

#### 5.2.12.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.12.3.1-1.

**Table 5.2.12.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.12.3.1-2 and the response data structures and response codes specified in table 5.2.12.3.1-3.

**Table 5.2.12.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type        | P | Cardinality | Description                                                                                    |
|------------------|---|-------------|------------------------------------------------------------------------------------------------|
| SmsfRegistration | M | 1           | The SMSF registration for non 3GPP access is created or updated with the received information. |

**Table 5.2.12.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                                                                          |
|----------------------------------------------------------------------------------|---|-------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a                                                                              |   |             | 204 No Content | Upon success, an empty response body shall be returned                                                                                               |
| SmsfRegistration                                                                 | M | 1           | 201 Created    | Upon success, a response body containing a representation of the created Individual SmsfRegistration for non 3GPP access resource shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                                                                      |

### 5.2.12.3.2 DELETE

This method shall support the URI query parameters specified in table 5.2.12.3.2-1.

**Table 5.2.12.3.2-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.12.3.2-2 and the response data structures and response codes specified in table 5.2.12.3.2-3.

**Table 5.2.12.3.2-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description                      |
|-----------|---|-------------|----------------------------------|
| n/a       |   |             | The request body shall be empty. |

**Table 5.2.12.3.2-3: Data structures supported by the DELETE Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                             |
|----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------|
| n/a                                                                              |   |             | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                         |

### 5.2.12.3.4 GET

This method shall support the URI query parameters specified in table 5.2.12.3.4-1.

**Table 5.2.12.3.4-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                               |
|--------------------|-------------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the " fields " query parameter shall be included. The " fields " query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                         |



This method shall support the request data structures specified in table 5.2.12.3.4-2 and the response data structures and response codes specified in table 5.2.12.3.4-3.

**Table 5.2.12.3.4-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.12.3.4-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                                |
|----------------------------------------------------------------------------------|---|-------------|----------------|------------------------------------------------------------------------------------------------------------|
| SmsfRegistration                                                                 | M | 1           | 200 OK         | Upon success, a response body containing the SMSF registration for non 3GPP access Data shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                            |

## 5.2.12A Resource: IpSmGwRegistration

### 5.2.12A.1 Description

This resource represents the registered IP-SM-GW.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.12A.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/ip-sm-gw

This resource shall support the resource URI variables defined in table 5.2.12A.2-1.

**Table 5.2.12A.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                              |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                     |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.12A.3 Resource Standard Methods

#### 5.2.12A.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.12A.3.1-1.

**Table 5.2.12A.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.12A.3.1-2 and the response data structures and response codes specified in table 5.2.12A.3.1-3.

**Table 5.2.12A.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type          | P | Cardinality | Description                                                                    |
|--------------------|---|-------------|--------------------------------------------------------------------------------|
| IpSmGwRegistration | M | 1           | The IP-SM-GW registration is created or updated with the received information. |

**Table 5.2.12A.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                            |
|-----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------|
| n/a                                                                               |   |             | 204 No Content | Upon success, an empty response body shall be returned |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                        |

### 5.2.12A.3.2 DELETE

This method shall support the URI query parameters specified in table 5.2.12A.3.2-1.

**Table 5.2.12A.3.2-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.12A.3.2-2 and the response data structures and response codes specified in table 5.2.12A.3.2-3.

**Table 5.2.12A.3.2-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description                      |
|-----------|---|-------------|----------------------------------|
| n/a       |   |             | The request body shall be empty. |

**Table 5.2.12A.3.2-3: Data structures supported by the DELETE Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                             |
|-----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------|
| n/a                                                                               |   |             | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                         |

### 5.2.12A.3.3 PATCH

This method shall support the URI query parameters specified in table 5.2.12A.3.3-1.

**Table 5.2.12A.3.3-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.12A.3.3-2 and the response data structures and response codes specified in table 5.2.12A.3.3-3.

**Table 5.2.12A.3.3-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                                        |
|------------------|---|-------------|--------------------------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the authentication subscription of a UE |

**Table 5.2.12A.3.3-3: Data structures supported by the PATCH Response Body on this resource**

| Data type                                                                                                                                                                                                                                                                                                                                                                                   | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a                                                                                                                                                                                                                                                                                                                                                                                         |   |             | 204 No Content | Upon successful modification there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                                                        |
| PatchResult                                                                                                                                                                                                                                                                                                                                                                                 | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                                               |
| ProblemDetails                                                                                                                                                                                                                                                                                                                                                                              | O | 0..1        | 403 Forbidden  | One or more attributes are not allowed to be modified according to e.g. policy or local configuration. The invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified. The cause attribute may be used to convey any of the following errors:<br>- "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1. |
| NOTE 1: In addition, common data structures as listed in table 5.5-1 are supported.                                                                                                                                                                                                                                                                                                         |   |             |                |                                                                                                                                                                                                                                                                                                                                                                        |
| NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult. |   |             |                |                                                                                                                                                                                                                                                                                                                                                                        |

### 5.2.12A.3.4 GET

This method shall support the URI query parameters specified in table 5.2.12A.3.4-1.

**Table 5.2.12A.3.4-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                           |
|--------------------|-------------------|---|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the "fields" query parameter shall be included. The "fields" query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                     |

This method shall support the request data structures specified in table 5.2.12A.3.4-2 and the response data structures and response codes specified in table 5.2.12A.3.4-3.

**Table 5.2.12A.3.4-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.12A.3.4-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                                                                |
|-----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------|
| IpSmGwRegistration                                                                | M | 1           | 200 OK         | Upon success, a response body containing the IP-SM-GW Registration Data shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                            |

## 5.2.12B Resource: MessageWaitingData

### 5.2.12B.1 Description

This resource represents the Message Waiting Data list for a given UE.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

## 5.2.12B.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/mwd

This resource shall support the resource URI variables defined in table 5.2.12B.2-1.

**Table 5.2.12B.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                  |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

## 5.2.12B.3 Resource Standard Methods

### 5.2.12B.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.12B.3.1-1.

**Table 5.2.12B.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.12B.3.1-2 and the response data structures and response codes specified in table 5.2.12B.3.1-3.

**Table 5.2.12B.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type           | P | Cardinality | Description                                                                        |
|---------------------|---|-------------|------------------------------------------------------------------------------------|
| MessageWaiting Data | M | 1           | The Message Waiting Data list is created or updated with the received information. |

**Table 5.2.12B.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                            |
|-----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------|
| n/a                                                                               |   |             | 204 No Content | Upon success, an empty response body shall be returned |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                        |

### 5.2.12B.3.2 DELETE

This method shall support the URI query parameters specified in table 5.2.12B.3.2-1.

**Table 5.2.12B.3.2-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.12B.3.2-2 and the response data structures and response codes specified in table 5.2.12B.3.2-3.

**Table 5.2.12B.3.2-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description                      |
|-----------|---|-------------|----------------------------------|
| n/a       |   |             | The request body shall be empty. |

**Table 5.2.12B.3.2-3: Data structures supported by the DELETE Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                             |
|-----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------|
| n/a                                                                               |   |             | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                         |

### 5.2.12B.3.3 PATCH

This method shall support the URI query parameters specified in table 5.2.12B.3.3-1.

**Table 5.2.12B.3.3-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.12B.3.3-2 and the response data structures and response codes specified in table 5.2.12B.3.3-3.

**Table 5.2.12B.3.3-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                                        |
|------------------|---|-------------|--------------------------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the authentication subscription of a UE |

**Table 5.2.12B.3.3-3: Data structures supported by the PATCH Response Body on this resource**

| Data type                                                                                                                                                                                                                                                                                                                                                                                   | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a                                                                                                                                                                                                                                                                                                                                                                                         |   |             | 204 No Content | Upon successful modification there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                                                        |
| PatchResult                                                                                                                                                                                                                                                                                                                                                                                 | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                                               |
| ProblemDetails                                                                                                                                                                                                                                                                                                                                                                              | O | 0..1        | 403 Forbidden  | One or more attributes are not allowed to be modified according to e.g. policy or local configuration. The invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified. The cause attribute may be used to convey any of the following errors:<br>- "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1. |
| NOTE 1: In addition, common data structures as listed in table 5.5-1 are supported.                                                                                                                                                                                                                                                                                                         |   |             |                |                                                                                                                                                                                                                                                                                                                                                                        |
| NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult. |   |             |                |                                                                                                                                                                                                                                                                                                                                                                        |

### 5.2.12B.3.4 GET

This method shall support the URI query parameters specified in table 5.2.12B.3.4-1.

**Table 5.2.12B.3.4-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                           |
|--------------------|-------------------|---|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the "fields" query parameter shall be included. The "fields" query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                     |

This method shall support the request data structures specified in table 5.2.12B.3.4-2 and the response data structures and response codes specified in table 5.2.12B.3.4-3.

**Table 5.2.12B.3.4-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.12B.3.4-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                                                          |
|-----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------|
| MessageWaitingData                                                                | M | 1           | 200 OK         | Upon success, a response body containing the Message Waiting Data shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                      |

## 5.2.13 Resource: SMSManagementSubscriptionData

### 5.2.13.1 Description

This resource represents the subscribed SMSManagementSubscriptionData for a SUPI for use in a serving PLMN. It is queried by the SMSF via the UDM after registering.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.13.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/{servingPlmnId}/provisioned-data/sms-mng-data

This resource shall support the resource URI variables defined in table 5.2.13.2-1.

**Table 5.2.13.2-1: Resource URI variables for this resource**

| Name          | Definition                                                                                                                                              |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot       | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                     |
| ueId          | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |
| servingPlmnId | Represents the Serving PLMN ID (<MCC><MNC>)<br>pattern: "^{0-9}{5,6}\$"                                                                                 |

### 5.2.13.3 Resource Standard Methods

#### 5.2.13.3.1 GET

This method shall support the URI query parameters specified in table 5.2.13.3.1-1.

**Table 5.2.13.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.13.3.1-2 and the response data structures and response codes specified in table 5.2.13.3.1-3.

**Table 5.2.13.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.13.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                      |
|----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------|
| SmsManagementSubscriptionData                                                    | M | 1           | 200 OK         | Upon success, a response body containing the SMS Management Subscription Data shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                  |

## 5.2.14 Resource: ProvisionedParameterData

### 5.2.14.1 Description

This resource represents the subscribed ProvisionedParameterData for a GPSI. It is triggered by the AF/NEF via the UDM to update provisioned data stored for the subscriber.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.14.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/pp-data

This resource shall support the resource URI variables defined in table 5.2.14.2-1.

**Table 5.2.14.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                  |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.14.3 Resource Standard Methods

#### 5.2.14.3.1 GET

This method retrieves the provisioned data of a given UE.

This method shall support the URI query parameters specified in table 5.2.14.3.1-1.

**Table 5.2.14.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.14.3.1-2 and the response data structures and response codes specified in table 5.2.14.3.1-3.

**Table 5.2.14.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.14.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type | P | Cardinality | Response codes | Description                                                                            |
|-----------|---|-------------|----------------|----------------------------------------------------------------------------------------|
| PpData    | M | 1           | 200 OK         | Upon success, a response body is returned containing the provisioned data of the GPSI. |

### 5.2.14.3.2 PATCH

This method is used to modify the provisioned parameter data in the UDR.

This method shall support the URI query parameters specified in table 5.2.14.3.2-1.

**Table 5.2.14.3.2-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.14.3.2-2 and the response data structures and response codes specified in table 5.2.14.3.2-3.

**Table 5.2.14.3.2-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                               |
|------------------|---|-------------|-----------------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the provisioned parameter data |

**Table 5.2.14.3.2-3: Data structures supported by the PATCH Response Body on this resource**

| Data type      | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                                |
|----------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a            |   |             | 204 No Content | Upon successful modification there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                            |
| PatchResult    | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                   |
| ProblemDetails | O | 0..1        | 403 Forbidden  | If one or more attributes are not allowed to be modified according to e.g. policy or local configuration, then the invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified, and the cause attribute shall be set to "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1. |

NOTE 1: In addition common data structures as listed in table 5.5-1 are supported.

NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult.

## 5.2.14A Resource: PpProfileData

### 5.2.14A.1 Description

This resource represents the Parameter Provision Profile Data for the UE. It is queried by the UDM by either GPSI or SUPI.

### 5.2.14A.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/pp-profile-data

This resource shall support the resource URI variables defined in table 5.2.14A.2-1.



**Table 5.2.14A.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See clause 6.1.1                                                                                                                                     |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.14A.3 Resource Standard Methods

#### 5.2.14A.3.1 GET

This method shall support the URI query parameters specified in table 5.2.14A.3.1-1.

**Table 5.2.14A.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.14A.3.1-2 and the response data structures and response codes specified in table 5.2.14A.3.1-3.

**Table 5.2.14A.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.14A.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                                    |
|----------------------------------------------------------------------------------|---|-------------|----------------|----------------------------------------------------------------------------------------------------------------|
| PpProfileData                                                                    | M | 1           | 200 OK         | Upon success, a response body containing the Parameter Provision Profile that corresponds to the provided ueId |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                                |

## 5.2.15 Resource: SMSSubscriptionData

### 5.2.15.1 Description

This resource represents the subscribed SMS Subscription Data for a SUPI for use in a serving PLMN. It is queried by the AMF via the UDM after registering.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.15.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/{serving-plmn-id}/provisioned-data/sms-data

This resource shall support the resource URI variables defined in table 5.2.15.2-1.

**Table 5.2.15.2-1: Resource URI variables for this resource**

| Name            | Definition                                                                                                                                           |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot         | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                  |
| Ue-id           | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |
| serving-plmn-id | Represents the Serving PLMN ID (<MCC><MNC>) pattern: "[0-9]{5,6}\$"                                                                                  |

### 5.2.15.3 Resource Standard Methods

#### 5.2.15.3.1 GET

This method shall support the URI query parameters specified in table 5.2.15.3.1-1.

**Table 5.2.15.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.15.3.1-2 and the response data structures and response codes specified in table 5.2.15.3.1-3.

**Table 5.2.15.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.15.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                      |
|----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------|
| SmsSubscriptionData                                                              | M | 1           | 200 OK         | Upon success, a response body containing the SMS Management Subscription Data shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                  |

## 5.2.16 Resource: SdmSubscriptions

### 5.2.16.1 Description

This resource represents the collection of SDM Subscriptions for a UE.

This resource is modelled with the Collection resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.16.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/sdm-subscriptions

This resource shall support the resource URI variables defined in table 5.2.16.2-1.

**Table 5.2.16.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                  |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.16.3 Resource Standard Methods

#### 5.2.16.3.1 GET

This method shall support the URI query parameters specified in table 5.2.16.3.1-1.

**Table 5.2.16.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.16.3.1-2 and the response data structures and response codes specified in table 5.2.16.3.1-3.

**Table 5.2.16.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.16.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                  |
|----------------------------------------------------------------------------------|---|-------------|----------------|----------------------------------------------------------------------------------------------|
| array(SdmSubscription)                                                           | M | 1..N        | 200 OK         | Upon success, a response body containing the individual SDM subscriptions shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                              |

#### 5.2.16.3.2 POST

This method shall support the URI query parameters specified in table 5.2.16.3.2-1.

**Table 5.2.16.3.2-1: URI query parameters supported by the POST method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.16.3.1-2 and the response data structures and response codes specified in table 5.2.16.3.1-3.

**Table 5.2.16.3.2-2: Data structures supported by the POST Request Body on this resource**

| Data type       | P | Cardinality | Description                                                          |
|-----------------|---|-------------|----------------------------------------------------------------------|
| SdmSubscription | M | 1           | Identifies the subscriber data subscription to be stored in the UDR. |

If the uniqueSubscription attribute is set to true in the sdmSubscription object, the UDR shall only allow one UE based sdmSubscription per UE per NF service consumer identified by the ueId in URI and NfInstanceId in SdmSubscription, and if additional filter criteria (e.g. dnn and/or singleNssai) are present in the sdmSubscription, per filter criteria (see 3GPP TS 29.503 [6], clause 5.2.2.3.2).

If the UDR detects that a subscription for the criteria already exist in the UDR, the UDR shall replace the old SdmSubscription with the new one.

**Table 5.2.16.3.2-3: Data structures supported by the POST Response Body on this resource**

| Data type       | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                         |
|-----------------|---|-------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SdmSubscription | M | 1           | 201<br>Created | Upon success, a response body containing a representation of the UeId's Individual subscription resource shall be returned.<br><br>The HTTP response shall include a "Location" HTTP header that contains the resource URI of the created resource. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

## 5.2.17 Resource: IndividualSdmSubscription

### 5.2.17.1 Description

This resource represents an individual SDM Subscription for a UE.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.17.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/sdm-subscriptions/{subsId}

This resource shall support the resource URI variables defined in table 5.2.17.2-1.

**Table 5.2.17.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                              |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                     |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |
| subsId  | Identifier of the subscription (as allocated by the UDR)                                                                                                |

### 5.2.17.3 Resource Standard Methods

#### 5.2.17.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.17.3.1-1.

**Table 5.2.17.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.17.3.1-2 and the response data structures and response codes specified in table 5.2.17.3.1-3.

**Table 5.2.17.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type       | P | Cardinality | Description                                          |
|-----------------|---|-------------|------------------------------------------------------|
| SdmSubscription | M | 1           | The individual SDM subscription that is to be stored |

**Table 5.2.17.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type      | P | Cardinality | Response codes | Description                                                                         |
|----------------|---|-------------|----------------|-------------------------------------------------------------------------------------|
| n/a            |   |             | 204 No Content | Upon success, an empty response body shall be returned.                             |
| ProblemDetails | O | 0..1        | 404 Not Found  | If the resource does not exist, a response code of 404 Not Found shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

### 5.2.17.3.2 DELETE

This method shall support the URI query parameters specified in table 5.2.17.3.2-1.

**Table 5.2.17.3.2-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.17.3.2-2 and the response data structures and response codes specified in table 5.2.17.3.2-3.

**Table 5.2.17.3.2-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.17.3.2-3: Data structures supported by the DELETE Response Body on this resource**

| Data type      | P | Cardinality | Response codes | Description                                                                                                                    |
|----------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------|
| n/a            |   |             | 204 No Content | Upon success, an empty response body shall be returned.                                                                        |
| ProblemDetails | O | 0..1        | 404 Not Found  | The "cause" attribute may be used to indicate one of the following application errors:<br>- USER_NOT_FOUND<br>- DATA_NOT_FOUND |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

### 5.2.17.3.3 PATCH

This method shall support the URI query parameters specified in table 5.2.17.3.3-1.

**Table 5.2.17.3.3-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.17.3.3-2 and the response data structures and response codes specified in table 5.2.17.3.3-3.

**Table 5.2.17.3.3-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                                      |
|------------------|---|-------------|------------------------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the Individual SDM Subscription data. |

**Table 5.2.17.3.3-3: Data structures supported by the PATCH Response Body on this resource**

| Data type                                                                                                                                                                                                                                                                                                                                                                                   | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a                                                                                                                                                                                                                                                                                                                                                                                         |   |             | 204 No Content | Upon successful modification, there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                           |
| PatchResult                                                                                                                                                                                                                                                                                                                                                                                 | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                   |
| ProblemDetails                                                                                                                                                                                                                                                                                                                                                                              | O | 0..1        | 403 Forbidden  | If one or more attributes are not allowed to be modified according to e.g. policy or local configuration, then the invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified, and the cause attribute shall be set to "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1. |
| NOTE 1: In addition common data structures as listed in table 5.5-1 are supported.                                                                                                                                                                                                                                                                                                          |   |             |                |                                                                                                                                                                                                                                                                                                                                            |
| NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult. |   |             |                |                                                                                                                                                                                                                                                                                                                                            |

#### 5.2.17.3.4 GET

This method shall support the URI query parameters specified in table 5.2.17.3.4-1.

**Table 5.2.17.3.4-1: URI query parameters supported by the GET method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.17.3.4-2 and the response data structures and response codes specified in table 5.2.17.3.4-3.

**Table 5.2.17.3.4-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.17.3.4-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                  |
|----------------------------------------------------------------------------------|---|-------------|----------------|----------------------------------------------------------------------------------------------|
| SdmSubscription                                                                  | M | 1           | 200 OK         | Upon success, a response body containing the individual SDM subscriptions shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                              |

## 5.2.17A Resource: HssSdmSubscriptionInfo

### 5.2.17A.1 Description

This resource represents information relevant to an individual SDM Subscription for a UE. The UDM may need to consume the Nhss\_SDM\_Subscribe service operation to subscribe at the HSS (see 3GPP TS 29.563 [20]). After successful subscription at the HSS, the UDM needs to store within the UDR related information, e.g. the SubscriptionId allocated by the HSS.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

## 5.2.17A.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/sdm-subscriptions/{subsId}/hss-sdm-subscriptions

This resource shall support the resource URI variables defined in table 5.2.17A.2-1.

**Table 5.2.17A.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                              |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                     |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |
| subsId  | Identifier of the subscription (allocated by the UDM)                                                                                                   |

## 5.2.17A.3 Resource Standard Methods

### 5.2.17A.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.17A.3.1-1.

**Table 5.2.17A.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.17A.3.1-2 and the response data structures, and response codes specified in table 5.2.17A.3.1-3.

**Table 5.2.17A.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type           | P | Cardinality | Description               |
|---------------------|---|-------------|---------------------------|
| HssSubscriptionInfo | M | 1           | HSS SDM subscription info |

**Table 5.2.17A.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                             |
|-----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------|
| n/a                                                                               |   |             | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                         |

### 5.2.17A.3.2 DELETE

This method shall support the URI query parameters specified in table 5.2.17A.3.2-1.

**Table 5.2.17A.3.2-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.17A.3.2-2 and the response data structures, and response codes specified in table 5.2.17A.3.2-3.

**Table 5.2.17A.3.2-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.17A.3.2-3: Data structures supported by the DELETE Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                             |
|-----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------|
| n/a                                                                               |   |             | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                         |

### 5.2.17A.3.3 GET

This method shall support the URI query parameters specified in table 5.2.17A.3.3-1.

**Table 5.2.17A.3.3-1: URI query parameters supported by the GET method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.17A.3.3-2 and the response data structures and response codes specified in table 5.2.17A.3.3-3.

**Table 5.2.17A.3.3-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.17A.3.3-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                                                           |
|-----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------------------------------------|
| HssSubscriptionInfo                                                               | M | 1           | 200 OK         | Upon success, a response body containing HSS SDM Subscription Info shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                       |

### 5.2.17A.3.4 PATCH

This method shall support the URI query parameters specified in table 5.2.17A.3.4-1.

**Table 5.2.17A.3.4-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 5.2.17A.3.2-2 and the response data structures, and response codes specified in table 5.2.17A.3.4-3.

**Table 5.2.17A.3.4-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                               |
|------------------|---|-------------|-----------------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the provisioned parameter data |



**Table 5.2.17A.3.4-3: Data structures supported by the PATCH Response Body on this resource**

| Data type                                                                                                                                                                                                                                                                                                                                                                                   | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a                                                                                                                                                                                                                                                                                                                                                                                         |   |             | 204 No Content | Upon successful modification there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                            |
| PatchResult                                                                                                                                                                                                                                                                                                                                                                                 | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                   |
| ProblemDetails                                                                                                                                                                                                                                                                                                                                                                              | O | 0..1        | 403 Forbidden  | If one or more attributes are not allowed to be modified according to e.g. policy or local configuration, then the invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified, and the cause attribute shall be set to "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1. |
| NOTE 1: In addition common data structures as listed in table 5.5-1 are supported.                                                                                                                                                                                                                                                                                                          |   |             |                |                                                                                                                                                                                                                                                                                                                                            |
| NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult. |   |             |                |                                                                                                                                                                                                                                                                                                                                            |

## 5.2.18 Resource: EeSubscriptions

### 5.2.18.1 Description

This resource represents the collection of EE Subscriptions for a UE.

This resource is modelled with the Collection resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.18.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/ee-subscriptions

This resource shall support the resource URI variables defined in table 5.2.18.2-1.

**Table 5.2.18.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                  |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.18.3 Resource Standard Methods

#### 5.2.18.3.1 GET

This method shall support the URI query parameters specified in table 5.2.18.3.1-1.

**Table 5.2.18.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.18.3.1-2 and the response data structures and response codes specified in table 5.2.18.3.1-3.

**Table 5.2.18.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.18.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                 |
|----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------------------------------------------|
| array(EeSubscription)                                                            | M | 1..N        | 200 OK         | Upon success, a response body containing the individual EE subscriptions shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                             |

### 5.2.18.3.2 POST

This method shall support the URI query parameters specified in table 5.2.18.3.2-1.

**Table 5.2.18.3.2-1: URI query parameters supported by the POST method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.18.3.1-2 and the response data structures and response codes specified in table 5.2.18.3.1-3.

**Table 5.2.18.3.2-2: Data structures supported by the POST Request Body on this resource**

| Data type      | P | Cardinality | Description                                                          |
|----------------|---|-------------|----------------------------------------------------------------------|
| EeSubscription | M | 1           | Identifies the subscriber data subscription to be stored in the UDR. |

**Table 5.2.18.3.2-3: Data structures supported by the POST Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------|---|-------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EeSubscription                                                                   | M | 1           | 201 Created    | Upon success, a response body containing a representation of the UeId's Individual subscription resource shall be returned.<br>The HTTP response shall include a "Location" HTTP header that contains the resource URI of the created resource. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                                                                                                                                                                 |

## 5.2.19 Resource: IndividualEeSubscription

### 5.2.19.1 Description

This resource represents an individual EE Subscription for a UE.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.19.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/ee-subscriptions/{subId}

This resource shall support the resource URI variables defined in table 5.2.19.2-1.

**Table 5.2.19.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                              |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                     |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |
| subId   | Identifier of the subscription (allocated by the UDR)                                                                                                   |

### 5.2.19.3 Resource Standard Methods

#### 5.2.19.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.19.3.1-1.

**Table 5.2.19.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.19.3.1-2 and the response data structures and response codes specified in table 5.2.19.3.1-3.

**Table 5.2.19.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type      | P | Cardinality | Description                                         |
|----------------|---|-------------|-----------------------------------------------------|
| EeSubscription | M | 1           | The individual EE subscription that is to be stored |

**Table 5.2.19.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type      | P | Cardinality | Response codes | Description                                                                         |
|----------------|---|-------------|----------------|-------------------------------------------------------------------------------------|
| n/a            |   |             | 204 No Content | Upon success, an empty response body shall be returned.                             |
| ProblemDetails | O | 0..1        | 404 Not Found  | If the resource does not exist, a response code of 404 Not Found shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

#### 5.2.19.3.2 DELETE

This method shall support the URI query parameters specified in table 5.2.19.3.2-1.

**Table 5.2.19.3.2-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.19.3.2-2 and the response data structures and response codes specified in table 5.2.19.3.2-3.

**Table 5.2.19.3.2-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.19.3.2-3: Data structures supported by the DELETE Response Body on this resource**

| Data type | P | Cardinality | Response codes | Description                                             |
|-----------|---|-------------|----------------|---------------------------------------------------------|
| n/a       |   |             | 204 No Content | Upon success, an empty response body shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

#### 5.2.19.3.3 PATCH

This method shall support the URI query parameters specified in table 5.2.19.3.3-1.

**Table 5.2.19.3.3-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.19.3.3-2 and the response data structures and response codes specified in table 5.2.19.3.3-3.

**Table 5.2.19.3.3-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                                    |
|------------------|---|-------------|----------------------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the Individual EE Subscription data |

**Table 5.2.19.3.3-3: Data structures supported by the PATCH Response Body on this resource**

| Data type      | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                                |
|----------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a            |   |             | 204 No Content | Upon successful modification, there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                           |
| PatchResult    | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                   |
| ProblemDetails | O | 0..1        | 403 Forbidden  | If one or more attributes are not allowed to be modified according to e.g. policy or local configuration, then the invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified, and the cause attribute shall be set to "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1. |

NOTE 1: In addition common data structures as listed in table 5.5-1 are supported.

NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult.

#### 5.2.19.3.4 GET

This method shall support the URI query parameters specified in table 5.2.19.3.4-1.

**Table 5.2.19.3.4-1: URI query parameters supported by the GET method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.19.3.4-2 and the response data structures and response codes specified in table 5.2.19.3.4-3.

**Table 5.2.19.3.4-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.19.3.4-3: Data structures supported by the GET Response Body on this resource**

| Data type      | P | Cardinality | Response codes | Description                                                                                 |
|----------------|---|-------------|----------------|---------------------------------------------------------------------------------------------|
| EeSubscription | M | 1           | 200 OK         | Upon success, a response body containing the individual EE subscriptions shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

## 5.2.19A Resource: IndividualEeGroupSubscription

### 5.2.19A.1 Description

This resource represents an individual EE Subscription for a group of UEs or any UE (i.e. all UEs).

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.19A.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/group-data/{ueGroupId}/ee-subscriptions/{subsId}

This resource shall support the resource URI variables defined in table 5.2.19A.2-1.

**Table 5.2.19A.2-1: Resource URI variables for this resource**

| Name      | Definition                                                                                                                                                                      |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot   | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                                             |
| ueGroupId | Represents the identifier of the Group of UEs. For this resource, either External Group Identifier or any UE shall be present.<br>Pattern: '^(\extgroupid-[^@]+@[^@]+ anyUE)\$' |
| subsId    | Identifier of the subscription (allocated by the UDM)                                                                                                                           |

### 5.2.19A.3 Resource Standard Methods

#### 5.2.19A.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.19A.3.1-1.

**Table 5.2.19A.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.19A.3.1-2 and the response data structures and response codes specified in table 5.2.19A.3.1-3.

**Table 5.2.19A.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type      | P | Cardinality | Description                                                              |
|----------------|---|-------------|--------------------------------------------------------------------------|
| EeSubscription | M | 1           | The individual EE subscription for the group of UEs that is to be stored |

**Table 5.2.19A.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type      | P | Cardinality | Response codes | Description                                                                         |
|----------------|---|-------------|----------------|-------------------------------------------------------------------------------------|
| n/a            |   |             | 204 No Content | Upon success, an empty response body shall be returned.                             |
| ProblemDetails | O | 0..1        | 404 Not Found  | If the resource does not exist, a response code of 404 Not Found shall be returned. |

NOTE: In addition, common data structures as listed in table 5.5-1 are supported.

#### 5.2.19A.3.2 DELETE

This method shall support the URI query parameters specified in table 5.2.19A.3.2-1.

**Table 5.2.19A.3.2-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.19A.3.2-2 and the response data structures and response codes specified in table 5.2.19A.3.2-3.

**Table 5.2.19.3.2-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.19A.3.2-3: Data structures supported by the DELETE Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                             |
|-----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------|
| n/a                                                                               |   |             | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                         |

### 5.2.19A.3.3 PATCH

This method shall support the URI query parameters specified in table 5.2.19A.3.3-1.

**Table 5.2.19A.3.3-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.19A.3.3-2 and the response data structures and response codes specified in table 5.2.19A.3.3-3.

**Table 5.2.19A.3.3-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                                          |
|------------------|---|-------------|----------------------------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the Individual EE Group Subscription data |

**Table 5.2.19A.3.3-3: Data structures supported by the PATCH Response Body on this resource**

| Data type                                                                                                                                                                                                                                                                                                                                                                                   | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a                                                                                                                                                                                                                                                                                                                                                                                         |   |             | 204 No Content | Upon successful modification, there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                           |
| PatchResult                                                                                                                                                                                                                                                                                                                                                                                 | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                   |
| ProblemDetails                                                                                                                                                                                                                                                                                                                                                                              | O | 0..1        | 403 Forbidden  | If one or more attributes are not allowed to be modified according to e.g. policy or local configuration, then the invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified, and the cause attribute shall be set to "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1. |
| NOTE 1: In addition common data structures as listed in table 5.5-1 are supported.                                                                                                                                                                                                                                                                                                          |   |             |                |                                                                                                                                                                                                                                                                                                                                            |
| NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult. |   |             |                |                                                                                                                                                                                                                                                                                                                                            |

## 5.2.19A.3.4 GET

This method shall support the URI query parameters specified in table 5.2.19A.3.4-1.

**Table 5.2.19A.3.4-1: URI query parameters supported by the GET method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.19A.3.4-2 and the response data structures and response codes specified in table 5.2.19A.3.4-3.

**Table 5.2.19A.3.4-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.19A.3.4-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                                                                                        |
|-----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------|
| EeSubscription                                                                    | M | 1           | 204 OK         | Upon success, a response body containing the individual EE subscriptions for the groups of UEs shall be returned.. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                                    |

## 5.2.19B Resource: EeGroupProfileData

## 5.2.19B.1 Description

This resource represents the subscribed Event Exposure Profile Data for a group of UEs or any UE (i.e. all UEs). It is queried by the UDM by either external group identifier or anyUE.

## 5.2.19B.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/group-data/{ueGroupId}/ee-profile-data

This resource shall support the resource URI variables defined in table 5.2.19B.2-1.

**Table 5.2.19B.2-1: Resource URI variables for this resource**

| Name      | Definition                                                                                                                                                                  |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot   | See clause 6.1.1                                                                                                                                                            |
| ueGroupId | Represents the identifier of the Group of UEs. For this resource, either External Group Identifier or any UE shall be present.<br>pattern: See pattern of type VarUeGroupId |

## 5.2.19B.3 Resource Standard Methods

## 5.2.19B.3.1 GET

This method shall support the URI query parameters specified in table 5.2.19B.3.1-1.

**Table 5.2.19B.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.19B.3.1-2 and the response data structures and response codes specified in table 5.2.19B.3.1-3.

**Table 5.2.19B.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.19B.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                                                               |
|----------------------------------------------------------------------------------|---|-------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| EeGroupProfileData                                                               | M | 1           | 200 OK         | Upon success, a response body containing the Event Exposure Profile Data for a group of UEs, which corresponds to the provided ueGroupId. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                                                           |

## 5.2.20 Resource: SubscriptionDataSubscriptions

### 5.2.20.1 Description

This resource is used to represent explicit subscriber data subscriptions to notifications.

### 5.2.20.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/subs-to-notify

This resource shall support the resource URI variables defined in table 5.2.20.2-1.

**Table 5.2.20.2-1: Resource URI variables for this resource**

| Name    | Definition                          |
|---------|-------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1 |

### 5.2.20.3 Resource Standard Methods

#### 5.2.20.3.1 POST

This method shall support the URI query parameters specified in table 5.2.20.3.1-1.

**Table 5.2.20.3.1-1: URI query parameters supported by the POST method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.20.3.1-2 and the response data structures and response codes specified in table 5.2.20.3.1-3.

**Table 5.2.20.3.1-2: Data structures supported by the POST Request Body on this resource**

| Data type                     | P | Cardinality | Description                                                          |
|-------------------------------|---|-------------|----------------------------------------------------------------------|
| SubscriptionDataSubscriptions | M | 1           | Identifies the subscriber data subscription to be stored in the UDR. |

The UDR shall limit the number of subscriptions created based on the following criteria:



- For the UE based sdmSubscriptions: if the sdmSubscription object is present with the uniqueSubscription attribute is set to true, the UDR shall only allow one UE based SubscriptionDataSubscriptions per UE per NF service consumer identified by the ueId in the URI and the NfInstanceId in SdmSubscription, and if additional filter criteria (e.g. dnn and/or singleNssai) are present in the sdmSubscription, per filter criteria (see 3GPP TS 29.503 [6], clause 5.2.2.3.2).
- For shared data sdmSubscriptions: if the sdmSubscription object is present with the uniqueSubscription attribute is set to true, there shall be only one SubscriptionDataSubscriptions per NF service consumer identified by nfInstanceId inside sdmSubscription (see 3GPP TS 29.503 [6], clause 5.2.2.3.2).
- For UE based UDM subscriptions: if the uniqueSubscription attribute is set to true in the SubscriptionDataSubscription object, the UDR shall only allow one UE based SubscriptionDataSubscriptions identified by the ueId attribute.

If the UDR detects that a subscription for the criteria already exist in the UDR, the UDR shall replace the old SubscriptionDataSubscriptions with the new one.

**Table 5.2.20.3.1-3: Data structures supported by the POST Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------|---|-------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SubscriptionDataSubscriptions                                                    | M | 1           | 201 Created    | Upon success, a response body containing a representation of the UeId's Individual subscription resource shall be returned.<br><br>The HTTP response shall include a "Location" HTTP header that contains the resource URI of the created resource. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                                                                                                                                                                     |

### 5.2.20.3.2 GET

This method shall support the URI query parameters specified in table 5.2.20.3.2-1.

**Table 5.2.20.3.2-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                             |
|--------------------|-------------------|---|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| ue-id              | VarUeId           | M | 1           | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                       |

This method shall support the request data structures specified in table 5.2.20.3.2-2 and the response data structures and response codes specified in table 5.2.20.3.2-3.

**Table 5.2.20.3.2-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.20.3.2-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                              |
|----------------------------------------------------------------------------------|---|-------------|----------------|------------------------------------------------------------------------------------------|
| array(SubscriptionDataSubscriptions)                                             | M | 0..N        | 200 OK         | Upon success, a response body containing the individual subscriptions shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                          |

## 5.2.20.3.3 DELETE

This method shall support the URI query parameters specified in table 5.2.20.3.3-1.

**Table 5.2.20.3.3-1: URI query parameters supported by the DELETE method on this resource**

| Name                                                                                | Data type    | P | Cardinality | Description                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------|--------------|---|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ue-id                                                                               | VarUeId      | M | 1           | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) of the UE associated to this subscription.<br><br>Pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3]                                                                                                                                                                                                                                      |
| nf-instance-id                                                                      | NfInstanceId | C | 0..1        | If included, this IE shall contain the Instance ID of the original NF Service Consumer of the UDM that created the subscription, and the UDR shall delete all subscriptions associated to the ue-id that were created by this specific nf-instance-id.<br><br>If not included, the UDR shall delete all subscriptions matching the rest of query parameters.<br><br>(See NOTE)                                                              |
| delete-all-nfs                                                                      | boolean      | C | 0..1        | If included, this IE indicates that the UDR shall delete all subscriptions associated to the ue-id.<br><br>(See NOTE)                                                                                                                                                                                                                                                                                                                       |
| implicit-unsubscribe-indication                                                     | boolean      | O | 0..1        | If included, this IE shall contain the content of the "implicitUnsubscribe" attribute sent during the creation of the subscription in UDM.<br><br>If it is set to true, it means that the UDR shall delete all those subscriptions from NF Service Consumers of UDM, whose implicitUnsubscribe value is set to true.<br><br>If not included, or set to false, the UDR shall delete all subscriptions matching the rest of query parameters. |
| NOTE: Either "nf-instance-id" or "delete-all-nfs" shall be included in the request. |              |   |             |                                                                                                                                                                                                                                                                                                                                                                                                                                             |

This method shall support the request data structures specified in table 5.2.20.3.3-2 and the response data structures and response codes specified in table 5.2.20.3.3-3.

**Table 5.2.20.3.3-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description                      |
|-----------|---|-------------|----------------------------------|
| n/a       |   |             | The request body shall be empty. |

**Table 5.2.20.3.3-3: Data structures supported by the DELETE Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                             |
|-----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------|
| n/a                                                                               |   |             | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                         |

## 5.2.21 Resource: IndividualSubscriptionDataSubscription

## 5.2.21.1 Description

This resource is used to represent an individual subscriber data subscriptions to notifications.

### 5.2.21.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/subs-to-notify/{subsId}

This resource shall support the resource URI variables defined in table 5.2.21.2-1.

**Table 5.2.21.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                                                           |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                                                  |
| subsId  | The subsId identifies an individual SubscriptionDataSubscriptions to notifications. The value is allocated by the UDR during creation of the SubscriptionDataSubscriptions resource. |

### 5.2.21.3 Resource Standard Methods

#### 5.2.21.3.1 DELETE

This method shall support the URI query parameters specified in table 5.2.21.3.1-1.

**Table 5.2.21.3.1-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.21.3.1-2 and the response data structures and response codes specified in table 5.2.21.3.1-3.

**Table 5.2.21.3.1-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description                      |
|-----------|---|-------------|----------------------------------|
| n/a       |   |             | The request body shall be empty. |

**Table 5.2.21.3.1-3: Data structures supported by the DELETE Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                             |
|----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------|
| n/a                                                                              |   |             | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                         |

#### 5.2.21.3.2 PATCH

This method shall support the URI query parameters specified in table 5.2.21.3.2-1.

**Table 5.2.21.3.2-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.21.3.2-2 and the response data structures and response codes specified in table 5.2.21.3.2-3.

**Table 5.2.21.3.2-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                                               |
|------------------|---|-------------|---------------------------------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the Individual Subscription Data Subscription. |

**Table 5.2.21.3.2-3: Data structures supported by the PATCH Response Body on this resource**

| Data type                                                                                                                                                                                                                                                                                                                                                                                   | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a                                                                                                                                                                                                                                                                                                                                                                                         |   |             | 204 No Content | Upon successful modification, there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                           |
| PatchResult                                                                                                                                                                                                                                                                                                                                                                                 | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                   |
| ProblemDetails                                                                                                                                                                                                                                                                                                                                                                              | O | 0..1        | 403 Forbidden  | If one or more attributes are not allowed to be modified according to e.g. policy or local configuration, then the invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified, and the cause attribute shall be set to "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1. |
| NOTE 1: In addition common data structures as listed in table 5.5-1 are supported.                                                                                                                                                                                                                                                                                                          |   |             |                |                                                                                                                                                                                                                                                                                                                                            |
| NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult. |   |             |                |                                                                                                                                                                                                                                                                                                                                            |

### 5.2.21.3.3 GET

This method shall support the URI query parameters specified in table 5.2.21.3.3-1.

**Table 5.2.21.3.3-1: URI query parameters supported by the GET method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.21.3.3-2 and the response data structures and response codes specified in table 5.2.21.3.3-3.

**Table 5.2.21.3.3-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description                      |
|-----------|---|-------------|----------------------------------|
| n/a       |   |             | The request body shall be empty. |

**Table 5.2.21.3.3-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                              |
|----------------------------------------------------------------------------------|---|-------------|----------------|------------------------------------------------------------------------------------------|
| SubscriptionDataSubscriptions                                                    | M | 1           | 200 OK         | Upon success, a response body containing the individual subscriptions shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                          |

## 5.2.22 Resource: TraceData

### 5.2.22.1 Description

This resource represents the trace configuration data for a SUPI for use in a serving PLMN. It is queried by the AMF via the UDM after registering.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.22.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/{servingPlmnId}/provisioned-data/trace-data

This resource shall support the resource URI variables defined in table 5.2.22.2-1.

**Table 5.2.22.2-1: Resource URI variables for this resource**

| Name          | Definition                                                                                                                                              |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot       | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                     |
| ueld          | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeld in 3GPP TS 29.571 [3] |
| servingPlmnId | Represents the Serving PLMN ID (<MCC><MNC>)<br>pattern: "^{0-9}{5,6}\$"                                                                                 |

### 5.2.22.3 Resource Standard Methods

#### 5.2.22.3.1 GET

This method shall support the URI query parameters specified in table 5.2.22.3.1-1.

**Table 5.2.22.3.1-1: URI query parameters supported by the GET method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.22.3.1-2 and the response data structures and response codes specified in table 5.2.22.3.1-3.

**Table 5.2.22.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.22.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                              |
|----------------------------------------------------------------------------------|---|-------------|----------------|------------------------------------------------------------------------------------------|
| TraceData                                                                        | M | 1           | 200 OK         | Upon success, a response body containing the Trace Configuration Data shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                          |

### 5.2.23 Resource: IdentityData

#### 5.2.23.1 Description

This resource represents the identity data. It is queried by the UDM by GPSI or SUPI.

#### 5.2.23.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/identity-data

This resource shall support the resource URI variables defined in table 5.2.23.2-1.

**Table 5.2.23.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                              |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See clause 6.1.1                                                                                                                                        |
| ueld    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeld in 3GPP TS 29.571 [3] |

### 5.2.23.3 Resource Standard Methods

#### 5.2.23.3.1 GET

This method shall support the URI query parameters specified in table 5.2.23.3.1-1.

**Table 5.2.23.3.1-1: URI query parameters supported by the GET method on this resource**

| Name        | Data type | P | Cardinality | Description                                                    |
|-------------|-----------|---|-------------|----------------------------------------------------------------|
| app-port-id | AppPortId | O | 0..1        | Application port identity, see 3GPP TS 23.501 [4] clause 4.4.7 |

This method shall support the request data structures specified in table 5.2.23.3.1-2 and the response data structures and response codes specified in table 5.2.23.3.1-3.

**Table 5.2.23.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.23.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type    | P | Cardinality | Response codes | Description                                                                                      |
|--------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------|
| IdentityData | M | 1           | 200 OK         | Upon success, a response body containing the identity data that corresponds to the provided ueld |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

### 5.2.24 Resource: AuthenticationStatus

#### 5.2.24.1 Description

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

#### 5.2.24.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/authentication-data/authentication-status

This resource shall support the resource URI variables defined in table 5.2.24.2-1.

**Table 5.2.24.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                   |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                          |
| ueId    | Represents the Subscription Identifier SUPI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type Supi in 3GPP TS 29.571 [3] |

### 5.2.24.3 Resource Standard Methods

#### 5.2.24.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.24.3.1-1.

**Table 5.2.24.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.24.3.1-2 and the response data structures and response codes specified in table 5.2.24.3.1-3.

**Table 5.2.24.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type | P | Cardinality | Description                                   |
|-----------|---|-------------|-----------------------------------------------|
| AuthEvent | M | 1           | To store the authentication status of the UE. |

**Table 5.2.24.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                            |
|----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------|
| n/a                                                                              |   |             | 204 No Content | Upon success, an empty response body shall be returned |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                        |

### 5.2.24.3.2 GET

This method shall support the URI query parameters specified in table 5.2.24.3.2-1.

**Table 5.2.24.3.2-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                           |
|--------------------|-------------------|---|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the "fields" query parameter shall be included. The "fields" query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                     |

This method shall support the request data structures specified in table 5.2.24.3.2-2 and the response data structures and response codes specified in table 5.2.24.3.2-3.

**Table 5.2.24.3.2-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.24.3.2-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                               |
|----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------------------------|
| AuthEvent                                                                        | M | 1           | 200 OK         | Upon success, a response body containing the AuthEvent shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                           |

### 5.2.24.3.3 DELETE

This method shall support the URI query parameters specified in table 5.2.24.3.3-1.

**Table 5.2.24.3.3-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.24.3.3-2 and the response data structures and response codes specified in table 5.2.24.3.3-3.

**Table 5.2.24.3.3-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.24.3.3-3: Data structures supported by the DELETE Response Body on this resource**

| Data type | P | Cardinality | Response codes | Description                                             |
|-----------|---|-------------|----------------|---------------------------------------------------------|
| n/a       |   |             | 204 No Content | Upon success, an empty response body shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

## 5.2.24A Resource: IndividualAuthenticationStatus

### 5.2.24A.1 Description

This resource is used to represent individual Authentication Status to be stored in the UDR.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.24A.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/authentication-data/authentication-status/{servingNetworkName}

This resource shall support the resource URI variables defined in table 5.2.24A.2-1.

**Table 5.2.24A.2-1: Resource URI variables for this resource**

| Name               | Definition                                                                                                                                   |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot            | See clause 6.4.1                                                                                                                             |
| ueId               | Represents the Subscription Identifier SUPI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type Supi in 3GPP TS 29.571 [3] |
| servingNetworkName | Represents the Serving Network Name.<br>pattern: See pattern of type ServingNetworkName in 3GPP TS 29.503 [6]                                |

### 5.2.24A.3 Resource Standard Methods

#### 5.2.24A.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.24A.3.1-1.

**Table 5.2.24A.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |



This method shall support the request data structures specified in table 5.2.24A.3.1-2 and the response data structures and response codes specified in table 5.2.24A.3.1-3.

**Table 5.2.24A.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type | P | Cardinality | Description                                   |
|-----------|---|-------------|-----------------------------------------------|
| AuthEvent | M | 1           | To store the authentication status of the UE. |

**Table 5.2.24A.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                            |
|----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------|
| n/a                                                                              |   |             | 204 No Content | Upon success, an empty response body shall be returned |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                        |

### 5.2.24A.3.2 GET

This method shall support the URI query parameters specified in table 5.2.24A.3.2-1.

**Table 5.2.24A.3.2-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                           |
|--------------------|-------------------|---|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the "fields" query parameter shall be included. The "fields" query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                     |

This method shall support the request data structures specified in table 5.2.24A.3.2-2 and the response data structures and response codes specified in table 5.2.24A.3.2-3.

**Table 5.2.24A.3.2-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.24A.3.2-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                               |
|----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------------------------|
| AuthEvent                                                                        | M | 1           | 200 OK         | Upon success, a response body containing the AuthEvent shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                           |

### 5.2.24A.3.3 DELETE

This method shall support the URI query parameters specified in table 5.2.24A.3.3-1.

**Table 5.2.24A.3.3-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.24A.3.3-2 and the response data structures and response codes specified in table 5.2.24A.3.3-3.

**Table 5.2.24A.3.3-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.24A.3.3-3: Data structures supported by the DELETE Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                             |
|----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------|
| n/a                                                                              |   |             | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                         |

## 5.2.25 Resource: AuthenticationSoR

### 5.2.25.1 Description

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.25.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/ue-update-confirmation-data/sor-data

This resource shall support the resource URI variables defined in table 5.2.25.2-1.

**Table 5.2.25.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                       |
| ueId    | Represents the Subscription Identifier SUPI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type Supi in 3GPP TS 29.571 [3] |

### 5.2.25.3 Resource Standard Methods

#### 5.2.25.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.25.3.1-1.

**Table 5.2.25.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.25.3.1-2 and the response data structures and response codes specified in table 5.2.25.3.1-3.

**Table 5.2.25.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type | P | Cardinality | Description                                                   |
|-----------|---|-------------|---------------------------------------------------------------|
| SorData   | M | 1           | The SoR acknowledgement information to be stored temporarily. |

**Table 5.2.25.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                            |
|----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------|
| n/a                                                                              |   |             | 204 No Content | Upon success, an empty response body shall be returned |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                        |

### 5.2.25.3.2 GET

This method shall support the URI query parameters specified in table 5.2.25.3.2-1.

**Table 5.2.25.3.2-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.25.3.2-2 and the response data structures and response codes specified in table 5.2.25.3.2-3.

**Table 5.2.25.3.2-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.25.3.2-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                             |
|----------------------------------------------------------------------------------|---|-------------|----------------|-------------------------------------------------------------------------|
| SorData                                                                          | M | 1           | 200 OK         | Upon success, a response body containing the SorData shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                         |

## 5.2.25A Resource: AuthenticationUPU

### 5.2.25A.1 Description

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.25A.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/ue-update-confirmation-data/upu-data

This resource shall support the resource URI variables defined in table 5.2.25A.2-1.

**Table 5.2.25A.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                       |
| ueId    | Represents the Subscription Identifier SUPI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type Supi in 3GPP TS 29.571 [3] |

## 5.2.25A.3 Resource Standard Methods

## 5.2.25A.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.25A.3.1-1.

**Table 5.2.25A.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.25A.3.1-2 and the response data structures and response codes specified in table 5.2.25A.3.1-3.

**Table 5.2.25A.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type | P | Cardinality | Description                                                   |
|-----------|---|-------------|---------------------------------------------------------------|
| UpuData   | M | 1           | The UPU acknowledgement information to be stored temporarily. |

**Table 5.2.25A.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                            |
|----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------|
| n/a                                                                              |   |             | 204 No Content | Upon success, an empty response body shall be returned |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                        |

## 5.2.25A.3.2 GET

This method shall support the URI query parameters specified in table 5.2.25A.3.2-1.

**Table 5.2.25A.3.2-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.25A.3.2-2 and the response data structures and response codes specified in table 5.2.25A.3.2-3.

**Table 5.2.25A.3.2-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.25A.3.2-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                             |
|----------------------------------------------------------------------------------|---|-------------|----------------|-------------------------------------------------------------------------|
| UpuData                                                                          | M | 1           | 200 OK         | Upon success, a response body containing the UpuData shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                         |

## 5.2.25B Resource: SubscribedSNSSAIs

### 5.2.25B.1 Description

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.25B.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/ue-update-confirmation-data/subscribed-snssais

This resource shall support the resource URI variables defined in table 5.2.25B.2-1.

**Table 5.2.25B.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                       |
| ueId    | Represents the Subscription Identifier SUPI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type Supi in 3GPP TS 29.571 [3] |

### 5.2.25B.3 Resource Standard Methods

#### 5.2.25B.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.25B.3.1-1.

**Table 5.2.25B.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.25B.3.1-2 and the response data structures and response codes specified in table 5.2.25B.3.1-3.

**Table 5.2.25B.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type    | P | Cardinality | Description                                                                  |
|--------------|---|-------------|------------------------------------------------------------------------------|
| NssaiAckData | M | 1           | Contains the provisioning time stamp of the acknowledged subscribed S-NSSAIs |

**Table 5.2.25B.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                            |
|----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------|
| n/a                                                                              |   |             | 204 No Content | Upon success, an empty response body shall be returned |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                        |

#### 5.2.25B.3.2 GET

This method shall support the URI query parameters specified in table 5.2.25B.3.2-1.

**Table 5.2.25B.3.2-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.25B.3.2-2 and the response data structures and response codes specified in table 5.2.25B.3.2-3.

**Table 5.2.25B.3.2-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.25B.3.2-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                  |
|----------------------------------------------------------------------------------|---|-------------|----------------|------------------------------------------------------------------------------|
| NssaiAckData                                                                     | M | 1           | 200 OK         | Upon success, a response body containing the NssaiAckData shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                              |

## 5.2.25C Resource: SubscribedCAG

### 5.2.25C.1 Description

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.25C.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/ue-update-confirmation-data/subscribed-cag

This resource shall support the resource URI variables defined in table 5.2.25C.2-1.

**Table 5.2.25C.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                   |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                          |
| ueId    | Represents the Subscription Identifier SUPI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type Supi in 3GPP TS 29.571 [3] |

### 5.2.25C.3 Resource Standard Methods

#### 5.2.25C.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.25C.3.1-1.

**Table 5.2.25C.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.25C.3.1-2 and the response data structures and response codes specified in table 5.2.25C.3.1-3.

**Table 5.2.25C.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type  | P | Cardinality | Description                                                  |
|------------|---|-------------|--------------------------------------------------------------|
| CagAckData | M | 1           | Contains the provisioning time stamp of the acknowledged CAG |

**Table 5.2.25C.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                            |
|----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------|
| n/a                                                                              |   |             | 204 No Content | Upon success, an empty response body shall be returned |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                        |

### 5.2.25C.3.2 GET

This method shall support the URI query parameters specified in table 5.2.25C.3.2-1.

**Table 5.2.25C.3.2-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.25C.3.2-2 and the response data structures and response codes specified in table 5.2.25C.3.2-3.

**Table 5.2.25C.3.2-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.25C.3.2-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                |
|----------------------------------------------------------------------------------|---|-------------|----------------|----------------------------------------------------------------------------|
| CagAckData                                                                       | M | 1           | 200 OK         | Upon success, a response body containing the CagAckData shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                            |

## 5.2.26 Resource: ProvisionedData

### 5.2.26.1 Description

This resource represents the subscribed ProvisionedData for a UE ID for use in a serving PLMN.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.26.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/{servingPlmnId}/provisioned-data

This resource shall support the resource URI variables defined in table 5.2.26.2-1.

**Table 5.2.26.2-1: Resource URI variables for this resource**

| Name          | Definition                                                                                                                                           |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot       | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                  |
| ueId          | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |
| servingPlmnId | Represents the Serving PLMN ID (<MCC><MNC>) pattern: "^{0-9}{5,6}\$"                                                                                 |

### 5.2.26.3 Resource Standard Methods

#### 5.2.26.3.1 GET

This method shall support the URI query parameters specified in table 5.2.26.3.1-1.

**Table 5.2.26.3.1-1: URI query parameters supported by the GET method on this resource**

| Name          | Data type          | P | Cardinality | Description                                                                                                                               |
|---------------|--------------------|---|-------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| dataset-names | array(DataSetName) | O | 1..N        | If included, this IE shall contain the names of data sets to the retrieved. If not included, all provisioned data sets shall be returned. |

This method shall support the request data structures specified in table 5.2.26.3.1-2 and the response data structures and response codes specified in table 5.2.26.3.1-3.

**Table 5.2.26.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.26.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type           | P | Cardinality | Response codes | Description                                                                         |
|---------------------|---|-------------|----------------|-------------------------------------------------------------------------------------|
| ProvisionedDataSets | M | 1           | 200 OK         | Upon success, a response body containing the requested data sets shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

## 5.2.27 Resource: OperatorDeterminedBarringData

### 5.2.27.1 Description

This resource represents the subscribed OperatorDeterminedBarringData for a SUPI. It is queried by the UDM during registration.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.27.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/operator-determined-barring-data

This resource shall support the resource URI variables defined in table 5.2.27.2-1.

**Table 5.2.27.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                              |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                     |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.27.3 Resource Standard Methods

#### 5.2.27.3.1 GET

This method shall support the URI query parameters specified in table 5.2.27.3.1-1.



**Table 5.2.27.3.1-1: URI query parameters supported by the GET method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.27.3.1-2 and the response data structures and response codes specified in table 5.2.27.3.1-3.

**Table 5.2.27.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.27.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                                                                      |
|-----------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------|
| OdbData                                                                           | M | 1           | 200 OK         | Upon success, a response body containing the Operator Determined Barring Data shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                  |

## 5.2.28 Resource: EeProfileData

### 5.2.28.1 Description

This resource represents a list of the Event Exposure Profile Data. It is queried by the UDM by either GPSI or SUPI.

### 5.2.28.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/ee-profile-data

This resource shall support the resource URI variables defined in table 5.2.28.2-1.

**Table 5.2.28.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See clause 6.1.1                                                                                                                                     |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.28.3 Resource Standard Methods

#### 5.2.28.3.1 GET

This method shall support the URI query parameters specified in table 5.2.28.3.1-1.

**Table 5.2.28.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                               |
|--------------------|-------------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the " fields " query parameter shall be included. The " fields " query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                         |

This method shall support the request data structures specified in table 5.2.28.3.1-2 and the response data structures and response codes specified in table 5.2.28.3.1-3.

**Table 5.2.28.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.28.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                               |
|----------------------------------------------------------------------------------|---|-------------|----------------|-----------------------------------------------------------------------------------------------------------|
| EeProfileData                                                                    | M | 1           | 200 OK         | Upon success, a response body containing the Event Exposure Profile that corresponds to the provided ueld |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                           |

## 5.2.29 Resource: EeGroupSubscriptions

### 5.2.29.1 Description

This resource represents the collection of EE Subscriptions for a group of UEs or any UE (i.e. all UEs).

This resource is modelled with the Collection resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.29.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/group-data/{ueGroupId}/ee-subscriptions

This resource shall support the resource URI variables defined in table 5.2.29.2-1.

**Table 5.2.29.2-1: Resource URI variables for this resource**

| Name      | Definition                                                                                                                                                                       |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot   | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                                              |
| ueGroupId | Represents the identifier of the Group of UEs. For this resource, either External Group Identifier or any UE shall be present.<br>pattern: '(extgroupid-[^\@]+\@[^\@]+ anyUE)\$' |

### 5.2.29.3 Resource Standard Methods

#### 5.2.29.3.1 GET

This method shall support the URI query parameters specified in table 5.2.29.3.1-1.

**Table 5.2.29.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.29.3.1-2 and the response data structures and response codes specified in table 5.2.29.3.1-3.

**Table 5.2.29.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.29.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                                                                                       |
|-----------------------------------------------------------------------------------|---|-------------|----------------|-------------------------------------------------------------------------------------------------------------------|
| array(EeSubscription)                                                             | M | 1..N        | 200 OK         | Upon success, a response body containing the individual EE subscriptions for the groups of UEs shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                                   |

### 5.2.29.3.2 POST

This method shall support the URI query parameters specified in table 5.2.29.3.2-1.

**Table 5.2.29.3.2-1: URI query parameters supported by the POST method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.19.3.2-2 and the response data structures and response codes specified in table 5.2.29.3.2-3.

**Table 5.2.29.3.2-2: Data structures supported by the POST Request Body on this resource**

| Data type      | P | Cardinality | Description                                               |
|----------------|---|-------------|-----------------------------------------------------------|
| EeSubscription | M | 1           | Identifies the data subscription to be stored in the UDR. |

**Table 5.2.29.3.2-3: Data structures supported by the POST Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------|---|-------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EeSubscription                                                                    | M | 1           | 201 Created    | Upon success, a response body containing a representation of the Individual subscription resource shall be returned.<br><br>The HTTP response shall include a "Location" HTTP header that contains the resource URI of the created resource. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                                                                                                                                                              |

## 5.2.30 Resource: SharedData

### 5.2.30.1 Description

This resource represents the collection of data that can be shared by multiple UEs.

### 5.2.30.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/shared-data

This resource shall support the resource URI variables defined in table 5.2.30.2-1.

**Table 5.2.30.2-1: Resource URI variables for this resource**

| Name    | Definition                          |
|---------|-------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1 |

### 5.2.30.3 Resource Standard Methods

#### 5.2.30.3.1 GET

This method shall support the URI query parameters specified in table 5.2.30.3.1-1.

**Table 5.2.30.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type           | P | Cardinality | Description                       |
|--------------------|---------------------|---|-------------|-----------------------------------|
| shared-data-ids    | array(SharedDataId) | M | 1..N        |                                   |
| supported-features | SupportedFeatures   | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.30.3.1-2 and the response data structures and response codes specified in table 5.2.30.3.1-3.

**Table 5.2.30.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.30.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type         | P | Cardinality | Response codes | Description                                                                      |
|-------------------|---|-------------|----------------|----------------------------------------------------------------------------------|
| array(SharedData) | M | 1..N        | 200 OK         | Upon success, a response body containing a list of SharedData shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

## 5.2.30A Resource: IndividualSharedData

### 5.2.30A.1 Description

This resource represents the individual shared data.

### 5.2.30A.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/shared-data/{sharedDataId}

This resource shall support the resource URI variables defined in table 5.2.30A.2-1.

**Table 5.2.30A.2-1: Resource URI variables for this resource**

| Name         | Definition                                      |
|--------------|-------------------------------------------------|
| apiRoot      | See 3GPP TS 29.504 [2] clause 6.1.1             |
| sharedDataId | Contains the individual Shared Data Identifier. |

### 5.2.30A.3 Resource Standard Methods

#### 5.2.30A.3.1 GET

This method shall support the URI query parameters specified in table 5.2.30A.3.1-1.

**Table 5.2.30A.3.1-1: URI query parameters supported by the GET method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.30A.3.1-2 and the response data structures and response codes specified in table 5.2.30A.3.1-3.

**Table 5.2.30A.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.30A.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                                |
|----------------------------------------------------------------------------------|---|-------------|----------------|------------------------------------------------------------------------------------------------------------|
| SharedData                                                                       | M | 1           | 200 OK         | Upon success, a response body containing SharedData shall be returned.                                     |
| ProblemDetails                                                                   | O | 0..1        | 404 Not Found  | The "cause" attribute may be used to indicate one of the following application errors:<br>- DATA_NOT_FOUND |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                            |

## 5.2.31 Resource: AmfSubscriptionInfo

### 5.2.31.1 Description

This resource represents information relevant to an individual EE Subscription for a UE. Depending on the Event Types of the EeSubscription, the UDM may need to consume the Namf\_EventExposure\_Subscribe service operation to subscribe at the AMF (see 3GPP TS 29.518 [13]). After successful subscription at the AMF, the UDM needs to store within the UDR related information, e.g. the SubscriptionId allocated by the AMF.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.31.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/ee-subscriptions/{subId}/amf-subscriptions

This resource shall support the resource URI variables defined in table 5.2.31.2-1.

**Table 5.2.31.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                              |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                     |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |
| subId   | Identifier of the subscription (allocated by the UDM)                                                                                                   |

### 5.2.31.3 Resource Standard Methods

#### 5.2.31.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.31.3.1-1.

**Table 5.2.31.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.31.3.1-2 and the response data structures and response codes specified in table 5.2.31.3.1-3.

**Table 5.2.31.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type                  | P | Cardinality | Description                               |
|----------------------------|---|-------------|-------------------------------------------|
| array(AmfSubscriptionInfo) | M | 1..N        | AMF subscription info for one or two AMFs |

**Table 5.2.31.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                             |
|----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------|
| n/a                                                                              |   |             | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                         |

### 5.2.31.3.2 DELETE

This method shall support the URI query parameters specified in table 5.2.31.3.2-1.

**Table 5.2.31.3.2-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.31.3.2-2 and the response data structures and response codes specified in table 5.2.31.3.2-3.

**Table 5.2.31.3.2-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.31.3.2-3: Data structures supported by the DELETE Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                             |
|----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------|
| n/a                                                                              |   |             | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                         |

### 5.2.31.3.3 GET

This method shall support the URI query parameters specified in table 5.2.31.3.3-1.

**Table 5.2.31.3.3-1: URI query parameters supported by the GET method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.31.3.3-2 and the response data structures and response codes specified in table 5.2.31.3.3-3.

**Table 5.2.31.3.3-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.31.3.3-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                        |
|----------------------------------------------------------------------------------|---|-------------|----------------|------------------------------------------------------------------------------------|
| array(AmfSubscriptionInfo)                                                       | M | 1..N        | 200 OK         | Upon success, a response body containing AMF Subscription Infos shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                    |

#### 5.2.31.3.4 PATCH

This method is used to modify the AMF subscription Infos in the UDR.

This method shall support the URI query parameters specified in table 5.2.31.3.4-1.

**Table 5.2.31.3.4-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.31.3.2-2 and the response data structures and response codes specified in table 5.2.31.3.4-3.

**Table 5.2.31.3.4-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                               |
|------------------|---|-------------|-----------------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the provisioned parameter data |

**Table 5.2.31.3.4-3: Data structures supported by the PATCH Response Body on this resource**

| Data type                                                                                                                                                                                                                                                                                                                                                                                   | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a                                                                                                                                                                                                                                                                                                                                                                                         |   |             | 204 No Content | Upon successful modification there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                            |
| PatchResult                                                                                                                                                                                                                                                                                                                                                                                 | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                   |
| ProblemDetails                                                                                                                                                                                                                                                                                                                                                                              | O | 0..1        | 403 Forbidden  | If one or more attributes are not allowed to be modified according to e.g. policy or local configuration, then the invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified, and the cause attribute shall be set to "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1. |
| NOTE 1: In addition common data structures as listed in table 5.5-1 are supported.                                                                                                                                                                                                                                                                                                          |   |             |                |                                                                                                                                                                                                                                                                                                                                            |
| NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult. |   |             |                |                                                                                                                                                                                                                                                                                                                                            |

## 5.2.31A Resource: SmfSubscriptionInfo

### 5.2.31A.1 Description

This resource represents information relevant to an individual EE Subscription for a UE. Depending on the Event Types of the EeSubscription, the UDM may need to consume the Nsmf\_EventExposure\_Subscribe service operation to subscribe at the SMF (see 3GPP TS 29.508 [21]). After successful subscription at the SMF, the UDM needs to store within the UDR related information, e.g. the SubscriptionId allocated by the SMF.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.31A.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/ee-subscriptions/{subsId}/smf-subscriptions

This resource shall support the resource URI variables defined in table 5.2.31A.2-1.

**Table 5.2.31A.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                              |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                     |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |
| subsId  | Identifier of the subscription (allocated by the UDM)                                                                                                   |

### 5.2.31A.3 Resource Standard Methods

#### 5.2.31A.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.31A.3.1-1.

**Table 5.2.31A.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.31A.3.1-2 and the response data structures, and response codes specified in table 5.2.31A.3.1-3.

**Table 5.2.31A.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type           | P | Cardinality | Description           |
|---------------------|---|-------------|-----------------------|
| SmfSubscriptionInfo | M | 1           | SMF subscription info |

**Table 5.2.31A.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type | P | Cardinality | Response codes | Description                                             |
|-----------|---|-------------|----------------|---------------------------------------------------------|
| n/a       |   |             | 204 No Content | Upon success, an empty response body shall be returned. |

NOTE: In addition, common data structures as listed in table 5.5-1 are supported.

#### 5.2.31A.3.2 DELETE

This method shall support the URI query parameters specified in table 5.2.31A.3.2-1.



**Table 5.2.31A.3.2-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.31A.3.2-2 and the response data structures, and response codes specified in table 5.2.31A.3.2-3.

**Table 5.2.31A.3.2-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.31A.3.2-3: Data structures supported by the DELETE Response Body on this resource**

| Data type | P | Cardinality | Response codes | Description                                             |
|-----------|---|-------------|----------------|---------------------------------------------------------|
| n/a       |   |             | 204 No Content | Upon success, an empty response body shall be returned. |

NOTE: In addition, common data structures as listed in table 5.5-1 are supported.

### 5.2.31A.3.3 GET

This method shall support the URI query parameters specified in table 5.2.31A.3.3-1.

**Table 5.2.31A.3.3-1: URI query parameters supported by the GET method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.31A.3.3-2 and the response data structures and response codes specified in table 5.2.31A.3.3-3.

**Table 5.2.31A.3.3-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.31A.3.3-3: Data structures supported by the GET Response Body on this resource**

| Data type           | P | Cardinality | Response codes | Description                                                                        |
|---------------------|---|-------------|----------------|------------------------------------------------------------------------------------|
| SmfSubscriptionInfo | M | 1           | 200 OK         | Upon success, a response body containing SMF Subscription Infos shall be returned. |

NOTE: In addition, common data structures as listed in table 5.5-1 are supported.

### 5.2.31A.3.4 PATCH

This method is used to modify the SMF subscription Infos in the UDR.

This method shall support the URI query parameters specified in table 5.2.31A.3.4-1.

**Table 5.2.31A.3.4-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.31A.3.2-2 and the response data structures, and response codes specified in table 5.2.31A.3.4-3.

**Table 5.2.31A.3.4-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                               |
|------------------|---|-------------|-----------------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the provisioned parameter data |

**Table 5.2.31A.3.4-3: Data structures supported by the PATCH Response Body on this resource**

| Data type                                                                                                                                                                                                                                                                                                                                                                                   | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a                                                                                                                                                                                                                                                                                                                                                                                         |   |             | 204 No Content | Upon successful modification there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                            |
| PatchResult                                                                                                                                                                                                                                                                                                                                                                                 | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                   |
| ProblemDetails                                                                                                                                                                                                                                                                                                                                                                              | O | 0..1        | 403 Forbidden  | If one or more attributes are not allowed to be modified according to e.g. policy or local configuration, then the invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified, and the cause attribute shall be set to "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1. |
| NOTE 1: In addition common data structures as listed in table 5.5-1 are supported.                                                                                                                                                                                                                                                                                                          |   |             |                |                                                                                                                                                                                                                                                                                                                                            |
| NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult. |   |             |                |                                                                                                                                                                                                                                                                                                                                            |

## 5.2.31B Resource: HssSubscriptionInfo

### 5.2.31B.1 Description

This resource represents information relevant to an individual EE Subscription for a UE. Depending on the Event Types of the EeSubscription, the UDM may need to consume the Nhss\_EventExposure\_Subscribe service operation to subscribe at the HSS (see 3GPP TS 29.562 [20]). After successful subscription at the HSS, the UDM needs to store within the UDR related information, e.g. the SubscriptionId allocated by the HSS.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.31B.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/ee-subscriptions/{subsId}/hss-subscriptions

This resource shall support the resource URI variables defined in table 5.2.31B.2-1.

**Table 5.2.31B.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                           |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                  |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |
| subsId  | Identifier of the subscription (allocated by the UDM)                                                                                                |

### 5.2.31B.3 Resource Standard Methods

#### 5.2.31B.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.31B.3.1-1.

**Table 5.2.31B.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.31B.3.1-2 and the response data structures, and response codes specified in table 5.2.31B.3.1-3.

**Table 5.2.31B.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type           | P | Cardinality | Description           |
|---------------------|---|-------------|-----------------------|
| HssSubscriptionInfo | M | 1           | HSS subscription info |

**Table 5.2.31B.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                             |
|-----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------|
| n/a                                                                               |   |             | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                         |

### 5.2.31B.3.2 DELETE

This method shall support the URI query parameters specified in table 5.2.31B.3.2-1.

**Table 5.2.31B.3.2-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.31B.3.2-2 and the response data structures, and response codes specified in table 5.2.31B.3.2-3.

**Table 5.2.31B.3.2-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.31B.3.2-3: Data structures supported by the DELETE Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                             |
|-----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------|
| n/a                                                                               |   |             | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                         |

### 5.2.31B.3.3 GET

This method shall support the URI query parameters specified in table 5.2.31B.3.3-1.

**Table 5.2.31B.3.3-1: URI query parameters supported by the GET method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.31B.3.3-2 and the response data structures and response codes specified in table 5.2.31B.3.3-3.

**Table 5.2.31B.3.3-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.31B.3.3-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                                                        |
|-----------------------------------------------------------------------------------|---|-------------|----------------|------------------------------------------------------------------------------------|
| HssSubscriptionInfo                                                               | M | 1           | 200 OK         | Upon success, a response body containing HSS Subscription Infos shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                    |

### 5.2.31B.3.4 PATCH

This method is used to modify the HSS subscription Infos in the UDR.

This method shall support the URI query parameters specified in table 5.2.31B.3.4-1.

**Table 5.2.31B.3.4-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [4] clause 6.6 |

This method shall support the request data structures specified in table 5.2.31B.3.2-2 and the response data structures, and response codes specified in table 5.2.31B.3.4-3.

**Table 5.2.31B.3.4-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                               |
|------------------|---|-------------|-----------------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the provisioned parameter data |

**Table 5.2.31B.3.4-3: Data structures supported by the PATCH Response Body on this resource**

| Data type                                                                                                                                                                                                                                                                                                                                                                                   | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a                                                                                                                                                                                                                                                                                                                                                                                         |   |             | 204 No Content | Upon successful modification there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                            |
| PatchResult                                                                                                                                                                                                                                                                                                                                                                                 | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                   |
| ProblemDetails                                                                                                                                                                                                                                                                                                                                                                              | O | 0..1        | 403 Forbidden  | If one or more attributes are not allowed to be modified according to e.g. policy or local configuration, then the invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified, and the cause attribute shall be set to "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1. |
| NOTE 1: In addition common data structures as listed in table 5.5-1 are supported.                                                                                                                                                                                                                                                                                                          |   |             |                |                                                                                                                                                                                                                                                                                                                                            |
| NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult. |   |             |                |                                                                                                                                                                                                                                                                                                                                            |

## 5.2.32 Resource: ContextData

### 5.2.32.1 Description

This resource represents the ContextData for a UE ID.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.32.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data

This resource shall support the resource URI variables defined in table 5.2.32.2-1.

**Table 5.2.32.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                              |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                     |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.32.3 Resource Standard Methods

#### 5.2.32.3.1 GET

This method shall support the URI query parameters specified in table 5.2.32.3.1-1.

**Table 5.2.32.3.1-1: URI query parameters supported by the GET method on this resource**

| Name                  | Data type                 | P | Cardinality | Description                                                                        |
|-----------------------|---------------------------|---|-------------|------------------------------------------------------------------------------------|
| context-dataset-names | array(ContextDataSetName) | M | 2..N        | If included, this IE shall contain the names of context data sets to be retrieved. |

This method shall support the request data structures specified in table 5.2.32.3.1-2 and the response data structures and response codes specified in table 5.2.32.3.1-3.

**Table 5.2.32.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.32.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                 |
|----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------------------------------------------|
| ContextDataSets                                                                  | M | 1           | 200 OK         | Upon success, a response body containing the requested context data sets shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                             |

## 5.2.33 Resource: GroupIdentifiers

### 5.2.33.1 Description

This resource represents the collection of data that can be shared by multiple UEs.

### 5.2.33.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/group-data/group-identifiers

This resource shall support the resource URI variables defined in table 5.2.33.2-1.

**Table 5.2.33.2-1: Resource URI variables for this resource**

| Name    | Definition                          |
|---------|-------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1 |

### 5.2.33.3 Resource Standard Methods

#### 5.2.33.3.1 GET

This method shall support the URI query parameters specified in table 5.2.33.3.1-1.

**Table 5.2.33.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                            |
|--------------------|-------------------|---|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                      |
| ext-group-id       | ExtGroupId        | C | 0..1        | External Group ID                                                                                                                                                                                      |
| int-group-id       | GroupId           | C | 0..1        | Internal Group ID                                                                                                                                                                                      |
| ue-id-ind          | boolean           | C | 0..1        | Indication whether UE identifiers are required or not.<br><br>When present, it shall be set as following:<br>- true: UE identifiers are required<br>- false (default): UE identifiers are not required |

NOTE: Either ext-group-id or int-group-id shall be present in the request.

Either the ext-group-id or the int-group-id shall be present in the request.

This method shall support the request data structures specified in table 5.2.33.3.1-2 and the response data structures and response codes specified in table 5.2.33.3.1-3.

**Table 5.2.33.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.33.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type        | P | Cardinality | Response codes | Description                                                                         |
|------------------|---|-------------|----------------|-------------------------------------------------------------------------------------|
| GroupIdentifiers | M | 1           | 200 OK         | Upon success, a response body containing the group identifier(s) shall be returned. |

NOTE: In addition, common data structures as listed in table 5.5-1 are supported.

## 5.2.34 Resource: 5GVnGroups

### 5.2.34.1 Description

This resource represents the store of 5G VN Group data.

### 5.2.34.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/group-data/5g-vn-groups

This resource shall support the resource URI variables defined in table 5.2.34.2-1.

**Table 5.2.34.2-1: Resource URI variables for this resource**

| Name    | Definition                          |
|---------|-------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1 |

### 5.2.34.3 Resource Standard Methods

#### 5.2.34.3.1 GET

This method shall support the URI query parameters specified in table 5.2.34.3.1-1.

**Table 5.2.34.3.1-1: URI query parameters supported by the GET method on this resource**

| Name  | Data type   | P | Cardinality | Description                                                                          |
|-------|-------------|---|-------------|--------------------------------------------------------------------------------------|
| gpsis | array(Gpsi) | O | 0..N        | Only those group's data are retrieved of which at least one of the GPSIs is a member |

This method shall support the request data structures specified in table 5.2.34.3.1-2 and the response data structures and response codes specified in table 5.2.34.3.1-3.

**Table 5.2.34.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.34.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                   | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                          |
|-----------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| map(5GVnGroupConfiguration) | M | 0..N        | 200 OK         | Upon success, a response body containing the map (list of key-value pairs where ExtGroupId (see 3GPP TS 29.503 [6] serves as key) of 5GVnGroupConfiguration shall be returned. If the resource does not contain any keys, the response consists of an empty JSON object (empty map). |

NOTE: In addition, common data structures as listed in table 5.5-1 are supported.

## 5.2.35 Resource: Individual5GVnGroup

### 5.2.35.1 Description

This resource represents an individual 5G VN Group.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.35.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/group-data/5g-vn-groups/{externalGroupId}

This resource shall support the resource URI variables defined in table 5.2.35.2-1.

**Table 5.2.35.2-1: Resource URI variables for this resource**

| Name            | Definition                                      |
|-----------------|-------------------------------------------------|
| apiRoot         | See 3GPP TS 29.504 [2] clause 6.1.1             |
| externalGroupId | Represents the External Identifier of the group |

### 5.2.35.3 Resource Standard Methods

#### 5.2.35.3.1 PUT

This method shall support the URI query parameters specified in table 5.2.35.3.1-1.

**Table 5.2.35.3.1-1: URI query parameters supported by the PUT method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.35.3.1-2 and the response data structures and response codes specified in table 5.2.35.3.1-3.

**Table 5.2.35.3.1-2: Data structures supported by the PUT Request Body on this resource**

| Data type              | P | Cardinality | Description            |
|------------------------|---|-------------|------------------------|
| 5GVnGroupConfiguration | M | 1           | See 3GPP TS 29.503 [6] |

**Table 5.2.35.3.1-3: Data structures supported by the PUT Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                                                               |
|----------------------------------------------------------------------------------|---|-------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 5GVnGroupConfiguration                                                           | M | 1           | 201 Created    | Upon success, a representation of the created resource containing an internal group identifier as allocated by the UDR shall be returned. |
| ProblemDetails                                                                   | O | 0..1        | 403 Forbidden  | If the resource already exists, a response code of 403 Forbidden shall be returned.                                                       |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                                                           |

#### 5.2.35.3.2 DELETE

This method shall support the URI query parameters specified in table 5.2.35.3.2-1.

**Table 5.2.35.3.2-1: URI query parameters supported by the DELETE method on this resource**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

This method shall support the request data structures specified in table 5.2.35.3.2-2 and the response data structures and response codes specified in table 5.2.19.3.2-3.

**Table 5.2.35.3.2-2: Data structures supported by the DELETE Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |



**Table 5.2.35.3.2-3: Data structures supported by the DELETE Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                             |
|----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------|
| n/a                                                                              |   |             | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                         |

### 5.2.35.3.3 PATCH

This method shall support the URI query parameters specified in table 5.2.35.3.3-1.

**Table 5.2.35.3.3-1: URI query parameters supported by the PATCH method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.35.3.3-2 and the response data structures and response codes specified in table 5.2.35.3.3-3.

**Table 5.2.35.3.3-2: Data structures supported by the PATCH Request Body on this resource**

| Data type        | P | Cardinality | Description                                         |
|------------------|---|-------------|-----------------------------------------------------|
| array(PatchItem) | M | 1..N        | Contains the delta data to the Individual 5GNvGroup |

**Table 5.2.35.3.3-3: Data structures supported by the PATCH Response Body on this resource**

| Data type                                                                                                                                                                                                                                                                                                                                                                                   | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n/a                                                                                                                                                                                                                                                                                                                                                                                         |   |             | 204 No Content | Upon successful modification, there is no body in the response message. (NOTE 2)                                                                                                                                                                                                                                                          |
| PatchResult                                                                                                                                                                                                                                                                                                                                                                                 | M | 1           | 200 OK         | Upon success, the execution report is returned. (NOTE 2)                                                                                                                                                                                                                                                                                  |
| ProblemDetails                                                                                                                                                                                                                                                                                                                                                                              | O | 0..1        | 404 Not Found  | If the resource corresponding to the ExternalGroupId can't be found, the "cause" attribute shall be set to:<br>- GROUP_IDENTIFIER_NOT_FOUND                                                                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                             | O | 0..1        | 403 Forbidden  | If one or more attributes are not allowed to be modified according to e.g. policy or local configuration, then the invalidParams attribute shall contain the JSON pointers of attributes which are not allowed to be modified, and the cause attribute shall be set to "MODIFICATION_NOT_ALLOWED", see 3GPP TS 29.500 [8] table 5.2.7.2-1 |
| NOTE 1: In addition common data structures as listed in table 5.5-1 are supported.                                                                                                                                                                                                                                                                                                          |   |             |                |                                                                                                                                                                                                                                                                                                                                           |
| NOTE 2: If all the modification instructions in the PATCH request have been implemented, the UDR shall respond with 204 No Content response; if some of the modification instructions in the PATCH request have been discarded, and the NF service consumer has included in the supported-feature query parameter the "PatchReport" feature number, the UDR shall respond with PatchResult. |   |             |                |                                                                                                                                                                                                                                                                                                                                           |

### 5.2.35.3.4 GET

This method shall support the URI query parameters specified in table 5.2.35.3.4-1.

**Table 5.2.35.3.4-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.35.3.4-2 and the response data structures and response codes specified in table 5.2.35.3.4-3.

**Table 5.2.35.3.4-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.35.3.4-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                                                                                       |
|-----------------------------------------------------------------------------------|---|-------------|----------------|-------------------------------------------------------------------------------------------------------------------|
| 5GVnGroupConfiguration                                                            | M | 1           | 200 OK         | Upon success, a response body containing the group configuration of the individual 5G VN Group shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                                   |

## 5.2.36 Resource: LcsPrivacySubscriptionData

### 5.2.36.1 Description

This resource represents the subscribed LcsPrivacySubscriptionData for an UE. It is queried by the HGMLC or NEF via the UDM.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.36.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/lcs-privacy-data

This resource shall support the resource URI variables defined in table 5.2.36.2-1.

**Table 5.2.36.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                            |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                   |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2) pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3]. |

### 5.2.36.3 Resource Standard Methods

#### 5.2.36.3.1 GET

This method shall support the URI query parameters specified in table 5.2.36.3.1-1.

**Table 5.2.36.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                               |
|--------------------|-------------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the " fields " query parameter shall be included. The " fields " query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                         |

This method shall support the request data structures specified in table 5.2.36.3.1-2 and the response data structures and response codes specified in table 5.2.36.3.1-3.

**Table 5.2.36.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.36.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                   |
|----------------------------------------------------------------------------------|---|-------------|----------------|-----------------------------------------------------------------------------------------------|
| LcsPrivacyData                                                                   | M | 1           | 200 OK         | Upon success, a response body containing the LCS Privacy Subscription Data shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                               |

## 5.2.37 Resource: LcsMobileOriginatedSubscriptionData

### 5.2.37.1 Description

This resource represents the subscribed LcsMobileOriginatedSubscriptionData for a SUPI. It is queried by the AMF via the UDM after registering.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.37.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/lcs-mo-data

This resource shall support the resource URI variables defined in table 5.2.37.2-1.

**Table 5.2.37.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                     |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                            |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.37.3 Resource Standard Methods

#### 5.2.37.3.1 GET

This method shall support the URI query parameters specified in table 5.2.37.3.1-1.

**Table 5.2.37.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                                                                                                               |
|--------------------|-------------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fields             | array(string)     | C | 1..N        | When the NF consumer only retrieves a subset of the resource, the " fields " query parameter shall be included. The " fields " query parameter contains the pointers of the attribute(s) to be retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                                                                                                                         |

This method shall support the request data structures specified in table 5.2.37.3.1-2 and the response data structures and response codes specified in table 5.2.37.3.1-3.

**Table 5.2.37.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.37.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                                             |
|----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------------------------------------------------------|
| LcsMoData                                                                        | M | 1           | 200 OK         | Upon success, a response body containing the LCS Mobile Originated Subscription Data shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                                         |

## 5.2.38 Resource: NiddAuthorizationData

### 5.2.38.1 Description

This resource represents the subscribed NiddAuthorizationData for a GPSI. It is queried by the UDM during NIDD Authorization Data Retrieval and NIDD Authorization Data Update Notification.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.38.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/nidd-authorization-data

This resource shall support the resource URI variables defined in table 5.2.38.2-1.

**Table 5.2.38.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                                                     |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                                            |
| ueId    | Represents the Generic Public Subscription Identifier (see 3GPP TS 23.501 [4] clause 5.9.8)<br>pattern: '^(\msisdn-[0-9]{5,15} .+ extid-[^@]+@[^@]+ extgroupid-[^@]+@[^@]+)\$' |

### 5.2.38.3 Resource Standard Methods

#### 5.2.38.3.1 GET

This method shall support the URI query parameters specified in table 5.2.38.3.1-1.

**Table 5.2.38.3.1-1: URI query parameters supported by the GET method on this resource**

| Name                     | Data type              | P | Cardinality | Description                                                                                                                                                                             |
|--------------------------|------------------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| single-nssai             | Snssai                 | M | 1           | When present without Slice Differentiator (sd), all slices identified by the given Slice/Service Type (sst) and any sd value (if any) shall be considered matching the query parameter. |
| dnn                      | Dnn                    | M | 1           |                                                                                                                                                                                         |
| mtc-provider-information | MtcProviderInformation | M | 1           |                                                                                                                                                                                         |

This method shall support the request data structures specified in table 5.2.38.3.1-2 and the response data structures and response codes specified in table 5.2.38.3.1-3.

**Table 5.2.38.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.38.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                                                             |
|-----------------------------------------------------------------------------------|---|-------------|----------------|-----------------------------------------------------------------------------------------|
| AuthorizationData                                                                 | M | 1           | 200 OK         | Upon success, a response body containing the NIDD Authorization Data shall be returned. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                         |

## 5.2.39 Resource: CoverageRestrictionData

### 5.2.39.1 Description

This resource represents UE's subscribed enhanced Coverage Restriction Data for a UE identifier. It is queried by the UDM during Enhanced Coverage Restriction Data Retrieval.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.39.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/coverage-restriction-data

This resource shall support the resource URI variables defined in table 5.2.39.2-1.

**Table 5.2.39.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                             |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                    |
| ueId    | Represents the Generic Public Subscription Identifier (see 3GPP TS 23.501 [4] clause 5.9.8)<br>pattern: '^(\msisdn-[0-9]{5,15} extid-[^@]+@[^@]+.+)\$' |

### 5.2.39.3 Resource Standard Methods

#### 5.2.39.3.1 GET

This method shall support the URI query parameters specified in table 5.2.39.3.1-1.

**Table 5.2.39.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.39.3.1-2 and the response data structures and response codes specified in table 5.2.39.3.1-3.

**Table 5.2.39.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.39.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                         | P | Cardinality | Response codes | Description                                                                                  |
|-----------------------------------------------------------------------------------|---|-------------|----------------|----------------------------------------------------------------------------------------------|
| EnhancedCoverageRestrictionData                                                   | M | 1           | 200 OK         | Upon success, a response body containing UE's subscribed enhanced Coverage Restriction Data. |
| NOTE: In addition, common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                                              |

## 5.2.40 Resource: Location

### 5.2.40.1 Description

This resource represents the UE's Location Information for UE's identity (e.g. SUPI or GPSI).

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.40.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/location

This resource shall support the resource URI variables defined in table 5.2.40.2-1.

**Table 5.2.40.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                              |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                     |
| ueId    | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2)<br>pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.40.3 Resource Standard Methods

#### 5.2.40.3.1 GET

This method shall support the URI query parameters specified in table 5.2.40.3.1-1.

**Table 5.2.40.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.40.3.1-2 and the response data structures and response codes specified in table 5.2.40.3.1-3.

**Table 5.2.40.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.40.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                                                                        | P | Cardinality | Response codes | Description                                                                  |
|----------------------------------------------------------------------------------|---|-------------|----------------|------------------------------------------------------------------------------|
| LocationInfo                                                                     | M | 1           | 200 OK         | Upon success, a response body containing the LocationInfo shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                                              |

## 5.2.41 Resource: V2xSubscriptionData

### 5.2.41.1 Description

This resource represents UE's subscribed V2X Data for a UE identifier. It is queried by the UDM during V2X Subscription Data Retrieval.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

### 5.2.41.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/v2x-data

This resource shall support the resource URI variables defined in table 5.2.41.2-1.

**Table 5.2.41.2-1: Resource URI variables for this resource**

| Name    | Definition                                                                                                                                                                                                                                |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                                                                                                       |
| ueId    | Represents the Subscription Permanent Identifier (see 3GPP TS 23.501 [4] clause 5.9.2) or the Generic Public Subscription Identifier (see 3GPP TS 23.501 [4] clause 5.9.8).<br>pattern: See pattern of type VarUeId in 3GPP TS 29.571 [3] |

### 5.2.41.3 Resource Standard Methods

#### 5.2.41.3.1 GET

This method shall support the URI query parameters specified in table 5.2.41.3.1-1.

**Table 5.2.41.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.41.3.1-2 and the response data structures and response codes specified in table 5.2.41.3.1-3.

**Table 5.2.41.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.41.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type           | P | Cardinality | Response codes | Description                                                        |
|---------------------|---|-------------|----------------|--------------------------------------------------------------------|
| V2xSubscriptionData | M | 1           | 200 OK         | Upon success, a response body containing UE's subscribed V2X Data. |

NOTE: In addition, common data structures as listed in table 5.5-1 are supported.

## 5.2.42 Resource: LcsBroadcastAssistanceSubscriptionData

### 5.2.42.1 Description

This resource represents the subscribed LcsBroadcast Assistance Subscription Data for an UE for use in a serving PLMN. It is queried by the LMF via the UDM.

This resource is modelled with the Document resource archetype (see clause C.1 of 3GPP TS 29.501 [7]).

## 5.2.42.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/{servingPlmnId}/provisioned-data/lcs-bca-data

This resource shall support the resource URI variables defined in table 5.2.42.2-1.

**Table 5.2.42.2-1: Resource URI variables for this resource**

| Name          | Definition                                                                                                                                               |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| apiRoot       | See 3GPP TS 29.504 [2] clause 6.1.1                                                                                                                      |
| ueId          | Represents the Subscription Identifier SUPI or GPSI (see 3GPP TS 23.501 [4] clause 5.9.2 and 5.9.8)<br>See pattern of type VarUeId in 3GPP TS 29.571 [3] |
| servingPlmnId | Represents the Serving PLMN ID (<MCC><MNC>)<br>pattern: "^{0-9}{5,6}\$"                                                                                  |

## 5.2.42.3 Resource Standard Methods

### 5.2.42.3.1 GET

This method shall support the URI query parameters specified in table 5.2.42.3.1-1.

**Table 5.2.42.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                       |
|--------------------|-------------------|---|-------------|-----------------------------------|
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6 |

This method shall support the request data structures specified in table 5.2.42.3.1-2 and the response data structures and response codes specified in table 5.2.42.3.1-3.

**Table 5.2.42.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.42.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                       | P | Cardinality | Response codes | Description                                                                                                     |
|---------------------------------|---|-------------|----------------|-----------------------------------------------------------------------------------------------------------------|
| LcsBroadcastAssistanceTypesData | M | 1           | 200 OK         | Upon success, a response body containing the LCS Broadcast Assistance Data Subscription Data shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

## 5.2.43 Resource: 5GVnGroupsInternal

### 5.2.43.1 Description

This resource represents a read-only view of the collection resource of 5G VN Group data, so it can be queried based on the Internal Group Id from NF Service Consumers having such Id as the only way to identify a group (e.g. PCF).



### 5.2.43.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/group-data/5g-vn-groups/internal

This resource shall support the resource URI variables defined in table 5.2.43.2-1.

**Table 5.2.43.2-1: Resource URI variables for this resource**

| Name    | Definition                          |
|---------|-------------------------------------|
| apiRoot | See 3GPP TS 29.504 [2] clause 6.1.1 |

### 5.2.43.3 Resource Standard Methods

#### 5.2.43.3.1 GET

This method shall support the URI query parameters specified in table 5.2.43.3.1-1.

**Table 5.2.43.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type      | P | Cardinality | Description                                                                                           |
|--------------------|----------------|---|-------------|-------------------------------------------------------------------------------------------------------|
| internal-group-ids | array(GroupId) | M | 1..N        | Return those 5G VN groups whose Internal Group ID corresponds with any of the Group IDs in this list. |

This method shall support the request data structures specified in table 5.2.43.3.1-2 and the response data structures and response codes specified in table 5.2.43.3.1-3.

**Table 5.2.43.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.43.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type                   | P | Cardinality | Response codes | Description                                                                                                                                                                                                                                                                          |
|-----------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| map(5GVnGroupConfiguration) | M | 0..N        | 200 OK         | Upon success, a response body containing the map (list of key-value pairs where ExtGroupId (see 3GPP TS 29.503 [6] serves as key) of 5GVnGroupConfiguration shall be returned. If the resource does not contain any keys, the response consists of an empty JSON object (empty map). |

## 5.2.44 Resource: Pp5gVnGroupProfileData

### 5.2.44.1 Description

This resource represents the Parameter Provision Profile Data for the 5G VN Groups. It is queried by the UDM.

### 5.2.44.2 Resource Definition

Resource URI: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/group-data/5g-vn-groups/pp-profile-data

This resource shall support the resource URI variables defined in table 5.2.44.2-1.

**Table 5.2.44.2-1: Resource URI variables for this resource**

| Name    | Definition       |
|---------|------------------|
| apiRoot | See clause 6.1.1 |

### 5.2.44.3 Resource Standard Methods

#### 5.2.44.3.1 GET

This method shall support the URI query parameters specified in table 5.2.44.3.1-1.

**Table 5.2.44.3.1-1: URI query parameters supported by the GET method on this resource**

| Name               | Data type         | P | Cardinality | Description                                                                                                |
|--------------------|-------------------|---|-------------|------------------------------------------------------------------------------------------------------------|
| ext-group-ids      | array(ExtGroupId) | O | 1..N        | If included, this IE Contain a list of external VN group identifiers for which the profiles are retrieved. |
| supported-features | SupportedFeatures | O | 0..1        | see 3GPP TS 29.500 [8] clause 6.6                                                                          |

This method shall support the request data structures specified in table 5.2.44.3.1-2 and the response data structures and response codes specified in table 5.2.44.3.1-3.

**Table 5.2.44.3.1-2: Data structures supported by the GET Request Body on this resource**

| Data type | P | Cardinality | Description |
|-----------|---|-------------|-------------|
| n/a       |   |             |             |

**Table 5.2.44.3.1-3: Data structures supported by the GET Response Body on this resource**

| Data type              | P | Cardinality | Response codes | Description                                                                                |
|------------------------|---|-------------|----------------|--------------------------------------------------------------------------------------------|
| Pp5gVnGroupProfileData | M | 1           | 200 OK         | Upon success, a response body containing the Parameter Provision Profile for 5G VN Groups. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

## 5.3 Notifications

### 5.3.1 General

This clause describes the resources to provide Notification to NF service consumers which have explicitly or implicitly subscribed to UDR to be notified when data is changed.

### 5.3.2 Data Change Notification

The POST method shall be used for Data Change Notifications.

- For explicit subscriptions (i.e., subscriptions created under the "subs-to-notif" collection resource, the URI shall be as provided during the subscription procedure;
- For implicit subscriptions, the UDR shall use either a locally configured callback URI of the UDM, or the UDR may retrieve from NRF a default notification URI stored by UDM in NRF during the NF registration procedure.
- The UDM should register in NRF a default notification URI globally at NF Profile level, rather than registering individual default notification URIs per NF Service.

NOTE 1: If the UDM registers different default notification URIs per NF Service, then how UDR determines which resources are monitored per UDM service is implementation dependent.

The "callback" clause of the OpenAPI specification found in Annex A.2 associated to the POST method of the "subs-to-notif" resource shall be used as the notification request for both explicit and implicit subscriptions.

NOTE 2: For explicit subscriptions, a stateless UDM/NF provides a URI which identifies a set of UDMs/NFs; a stateful UDM/NF provides a specific URI identifying a node.

Resource URI: {callbackReference}

Support of URI query parameters is specified in table 5.3.2-1.

**Table 5.3.2-1: URI query parameters supported by the POST method**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

Support of request data structures is specified in table 5.3.2-2 and of response data structures and response codes is specified in table 5.3.2-3.

**Table 5.3.2-2: Data structures supported by the POST Request Body**

| Data type        | P | Cardinality | Description |
|------------------|---|-------------|-------------|
| DataChangeNotify | M | 1           |             |

**Table 5.3.2-3: Data structures supported by the POST Response Body**

| Data type | P | Cardinality | Response codes | Description                                             |
|-----------|---|-------------|----------------|---------------------------------------------------------|
| n/a       |   |             | 204 No Content | Upon success, an empty response body shall be returned. |

NOTE: In addition common data structures as listed in table 5.5-1 are supported.

### 5.3.3 Data Removal Notification

The POST method shall be used for Data Removal Notifications.

Data Removal Notifications are used for subscription withdraw cases implicitly subscribed by the UDM.

- The UDR shall use either a locally configured callback URI of the UDM, or the UDR may retrieve from NRF a default notification URI stored by UDM in NRF during the NF registration procedure.
- The UDM should register in NRF a default notification URI globally at NF Profile level, rather than registering individual default notification URIs per NF Service.

The "callback" clause of the OpenAPI specification found in Annex A.2 associated to the POST method of the "subs-to-notif" resource shall be used as the notification request.

Resource URI: {callbackReference}

Support of URI query parameters is specified in table 5.3.3-1.

**Table 5.3.3-1: URI query parameters supported by the POST method**

| Name | Data type | P | Cardinality | Description |
|------|-----------|---|-------------|-------------|
| n/a  |           |   |             |             |

Support of request data structures is specified in table 5.3.3-2 and of response data structures and response codes is specified in table 5.3.3-3.

**Table 5.3.3-2: Data structures supported by the POST Request Body**

| Data type        | P | Cardinality | Description                                                                                                                                         |
|------------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| DataChangeNotify | M | 1           | notifyItems within the DataChangeNotify type shall indicate deletion of the resources Amf3GppAccessRegistration and/or AmfNon3GppAccessRegistration |

**Table 5.3.3-3: Data structures supported by the POST Response Body**

| Data type                                                                        | P | Cardinality | Response codes | Description                                             |
|----------------------------------------------------------------------------------|---|-------------|----------------|---------------------------------------------------------|
| n/a                                                                              |   |             | 204 No Content | Upon success, an empty response body shall be returned. |
| NOTE: In addition common data structures as listed in table 5.5-1 are supported. |   |             |                |                                                         |

## 5.4 Data Model

### 5.4.1 General

This clause specifies the application data model supported by the API.

Table 5.4.1-1 specifies the data types defined for the Nudr service based interface protocol.

Table 5.4.1-1: Nudr Subscriber Data specific Data Types

| Data type                     | Clause defined | Description                                                                            |
|-------------------------------|----------------|----------------------------------------------------------------------------------------|
| AuthenticationSubscription    | 5.4.2.2        | A UE's authentication data                                                             |
| OperatorSpecificDataContainer | 5.4.2.3        | Container for operator specific data                                                   |
| SmfRegList                    | 5.4.2.4        | The list of all the SMF registrations of a UE                                          |
| SubscriptionDataSubscriptions | 5.4.2.5        | A subscription to notifications.                                                       |
| DataChangeNotify              | 5.4.2.6        | Container for data which have changed and notification was requested when changed.     |
| IdentityData                  | 5.4.2.7        | Identity data corresponds to the provided ueld                                         |
| ProvisionedDataSets           | 5.4.2.8        |                                                                                        |
| SorData                       | 5.4.2.9        | Used to store the status of the latest SOR data update                                 |
| UpuData                       | 5.4.2.9A       | Used to store the status of the latest UPU data update                                 |
| NssaiAckData                  | 5.4.2.9B       | Used to store the status of the latest NSSAI data update                               |
| CagAckData                    | 5.4.2.9C       | Used to store the status of the latest CAG data update                                 |
| AmfSubscriptionInfo           | 5.4.2.19       | Information the UDR stores and retrieves related to active subscriptions at the AMF(s) |
| EeProfileData                 | 5.4.2.20       | Event Exposure Profile Data                                                            |
| ContextDataSets               | 5.4.2.22       |                                                                                        |
| SequenceNumber                | 5.4.2.23       |                                                                                        |
| MessageWaitingData            | 5.4.2.24       |                                                                                        |
| SmscData                      | 5.4.2.25       |                                                                                        |
| SmfSubscriptionInfo           | 5.4.2.26       | Information the UDR stores and retrieves related to active subscriptions at the SMF(s) |
| SmfSubscriptionItem           | 5.4.2.27       | Contains info about a single SMF event subscription                                    |
| MtcProvider                   | 5.4.2.28       |                                                                                        |
| HssSubscriptionInfo           | 5.4.2.29       | Information the UDR stores related to active subscriptions at the HSS(s)               |
| HssSubscriptionItem           | 5.4.2.30       | Contains info about a single HSS event subscription                                    |
| EeGroupProfileData            | 5.4.2.31       | The Event Exposure Profile Data for a group of UEs                                     |
| Pp5gVnGroupProfileData        | 5.4.2.32       | The Paramter Provision Profile Data for 5G VN groups                                   |
| PpProfileData                 | 5.4.2.33       | The Paramter Provision Profile Data                                                    |
| AllowedMtcProviderInfo        | 5.4.2.34       | Allowed MTC Providers or AFs Information to provision parameters for UE.               |
| AuthMethod                    | 5.4.3.3        |                                                                                        |
| DataSetName                   | 5.4.3.4        |                                                                                        |
| ContextDataSetName            | 5.4.3.6        |                                                                                        |
| SqnScheme                     | 5.4.3.7        |                                                                                        |
| Sign                          | 5.4.3.8        |                                                                                        |
| UeUpdateStatus                | 5.4.3.9        |                                                                                        |
| PpDataType                    | 5.4.3.10       |                                                                                        |

Table 5.4.1-2 specifies data types re-used by the Nudr service based interface protocol from other specifications, including a reference to their respective specifications and when needed, a short description of their use within the Nudr service based interface.

Table 5.4.1-2: Nudr re-used Data Types

|                                   | Reference           | Comments                                                                                             |
|-----------------------------------|---------------------|------------------------------------------------------------------------------------------------------|
| AccessAndMobilitySubscriptionData | 3GPP TS 29.503 [6]  | Access and Mobility Subscription Data                                                                |
| SmfSelectionSubscriptionData      | 3GPP TS 29.503 [6]  | SMF Selection Subscription Data                                                                      |
| SessionManagementSubscriptionData | 3GPP TS 29.503 [6]  | Session Management Subscription Data                                                                 |
| Amf3GppAccessRegistration         | 3GPP TS 29.503 [6]  |                                                                                                      |
| AmfNon3GppAccessRegistration      | 3GPP TS 29.503 [6]  | The complete set of information relevant to the AMF where the UE has registered via non 3GPP access. |
| SmfRegistration                   | 3GPP TS 29.503 [6]  |                                                                                                      |
| SmsfRegistration                  | 3GPP TS 29.503 [6]  |                                                                                                      |
| SmsManagementSubscriptionData     | 3GPP TS 29.503 [6]  |                                                                                                      |
| SupportedFeatures                 | 3GPP TS 29.571 [3]  | Used to negotiate the applicability of the optional features                                         |
| ProblemDetails                    | 3GPP TS 29.571 [3]  | Detailed information about the status code.                                                          |
| PpData                            | 3GPP TS 29.503 [6]  |                                                                                                      |
| SmsSubscriptionData               | 3GPP TS 29.503 [6]  |                                                                                                      |
| PatchItem                         | 3GPP TS 29.571 [3]  | Data structure used for JSON patch.                                                                  |
| SdmSubscription                   | 3GPP TS 29.503 [6]  |                                                                                                      |
| EeSubscription                    | 3GPP TS 29.503 [6]  |                                                                                                      |
| Uri                               | 3GPP TS 29.571 [3]  |                                                                                                      |
| TraceData                         | 3GPP TS 29.571 [3]  |                                                                                                      |
| Dnn                               | 3GPP TS 29.571 [3]  | Data Network Name                                                                                    |
| Snssai                            | 3GPP TS 29.571 [3]  | Single NSSAI                                                                                         |
| VarUeid                           | 3GPP TS 29.571 [3]  | String represents the SUPI or GPSI.                                                                  |
| NfInstancelid                     | 3GPP TS 29.571 [3]  |                                                                                                      |
| NotifyItem                        | 3GPP TS 29.571 [3]  | Common data type used for data change notification.                                                  |
| OdbData                           | 3GPP TS 29.571 [3]  | Operator Determined Barring Data                                                                     |
| EventType                         | 3GPP TS 29.503 [6]  |                                                                                                      |
| ExtGroupId                        | 3GPP TS 29.503 [6]  | External Group Identifier                                                                            |
| PduSessionId                      | 3GPP TS 29.571 [3]  |                                                                                                      |
| DateTime                          | 3GPP TS 29.571 [3]  |                                                                                                      |
| UpuMac                            | 3GPP TS 29.509 [15] |                                                                                                      |
| 5GVnGroupConfiguration            | 3GPP TS 29.503 [6]  |                                                                                                      |
| PatchResult                       | 3GPP TS 29.571 [3]  |                                                                                                      |
| SupportedFeatures                 | 3GPP TS 29.571 [3]  |                                                                                                      |
| AppPortId                         | 3GPP TS 29.503 [6]  |                                                                                                      |
| LcsPrivacyData                    | 3GPP TS 29.503 [6]  | LCS Privacy Subscription Data                                                                        |
| LcsMoData                         | 3GPP TS 29.503 [6]  | LCS Mobile Originated Subscription Data                                                              |
| MtcProviderInformation            | 3GPP TS 29.571 [3]  |                                                                                                      |
| AuthorizationData                 | 3GPP TS 29.503 [6]  |                                                                                                      |
| EnhancedCoverageRestrictionData   | 3GPP TS 29.503 [6]  |                                                                                                      |
| LocationInfo                      | 3GPP TS 29.503 [6]  |                                                                                                      |
| V2xSubscriptionData               | 3GPP TS 29.503 [6]  | V2X Subscription Data                                                                                |
| E164Number                        | 3GPP TS 29.503 [6]  |                                                                                                      |
| NetworkNodeDiameterAddress        | 3GPP TS 29.503 [6]  |                                                                                                      |
| IpSmGwRegistration                | 3GPP TS 29.503 [6]  |                                                                                                      |
| LcsBroadcastAssistanceTypesData   | 3GPP TS 29.503 [6]  | LCS Broadcast Assistance Data Types                                                                  |

## 5.4.2 Structured data types

### 5.4.2.1 Introduction

This clause defines the structures to be used in resource representations.

5.4.2.2 Type: AuthenticationSubscription

**Table 5.4.2.2-1: Definition of type AuthenticationSubscription**

| Attribute name                | Data type      | P | Cardinality | Description                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------|----------------|---|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| authenticationMethod          | AuthMethod     | M | 1           | String containing the Authentication Method ("5G_AKA", "EAP_AKA_PRIME", "EAP_TLS"...) that shall be used when the UE's device is 5G capable.<br><br>If AV generation for HSS is required in UDM, this attribute shall take any 5G AKA-based value (i.e. "5G_AKA" or "EAP_AKA_PRIME").                                                                   |
| encPermanentKey               | string         | C | 0..1        | The encrypted value (hexstring) of the permanent authentication key (K) (see 3GPP TS 33.501 [9]). It shall be present if the authentication method is "5G_AKA" or "EAP_AKA_PRIME" unless vector generation is to be done in the HSS.                                                                                                                    |
| protectionParameterId         | string         | C | 0..1        | Identifies a parameter set securely stored in the UDM (ARPF) that can be used to decrypt the encPermanentKey (and encOpckKey or encTopckKey if present). Values and their meaning are HPLMN-operator specific.<br>It shall be present if the authentication method is "5G_AKA" or "EAP_AKA_PRIME" unless vector generation is to be done in the HSS.    |
| sequenceNumber                | SequenceNumber | C | 0..1        | String containing the SQN as defined in 3GPP TS 33.102 [10].<br>It shall be present if the authentication method is "5G_AKA" or "EAP_AKA_PRIME" unless vector generation is to be done in the HSS.                                                                                                                                                      |
| authenticationManagementField | string         | C | 0..1        | Hexstring containing the Authentication management field as defined in 3GPP TS 33.501 [9].<br>It shall be present if the authentication method is "5G_AKA" or "EAP_AKA_PRIME" unless vector generation is to be done in the HSS.<br>Pattern: '[A-Fa-f0-9]{4}\$'                                                                                         |
| algorithmId                   | string         | C | 0..1        | Identifies a parameter set securely stored in the UDM (ARPF) that provides details on the algorithm and parameters used to generate authentication vectors. Values and their meaning are HPLMN-operator specific.<br>It shall be present if the authentication method is "5G_AKA" or "EAP_AKA_PRIME" unless vector generation is to be done in the HSS. |
| encOpckKey                    | string         | O | 0..1        | Hexstring of the encrypted OPC Key.<br>Presence indicates that the provided value (decrypted) shall be used instead of the value derived from OP and K.                                                                                                                                                                                                 |
| encTopckKey                   | string         | O | 0..1        | Hexstring of the encrypted TOPC Key.<br>Presence indicates that the provided value (decrypted) shall be used instead of the value derived from TOP and K.                                                                                                                                                                                               |
| vectorGenerationInHss         | boolean        | O | 0..1        | True indicates that the UDM needs to retrieve an Authentication Vector from the HSS;<br>False and absence indicates that vector generation shall be performed in the UDM.                                                                                                                                                                               |
| n5gcDeviceAuthMethod          | AuthMethod     | O | 0..1        | String containing the Authentication Method that shall be used when the UE's device is Non-5G-Capable behind Cable RGs in private networks or in isolated deployment scenarios with wireline access. See NOTE.                                                                                                                                          |
| rgAuthenticationInd           | boolean        | O | 0..1        | true: indicates that authentication by the home network is not required if authentication has been completed by the W-5GAN. See 3GPP TS 33.501 [9] clause 7b.<br>false (default): otherwise.                                                                                                                                                            |
| supi                          | Supi           | C | 0..1        | If present, this IE shall contain the UE's SUPI which shall contain an IMSI.<br>It shall be present if the subscription is allowed to be identified by a pseudonym of the SUPI e.g. by a GCI or GLI that is not the SUPI.                                                                                                                               |



NOTE: The attribute n5gcDeviceAuthMethod is used for EAP-TLS, which is described in the informative annex O of 3GPP TS 33.501 [9] and is not mandatory to support.

### 5.4.2.3 Type: OperatorSpecificDataContainer

**Table 5.4.2.3-1: Definition of type OperatorSpecificDataContainer**

| Attribute name     | Data type         | P | Cardinality | Description                                                                                                                                                                                                                                                                                                                                         |
|--------------------|-------------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| dataType           | string            | M | 1           | This attribute value must be a string equals to the name of the actual data type of the "Value" attribute.                                                                                                                                                                                                                                          |
| value              | any type          | M | 1           |                                                                                                                                                                                                                                                                                                                                                     |
| dataTypeDefinition | string            | O | 0..1        | If present, this attribute is applicable when "dataType" takes value "object" and it shall contain a JSON Pointer expression referencing a JSON Schema data type definition (same as how the attribute "\$ref" is used in JSON Schema specifications), which the "value" attribute must conform to.                                                 |
| supportedFeatures  | SupportedFeatures | C | 0..1        | Indicates the list of negotiated supported features. This parameter shall be supplied by the UDR in the response to the GET request when the GET request includes the "supported-features" query parameter and the UDR supports feature negotiation for the OperatorSpecificData resource defined in this specification and in 3GPP TS 29.519 [17]. |

EXAMPLE: A JSON object of type "OperatorSpecificDataContainer" can be as follows:

```
{
  "dataType": "object",
  "value": {
    "operatorData1": "foo",
    "operatorData2": 123,
    "operatorData3": false
  },
  "dataTypeDefinition": "https://operator.com/definitions.json#/OpSpecificDataType"
}
```

And where the file "/definitions.json" contains a fragment as follows:

```
{
  "OpSpecificDataType": {
    "type": "object",
    "properties": {
      "operatorData1": {
        "type": "string"
      },
      "operatorData2": {
        "type": "integer"
      },
      "operatorData3": {
        "type": "boolean"
      }
    }
  }
}
```

### 5.4.2.4 Type: SmfRegList

**Table 5.4.2.4-1: Definition of type SmfRegList**

| Attribute name | Data type              | P | Cardinality | Description                                                           |
|----------------|------------------------|---|-------------|-----------------------------------------------------------------------|
| N/A            | array(SmfRegistration) | M | 1..N        | Each member of the array is an individual SMF registration of the UE. |

## 5.4.2.5 Type: SubscriptionDataSubscriptions

Table 5.4.2.5-1: Definition of type SubscriptionDataSubscriptions

| Attribute name            | Data type         | P | Cardinality | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------|-------------------|---|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| callbackReference         | Uri               | M | 1           | Identifies the UDM/NF pool or an individual UDM/NF which should be used by the UDR to send notification to UDM/NF.                                                                                                                                                                                                                                                                                                                                                       |
| originalCallbackReference | Uri               | O | 0..1        | URI provided by the NF service consumer to the UDM to receive notifications from the UDR.<br><br>If "sdmSubscription" is present, this attribute may be absent (and, if it is also present, it shall take the same value as the attribute "callbackReference" of "sdmSubscription").                                                                                                                                                                                     |
| ueld                      | VarUeld           | O | 0..1        | User identity if subscription to notifications is related to a user.                                                                                                                                                                                                                                                                                                                                                                                                     |
| monitoredResourceUris     | array(Uri)        | M | 1..N        | A set of URIs that identify the resources for which a modification of the representation triggers a notification.<br>The URI shall take the form of either an absolute URI or an absolute-path reference as defined in IETF RFC 3986 [16].<br>See NOTE 1.                                                                                                                                                                                                                |
| expiry                    | DateTime          | C | 0..1        | This IE shall be included in a subscription response, if, based on operator policy and taking into account the expiry time included in the request, the UDR needs to include an expiry time.<br>This IE may be included in a subscription request. When present, this IE shall represent the time after which the subscription becomes invalid.<br>The absence of this attribute in the subscription response means the subscription to be valid without an expiry time. |
| sdmSubscription           | SdmSubscription   | O | 0..1        | Data related to the subscription to changes on SDM data, created by the NF Service Consumer of the UDM (see 3GPP TS 29.503 [6], clause 6.1.6.2.3).                                                                                                                                                                                                                                                                                                                       |
| subscriptionId            | string            | C | 0..1        | This attribute shall be present if the SubscriptionDataSubscriptions is sent in a GET response message or in a Notification. It identifies the individual SubscriptionDataSubscriptions stored in the UDR and may be used by the UDM to e.g. delete or update a SubscriptionDataSubscriptions.<br><br>Read Only: true                                                                                                                                                    |
| uniqueSubscription        | boolean           | C | 0..1        | This attribute shall be present and set to true if the UDM requests the UDR to maintain a single UDM subscription per UE.<br><br>The attribute shall not be set to true if the sdmSubscription attribute is present.<br><br>The attribute shall not be set to true if the sdmSubscription and Ueld attributes are not present.<br><br>See clause 5.2.20.3.1.                                                                                                             |
| supportedFeatures         | SupportedFeatures | O | 0..1        | Used to negotiate the applicability of optional features                                                                                                                                                                                                                                                                                                                                                                                                                 |

## 5.4.2.6 Type: DataChangeNotify

Table 5.4.2.6-1: Definition of type DataChangeNotify

| Attribute name                                                                                                                                                                                                | Data type                            | P | Cardinality | Description                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| originalCallbackReference                                                                                                                                                                                     | array(Uri)                           | C | 1..N        | Original Callback Reference shall be present if a UDM has subscribed to notification due to an request from an NF. If present it is Identifying the NF to which the UDM has to provide the notification of data change.                                                                     |
| ueld                                                                                                                                                                                                          | VarUeld                              | C | 0..1        | User identity if subscription to notifications is related to a user that may be provided e.g. in case OriginalCallback URI is not included.                                                                                                                                                 |
| notifyItems                                                                                                                                                                                                   | array(NotifyItem)                    | O | 1..N        | This attribute contains the changes which have been applied on the resources.                                                                                                                                                                                                               |
| sdmSubscription                                                                                                                                                                                               | SdmSubscription                      | O | 0..1        | Data related to the subscription to changes on SDM data created by the NF Service Consumer of the UDM (see 3GPP TS 29.503 [6], clause 6.1.6.2.3). This attribute should be omitted if the SubscriptionsDataSubscriptions array is included.                                                 |
| additionalSdmSubscriptions                                                                                                                                                                                    | array(SdmSubscription)               | C | 1..N        | Shall be present if more than one subscription to changes on SDM data created by different NF service consumers of the UDM exist. This attribute if present shall convey sdm subscriptions in addition to and different from the sdm subscription present in the sdmSubscription attribute. |
| subscriptionDataSubscriptions                                                                                                                                                                                 | array(SubscriptionDataSubscriptions) | O | 1..N        | This attribute contain the Subscription Data Subscriptions (subs-to-notify) associated with the Notification.                                                                                                                                                                               |
| NOTE 1: The UDR should handle only the relative-path part (apiSpecificResourceUriPart, see 3GPP TS 29.501 [7] clause 4.4.1) and ignore possible inconsistencies (caused by e.g. an SCP) in the base URI part. |                                      |   |             |                                                                                                                                                                                                                                                                                             |

## 5.4.2.7 Type: IdentityData

Table 5.4.2.7-1: Definition of type IdentityData

| Attribute name | Data type   | P | Cardinality | Description                                                                                                                     |
|----------------|-------------|---|-------------|---------------------------------------------------------------------------------------------------------------------------------|
| supiList       | array(Supi) | C | 1..N        | Supi list corresponding to the provided gpsi ueld.                                                                              |
| gpsiList       | array(Gpsi) | C | 1..N        | Gpsi list corresponding to the provided supi ueld. Zero or one MSISDN and/or zero or more external Identifiers may be included. |

## 5.4.2.8 Type: ProvisionedDataSets

Table 5.4.2.8-1: ProvisionedDataSets

| Attribute name | Data type                                | P | Cardinality | Description                                                    |
|----------------|------------------------------------------|---|-------------|----------------------------------------------------------------|
| amData         | AccessAndMobilitySubscriptionData        | O | 0..1        | Access and Mobility Subscription Data                          |
| smfSelData     | SmfSelectionSubscriptionData             | O | 0..1        | SMF Selection Subscription Data                                |
| smsSubsData    | SmsSubscriptionData                      | O | 0..1        | SMS Subscription Data                                          |
| smData         | array(SessionManagementSubscriptionData) | O | 1..N        | Session Management Subscription Data                           |
| traceData      | TraceData                                | O | 0..1        | Trace Data. The Null value indicates that trace is not active. |
| smsMngData     | SmsManagementSubscriptionData            | O | 0..1        | SMS Management Subscription Data                               |
| lcsPrivacyData | LcsPrivacyData                           | O | 0..1        | LCS Privacy Subscription Data                                  |
| lcsMoData      | LcsMoData                                | O | 0..1        | LCS Mobile Originated Subscription Data                        |
| lcsBcaData     | LcsBroadcastAssistanceTypesData          | O | 0..1        | LCS Broadcast Assistance Subscription Data                     |
| v2xData        | V2xSubscriptionData                      | O | 0..1        | V2X Subscription Data                                          |

## 5.4.2.9 Type: SorData

Table 5.4.2.9-1: Definition of type SorData

| Attribute name   | Data type      | P | Cardinality | Description                                                                                                                                   |
|------------------|----------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| provisioningTime | DateTime       | M | 1           | Point in time of provisioning                                                                                                                 |
| ueUpdateStatus   | UeUpdateStatus | M | 1           | status of the SOR data update procedure                                                                                                       |
| sorXmaclue       | SorMac         | C | 0..1        | String containing SoR-XMAC-IUE as specified in 3GPP TS 33.501 [9]. Shall be present if UeUpdateStatus is "WAITING_FOR_ACK" or "ACK_RECEIVED". |
| sorMaclue        | SorMac         | C | 0..1        | String containing SoR-MAC-IUE as specified in 3GPP TS 33.501 [9]. Shall be present if UeUpdateStatus is "ACK_RECEIVED".                       |

## 5.4.2.9A Type: UpuData

Table 5.4.2.9A-1: Definition of type UpuData

| Attribute name   | Data type      | P | Cardinality | Description                                                                                                                                   |
|------------------|----------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| provisioningTime | DateTime       | M | 1           | Point in time of provisioning                                                                                                                 |
| ueUpdateStatus   | UeUpdateStatus | M | 1           | status of the UPU data update procedure                                                                                                       |
| upuXmaclue       | UpuMac         | C | 0..1        | String containing UPU-XMAC-IUE as specified in 3GPP TS 33.501 [9]. Shall be present if UeUpdateStatus is "WAITING_FOR_ACK" or "ACK_RECEIVED". |
| upuMaclue        | UpuMac         | C | 0..1        | String containing UPU-MAC-IUE as specified in 3GPP TS 33.501 [9]. Shall be present if UeUpdateStatus is "ACK_RECEIVED".                       |

## 5.4.2.9B Type: NssaiAckData

Table 5.4.2.9B-1: Definition of type NssaiAckData

| Attribute name   | Data type      | P | Cardinality | Description                          |
|------------------|----------------|---|-------------|--------------------------------------|
| provisioningTime | DateTime       | M | 1           | Point in time of provisioning        |
| ueUpdateStatus   | UeUpdateStatus | M | 1           | status of the Nssai update procedure |

## 5.4.2.9C Type: CagAckData

Table 5.4.2.9C-1: Definition of type CagAckData

| Attribute name   | Data type      | P | Cardinality | Description                        |
|------------------|----------------|---|-------------|------------------------------------|
| provisioningTime | DateTime       | M | 1           | Point in time of provisioning      |
| ueUpdateStatus   | UeUpdateStatus | M | 1           | status of the Cag update procedure |

5.4.2.10 Void

5.4.2.11 Void

5.4.2.12 Void

5.4.2.13 Void

5.4.2.14 Void

5.4.2.15 Void

5.4.2.16 Void

5.4.2.17 Void

5.4.2.18 Void

## 5.4.2.19 Type: AmfSubscriptionInfo

Table 5.4.2.19-1: Definition of type AmfSubscriptionInfo

| Attribute name                | Data type    | P | Cardinality | Description                                                                                                                                |
|-------------------------------|--------------|---|-------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| amfInstanceld                 | NfInstanceld | M | 1           | Instanceld of the AMF to which the subscription was sent                                                                                   |
| subscriptionId                | Uri          | M | 1           | The Subscription Id allocated by the AMF as received by the UDM in the HTTP "Location" header of the Namf_EventExposure_Subscribe response |
| subsChangeNotifyCorrelationId | string       | O | 1           | The Correlation Id allocated by the UDM and sent to the AMF for correlation of subscriptionId-change-notifications                         |

## 5.4.2.20 Type: EeProfileData

Table 5.4.2.20-1: Definition of type EeProfileData

| Attribute name       | Data type               | P | Cardinality | Description                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------|-------------------------|---|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| restrictedEventTypes | array(EventType)        | O | 1..N        | List of the event types that are restricted (if any) for the UE.<br>The absence of this IE indicates that all event types are authorized for the UE.                                                                                                                                                                                                                                                          |
| supportedFeatures    | SupportedFeatures       | O | 0..1        |                                                                                                                                                                                                                                                                                                                                                                                                               |
| allowedMtcProvider   | map(array(MtcProvider)) | O | 1..N(1..M)  | A map (list of key-value pairs where EventType (see 3GPP TS 29.503 [6] serves as key) of MTC Provider.<br>In addition to defined EventTypes, the key value "ALL" may be used to identify a map entry which contains a list of MtcProviders that are allowed monitoring all Event Types.<br>The absence of this IE indicates that monitoring by any MTC provider is allowed for any non restricted event type. |

## 5.4.2.21 Void

## 5.4.2.22 Type: ContextDataSets

Table 5.4.2.22-1: ContextDataSets

| Attribute name                | Data type                            | P | Cardinality | Description                                                                                                   |
|-------------------------------|--------------------------------------|---|-------------|---------------------------------------------------------------------------------------------------------------|
| amf3Gpp                       | Amf3GppAccessRegistration            | O | 0..1        | AMF 3GPP Access registration                                                                                  |
| amfNon3Gpp                    | AmfNon3GppAccessRegistration         | O | 0..1        | AMF Non 3GPP Access registration                                                                              |
| sdmSubscriptions              | array(SdmSubscription)               | O | 1..N        | SDM-Subscriptions                                                                                             |
| eeSubscriptions               | array(EeSubscription)                | O | 1..N        | Event Exposure Subscriptions                                                                                  |
| smsf3GppAccess                | SmsfRegistration                     | O | 0..1        | SMSF 3GPP Access registration                                                                                 |
| smsfNon3GppAccess             | SmsfRegistration                     | O | 0..1        | SMSF Non 3GPP Access registration                                                                             |
| subscriptionDataSubscriptions | array(SubscriptionDataSubscriptions) | O | 1..N        | This attribute contain the Subscription Data Subscriptions (subs-to-notify) associated with the Notification. |
| smfRegistrations              | SmfRegList                           | O | 0..1        | SMF Registrations                                                                                             |
| ipSmGw                        | IpSmGwRegistration                   | O | 0..1        | IP-SM-GW Registration                                                                                         |

## 5.4.2.23 Type: SequenceNumber

Table 5.4.2.23-1: Definition of type SequenceNumber

| Attribute name | Data type    | P | Cardinality | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------|--------------|---|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| sqnScheme      | SqnScheme    | M | 1           | The scheme used to generate the sequence numbers, as described in 3GPP TS 33.102 [10], clause C.1.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| sqn            | string       | C | 0..1        | <p>A 48-bit hex string containing the SEQ part of SQN (most significant bits), as specified in 3GPP TS 33.102 [10], and where the IND part (least significant bits) is filled with 0's.</p> <p>When the sqnScheme is "TIME_BASED", the SEQ part (most significant bits) of this attribute contains the DIF value.</p> <p>This IE may be absent, if it does not exist in UDR (e.g. right after the subscriber is provisioned); otherwise, it shall be present.</p> <p>Pattern: <code>^[A-Fa-f0-9]{12}\$</code></p>                                                                                                                               |
| lastIndexes    | map(integer) | C | 1..N        | <p>A map of integer values, where the key of the map is the type of node that is requesting the generation of an authentication vector in UDM, and the integer is the last used value of IND for the corresponding type of node.</p> <p>The types of nodes currently defined are:</p> <ul style="list-style-type: none"> <li>- "ausf"</li> <li>- "vlr"</li> <li>- "sgsn"</li> <li>- "s-cscf"</li> <li>- "bsf",</li> <li>- "gan-aaa-server"</li> <li>- "wlan-aaa-server"</li> <li>- "mme"</li> </ul> <p>This IE may be absent, if it does not exist in UDR (e.g. right after the subscriber is provisioned); otherwise, it shall be present.</p> |
| indLength      | integer      | O | 1           | <p>Number of bits of the IND part of SQN. The length of the SEQ part is, therefore, (48 - indLength) bits.</p> <p>If not present, the default value is 5.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| difSign        | Sign         | O | 1           | <p>Sign of the DIF value. It is applicable when the sqnScheme is "TIME_BASED".</p> <p>If not present, the default value is "NEGATIVE".</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## 5.4.2.24 Type: MessageWaitingData

Table 5.4.2.24-1: Definition of type MessageWaitingData

| Attribute name | Data type       | P | Cardinality | Description                                                                                 |
|----------------|-----------------|---|-------------|---------------------------------------------------------------------------------------------|
| mwdList        | array(SmscData) | O | 1..N        | List of addresses of SM-Service Center entities with SMS waiting to be delivered to the UE. |

## 5.4.2.25 Type: SmscData

Table 5.4.2.25-1: Definition of type SmscData

| Attribute name      | Data type                  | P | Cardinality | Description                                                                                          |
|---------------------|----------------------------|---|-------------|------------------------------------------------------------------------------------------------------|
| smscMapAddress      | E164Number                 | C | 0..1        | International E.164 number of the SM-SC; it shall be present if the SM-SC supports the MAP protocol. |
| smscDiameterAddress | NetworkNodeDiameterAddress | C | 0..1        | Diameter Identity of the SM-SC; it shall be present if the SM-SC supports the Diameter protocol.     |

NOTE: At least one of the properties, smscMapAddress or smscDiameterAddress, shall be present.

## 5.4.2.26 Type: SmfSubscriptionInfo

Table 5.4.2.26-1: Definition of type SmfSubscriptionInfo

| Attribute name      | Data type                  | P | Cardinality | Description                         |
|---------------------|----------------------------|---|-------------|-------------------------------------|
| smfSubscriptionList | array(SmfSubscriptionItem) | M | 1..N        | List of SmfSubscriptionItem objects |

## 5.4.2.27 Type: SmfSubscriptionItem

Table 5.4.2.27-1: Definition of type SmfSubscriptionItem

| Attribute name | Data type     | P | Cardinality | Description                                                                                                                                |
|----------------|---------------|---|-------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| smfInstancelId | NfInstancelId | M | 1           | InstancelId of the SMF to which the subscription was sent                                                                                  |
| subscriptionId | Uri           | M | 1           | The Subscription Id allocated by the SMF as received by the UDM in the HTTP "Location" header of the Nsmf_EventExposure_Subscribe response |

## 5.4.2.28 Type: MtcProvider

Table 5.4.2.28-1: Definition of type MtcProvider

| Attribute name         | Data type              | P | Cardinality | Description                                                                                                                                              |
|------------------------|------------------------|---|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| mtcProviderInformation | MtcProviderInformation | O | 0..1        | Indicates MTC provider information for Monitoring Configuration authorization.                                                                           |
| afId                   | string                 | O | 0..1        | ID of the AF. The string identifying the originating AF, formatted as described in the definition of type MonitoringConfiguration in 3GPP TS 29.503 [6]. |

## 5.4.2.29 Type: HssSubscriptionInfo

Table 5.4.2.29-1: Definition of type hssSubscriptionInfo

| Attribute name      | Data type                  | P | Cardinality | Description                         |
|---------------------|----------------------------|---|-------------|-------------------------------------|
| hssSubscriptionList | array(HssSubscriptionItem) | M | 1..N        | List of hssSubscriptionItem objects |



## 5.4.2.30 Type: HssSubscriptionItem

Table 5.4.2.30-1: Definition of type HssSubscriptionItem

| Attribute name | Data type     | P | Cardinality | Description                                                                                                                                |
|----------------|---------------|---|-------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| hssInstancelId | NfInstancelId | M | 1           | InstancelId of the HSS to which the subscription was sent                                                                                  |
| subscriptionId | Uri           | M | 1           | The Subscription Id allocated by the HSS as received by the UDM in the HTTP "Location" header of the Nhss_EventExposure_Subscribe response |

## 5.4.2.31 Type: EeGroupProfileData

Table 5.4.2.31-1: Definition of type EeGroupProfileData

| Attribute name       | Data type               | P | Cardinality | Description                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------|-------------------------|---|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| restrictedEventTypes | array(EventType)        | O | 1..N        | List of the event types that are restricted (if any) for the group.<br>The absence of this IE indicates that all event types are authorized for the group.                                                                                                                                                                                                                                                    |
| allowedMtcProvider   | map(array(MtcProvider)) | O | 1..N(1..M)  | A map (list of key-value pairs where EventType (see 3GPP TS 29.503 [6] serves as key) of MTC Provider.<br>In addition to defined EventTypes, the key value "ALL" may be used to identify a map entry which contains a list of MtcProviders that are allowed monitoring all Event Types.<br>The absence of this IE indicates that monitoring by any MTC provider is allowed for any non restricted event type. |
| supportedFeatures    | SupportedFeatures       | O | 0..1        |                                                                                                                                                                                                                                                                                                                                                                                                               |

## 5.4.2.32 Type: Pp5gVnGroupProfileData

Table 5.4.2.32-1: Definition of type Pp5gVnGroupProfileData

| Attribute name      | Data type                          | P | Cardinality | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------|------------------------------------|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| allowedMtcProviders | map(array(AllowedMtcProviderInfo)) | O | 1..N(1..M)  | A map (list of key-value pairs where ExtGroupId (see 3GPP TS 29.503 [6]) serves as key of a list of AllowedMtcProviderInfos which include MTC provider informations or AF IDs that are allowed to create, update and delete a 5G VN Group for the user using UDM ParameterProvision service.<br><br>In addition to defined external group identifier, the key value "ALL" may be used to identify a map entry which contains a list of AllowedMtcProviderInfos that are allowed operating all the external group identifiers.<br><br>The absence of this IE indicates that all the MTC Providers and AFs are authorized to create, update and delete any 5G VN Group. |
| supportedFeatures   | SupportedFeatures                  | O | 0..1        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## 5.4.2.33 Type: PpProfileData

Table 5.4.2.33-1: Definition of type PpProfileData

| Attribute name      | Data type                          | P | Cardinality | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------|------------------------------------|---|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| allowedMtcProviders | map(array(AllowedMtcProviderInfo)) | O | 1..N(1..M)  | A map (list of key-value pairs where PpDataType (see 5.4.3.10) serves as key of a list of AllowedMtcProviderInfos which include MTC provider informations or AF IDs that are allowed to provision the parameters for the user using UDM ParameterProvision service.<br><br>In addition to defined external group identifier, the key value "ALL" may be used to identify a map entry which contains a list of AllowedMtcProviderInfos that are allowed provisioning all types of PP data.<br><br>The absence of this IE indicates that all the MTC Providers and AFs are authorized to provision all types of PP data for the UE |
| supportedFeatures   | SupportedFeatures                  | O | 0..1        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## 5.4.2.34 Type: AllowedMtcProviderInfo

Table 5.4.2.34-1: Definition of type AllowedMtcProviderInfo

| Attribute name         | Data type              | P | Cardinality | Description                                                                                                                                                                                                  |
|------------------------|------------------------|---|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| mtcProviderInformation | MtcProviderInformation | C | 0..1        | Indicates MTC provider information for Parameters Provision authorization.                                                                                                                                   |
| afId                   | string                 | C | 0..1        | Indicates ID of the AF for Parameters Provision authorization.<br>The string identifying the originating AF, formatted as described in the definition of type MonitoringConfiguration in 3GPP TS 29.503 [6]. |

## 5.4.3 Simple data types and enumerations

## 5.4.3.1 Introduction

This clause defines simple data types and enumerations that can be referenced from data structures defined in the previous clauses.

## 5.4.3.2 Simple data types

The simple data types defined in table 5.4.3.2-1 shall be supported.

Table 5.4.3.2-1: Simple data types

| Type Name    | Type Definition | Description                                                                                                               |
|--------------|-----------------|---------------------------------------------------------------------------------------------------------------------------|
| VarUeGroupId | string          | String identifying identifier of the external Group of UEs or any UE.<br>Pattern: '^(\extgroupid-[^\@]+\@[^\@]+ anyUE)\$' |

## 5.4.3.3 Enumeration: AuthMethod

Table 5.4.3.3-1: Enumeration AuthMethod

| Enumeration value | Description |
|-------------------|-------------|
| "5G_AKA"          | 5G AKA      |
| "EAP_AKA_PRIME"   | EAP AKA'    |
| "EAP-TLS"         | EAP TLS     |

## 5.4.3.4 Enumeration: DataSetName

Table 5.4.3.4-1: Enumeration DataSetName

| Enumeration value | Description                                |
|-------------------|--------------------------------------------|
| "AM"              | Access and Mobility Subscription Data      |
| "SMF_SEL"         | SMF Selection Subscription Data            |
| "SMS_SUB"         | SMS Subscription Data                      |
| "SM"              | Session Management Subscription Data       |
| "TRACE"           | Trace Data                                 |
| "SMS_MNG"         | SMS Management Subscription Data           |
| "LCS_PRIVACY"     | LCS Privacy Subscription Data              |
| "LCS_MO"          | LCS Mobile Originated Subscription Data    |
| "LCS_BCA"         | LCS Broadcast Assistance Subscription Data |
| "V2X"             | V2X Subscription Data                      |

## 5.4.3.5 Void

## 5.4.3.6 Enumeration: ContextDataSetName

Table 5.4.3.6-1: Enumeration ContextDataSetName

| Enumeration value   | Description                       |
|---------------------|-----------------------------------|
| "AMF_3GPP"          | AMF 3GPP Access Registration      |
| "AMF_NON_3GPP"      | SMF Non 3GPP Access Registration  |
| "SDM_SUBSCRIPTIONS" | SDM Subscriptions                 |
| "EE_SUBSCRIPTIONS"  | EE Subscriptions                  |
| "SMSF_3GPP"         | SMSF 3GPP Access Registration     |
| "SMSF_NON_3GPP"     | SMSF Non 3GPP Access Registration |
| "SUBS_TO_NOTIFY"    | UDR Subscriptions                 |
| "SMF_REG"           | SMF Registrations                 |
| "IP_SM_GW"          | IP-SM-GW Registration             |

## 5.4.3.7 Enumeration: SqnScheme

Table 5.4.3.7-1: Enumeration SqnScheme

| Enumeration value | Description                                                                                                                                                                                                                                                                                                                                             |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| "GENERAL"         | Scheme for generation of Sequence Numbers (partially time-based), as described in 3GPP TS 33.102 [10], clause C.1.1.1                                                                                                                                                                                                                                   |
| "NON_TIME_BASED"  | Scheme for generation of Sequence Numbers (non-time-based), as described in 3GPP TS 33.102 [10], clause C.1.1.2                                                                                                                                                                                                                                         |
| "TIME_BASED"      | Scheme for generation of Sequence Numbers (entirely time-based), as described in 3GPP TS 33.102 [10], clause C.1.1.3                                                                                                                                                                                                                                    |
| NOTE:             | These schemes for Sequence Number generation are documented in an informative Annex in 3GPP TS 33.102 [10]; having these different schemes listed in this Enumeration type does not imply that UDM implementations are required to support all of them; the Sequence Number generation schemes that need to be supported by UDM is deployment-specific. |

## 5.4.3.8 Enumeration: Sign

Table 5.4.3.8-1: Enumeration Sign

| Enumeration value | Description |
|-------------------|-------------|
| "POSITIVE"        |             |
| "NEGATIVE"        |             |

## 5.4.3.9 Enumeration: UeUpdateStatus

Table 5.4.3.9-1: Enumeration UeUpdateStatus

| Enumeration value       | Description                                                                                                                                                                                                                                                                                                                                       |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| "NOT_SENT"              | SOR data update / UPU data update / NSSAI update / CAG update has not been sent to the AMF e.g. because no AMF was registered at provisioning time                                                                                                                                                                                                |
| "SENT_NO_ACK_REQUIRED"  | SOR data update / UPU data update has been sent to the AMF; Acknowledgement was not requested<br>This state is not applicable for NSSAI update / CAG update                                                                                                                                                                                       |
| "WAITING_FOR_ACK"       | SOR data update has been sent to the AMF; Acknowledgement has been requested. In this state sorXmaclue shall be present;<br>or<br>UPU data update has been sent to the AMF; Acknowledgement has been requested. In this state upuXmaclue shall be present;<br>or<br>NSSAI has been sent to the AMF<br>or<br>CAG has been sent to the AMF.         |
| "ACK_RECEIVED"          | SOR data update has been acknowledged by the UE. In this state sorXmaclue and sorMaclue shall be present;<br>or<br>UPU data update has been acknowledged by the UE. In this state upuXmaclue and upuMaclue shall be present;<br>or<br>NSSAI data update has been acknowledged by the UE<br>or<br>CAG data update has been acknowledged by the UE. |
| "NEGATIVE_ACK_RECEIVED" | SOR data update / UPU data update has been sent to the AMF, but could not be forwarded to the UE due to the UE not being reachable.                                                                                                                                                                                                               |

### 5.4.3.10 Enumeration: PpDataType

**Table 5.4.3.10-1: Enumeration PpDataType**

| Enumeration value               | Description                                            |
|---------------------------------|--------------------------------------------------------|
| "COMMUNICATION_CHARACTERISTICS" | Communication Characteristics Parameters               |
| "EXPECTED_UE_BEHAVIOUR"         | Expected UE Behaviour Parameters                       |
| "EC_RESTRICTION"                | Enhanced Coverage Restriction Parameters               |
| "ACS_INFO"                      | ACS Information                                        |
| "TRACE"                         | Trace Data                                             |
| "STN_SR"                        | Session Transfer Number for SRVCC                      |
| "LCS_PRIVACY"                   | LCS Privacy Parameters                                 |
| "SOR_INFO"                      | Steering of Roaming information to be conveyed to a UE |

### 5.4.4 Binary data

N/A

## 5.5 Error handling

Table 5.5-1 lists common response body data structures used within the Nudr-dr API

**Table 5.5-1: Common Response Body Data Structures**

| Data type      | P | Cardinality | Response codes     | Description                                                              |
|----------------|---|-------------|--------------------|--------------------------------------------------------------------------|
| ProblemDetails | O | 0..1        | 4xx, 5xx responses | For unsuccessful status codes, the UDR may provide detailed information. |

**NOTE:** In addition common data structures as defined in 3GPP TS 29.500 [8] are supported.

The application layer error handling shall follow 3GPP TS 29.504 [2] clause 6.1.6 unless explicitly specified in this document.

## 5.6 Feature negotiation

The optional features in table 6.1.8-1 of 3GPP TS 29.504 [2] are defined for the Nudr\_DataRepository API. They shall be negotiated using the extensibility mechanism defined in clause 6.6 of 3GPP TS 29.500 [8].

# Annex A (normative): OpenAPI specification

## A.1 General

This Annex specifies the formal definition of the Nudr\_DataRepository service API for Subscription Data. It consists of OpenAPI 3.0.0 specifications, in YAML format.

This Annex takes precedence when being discrepant to other parts of the specification with respect to the encoding of information elements and methods within the API(s).

**NOTE:** The semantics and procedures, as well as conditions, e.g. for the applicability and allowed combinations of attributes or values, not expressed in the OpenAPI definitions but defined in other parts of the specification also apply.

Informative copies of the OpenAPI specification files contained in this 3GPP Technical Specification are available on a Git-based repository, that uses the GitLab software version control system (see 3GPP TS 29.501 [7] clause 5.3.1 and 3GPP TR 21.900 [14] clause 5B).

## A.2 Nudr\_DataRepository API for Subscription Data

For the purpose of referencing entities in the Open API file defined in this Annex, it shall be assumed that this Open API file is contained in a physical file named "TS29505\_Subscription\_Data.yaml".

```

openapi: 3.0.0
info:
  version: '-'
  title: 'Unified Data Repository Service API file for subscription data'
  description: |
    Unified Data Repository Service (subscription data).
    The API version is defined in 3GPP TS 29.504.
    © 2022, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).
    All rights reserved.

externalDocs:
  description: 3GPP TS 29.505 V16.10.0; 5G System; Usage of the Unified Data Repository Service for
  subscription data; Stage 3
  url: 'http://www.3gpp.org/ftp/Specs/archive/29_series/29.505/'

paths:
  /subscription-data/{ueId}/authentication-data/authentication-subscription:
    get:
      summary: Retrieves the authentication subscription data of a UE
      operationId: QueryAuthSubsData
      tags:
        - Authentication Data (Document)
      security:
        - {}
        - oAuth2ClientCredentials:
            - nudr-dr
        - oAuth2ClientCredentials:
            - nudr-dr
        - nudr-dr:subscription-data:authentication-subscription:read
      parameters:
        - name: ueId
          in: path
          description: UE id
          required: true
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
        - name: supported-features
          in: query
          description: Supported Features
          schema:

```

```

    $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  responses:
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/AuthenticationSubscription'
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

  patch:
    summary: modify the authentication subscription data of a UE
    operationId: ModifyAuthenticationSubscription
    tags:
      - Authentication Subscription (Document)
    security:
      - {}
      - OAuth2ClientCredentials:
          - nudr-dr
      - OAuth2ClientCredentials:
          - nudr-dr
          - nudr-dr:subscription-data:authentication-subscription:modify
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
      - name: supported-features
        in: query
        description: Features required to be supported by the target NF
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    requestBody:
      content:
        application/json-patch+json:
          schema:
            type: array
            items:
              $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'
      required: true
    responses:
      '204':
        description: Expected response to a valid request
      '403':
        description: modification is rejected
        content:
          application/problem+json:
            schema:
              $ref: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
      '200':
        description: Expected response to a valid request
        content:
          application/json:
            schema:
              $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchResult'
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/authentication-data/authentication-status:
  put:
    summary: To store the Authentication Status data of a UE
    operationId: CreateAuthenticationStatus
    tags:
      - Authentication Status (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
    requestBody:
      content:
        application/json:
          schema:

```

```
    $ref: 'TS29503_Nudm_UEAU.yaml#/components/schemas/AuthEvent'
  required: true
  responses:
    '204':
      description: Upon success, an empty response body shall be returned
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

get:
  summary: Retrieves the Authentication Status of a UE
  operationId: QueryAuthenticationStatus
  tags:
    - AuthEvent (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
    - name: fields
      in: query
      description: attributes to be retrieved
      required: false
      schema:
        type: array
        items:
          type: string
        minItems: 1
        style: form
        explode: false
    - name: supported-features
      in: query
      description: Supported Features
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  responses:
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: 'TS29503_Nudm_UEAU.yaml#/components/schemas/AuthEvent'
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

delete:
  summary: To remove the Authentication Status of a UE
  operationId: DeleteAuthenticationStatus
  tags:
    - AuthEvent (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
  responses:
    '204':
      description: Upon success, an empty response body shall be returned.
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/authentication-data/authentication-status/{servingNetworkName}:
  put:
    summary: To store the individual Authentication Status data of a UE
    operationId: CreateIndividualAuthenticationStatus
    tags:
      - Individual Authentication Status (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
      - name: servingNetworkName
```



```

    in: path
    description: Serving Network Name
    required: true
    schema:
      $ref: 'TS29503_Nudm_UEAU.yaml#/components/schemas/ServingNetworkName'
  requestBody:
    content:
      application/json:
        schema:
          $ref: 'TS29503_Nudm_UEAU.yaml#/components/schemas/AuthEvent'
        required: true

  responses:
    '204':
      description: Upon success, an empty response body shall be returned
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

get:
  summary: Retrieves the Individual Authentication Status of a UE
  operationId: QueryIndividualAuthenticationStatus
  tags:
    - Individual AuthEvent (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
    - name: servingNetworkName
      in: path
      description: Serving Network Name
      required: true
      schema:
        $ref: 'TS29503_Nudm_UEAU.yaml#/components/schemas/ServingNetworkName'
    - name: fields
      in: query
      description: attributes to be retrieved
      required: false
      schema:
        type: array
        items:
          type: string
        minItems: 1
        style: form
        explode: false
    - name: supported-features
      in: query
      description: Supported Features
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  responses:
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: 'TS29503_Nudm_UEAU.yaml#/components/schemas/AuthEvent'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

delete:
  summary: To remove the Individual Authentication Status of a UE
  operationId: DeleteIndividualAuthenticationStatus
  tags:
    - Individual AuthEvent (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
    - name: servingNetworkName
      in: path
      description: Serving Network Name
      required: true

```

```

    schema:
      $ref: 'TS29503_Nudm_UEAU.yaml#/components/schemas/ServingNetworkName'
  responses:
    '204':
      description: Upon success, an empty response body shall be returned.
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/ue-update-confirmation-data/sor-data:
  put:
    summary: To store the SoR acknowledgement information of a UE
    operationId: CreateAuthenticationSoR
    tags:
      - Authentication SoR (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
      - name: supported-features
        in: query
        description: Supported Features
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    requestBody:
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/SorData'
      required: true

    responses:
      '204':
        description: Expected response to a valid request
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

  get:
    summary: Retrieves the SoR acknowledgement information of a UE
    operationId: QueryAuthSoR
    tags:
      - Authentication SoR (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
      - name: supported-features
        in: query
        description: Supported Features
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    responses:
      '200':
        description: Expected response to a valid request
        content:
          application/json:
            schema:
              $ref: '#/components/schemas/SorData'
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/ue-update-confirmation-data/upu-data:
  put:
    summary: To store the UPU acknowledgement information of a UE
    operationId: CreateAuthenticationUPU
    tags:
      - Authentication UPU (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:

```

```

    $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
  - name: supported-features
    in: query
    description: Supported Features
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
requestBody:
  content:
    application/json:
      schema:
        $ref: '#/components/schemas/UpuData'
responses:
  '204':
    description: Expected response to a valid request
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

get:
  summary: Retrieves the UPU acknowledgement information of a UE
  operationId: QueryAuthUPU
  tags:
    - Authentication UPU (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
    - name: supported-features
      in: query
      description: Supported Features
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  responses:
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/UpuData'
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/ue-update-confirmation-data/subscribed-snssais:
  put:
    summary: To store the NSSAI update acknowledgement information of a UE
    operationId: CreateOrUpdateNssaiAck
    tags:
      - NSSAI update ack (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
      - name: supported-features
        in: query
        description: Supported Features
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    requestBody:
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/NssaiAckData'
      required: true
    responses:
      '204':
        description: Expected response to a valid request
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

get:
  summary: Retrieves the UPU acknowledgement information of a UE
  operationId: QueryNssaiAck
  tags:

```

```

    - NSSAI ACK (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
    - name: supported-features
      in: query
      description: Supported Features
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  responses:
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/NssaiAckData'
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'
/subscription-data/{ueId}/ue-update-confirmation-data/subscribed-cag:
  put:
    summary: To store the CAG update acknowledgement information of a UE
    operationId: CreateCagUpdateAck
    tags:
      - CAG update ack (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
      - name: supported-features
        in: query
        description: Supported Features
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    requestBody:
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/CagAckData'
      required: true
    responses:
      '204':
        description: Expected response to a valid request
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'
  get:
    summary: Retrieves the CAG acknowledgement information of a UE
    operationId: QueryCagAck
    tags:
      - CAG ACK (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
      - name: supported-features
        in: query
        description: Supported Features
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    responses:
      '200':
        description: Expected response to a valid request
        content:
          application/json:
            schema:
              $ref: '#/components/schemas/CagAckData'
      default:

```

```

    $ref: 'TS29571_CommonData.yaml#/components/responses/default'
  /subscription-data/{ueId}/{servingPlmnId}/provisioned-data:
    get:
      summary: Retrieve multiple provisioned data sets of a UE
      operationId: QueryProvisionedData
      tags:
        - Provisioned Data (Document)
      parameters:
        - name: ueId
          in: path
          description: UE id
          required: true
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
        - name: servingPlmnId
          in: path
          description: PLMN ID
          required: true
          schema:
            $ref: '#/components/schemas/VarPlmnId'
        - name: dataset-names
          in: query
          description: List of dataset names
          style: form
          explode: false
          schema:
            $ref: '#/components/schemas/DatasetNames'
      responses:
        '200':
          description: Expected response to a valid request
          content:
            application/json:
              schema:
                $ref: '#/components/schemas/ProvisionedDataSets'
          default:
            $ref: 'TS29571_CommonData.yaml#/components/responses/default'
  /subscription-data/{ueId}/{servingPlmnId}/provisioned-data/am-data:
    get:
      summary: Retrieves the access and mobility subscription data of a UE
      operationId: QueryAmData
      tags:
        - Access And Mobility Subscription Data (Document)
      parameters:
        - name: ueId
          in: path
          description: UE id
          required: true
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
        - name: servingPlmnId
          in: path
          description: PLMN ID
          required: true
          schema:
            $ref: '#/components/schemas/VarPlmnId'
        - name: fields
          in: query
          description: attributes to be retrieved
          required: false
          schema:
            type: array
            items:
              type: string
            minItems: 1
          style: form
          explode: false
        - name: supported-features
          in: query
          description: Supported Features
          schema:
            $ref: '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:
          $ref: '#/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
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/{servingPlmnId}/provisioned-data/smf-selection-subscription-data:
get:
  summary: Retrieves the SMF selection subscription data of a UE
  operationId: QuerySmfSelectData
  tags:
    - SMF Selection Subscription Data (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: servingPlmnId
      in: path
      description: PLMN ID
      required: true
      schema:
        $ref: '#/components/schemas/VarPlmnId'
    - name: fields
      in: query
      description: attributes to be retrieved
      required: false
      schema:
        type: array
        items:
          type: string
        minItems: 1
      style: form
      explode: false
    - name: supported-features
      in: query
      description: Supported Features
      schema:
        $ref: '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:
        $ref: '#/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
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/{servingPlmnId}/provisioned-data/sm-data:
  get:
    summary: Retrieves the Session Management subscription data of a UE
    operationId: QuerySmData
    tags:
      - Session Management Subscription Data
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: servingPlmnId
        in: path
        description: PLMN ID
        required: true
        schema:
          $ref: '#/components/schemas/VarPlmnId'
      - name: single-nssai
        in: query
        content:
          application/json:
            schema:
              $ref: '#/components/schemas/VarSnsai'
          description: single NSSAI
          required: false
      - name: dnn
        in: query
        description: DNN
        required: false
        schema:
          $ref: '#/components/schemas/Dnn'
      - name: fields
        in: query
        description: attributes to be retrieved
        required: false
        schema:
          type: array
          items:
            type: string
          minItems: 1
          style: form
          explode: false
      - name: supported-features
        in: query
        description: Supported Features
        schema:
          $ref: '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:
              $ref: '#/components/schemas/SessionManagementSubscriptionData'
            minItems: 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
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/context-data/amf-3gpp-access:
  get:
    summary: Retrieves the AMF context data of a UE using 3gpp access
    operationId: QueryAmfContext3gpp
    tags:
      - AMF 3GPP Access Registration (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: fields
        in: query
        description: attributes to be retrieved
        required: false
        schema:
          type: array
          items:
            type: string
          minItems: 1
        style: form
        explode: false
      - name: supported-features
        in: query
        description: Supported Features
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    responses:
      '200':
        description: Expected response to a valid request
        content:
          application/json:
            schema:
              $ref: '#/components/schemas/Amf3GppAccessRegistration'
        default:
          $ref: 'TS29571_CommonData.yaml#/components/responses/default'

  put:
    summary: To store the AMF context data of a UE using 3gpp access in the UDR
    operationId: CreateAmfContext3gpp
    tags:
      - AMF 3GPP Access Registration (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:

```



```

    $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
requestBody:
  content:
    application/json:
      schema:
        $ref: '#/components/schemas/Amf3GppAccessRegistration'
  required: true
responses:
  '204':
    description: Upon success, an empty response body shall be returned
  '201':
    description: Created
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/Amf3GppAccessRegistration'
    headers:
      Location:
        description: 'Contains the URI of the newly created resource, according to the
structure: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/amf-3gpp-access'
        required: true
        schema:
          type: string
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

patch:
  summary: To modify the AMF context data of a UE using 3gpp access in the UDR
  operationId: AmfContext3gpp
  tags:
    - AMF 3GPP Access Registration (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: supported-features
      in: query
      description: Features required to be supported by the target NF
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  requestBody:
    content:
      application/json-patch+json:
        schema:
          type: array
          items:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'
    required: true
  responses:
    '204':
      description: Expected response to a valid request
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchResult'
    '403':
      description: modification is rejected
      content:
        application/problem+json:
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/context-data/amf-non-3gpp-access:
get:
  summary: Retrieves the AMF context data of a UE using non-3gpp access
  operationId: QueryAmfContextNon3gpp
  tags:
    - AMF Non-3GPP Access Registration (Document)
  parameters:
    - name: ueId
      in: path

```

```

    description: UE id
    required: true
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
  - name: fields
    in: query
    description: attributes to be retrieved
    required: false
    schema:
      type: array
      items:
        type: string
      minItems: 1
      style: form
      explode: false
  - name: supported-features
    in: query
    description: Supported Features
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
responses:
  '200':
    description: Expected response to a valid request
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/AmfNon3GppAccessRegistration'
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

put:
  summary: To store the AMF context data of a UE using non-3gpp access in the UDR
  operationId: CreateAmfContextNon3gpp
  tags:
    - AMF Non-3GPP Access Registration (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
  requestBody:
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/AmfNon3GppAccessRegistration'
    required: true
  responses:
    '204':
      description: Upon success, an empty response body shall be returned
    '201':
      description: Created
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/Amf3GppAccessRegistration'
      headers:
        Location:
          description: 'Contains the URI of the newly created resource, according to the
structure: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/amf-non-3gpp-access'
          required: true
          schema:
            type: string
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

patch:
  summary: To modify the AMF context data of a UE using non 3gpp access in the UDR
  operationId: AmfContextNon3gpp
  tags:
    - AMF Non-3GPP Access Registration (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:

```

```

    $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
  - name: supported-features
    in: query
    description: Features required to be supported by the target NF
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  requestBody:
    content:
      application/json-patch+json:
        schema:
          type: array
          items:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'
    required: true
  responses:
    '204':
      description: Expected response to a valid request
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchResult'
    '403':
      description: modification is rejected
      content:
        application/problem+json:
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/context-data/smf-registrations:
  get:
    summary: Retrieves the SMF registration list of a UE
    operationId: QuerySmfRegList
    tags:
      - SMF Registrations (Collection)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: supported-features
        in: query
        description: Supported Features
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    responses:
      '200':
        description: Expected response to a valid request
        content:
          application/json:
            schema:
              $ref: '#/components/schemas/SmfRegList'
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/context-data/smf-registrations/{pduSessionId}:
  get:
    summary: Retrieves the individual SMF registration of a UE
    operationId: QuerySmfRegistration
    tags:
      - SMF Registration (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: pduSessionId
        in: path
        description: PDU session id
        required: true
        schema:

```

```

    $ref: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
  - name: fields
    in: query
    description: attributes to be retrieved
    required: false
    schema:
      type: array
      items:
        type: string
      minItems: 1
    style: form
    explode: false
  - name: supported-features
    in: query
    description: Supported Features
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
responses:
  '200':
    description: Expected response to a valid request
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/SmfRegistration'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

put:
  summary: To create an individual SMF context data of a UE in the UDR
  operationId: CreateOrUpdateSmfRegistration
  tags:
    - SMF Registration (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: pduSessionId
      in: path
      description: PDU session id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
  requestBody:
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/SmfRegistration'
    required: true
  responses:
    '201':
      description: Upon success, a response body containing a representation of the created
      Individual SmfRegistration resource shall be returned
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/SmfRegistration'
      headers:
        Location:
          description: 'Contains the URI of the newly created resource, according to the
      structure: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/smf-
      registrations/{pduSessionId}'
          required: true
          schema:
            type: string
    '204':
      description: No content
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

delete:
  summary: To remove an individual SMF context data of a UE the UDR
  operationId: DeleteSmfRegistration
  tags:
    - SMF Registration (Document)
  parameters:

```

```

- name: ueId
  in: path
  description: UE id
  required: true
  schema:
    $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
- name: pduSessionId
  in: path
  description: PDU session id
  required: true
  schema:
    $ref: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
responses:
  '204':
    description: Upon success, an empty response body shall be returned.
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

```

/subscription-data/{ueId}/operator-specific-data:

get:

summary: Retrieves the operator specific data of a UE

operationId: QueryOperSpecData

tags:

- Operator-Specific Data Container (Document)

parameters:

- name: ueId

in: path

description: UE id

required: true

schema:

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

- name: fields

in: query

description: attributes to be retrieved

required: false

schema:

type: array

items:

type: string

minItems: 1

style: form

explode: false

- name: supported-features

in: query

description: Supported Features

schema:

\$ref: '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: object

additionalProperties:

\$ref: '#/components/schemas/OperatorSpecificDataContainer'

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
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

  patch:
    summary: To modify operator specific data of a UE
    operationId: ModifyOperSpecData
    tags:
      - Operator-Specific Data Container (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: supported-features
        in: query
        description: Features required to be supported by the target NF
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    requestBody:
      content:
        application/json-patch+json:
          schema:
            type: array
            items:
              $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'
          required: true
    responses:
      '204':
        description: Expected response to a valid request
      '200':
        description: Expected response to a valid request
        content:
          application/json:
            schema:
              $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchResult'
      '403':
        description: modification is rejected
        content:
          application/problem+json:
            schema:
              $ref: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/context-data/smsf-3gpp-access:
  put:
    summary: Create the SMSF context data of a UE via 3GPP access
    operationId: CreateSmsfContext3gpp
    tags:
      - SMSF 3GPP Registration (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    requestBody:
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/SmsfRegistration'
          required: true
    responses:
      '204':
        description: Upon success, an empty response body shall be returned
      '201':
        description: Created
        content:
          application/json:
            schema:
              $ref: '#/components/schemas/SmsfRegistration'
    headers:
      Location:

```

```

        description: 'Contains the URI of the newly created resource, according to the
structure: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/smsf-3gpp-access'
        required: true
        schema:
            type: string
    default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

delete:
    summary: To remove the SMSF context data of a UE via 3GPP access
    operationId: DeleteSmsfContext3gpp
    tags:
        - SMSF 3GPP Registration (Document)
    parameters:
        - name: ueId
          in: path
          description: UE id
          required: true
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    responses:
        '204':
            description: Upon success, an empty response body shall be returned
    default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

get:
    summary: Retrieves the SMSF context data of a UE using 3gpp access
    operationId: QuerySmsfContext3gpp
    tags:
        - SMSF 3GPP Registration (Document)
    parameters:
        - name: ueId
          in: path
          description: UE id
          required: true
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
        - name: fields
          in: query
          description: attributes to be retrieved
          required: false
          schema:
            type: array
            items:
                type: string
            minItems: 1
          style: form
          explode: false
        - name: supported-features
          in: query
          description: Supported Features
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    responses:
        '200':
            description: Expected response to a valid request
            content:
                application/json:
                    schema:
                        $ref: '#/components/schemas/SmsfRegistration'
    default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/context-data/smsf-non-3gpp-access:
    put:
        summary: Create the SMSF context data of a UE via non-3GPP access
        operationId: CreateSmsfContextNon3gpp
        tags:
            - SMSF Non-3GPP Registration (Document)
        parameters:
            - name: ueId
              in: path
              description: UE id
              required: true
              schema:
                $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
        requestBody:

```

```

content:
  application/json:
    schema:
      $ref: '#/components/schemas/SmsfRegistration'
  required: true
responses:
  '204':
    description: Upon success, an empty response body shall be returned
  '201':
    description: Created
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/SmsfRegistration'
    headers:
      Location:
        description: 'Contains the URI of the newly created resource, according to the
structure: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/smsf-non-3gpp-
access'
        required: true
        schema:
          type: string
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

delete:
  summary: To remove the SMSF context data of a UE via non-3GPP access
  operationId: DeleteSmsfContextNon3gpp
  tags:
    - SMSF Non-3GPP Registration (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
  responses:
    '204':
      description: Upon success, an empty response body shall be returned
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

get:
  summary: Retrieves the SMSF context data of a UE using non-3gpp access
  operationId: QuerySmsfContextNon3gpp
  tags:
    - SMSF Non-3GPP Registration (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: fields
      in: query
      description: attributes to be retrieved
      required: false
      schema:
        type: array
        items:
          type: string
        minItems: 1
        style: form
        explode: false
    - name: supported-features
      in: query
      description: Supported Features
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  responses:
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/SmsfRegistration'

```



```
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'
/subscription-data/{ueId}/context-data/ip-sm-gw:
  put:
    summary: Create the IP-SM-GW context data of a UE
    operationId: CreateIpSmGwContext
    tags:
      - IP-SM-GW Registration (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    requestBody:
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/IpSmGwRegistration'
      required: true
    responses:
      '204':
        description: Upon success, an empty response body shall be returned
        default:
          $ref: 'TS29571_CommonData.yaml#/components/responses/default'

  delete:
    summary: To remove the IP-SM-GW context data of a UE
    operationId: DeleteIpSmGwContext
    tags:
      - IP-SM-GW Registration (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    responses:
      '204':
        description: Upon success, an empty response body shall be returned
        default:
          $ref: 'TS29571_CommonData.yaml#/components/responses/default'

  patch:
    summary: Modify the IP-SM-GW context data of a UE
    operationId: ModifyIpSmGwContext
    tags:
      - IP-SM-GW Registration (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    requestBody:
      content:
        application/json-patch+json:
          schema:
            type: array
            items:
              $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'
            minItems: 1
      required: true
    responses:
      '204':
        description: Successful response
      '403':
        $ref: 'TS29571_CommonData.yaml#/components/responses/403'
      '404':
        $ref: 'TS29571_CommonData.yaml#/components/responses/404'
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

  get:
```

```

summary: Retrieves the IP-SM-GW context data of a UE
operationId: QueryIpSmGwContext
tags:
  - IP-SM-GW Registration (Document)
parameters:
  - name: ueId
    in: path
    description: UE id
    required: true
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
  - name: fields
    in: query
    description: attributes to be retrieved
    required: false
    schema:
      type: array
      items:
        type: string
      minItems: 1
      style: form
      explode: false
  - name: supported-features
    in: query
    description: Supported Features
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
responses:
  '200':
    description: Expected response to a valid request
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/IpSmGwRegistration'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/context-data/mwd:
put:
  summary: Create the Message Waiting Data of the UE
  operationId: CreateMessageWaitingData
  tags:
    - Message Waiting Data (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
  requestBody:
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/MessageWaitingData'
    required: true
  responses:
    '204':
      description: Upon success, an empty response body shall be returned
    default:
      description: Unexpected error
delete:
  summary: To remove the Message Waiting Data of the UE
  operationId: DeleteMessageWaitingData
  tags:
    - Message Waiting Data (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
  responses:
    '204':
      description: Upon success, an empty response body shall be returned
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

```

```

patch:
  summary: Modify the Message Waiting Data of the UE
  operationId: ModifyMessageWaitingData
  tags:
    - Message Waiting Data (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
  requestBody:
    content:
      application/json-patch+json:
        schema:
          type: array
          items:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'
          minItems: 1
        required: true
  responses:
    '204':
      description: Successful response
    '403':
      $ref: 'TS29571_CommonData.yaml#/components/responses/403'
    '404':
      $ref: 'TS29571_CommonData.yaml#/components/responses/404'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

get:
  summary: Retrieves the Message Waiting Data of the UE
  operationId: QueryMessageWaitingData
  tags:
    - Message Waiting Data (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: fields
      in: query
      description: attributes to be retrieved
      required: false
      schema:
        type: array
        items:
          type: string
        minItems: 1
      style: form
      explode: false
    - name: supported-features
      in: query
      description: Supported Features
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  responses:
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/MessageWaitingData'
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/{servingPlmnId}/provisioned-data/sms-mng-data:
get:
  summary: Retrieves the SMS management subscription data of a UE
  operationId: QuerySmsMngData
  tags:
    - SMS Management Subscription Data (Document)
  parameters:
    - name: ueId

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    in: path
    description: UE id
    required: true
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
  - name: servingPlmnId
    in: path
    description: PLMN ID
    required: true
    schema:
      $ref: '#/components/schemas/VarPlmnId'
  - name: supported-features
    in: query
    description: Supported Features
    schema:
      $ref: '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:
          $ref: '#/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
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'
/subscription-data/{ueId}/{servingPlmnId}/provisioned-data/sms-data:
  get:
    summary: Retrieves the SMS subscription data of a UE
    operationId: QuerySmsData
    tags:
      - SMS Subscription Data (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: servingPlmnId
        in: path
        description: PLMN ID
        required: true
        schema:
          $ref: '#/components/schemas/VarPlmnId'
      - name: supported-features
        in: query
        description: Supported Features
        schema:
          $ref: '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:

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```

    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:
            $ref: '#/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
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/pp-data:
  get:
    summary: Read the profile of a given UE
    operationId: GetppData
    tags:
      - Parameter Provision (Document)
    parameters:
      - name: ueId
        in: path
        description: pp data for a UE
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: supported-features
        in: query
        description: Supported Features
        schema:
          $ref: '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:
              $ref: '#/components/schemas/PpData'
        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:

```

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    type: string
  '403':
    description: Forbidden
    content:
      application/problem+json:
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

patch:
  summary: modify the provisioned parameter data
  operationId: ModifyPpData
  tags:
    - ProvisionedParameterData (Document)
  parameters:
    - name: ueId
      in: path
      description: pp data for a UE
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: supported-features
      in: query
      description: Features required to be supported by the target NF
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  requestBody:
    content:
      application/json-patch+json:
        schema:
          type: array
          items:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'
    required: true
  responses:
    '204':
      description: Expected response to a valid request
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchResult'
    '403':
      description: modification is rejected
      content:
        application/problem+json:
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/pp-profile-data:
  get:
    summary: Retrieves the parameter provision profile data of a UE
    operationId: QueryPPData
    tags:
      - Parameter Provision profile Data (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: supported-features
        in: query
        description: Supported Features
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    responses:
      '200':
        description: Expected response to a valid request
        content:
          application/json:
            schema:
              $ref: '#/components/schemas/PpProfileData'

```

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    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'
  /subscription-data/{ueId}/context-data/ee-subscriptions:
    get:
      summary: Retrieves the ee subscriptions of a UE
      operationId: Queryeesubscriptions
      tags:
        - Event Exposure Subscriptions (Collection)
      parameters:
        - name: ueId
          in: path
          description: UE id
          required: true
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
        - name: supported-features
          in: query
          description: Supported Features
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
      responses:
        '200':
          description: Expected response to a valid request
          content:
            application/json:
              schema:
                type: array
                items:
                  $ref: '#/components/schemas/EeSubscription'
          default:
            $ref: 'TS29571_CommonData.yaml#/components/responses/default'
    post:
      summary: Create individual EE subscription
      operationId: CreateEesubscriptions
      tags:
        - Event Exposure Subscriptions (Collection)
      parameters:
        - name: ueId
          in: path
          description: UE ID
          required: true
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      requestBody:
        content:
          application/json:
            schema:
              $ref: '#/components/schemas/EeSubscription'
        required: true
      responses:
        '201':
          description: Expected response to a valid request
          content:
            application/json:
              schema:
                $ref: '#/components/schemas/EeSubscription'
          headers:
            Location:
              description: 'Contains the URI of the newly created resource, according to the
structure: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/ee-
subscriptions/{subsId}'
              required: true
              schema:
                type: string
          default:
            $ref: 'TS29571_CommonData.yaml#/components/responses/default'
  /subscription-data/{ueId}/context-data/ee-subscriptions/{subsId}:
    put:
      summary: Update an individual ee subscriptions of a UE
      operationId: UpdateEesubscriptions
      tags:
        - Event Exposure Subscription (Document)
      parameters:
        - name: ueId
          in: path

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```

    required: true
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
  - name: subsId
    in: path
    required: true
    schema:
      type: string
requestBody:
  content:
    application/json:
      schema:
        $ref: '#/components/schemas/EeSubscription'
  required: true
responses:
  '204':
    description: Upon success, an empty response body shall be returned
  '404':
    description: update of non-existing resource is rejected
    content:
      application/problem+json:
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

delete:
  summary: Deletes a eeSubscription
  operationId: RemoveeeSubscriptions
  tags:
    - Event Exposure Subscription (Document)
  parameters:
    - name: ueId
      in: path
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: subsId
      in: path
      required: true
      description: Unique ID of the subscription to remove
      schema:
        type: string
  responses:
    '204':
      description: Expected response to a successful subscription removal
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

patch:
  summary: Modify an individual ee subscription of a UE
  operationId: ModifyEesubscription
  tags:
    - Event Exposure Subscription (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: subsId
      in: path
      required: true
      schema:
        type: string
    - name: supported-features
      in: query
      description: Features required to be supported by the target NF
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  requestBody:
    content:
      application/json-patch+json:
        schema:
          type: array
          items:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'

```



```

        minItems: 1
        required: true
      responses:
        '204':
          description: Successful response
        '200':
          description: Expected response to a valid request
          content:
            application/json:
              schema:
                $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchResult'
        '403':
          $ref: 'TS29571_CommonData.yaml#/components/responses/403'
        '404':
          $ref: 'TS29571_CommonData.yaml#/components/responses/404'
        default:
          $ref: 'TS29571_CommonData.yaml#/components/responses/default'

    get:
      summary: Retrieve a eeSubscription
      operationId: QueryeeSubscription
      tags:
        - Event Exposure Subscription (Document)
      parameters:
        - name: ueId
          in: path
          required: true
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
        - name: subsId
          in: path
          required: true
          description: Unique ID of the subscription to remove
          schema:
            type: string
      responses:
        '200':
          description: Expected response to a valid request
          content:
            application/json:
              schema:
                items:
                  $ref: '#/components/schemas/EeSubscription'
        default:
          $ref: 'TS29571_CommonData.yaml#/components/responses/default'

  /subscription-data/{ueId}/context-data/ee-subscriptions/{subsId}/amf-subscriptions:
    put:
      summary: Create AmfSubscriptions for an individual ee subscriptions of a UE
      operationId: Create AMF Subscriptions
      tags:
        - AMF Subscription Info (Document)
      parameters:
        - name: ueId
          in: path
          required: true
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
        - name: subsId
          in: path
          required: true
          schema:
            type: string
      requestBody:
        content:
          application/json:
            schema:
              type: array
              items:
                $ref: '#/components/schemas/AmfSubscriptionInfo'
              minItems: 1
            required: true
      responses:
        '204':
          description: Upon success, an empty response body shall be returned
        default:
          $ref: 'TS29571_CommonData.yaml#/components/responses/default'

```

```

delete:
  summary: Deletes AMF Subscription Info for an eeSubscription
  operationId: RemoveAmfSubscriptionsInfo
  tags:
    - Event AMF Subscription Info (Document)
  parameters:
    - name: ueId
      in: path
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: subsId
      in: path
      required: true
      schema:
        type: string
  responses:
    '204':
      description: Expected response to a successful subscription removal
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

patch:
  summary: modify the AMF Subscription Info
  operationId: ModifyAmfSubscriptionInfo
  tags:
    - AmfSubscriptionInfo (Document)
  parameters:
    - name: ueId
      in: path
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: subsId
      in: path
      required: true
      schema:
        type: string
    - name: supported-features
      in: query
      description: Features required to be supported by the target NF
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  requestBody:
    content:
      application/json-patch+json:
        schema:
          type: array
          items:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'
        required: true
  responses:
    '204':
      description: Expected response to a valid request
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchResult'
    '403':
      description: modification is rejected
      content:
        application/problem+json:
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

get:
  summary: Retrieve AMF subscription Info
  operationId: GetAmfSubscriptionInfo
  tags:
    - Query AMF Subscription Info (Document)
  parameters:
    - name: ueId
      in: path
      required: true

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```

    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
  - name: subsId
    in: path
    required: true
    schema:
      type: string
responses:
  '200':
    description: OK
    content:
      application/json:
        schema:
          type: array
          items:
            $ref: '#/components/schemas/AmfSubscriptionInfo'
          minItems: 1
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'
/subscription-data/{ueId}/context-data/ee-subscriptions/{subsId}/smf-subscriptions:
  put:
    summary: Create SMF Subscription Info
    operationId: Create SMF Subscriptions
    tags:
      - SMF Event Subscription Info (Document)
    parameters:
      - name: ueId
        in: path
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: subsId
        in: path
        required: true
        schema:
          type: string
    requestBody:
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/SmfSubscriptionInfo'
      required: true
    responses:
      '204':
        description: Upon success, an empty response body shall be returned
        default:
          $ref: 'TS29571_CommonData.yaml#/components/responses/default'

  delete:
    summary: Delete SMF Subscription Info
    operationId: RemoveSmfSubscriptionsInfo
    tags:
      - SMF Event Subscription Info (Document)
    parameters:
      - name: ueId
        in: path
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: subsId
        in: path
        required: true
        schema:
          type: string
    responses:
      '204':
        description: Expected response to a successful subscription removal
        default:
          $ref: 'TS29571_CommonData.yaml#/components/responses/default'

  patch:
    summary: Modify SMF Subscription Info
    operationId: ModifySmfSubscriptionInfo
    tags:
      - SMF Event Subscription Info (Document)
    parameters:
      - name: ueId
        in: path

```

```

    required: true
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
  - name: subsId
    in: path
    required: true
    schema:
      type: string
  - name: supported-features
    in: query
    description: Features required to be supported by the target NF
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
requestBody:
  content:
    application/json-patch+json:
      schema:
        type: array
        items:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'
      required: true
responses:
  '204':
    description: Expected response to a valid request
  '200':
    description: Expected response to a valid request
    content:
      application/json:
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchResult'
  '403':
    description: modification is rejected
    content:
      application/problem+json:
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
default:
  $ref: 'TS29571_CommonData.yaml#/components/responses/default'

get:
  summary: Retrieve SMF Subscription Info
  operationId: GetSmfSubscriptionInfo
  tags:
    - SMF Event Subscription Info (Document)
  parameters:
    - name: ueId
      in: path
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: subsId
      in: path
      required: true
      schema:
        type: string
  responses:
    '200':
      description: OK
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/SmfSubscriptionInfo'
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/context-data/ee-subscriptions/{subsId}/hss-subscriptions:
  put:
    summary: Create HSS Subscription Info
    operationId: Create HSS Subscriptions
    tags:
      - HSS Event Subscription Info (Document)
    parameters:
      - name: ueId
        in: path
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: subsId

```

```

    in: path
    required: true
    schema:
      type: string
  requestBody:
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/HssSubscriptionInfo'
    required: true
  responses:
    '204':
      description: Upon success, an empty response body shall be returned
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

delete:
  summary: Delete HSS Subscription Info
  operationId: RemoveHssSubscriptionsInfo
  tags:
    - HSS Event Subscription Info (Document)
  parameters:
    - name: ueId
      in: path
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: subsId
      in: path
      required: true
      schema:
        type: string
  responses:
    '204':
      description: Expected response to a successful subscription removal
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

patch:
  summary: Modify HSS Subscription Info
  operationId: ModifyHssSubscriptionInfo
  tags:
    - HSS Event Subscription Info (Document)
  parameters:
    - name: ueId
      in: path
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: subsId
      in: path
      required: true
      schema:
        type: string
    - name: supported-features
      in: query
      description: Features required to be supported by the target NF
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  requestBody:
    content:
      application/json-patch+json:
        schema:
          type: array
          items:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'
    required: true
  responses:
    '204':
      description: Expected response to a valid request
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchResult'
    '403':
      description: modification is rejected

```

```

    content:
      application/problem+json:
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

get:
  summary: Retrieve HSS Subscription Info
  operationId: GetHssSubscriptionInfo
  tags:
    - HSS Event Subscription Info (Document)
  parameters:
    - name: ueId
      in: path
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: subsId
      in: path
      required: true
      schema:
        type: string
  responses:
    '200':
      description: OK
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/SmfSubscriptionInfo'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/group-data/{ueGroupId}/ee-subscriptions:
get:
  summary: Retrieves the ee subscriptions of a group of UEs or any UE
  operationId: QueryEeGroupSubscriptions
  tags:
    - Event Exposure Group Subscriptions (Collection)
  parameters:
    - name: ueGroupId
      in: path
      description: Group of UEs or any UE
      required: true
      schema:
        $ref: '#/components/schemas/VarUeGroupId'
    - name: supported-features
      in: query
      description: Supported Features
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  responses:
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            type: array
            items:
              $ref: '#/components/schemas/EeSubscription'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

post:
  summary: Create individual EE subscription for a group of UEs or any UE
  operationId: CreateEeGroupSubscriptions
  tags:
    - Event Exposure Group Subscriptions (Collection)
  parameters:
    - name: ueGroupId
      in: path
      description: Group of UEs or any UE
      required: true
      schema:
        $ref: '#/components/schemas/VarUeGroupId'
  requestBody:
    content:
      application/json:

```

```

    schema:
      $ref: '#/components/schemas/EeSubscription'
    required: true
  responses:
    '201':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/EeSubscription'
      headers:
        Location:
          description: 'Contains the URI of the newly created resource, according to the
structure: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/group-data/{ueGroupId}/ee-subscriptions'
          required: true
          schema:
            type: string
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/group-data/{ueGroupId}/ee-subscriptions/{subsId}:
  put:
    summary: Update an individual ee subscription of a group of UEs or any UE
    operationId: UpdateEeGroupSubscriptions
    tags:
      - Event Exposure Group Subscription (Document)
    parameters:
      - name: ueGroupId
        in: path
        required: true
        schema:
          $ref: '#/components/schemas/VarUeGroupId'
      - name: subsId
        in: path
        required: true
        schema:
          type: string
    requestBody:
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/EeSubscription'
      required: true
    responses:
      '204':
        description: Upon success, an empty response body shall be returned
      '404':
        description: update of non-existing resource is rejected
        content:
          application/problem+json:
            schema:
              $ref: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

delete:
  summary: Deletes a eeSubscription for a group of UEs or any UE
  operationId: RemoveEeGroupSubscriptions
  tags:
    - Event Exposure Group Subscription (Document)
  parameters:
    - name: ueGroupId
      in: path
      required: true
      schema:
        $ref: '#/components/schemas/VarUeGroupId'
    - name: subsId
      in: path
      required: true
      description: Unique ID of the subscription to remove
      schema:
        type: string
  responses:
    '204':
      description: Expected response to a successful subscription removal
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

```

```

patch:
  summary: Modify an individual ee subscription for a group of a UEs
  operationId: ModifyEeGroupSubscription
  tags:
    - Event Exposure Group Subscription (Document)
  parameters:
    - name: ueGroupId
      in: path
      required: true
      schema:
        $ref: '#/components/schemas/VarUeGroupId'
    - name: subsId
      in: path
      required: true
      schema:
        type: string
    - name: supported-features
      in: query
      description: Features required to be supported by the target NF
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  requestBody:
    content:
      application/json-patch+json:
        schema:
          type: array
          items:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'
          minItems: 1
        required: true
  responses:
    '204':
      description: Successful response
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchResult'
    '403':
      $ref: 'TS29571_CommonData.yaml#/components/responses/403'
    '404':
      $ref: 'TS29571_CommonData.yaml#/components/responses/404'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

get:
  summary: Retrieve a individual eeSubscription for a group of UEs or any UE
  operationId: QueryEeGroupSubscription
  tags:
    - Event Exposure Group Subscription (Document)
  parameters:
    - name: ueGroupId
      in: path
      required: true
      schema:
        $ref: '#/components/schemas/VarUeGroupId'
    - name: subsId
      in: path
      required: true
      description: Unique ID of the subscription to remove
      schema:
        type: string
  responses:
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            items:
              $ref: '#/components/schemas/EeSubscription'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/group-data/{ueGroupId}/ee-profile-data:
  get:
    summary: Retrieves the ee profile data profile data of a group or anyUE
    operationId: QueryGroupEEData

```



```

tags:
  - Event Exposure Data for a group (Document)
parameters:
  - name: ueGroupId
    in: path
    description: Group of UEs or any UE
    required: true
    schema:
      $ref: '#/components/schemas/VarUeGroupId'
  - name: supported-features
    in: query
    description: Supported Features
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
responses:
  '200':
    description: Expected response to a valid request
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/EeGroupProfileData'
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/ee-profile-data:
get:
  summary: Retrieves the ee profile data of a UE
  operationId: QueryEEData
  tags:
    - Event Exposure Data (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: fields
      in: query
      description: attributes to be retrieved
      required: false
      schema:
        type: array
        items:
          type: string
          style: form
          explode: false
    - name: supported-features
      in: query
      description: Supported Features
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  responses:
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/EeProfileData'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/context-data/sdm-subscriptions:
get:
  summary: Retrieves the sdm subscriptions of a UE
  operationId: Querysdmsubscriptions
  tags:
    - SDM Subscriptions (Collection)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: supported-features
      in: query
      description: Supported Features

```

```

    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  responses:
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            type: array
            items:
              $ref: '#/components/schemas/SdmSubscription'
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

post:
  summary: Create individual sdm subscription
  operationId: CreateSdmSubscriptions
  tags:
    - SDM Subscriptions (Collection)
  parameters:
    - name: ueId
      in: path
      description: UE ID
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
  requestBody:
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/SdmSubscription'
    required: true
  responses:
    '201':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/SdmSubscription'
      headers:
        Location:
          description: 'Contains the URI of the newly created resource, according to the
structure: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/{ueId}/context-data/sdm-
subscriptions/{subsId}'
          required: true
          schema:
            type: string
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/context-data/sdm-subscriptions/{subsId}:
  put:
    summary: Update an individual sdm subscriptions of a UE
    operationId: Updatesdmsubscriptions
    tags:
      - SDM Subscription (Document)
    parameters:
      - name: ueId
        in: path
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: subsId
        in: path
        required: true
        schema:
          type: string
    requestBody:
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/SdmSubscription'
      required: true
    responses:
      '204':
        description: Upon success, an empty response body shall be returned
      '404':
        description: update of non-existing resource is rejected

```

```
    content:
      application/problem+json:
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'
```

delete:

- summary: Deletes a sdmsubscriptions
- operationId: RemovesdmSubscriptions
- tags:
  - SDM Subscription (Document)
- parameters:
  - name: ueId
    - in: path
    - required: true
    - schema:
      - \$ref: 'TS29571\_CommonData.yaml#/components/schemas/VarUeId'
  - name: subsId
    - in: path
    - required: true
    - description: Unique ID of the subscription to remove
    - schema:
      - type: string
- responses:
  - '204':
    - description: Expected response to a successful subscription removal
  - '404':
    - \$ref: 'TS29571\_CommonData.yaml#/components/responses/404'
  - default:
    - \$ref: 'TS29571\_CommonData.yaml#/components/responses/default'

patch:

- summary: Modify an individual sdm subscription
- operationId: ModifysdmSubscription
- tags:
  - SDM Subscription (Document)
- parameters:
  - name: ueId
    - in: path
    - description: UE id
    - required: true
    - schema:
      - \$ref: 'TS29571\_CommonData.yaml#/components/schemas/VarUeId'
  - name: subsId
    - in: path
    - required: true
    - schema:
      - type: string
  - name: supported-features
    - in: query
    - description: Features required to be supported by the target NF
    - schema:
      - \$ref: 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'
- requestBody:
  - content:
    - application/json-patch+json:
      - schema:
        - type: array
        - items:
          - \$ref: 'TS29571\_CommonData.yaml#/components/schemas/PatchItem'
        - minItems: 1
  - required: true
- responses:
  - '204':
    - description: Successful response
  - '200':
    - description: Expected response to a valid request
    - content:
      - application/json:
        - schema:
          - \$ref: 'TS29571\_CommonData.yaml#/components/schemas/PatchResult'
  - '403':
    - \$ref: 'TS29571\_CommonData.yaml#/components/responses/403'
  - '404':
    - \$ref: 'TS29571\_CommonData.yaml#/components/responses/404'
  - default:
    - \$ref: 'TS29571\_CommonData.yaml#/components/responses/default'

```

get:
  summary: Retrieves a individual sdmSubscription identified by subsId
  operationId: QuerysdmSubscription
  tags:
    - SDM Subscription (Document)
  parameters:
    - name: ueId
      in: path
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: subsId
      in: path
      required: true
      description: Unique ID of the subscription to retrieve
      schema:
        type: string
  responses:
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            items:
              $ref: '#/components/schemas/SdmSubscription'
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/context-data/sdm-subscriptions/{subsId}/hss-sdm-subscriptions:
put:
  summary: Create HSS SDM Subscription Info
  operationId: Create HSS SDM Subscriptions
  tags:
    - HSS SDM Subscription Info (Document)
  parameters:
    - name: ueId
      in: path
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: subsId
      in: path
      required: true
      schema:
        type: string
  requestBody:
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/HssSubscriptionInfo'
        required: true
  responses:
    '204':
      description: Upon success, an empty response body shall be returned
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

delete:
  summary: Delete HSS SDM Subscription Info
  operationId: RemoveHssSDMSubscriptionsInfo
  tags:
    - HSS SDM Subscription Info (Document)
  parameters:
    - name: ueId
      in: path
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: subsId
      in: path
      required: true
      schema:
        type: string
  responses:
    '204':
      description: Expected response to a successful subscription removal
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

```

```

patch:
  summary: Modify HSS SDM Subscription Info
  operationId: ModifyHssSDMSubscriptionInfo
  tags:
    - HSS SDM Subscription Info (Document)
  parameters:
    - name: ueId
      in: path
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: subsId
      in: path
      required: true
      schema:
        type: string
    - name: supported-features
      in: query
      description: Features required to be supported by the target NF
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  requestBody:
    content:
      application/json-patch+json:
        schema:
          type: array
          items:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'
        required: true
  responses:
    '204':
      description: Expected response to a valid request
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchResult'
    '403':
      description: modification is rejected
      content:
        application/problem+json:
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'
get:
  summary: Retrieve HSS SDM Subscription Info
  operationId: GetHssSDMSubscriptionInfo
  tags:
    - HSS SDM Subscription Info (Document)
  parameters:
    - name: ueId
      in: path
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: subsId
      in: path
      required: true
      schema:
        type: string
  responses:
    '200':
      description: OK
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/SmfSubscriptionInfo'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/shared-data:
  get:
    summary: retrieve shared data
    operationId: GetSharedData
    tags:
      - Retrieval of shared data

```

```

parameters:
  - name: shared-data-ids
    in: query
    description: List of shared data ids
    required: true
    style: form
    explode: false
    schema:
      $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/SharedDataIds'
  - name: supported-features
    in: query
    description: Supported Features
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
responses:
  '200':
    description: Expected response to a valid request
    content:
      application/json:
        schema:
          type: array
          items:
            $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/SharedData'
          minItems: 1
  '400':
    $ref: 'TS29571_CommonData.yaml#/components/responses/400'
  '404':
    $ref: 'TS29571_CommonData.yaml#/components/responses/404'
  '500':
    $ref: 'TS29571_CommonData.yaml#/components/responses/500'
  '503':
    $ref: 'TS29571_CommonData.yaml#/components/responses/503'
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

```

```

/subscription-data/shared-data/{sharedDataId}:

```

```

get:
  summary: retrieve individual shared data
  operationId: GetIndividualSharedData
  tags:
    - Retrieval of individual shared data
  parameters:
    - 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
    - name: sharedDataId
      in: path
      description: Id of the Shared Data
      required: true
      schema:
        $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/SharedDataId'
  responses:
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/SharedData'
      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
          schema:

```

7232, 2.2

```

        type: string
    '400':
        $ref: 'TS29571_CommonData.yaml#/components/responses/400'
    '404':
        $ref: 'TS29571_CommonData.yaml#/components/responses/404'
    '500':
        $ref: 'TS29571_CommonData.yaml#/components/responses/500'
    '503':
        $ref: 'TS29571_CommonData.yaml#/components/responses/503'
    default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/subs-to-notify:
  post:
    summary: Subscription data subscriptions
    operationId: SubscriptionDataSubscriptions
    tags:
      - Subs To Notify (Collection)
    requestBody:
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/SubscriptionDataSubscriptions'
          required: true
    responses:
      '201':
        description: Expected response to a valid request
        content:
          application/json:
            schema:
              $ref: '#/components/schemas/SubscriptionDataSubscriptions'
        headers:
          Location:
            description: 'Contains the URI of the newly created resource, according to the
structure: {apiRoot}/nudr-dr/<apiVersion>/subscription-data/subs-to-notify/{subsId}'
            required: true
            schema:
              type: string
        default:
          $ref: 'TS29571_CommonData.yaml#/components/responses/default'
    callbacks:
      onDataChange:
        '{request.body#/callbackReference}':
          post:
            requestBody:
              required: true
              content:
                application/json:
                  schema:
                    $ref: '#/components/schemas/DataChangeNotify'
            responses:
              '204':
                description: Expected response to a valid request

  get:
    summary: Retrieves the list of subscriptions
    operationId: QuerySubsToNotify
    tags:
      - Subs To Notify (Collection)
    parameters:
      - name: ue-id
        in: query
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: supported-features
        in: query
        description: Supported Features
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    responses:
      '200':
        description: Expected response to a valid request
        content:
          application/json:
            schema:
              type: array

```

```

        items:
          $ref: '#/components/schemas/SubscriptionDataSubscriptions'
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

delete:
  summary: Deletes subscriptions identified by a given ue-id parameter
  operationId: RemoveMultipleSubscriptionDataSubscriptions
  tags:
    - Subs To Notify (Collection)
  parameters:
    - name: ue-id
      in: query
      required: true
      description: UE ID
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: nf-instance-id
      in: query
      required: false
      description: NF Instance ID
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    - name: delete-all-nfs
      in: query
      required: false
      description: Flag to delete subscriptions from all NFs
      schema:
        type: boolean
    - name: implicit-unsubscribe-indication
      in: query
      required: false
      description: Implicit Unsubscribe Indication
      schema:
        type: boolean
  responses:
    '204':
      description: Expected response to a successful subscription removal
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/subs-to-notify/{subsId}:
delete:
  summary: Deletes a subscriptionDataSubscriptions
  operationId: RemovesubscriptionDataSubscriptions
  tags:
    - Subs To Notify (Document)
  parameters:
    - name: subsId
      in: path
      required: true
      description: Unique ID of the subscription to remove
      schema:
        type: string
  responses:
    '204':
      description: Expected response to a successful subscription removal
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

patch:
  summary: Modify an individual subscriptionDataSubscription
  operationId: ModifysubscriptionDataSubscription
  tags:
    - Subs To Notify (Document)
  parameters:
    - name: subsId
      in: path
      required: true
      schema:
        type: string
    - name: supported-features
      in: query
      description: Features required to be supported by the target NF
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  requestBody:
    content:

```



```

    application/json-patch+json:
      schema:
        type: array
        items:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'
        minItems: 1
      required: true
    responses:
      '204':
        description: Successful response
      '200':
        description: Expected response to a valid request
        content:
          application/json:
            schema:
              $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchResult'
      '403':
        $ref: 'TS29571_CommonData.yaml#/components/responses/403'
      '404':
        $ref: 'TS29571_CommonData.yaml#/components/responses/404'
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

get:
  summary: Retrieves a individual subscriptionDataSubscription identified by subsId
  operationId: QuerySubscriptionDataSubscriptions
  tags:
    - Subs To Notify (Document)
  parameters:
    - name: subsId
      in: path
      required: true
      description: Unique ID of the subscription to retrieve
      schema:
        type: string
  responses:
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            items:
              $ref: '#/components/schemas/SubscriptionDataSubscriptions'
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/{servingPlmnId}/provisioned-data/trace-data:
get:
  summary: Retrieves the trace configuration data of a UE
  operationId: QueryTraceData
  tags:
    - Trace Data (Document)
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: servingPlmnId
      in: path
      description: PLMN ID
      required: true
      schema:
        $ref: '#/components/schemas/VarPlmnId'
    - 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

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content:
  application/json:
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
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
default:
  $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/identity-data:
get:
  summary: Retrieve identity data by SUPI or GPSI
  operationId: GetIdentityData
  tags:
    - Query Identity Data by SUPI or GPSI (Document)
  parameters:
    - name: ueId
      in: path
      description: UE ID
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: app-port-id
      in: query
      description: Application port identifier
      content:
        application/json:
          schema:
            $ref: 'TS29503_Nudm_SDM.yaml#/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: OK
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/IdentityData'
  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
default:
  $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/operator-determined-barring-data:
get:
  summary: Retrieve ODB Data data by SUPI or GPSI

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    operationId: GetOdbData
    tags:
      - Query ODB Data by SUPI or GPSI (Document)
    parameters:
      - name: ueId
        in: path
        description: UE ID
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    responses:
      '200':
        description: OK
        content:
          application/json:
            schema:
              $ref: 'TS29571_CommonData.yaml#/components/schemas/OdbData'
        default:
          $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/context-data:
  get:
    summary: Retrieve multiple context data sets of a UE
    operationId: QueryContextData
    tags:
      - Context Data (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: context-dataset-names
        in: query
        description: List of context dataset names
        style: form
        explode: false
        required: true
        schema:
          $ref: '#/components/schemas/ContextDatasetNames'
    responses:
      '200':
        description: Expected response to a valid request
        content:
          application/json:
            schema:
              $ref: '#/components/schemas/ContextDataSets'
        default:
          $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/group-data/group-identifiers:
  get:
    summary: Mapping of Group Identifiers
    operationId: GetGroupIdentifiers
    tags:
      - Group Identifiers
    parameters:
      - name: ext-group-id
        in: query
        description: External Group Identifier
        required: false
        schema:
          $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/ExtGroupId'
      - name: int-group-id
        in: query
        description: Internal Group Identifier
        required: false
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/GroupId'
      - name: ue-id-ind
        in: query
        description: Indication whether UE identifiers are required or not
        required: false
        schema:
          type: boolean
          default: false
      - name: supported-features

```

```

    in: query
    description: Supported Features
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  responses:
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/GroupIdentifiers'
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/group-data/5g-vn-groups:
  get:
    summary: Retrieves the data of a 5G VN Group
    operationId: Query5GVnGroup
    tags:
      - 5G-VN-Groups (Store)
    parameters:
      - name: gpsis
        in: query
        description: List of GPSIs
        schema:
          type: array
          items:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
        style: form
        explode: false
    responses:
      '200':
        description: Expected response to a valid request
        content:
          application/json:
            schema:
              type: object
              description: A map(list of key-value pairs) where ExtGroupId serves as key
              additionalProperties:
                $ref: 'TS29503_Nudm_PP.yaml#/components/schemas/5GVnGroupConfiguration'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/group-data/5g-vn-groups/{externalGroupId}:
  put:
    summary: Create an individual 5G VN Group
    operationId: Create5GVnGroup
    tags:
      - 5GVnGroupConfiguration (Document)
    parameters:
      - name: externalGroupId
        in: path
        required: true
        schema:
          $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/ExtGroupId'
    requestBody:
      content:
        application/json:
          schema:
            $ref: 'TS29503_Nudm_PP.yaml#/components/schemas/5GVnGroupConfiguration'
      required: true
    responses:
      '201':
        description: Expected response to a valid request
        content:
          application/json:
            schema:
              $ref: 'TS29503_Nudm_PP.yaml#/components/schemas/5GVnGroupConfiguration'
      '403':
        $ref: 'TS29571_CommonData.yaml#/components/responses/403'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

  delete:
    summary: Deletes the 5GVnGroup
    operationId: Delete5GVnGroup
    tags:
      - Delete 5GVnGroup

```

```

parameters:
  - name: externalGroupId
    in: path
    required: true
    schema:
      $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/ExtGroupId'
responses:
  '204':
    description: Expected response to a successful group removal
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

patch:
  summary: modify the 5GVnGroup
  operationId: Modify5GVnGroup
  tags:
    - Modify 5GVnGroup
  parameters:
    - name: externalGroupId
      in: path
      required: true
      schema:
        $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/ExtGroupId'
    - name: supported-features
      in: query
      description: Features required to be supported by the target NF
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  requestBody:
    content:
      application/json-patch+json:
        schema:
          type: array
          items:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchItem'
        required: true
  responses:
    '204':
      description: Expected response to a valid request
    '200':
      description: Expected response to a valid request
      content:
        application/json:
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/PatchResult'
    '403':
      description: modification is rejected
      content:
        application/problem+json:
          schema:
            $ref: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

get:
  summary: Retrieve a 5GVnGroup configuration
  operationId: Get5GVnGroupConfiguration
  tags:
    - Query 5GVnGroupConfiguration (Document)
  parameters:
    - name: externalGroupId
      in: path
      required: true
      schema:
        $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/ExtGroupId'
  responses:
    '200':
      description: OK
      content:
        application/json:
          schema:
            $ref: 'TS29503_Nudm_PP.yaml#/components/schemas/5GVnGroupConfiguration'
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/lcs-privacy-data:
get:
  summary: Retrieves the LCS Privacy subscription data of a UE

```

```

operationId: QueryLcsPrivacyData
tags:
  - LCS Privacy Subscription Data
parameters:
  - name: ueId
    in: path
    description: UE id
    required: true
    schema:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
  - name: fields
    in: query
    description: attributes to be retrieved
    required: false
    schema:
      type: array
      items:
        type: string
      minItems: 1
      style: form
      explode: false
  - name: supported-features
    in: query
    description: Supported Features
    schema:
      $ref: '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:
          $ref: '#/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
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'
/subscription-data/{ueId}/lcs-mo-data:
  get:
    summary: Retrieves the LCS Mobile Originated subscription data of a UE
    operationId: QueryLcsMoData
    tags:
      - LCS Mobile Originated Subscription Data
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: fields
        in: query
        description: attributes to be retrieved
        required: false
        schema:

```

```

    type: array
    items:
      type: string
    minItems: 1
    style: form
    explode: false
  - name: supported-features
    in: query
    description: Supported Features
    schema:
      $ref: '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:
          $ref: '#/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
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/nidd-authorization-data:
get:
  summary: Retrieve NIDD Authorization Data GPSI or External Group identifier
  operationId: GetNiddAuData
  tags:
    - Query NIDD Authorization Data GPSI or External Group identifier (Document)
  parameters:
    - name: ueId
      in: path
      description: UE ID
      required: true
      schema:
        type: string
        pattern: '^(msisdn-[0-9]{5,15}|.+|extid-[^@]+@[^@]+|extgroupid-[^@]+@[^@]+)$'
    - name: single-nssai
      in: query
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/VarSnssai'
      description: single NSSAI
      required: true
    - name: dnn
      in: query
      description: DNN
      required: true
      schema:
        $ref: '#/components/schemas/Dnn'
    - name: mtc-provider-information
      in: query
      description: MTC Provider Information
      required: true
      schema:

```

```

    $ref: 'TS29571_CommonData.yaml#/components/schemas/MtcProviderInformation'
  - 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: OK
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/AuthorizationData'
    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
    default:
      $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/coverage-restriction-data:
get:
  summary: Retrieves the subscribed enhanced Coverage Restriction Data of a UE
  operationId: QueryCoverageRestrictionData
  tags:
    - Enhanced Coverage Restriction Data
  parameters:
    - name: ueId
      in: path
      description: UE id
      required: true
      schema:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    - name: supported-features
      in: query
      description: Supported Features
      schema:
        $ref: '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: OK
      content:
        application/json:
          schema:
            $ref: '#/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:

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```

        type: string
      Last-Modified:
        description: Timestamp for last modification of the resource, as described in RFC
7232, 2.2
        schema:
          type: string
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/context-data/location:
  get:
    summary: Retrieves the UE's Location Information
    operationId: QueryUeLocation
    tags:
      - UE's Location Information (Document)
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: supported-features
        in: query
        description: Supported Features
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    responses:
      '200':
        description: Expected response to a valid request
        content:
          application/json:
            schema:
              $ref: '#/components/schemas/LocationInfo'
        default:
          $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/v2x-data:
  get:
    summary: Retrieves the subscribed V2X Data of a UE
    operationId: QueryV2xData
    tags:
      - V2X Subscription Data
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: supported-features
        in: query
        description: Supported Features
        schema:
          $ref: '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: OK
        content:
          application/json:
            schema:
              $ref: '#/components/schemas/V2xSubscriptionData'
    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
      default:
        $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/{ueId}/{servingPlmnId}/provisioned-data/lcs-bca-data:
  get:
    summary: Retrieves the LCS Broadcast Assistance subscription data of a UE
    operationId: QueryLcsBcaData
    tags:
      - LCS Broadcast Assistance Subscription Data
    parameters:
      - name: ueId
        in: path
        description: UE id
        required: true
        schema:
          $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
      - name: servingPlmnId
        in: path
        description: PLMN ID
        required: true
        schema:
          $ref: '#/components/schemas/VarPlmnId'
      - name: supported-features
        in: query
        description: Supported Features
        schema:
          $ref: '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:
              $ref: '#/components/schemas/LcsBroadcastAssistanceTypesData'
        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
      default:
        description: Unexpected error
        content:
          application/problem+json:
            schema:
              $ref: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'

/subscription-data/group-data/5g-vn-groups/internal:
  get:
    summary: Retrieves the data of 5G VN Group
    operationId: Query5GVnGroupInternal
    tags:

```

```

- 5G-VN-Groups-Internal (Document)
parameters:
- name: internal-group-ids
  in: query
  description: List of Internal Group IDs
  required: true
  schema:
    type: array
    items:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/GroupId'
  style: form
  explode: false
responses:
'200':
  description: Expected response to a valid request
  content:
    application/json:
      schema:
        type: object
        description: A map (list of key-value pairs) where ExtGroupId serves as key
        additionalProperties:
          $ref: 'TS29503_Nudm_PP.yaml#/components/schemas/5GVnGroupConfiguration'
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

/subscription-data/group-data/5g-vn-groups/pp-profile-data:
get:
  summary: Retrieves the parameter provision profile data for 5G VN Group
  operationId: Query5GVNGroupPPData
  tags:
  - Parameter Provision profile Data for 5G VN Group(Document)
parameters:
- name: ext-group-ids
  in: query
  description: List of external VN group identifiers
  schema:
    type: array
    items:
      $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/ExtGroupId'
    minItems: 1
  style: form
  explode: false
- name: supported-features
  in: query
  description: Supported Features
  schema:
    $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
responses:
'200':
  description: Expected response to a valid request
  content:
    application/json:
      schema:
        $ref: '#/components/schemas/Pp5gVnGroupProfileData'
  default:
    $ref: 'TS29571_CommonData.yaml#/components/responses/default'

components:
schemas:
  AuthenticationSubscription:
    type: object
    required:
    - authenticationMethod
  properties:
    authenticationMethod:
      $ref: '#/components/schemas/AuthMethod'
    encPermanentKey:
      type: string
    protectionParameterId:
      type: string
    sequenceNumber:
      $ref: '#/components/schemas/SequenceNumber'
    authenticationManagementField:
      type: string
      pattern: '^[A-Za-f0-9]{4}$'
    algorithmId:
      type: string
    encOpcKey:

```

```

    type: string
  encTopcKey:
    type: string
  vectorGenerationInHss:
    type: boolean
    default: false
  n5gcAuthMethod:
    $ref: '#/components/schemas/AuthMethod'
  rgAuthenticationInd:
    type: boolean
    default: false
  supi:
    $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
SequenceNumber:
  type: object
  properties:
    sqnScheme:
      $ref: '#/components/schemas/SqnScheme'
    sqn:
      type: string
      pattern: '^[A-Za-f0-9]{12}$'
    lastIndexes:
      type: object
      additionalProperties:
        type: integer
        minimum: 0
    indLength:
      type: integer
      minimum: 0
    difSign:
      $ref: '#/components/schemas/Sign'

SqnScheme:
  anyOf:
    - type: string
      enum:
        - GENERAL
        - NON_TIME_BASED
        - TIME_BASED
    - type: string
Sign:
  type: string
  enum:
    - POSITIVE
    - NEGATIVE
VarPlmnId:
  type: string
  pattern: '^[0-9]{5,6}$'
DatasetNames:
  type: array
  items:
    $ref: '#/components/schemas/DataSetName'
  minItems: 1
  uniqueItems: true
DataSetName:
  anyOf:
    - type: string
      enum:
        - AM
        - SMF_SEL
        - SMS_SUB
        - SM
        - TRACE
        - SMS_MNG
        - LCS_PRIVACY
        - LCS_MO
        - LCS_BCA
        - V2X
    - type: string
ProvisionedDataSets:
  type: object
  properties:
    amData:
      $ref: '#/components/schemas/AccessAndMobilitySubscriptionData'
    smfSelData:
      $ref: '#/components/schemas/SmfSelectionSubscriptionData'
    smsSubsData:
      $ref: '#/components/schemas/SmsSubscriptionData'

```

```

smData:
  type: array
  items:
    $ref: '#/components/schemas/SessionManagementSubscriptionData'
traceData:
  $ref: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
smsMngData:
  $ref: '#/components/schemas/SmsManagementSubscriptionData'
lcsPrivacyData:
  $ref: '#/components/schemas/LcsPrivacyData'
lcsMoData:
  $ref: '#/components/schemas/LcsMoData'
lcsBcaData:
  $ref: '#/components/schemas/LcsBroadcastAssistanceTypesData'
v2xData:
  $ref: '#/components/schemas/V2xSubscriptionData'
AccessAndMobilitySubscriptionData:
  $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/AccessAndMobilitySubscriptionData'
SmfSelectionSubscriptionData:
  $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/SmfSelectionSubscriptionData'
VarSnsai:
  $ref: 'TS29571_CommonData.yaml#/components/schemas/Snsai'
Dnn:
  $ref: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
SessionManagementSubscriptionData:
  $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/SessionManagementSubscriptionData'
Amf3GppAccessRegistration:
  $ref: 'TS29503_Nudm_UECM.yaml#/components/schemas/Amf3GppAccessRegistration'
AmfNon3GppAccessRegistration:
  $ref: 'TS29503_Nudm_UECM.yaml#/components/schemas/AmfNon3GppAccessRegistration'
SmfRegistration:
  $ref: 'TS29503_Nudm_UECM.yaml#/components/schemas/SmfRegistration'
SmsfRegistration:
  $ref: 'TS29503_Nudm_UECM.yaml#/components/schemas/SmsfRegistration'
LocationInfo:
  $ref: 'TS29503_Nudm_UECM.yaml#/components/schemas/LocationInfo'
SmsManagementSubscriptionData:
  $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/SmsManagementSubscriptionData'
SmsSubscriptionData:
  $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/SmsSubscriptionData'
LcsPrivacyData:
  $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/LcsPrivacyData'
LcsMoData:
  $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/LcsMoData'
AuthorizationData:
  $ref: 'TS29503_Nudm_NIDDAU.yaml#/components/schemas/AuthorizationData'
EnhancedCoverageRestrictionData:
  $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/EnhancedCoverageRestrictionData'
V2xSubscriptionData:
  $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/V2xSubscriptionData'
LcsBroadcastAssistanceTypesData:
  $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/LcsBroadcastAssistanceTypesData'
OperatorSpecificDataContainer:
  type: object
  required:
    - dataType
    - value
  properties:
    dataType:
      type: string
      enum:
        - string
        - integer
        - number
        - boolean
        - object
    dataTypeDefinition:
      type: string
  value:
    oneOf:
      - type: string
      - type: integer
      - type: number
      - type: boolean
      - type: object
  supportedFeatures:
    $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
AuthMethod:

```

```

anyOf:
  - type: string
    enum:
      - 5G_AKA
      - EAP_AKA_PRIME
      - EAP_TLS
  - type: string
PpData:
  $ref: 'TS29503_Nudm_PP.yaml#/components/schemas/PpData'
EeSubscription:
  $ref: 'TS29503_Nudm_EE.yaml#/components/schemas/EeSubscription'
VarUeGroupId:
  type: string
  pattern: '^(extgroupid-[^@]+@[^@]+|anyUE)$'
SdmSubscription:
  $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/SdmSubscription'
SmfRegList:
  type: array
  items:
    $ref: '#/components/schemas/SmfRegistration'
SubscriptionDataSubscriptions:
  type: object
  required:
    - monitoredResourceUris
    - callbackReference
  properties:
    ueId:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    callbackReference:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    originalCallbackReference:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    monitoredResourceUris:
      type: array
      items:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    expiry:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
    sdmSubscription:
      $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/SdmSubscription'
    subscriptionId:
      type: string
    uniqueSubscription:
      type: boolean
    supportedFeatures:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
DataChangeNotify:
  type: object
  properties:
    originalCallbackReference:
      type: array
      items:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/Uri'
      minItems: 1
    ueId:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
    notifyItems:
      type: array
      items:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/NotifyItem'
      minItems: 1
    sdmSubscription:
      $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/SdmSubscription'
    additionalSdmSubscriptions:
      type: array
      items:
        $ref: 'TS29503_Nudm_SDM.yaml#/components/schemas/SdmSubscription'
      minItems: 1
    subscriptionDataSubscriptions:
      type: array
      items:
        $ref: '#/components/schemas/SubscriptionDataSubscriptions'

IdentityData:
  type: object
  properties:
    supiList:
      type: array

```

```
    items:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/Supi'
    minItems: 1
  gpsiList:
    type: array
    items:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
    minItems: 1
SorData:
  type: object
  properties:
    provisioningTime:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
    ueUpdateStatus:
      $ref: '#/components/schemas/UeUpdateStatus'
    sorXmacIue:
      $ref: 'TS29509_Nausf_SorProtection.yaml#/components/schemas/SorMac'
    sorMacIue:
      $ref: 'TS29509_Nausf_SorProtection.yaml#/components/schemas/SorMac'
  required:
  - provisioningTime
  - ueUpdateStatus

UpuData:
  type: object
  properties:
    provisioningTime:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
    ueUpdateStatus:
      $ref: '#/components/schemas/UeUpdateStatus'
    upuXmacIue:
      $ref: 'TS29509_Nausf_UPUProtection.yaml#/components/schemas/UpuMac'
    upuMacIue:
      $ref: 'TS29509_Nausf_UPUProtection.yaml#/components/schemas/UpuMac'
  required:
  - provisioningTime
  - ueUpdateStatus

NssaiAckData:
  type: object
  properties:
    provisioningTime:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
    ueUpdateStatus:
      $ref: '#/components/schemas/UeUpdateStatus'
  required:
  - provisioningTime
  - ueUpdateStatus

CagAckData:
  type: object
  properties:
    provisioningTime:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
    ueUpdateStatus:
      $ref: '#/components/schemas/UeUpdateStatus'
  required:
  - provisioningTime
  - ueUpdateStatus

UeUpdateStatus:
  type: string
  enum:
  - NOT_SENT
  - SENT_NO_ACK_REQUIRED
  - WAITING_FOR_ACK
  - ACK_RECEIVED
  - NEGATIVE_ACK_RECEIVED

EeProfileData:
  type: object
  properties:
    restrictedEventTypes:
      type: array
      items:
        $ref: 'TS29503_Nudm_EE.yaml#/components/schemas/EventType'
    supportedFeatures:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
```

```

    allowedMtcProvider:
      description: A map (list of key-value pairs where EventType serves as key) of MTC provider
        lists. In addition to defined EventTypes, the key value "ALL" may be used to identify a map entry
        which contains a list of MtcProviders that are allowed monitoring all Event Types.
      type: object
      additionalProperties:
        type: array
        items:
          $ref: '#/components/schemas/MtcProvider'
      minItems: 1
      minProperties: 1
  AmfSubscriptionInfo:
    type: object
    required:
      - amfInstanceId
      - subscriptionId
    properties:
      amfInstanceId:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
      subscriptionId:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/Uri'
      subsChangeNotifyCorrelationId:
        type: string
  ContextDatasetNames:
    type: array
    items:
      $ref: '#/components/schemas/ContextDataSetName'
    minItems: 2
    uniqueItems: true
  ContextDataSetName:
    anyOf:
      - type: string
        enum:
          - AMF_3GPP
          - AMF_NON_3GPP
          - SDM_SUBSCRIPTIONS
          - EE_SUBSCRIPTIONS
          - SMSF_3GPP
          - SMSF_NON_3GPP
          - SUBS_TO_NOTIFY
          - SMF_REG
          - IP_SM_GW
      - type: string
  ContextDataSets:
    type: object
    properties:
      amf3Gpp:
        $ref: '#/components/schemas/Amf3GppAccessRegistration'
      amfNon3Gpp:
        $ref: '#/components/schemas/AmfNon3GppAccessRegistration'
      sdmSubscriptions:
        type: array
        items:
          $ref: '#/components/schemas/SdmSubscription'
        minItems: 1
      eeSubscriptions:
        type: array
        items:
          $ref: '#/components/schemas/EeSubscription'
        minItems: 1
      smsf3GppAccess:
        $ref: '#/components/schemas/SmsfRegistration'
      smsfNon3GppAccess:
        $ref: '#/components/schemas/SmsfRegistration'
      subscriptionDataSubscriptions:
        type: array
        items:
          $ref: '#/components/schemas/SubscriptionDataSubscriptions'
        minItems: 1
      smfRegistrations:
        $ref: '#/components/schemas/SmfRegList'
      ipSmGw:
        $ref: '#/components/schemas/IpSmGwRegistration'

  IpSmGwRegistration:
    $ref: 'TS29503_Nudm_UECM.yaml#/components/schemas/IpSmGwRegistration'

  MessageWaitingData:

```



```
type: object
properties:
  mwdList:
    type: array
    items:
      $ref: '#/components/schemas/SmscData'
    minItems: 1

SmscData:
  type: object
  anyOf:
    - required: [ smscMapAddress ]
    - required: [ smscDiameterAddress ]
  properties:
    smscMapAddress:
      $ref: 'TS29503_Nudm_UECM.yaml#/components/schemas/E164Number'
    smscDiameterAddress:
      $ref: 'TS29503_Nudm_UECM.yaml#/components/schemas/NetworkNodeDiameterAddress'

SmfSubscriptionInfo:
  description: Information related to active subscriptions at the SMF(s)
  type: object
  required:
    - smfSubscriptionList
  properties:
    smfSubscriptionList:
      type: array
      items:
        $ref: '#/components/schemas/SmfSubscriptionItem'
      minItems: 1

SmfSubscriptionItem:
  description: Contains info about a single SMF event subscription
  type: object
  required:
    - smfInstanceId
    - subscriptionId
  properties:
    smfInstanceId:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    subscriptionId:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/Uri'

MtcProvider:
  type: object
  properties:
    mtcProviderInformation:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/MtcProviderInformation'
    afId:
      type: string

HssSubscriptionInfo:
  description: Information related to active subscriptions at the HSS(s)
  type: object
  required:
    - hssSubscriptionList
  properties:
    hssSubscriptionList:
      type: array
      items:
        $ref: '#/components/schemas/HssSubscriptionItem'
      minItems: 1

HssSubscriptionItem:
  description: Contains info about a single HSS event subscription
  type: object
  required:
    - hssInstanceId
    - subscriptionId
  properties:
    hssInstanceId:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    subscriptionId:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/Uri'

EeGroupProfileData:
  type: object
  properties:
```

```

restrictedEventTypes:
  type: array
  items:
    $ref: 'TS29503_Nudm_EE.yaml#/components/schemas/EventType'
allowedMtcProvider:
  description: A map (list of key-value pairs where EventType serves as key) of MTC provider
lists. In addition to defined EventTypes, the key value "ALL" may be used to identify a map entry
which contains a list of MtcProviders that are allowed monitoring all Event Types.
  type: object
  additionalProperties:
    type: array
    items:
      $ref: '#/components/schemas/MtcProvider'
    minItems: 1
  minProperties: 1
  supportedFeatures:
    $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'

Pp5gVnGroupProfileData:
  type: object
  properties:
    allowedMtcProviders:
      description: A map (list of key-value pairs where external VN group identifier serves as
key) of AllowedMtcProviderInfo lists. In addition to defined external VN group identifier, the key
value "ALL" may be used to identify a map entry which contains a list of AllowedMtcProviderInfo that
are allowed operating all the external group identifiers.
      type: object
      additionalProperties:
        type: array
        items:
          $ref: '#/components/schemas/AllowedMtcProviderInfo'
        minItems: 1
      minProperties: 1
      supportedFeatures:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'

PpProfileData:
  type: object
  properties:
    allowedMtcProviders:
      description: A map (list of key-value pairs where PpDataType serves as key) of
AllowedMtcProviderInfo lists. In addition to defined PpDataType, the key value "ALL" may be used to
identify a map entry which contains a list of AllowedMtcProviderInfo that are allowed to provision
all types of the PP data for the user using UDM ParameterProvision service.
      type: object
      additionalProperties:
        type: array
        items:
          $ref: '#/components/schemas/AllowedMtcProviderInfo'
        minItems: 1
      minProperties: 1
      supportedFeatures:
        $ref: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'

AllowedMtcProviderInfo:
  type: object
  properties:
    mtcProviderInformation:
      $ref: 'TS29571_CommonData.yaml#/components/schemas/MtcProviderInformation'
    afId:
      type: string

PpDataType:
  anyOf:
  - type: string
    enum:
    - COMMUNICATION_CHARACTERISTICS
    - EXPECTED_UE_BEHAVIOUR
    - EC_RESTRICTION
    - ACS_INFO
    - TRACE
    - STN_SR
    - LCS_PRIVACY
    - SOR_INFO
  - type: string

```

## Annex B (informative): Change history

| Change history |         |           |      |     |     |                                                                                   |             |
|----------------|---------|-----------|------|-----|-----|-----------------------------------------------------------------------------------|-------------|
| Date           | Meeting | TDoc      | CR   | Rev | Cat | Subject/Comment                                                                   | New version |
| 2018-01        | CT4#82  |           |      |     |     | TS skeleton of Usage of the Unified Data Repository service for Subscription Data | 0.0.0       |
| 2018-01        | CT4#82  | C4-181397 |      |     |     | Version after CT4#82 including agreed pCRs                                        | 0.1.0       |
| 2018-03        | CT4#83  | C4-182442 |      |     |     | Version after CT4#83 including agreed pCRs                                        | 0.2.0       |
| 2018-04        | CT4#84  | C4-183523 |      |     |     | Version after CT4#84 including agreed pCRs                                        | 0.3.0       |
| 2018-05        | CT4#85  | C4-184638 |      |     |     | Version after CT4#85 including agreed pCRs                                        | 0.4.0       |
| 2018-06        | CT#80   | CP-181103 |      |     |     | Presented for information and approval                                            | 1.0.0       |
| 2018-06        | CT#80   |           |      |     |     | Approved in CT#80.                                                                | 15.0.0      |
| 2018-09        | CT#81   | CP-182058 | 0004 | -   | F   | Path Segment Correction                                                           | 15.1.0      |
| 2018-09        | CT#81   | CP-182058 | 0005 | -   | F   | URI variables for the Resource OperatorSpecificData                               | 15.1.0      |
| 2018-09        | CT#81   | CP-182058 | 0008 | -   | F   | Formatting of query parameter                                                     | 15.1.0      |
| 2018-09        | CT#81   | CP-182212 | 0009 | 2   | B   | PATCH method for ProvisionedParameterData                                         | 15.1.0      |
| 2018-09        | CT#81   | CP-182058 | 0010 | -   | F   | JSON structure in query and missing data type reference                           | 15.1.0      |
| 2018-09        | CT#81   | CP-182058 | 0014 | -   | F   | Description of Structured data types                                              | 15.1.0      |
| 2018-09        | CT#81   | CP-182058 | 0016 | -   | F   | Implicit Subscriptions                                                            | 15.1.0      |
| 2018-09        | CT#81   | CP-182058 | 0011 | 1   | F   | Align security and servers clause in openAPI                                      | 15.1.0      |
| 2018-09        | CT#81   | CP-182058 | 0013 | 1   | F   | VarUeId used in TS 29.505                                                         | 15.1.0      |
| 2018-09        | CT#81   | CP-182058 | 0012 | 2   | F   | OpenAPI schema for SubscriptionData                                               | 15.1.0      |
| 2018-09        | CT#81   | CP-182058 | 0018 | 1   | F   | Supported Features Negotiation                                                    | 15.1.0      |
| 2018-09        | CT#81   | CP-182041 | 0015 | 1   | B   | Nudr Id Translation                                                               | 15.1.0      |
| 2018-09        | CT#81   | CP-182043 | 0001 | 2   | B   | Add support for 5G Trace to Nudr                                                  | 15.1.0      |
| 2018-12        | CT#82   | CP-183016 | 0026 | -   | F   | Corrections in Query Parameters                                                   | 15.2.0      |
| 2018-12        | CT#82   | CP-183016 | 0030 | -   | F   | 29505 CR data change notification data type                                       | 15.2.0      |
| 2018-12        | CT#82   | CP-183016 | 0021 | 1   | F   | Pattern correction                                                                | 15.2.0      |
| 2018-12        | CT#82   | CP-183016 | 0022 | 1   | F   | Session Management Subscription Data                                              | 15.2.0      |
| 2018-12        | CT#82   | CP-183016 | 0019 | 1   | F   | Shared Data                                                                       | 15.2.0      |
| 2018-12        | CT#82   | CP-183016 | 0029 | 1   | F   | 29505 CR cardinality                                                              | 15.2.0      |
| 2018-12        | CT#82   | CP-183016 | 0025 | 2   | F   | Clarification of contents of SUPI list                                            | 15.2.0      |
| 2018-12        | CT#82   | CP-183016 | 0032 | -   | F   | Cache control and conditional request header addition                             | 15.2.0      |
| 2018-12        | CT#82   | CP-183016 | 0024 | 3   | F   | Introduction of Barring of Roaming in 5GC                                         | 15.2.0      |
| 2018-12        | CT#82   | CP-183016 | 0037 | 1   | F   | Session Management Subscription Data                                              | 15.2.0      |
| 2018-12        | CT#82   | CP-183016 | 0039 | 1   | F   | Authorized Event Types                                                            | 15.2.0      |
| 2018-12        | CT#82   | CP-183016 | 0040 | 1   | F   | Group Subscriptions                                                               | 15.2.0      |
| 2018-12        | CT#82   | CP-183016 | 0041 | 1   | F   | Location header in 201 response                                                   | 15.2.0      |
| 2018-12        | CT#82   | CP-183016 | 0038 | 2   | F   | Active AmfSubscriptions storage                                                   | 15.2.0      |
| 2018-12        | CT#82   | CP-183016 | 0036 | 2   | F   | lifetime of subscription                                                          | 15.2.0      |
| 2018-12        | CT#82   | CP-183158 | 0028 | 3   | F   | Definition of Authentication Data for steering of roaming                         | 15.2.0      |
| 2018-12        | CT#82   | CP-183159 | 0027 | 4   | F   | Definition of Authentication Status                                               | 15.2.0      |
| 2018-12        | CT#82   | CP-183160 | 0020 | 5   | F   | Definition of Authentication data                                                 | 15.2.0      |
| 2018-12        | CT#82   | CP-183187 | 0023 | 3   | F   | Get multiple datasets for ProvisionedData                                         | 15.2.0      |
| 2018-12        | CT#82   | CP-183249 | 0042 | -   | F   | Corrections on openAPI                                                            | 15.2.0      |
| 2019-03        | CT#83   | CP-190179 | 0043 |     | F   | CR 0019r1 was not correctly implemented                                           | 15.3.0      |
| 2019-03        | CT#83   | CP-190179 | 0044 |     | F   | CR 0020r5 was not correctly implemented                                           | 15.3.0      |
| 2019-03        | CT#83   | CP-190179 | 0045 |     | F   | CR 0021r1 was not correctly implemented                                           | 15.3.0      |
| 2019-03        | CT#83   | CP-190179 | 0046 |     | F   | CR 0023r3 was not correctly implemented                                           | 15.3.0      |
| 2019-03        | CT#83   | CP-190179 | 0047 |     | F   | CR 0038r2 was not correctly implemented                                           | 15.3.0      |
| 2019-03        | CT#83   | CP-190179 | 0048 |     | F   | CR 0039r1 was not correctly implemented                                           | 15.3.0      |
| 2019-03        | CT#83   | CP-190179 | 0049 |     | F   | CR 0040r1 was not correctly implemented                                           | 15.3.0      |
| 2019-03        | CT#83   | CP-190179 | 0050 |     | F   | Correction of annex B                                                             | 15.3.0      |
| 2019-03        | CT#83   | CP-190179 | 0052 | 2   | F   | Clarification on use of PUT                                                       | 15.3.0      |
| 2019-03        | CT#83   | CP-190179 | 0054 |     | F   | Missing Headlines                                                                 | 15.3.0      |
| 2019-03        | CT#83   | CP-190179 | 0055 | 2   | F   | Sequence Number                                                                   | 15.3.0      |
| 2019-03        | CT#83   | CP-190179 | 0056 | 1   | F   | Retrieval of multiple context data sets                                           | 15.3.0      |
| 2019-03        | CT#83   | CP-190179 | 0057 | 3   | F   | UDR Subscriptions                                                                 | 15.3.0      |
| 2019-03        | CT#83   | CP-190179 | 0058 | 1   | F   | Data Set Names in URI Query Parameters                                            | 15.3.0      |
| 2019-03        | CT#83   | CP-190179 | 0060 | 2   | F   | AuthenticationSubscription correction                                             | 15.3.0      |
| 2019-03        | CT#83   | CP-190179 | 0061 | 2   | F   | SOR data update status                                                            | 15.3.0      |
| 2019-03        | CT#83   | CP-190168 | 0062 | 1   | F   | 3GPP TS 29.505 API version update                                                 | 15.3.0      |
| 2019-06        | CT#84   | CP-191032 | 0065 |     | F   | CR 0049 was not correctly implemented                                             | 15.4.0      |
| 2019-06        | CT#84   | CP-191032 | 0066 |     | F   | CR 0050 was not correctly implemented                                             | 15.4.0      |
| 2019-06        | CT#84   | CP-191032 | 0067 |     | F   | CR 0054 was not correctly implemented                                             | 15.4.0      |

|         |         |           |      |   |   |                                                                       |        |
|---------|---------|-----------|------|---|---|-----------------------------------------------------------------------|--------|
| 2019-06 | CT#84   | CP-191032 | 0068 |   | F | CR 0056r1 was not correctly implemented                               | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0070 |   | F | Update of the SubstoNotify                                            | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0071 |   | F | Update of the EESubscription                                          | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0064 | 1 | F | Update Individual Subscription                                        | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0072 | 1 | F | missing enties of data type summary table                             | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0073 | 1 | F | correction on operationId                                             | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0074 | 1 | F | 404 error response                                                    | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0076 | 1 | F | Correct the GET Request Body of AmfNon3GppAccessRegistration resource | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0077 | 1 | F | Default Notification URI                                              | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0081 | 1 | F | OdbData Correction                                                    | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0086 | 2 | F | Storage of OpenAPI specification files                                | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0075 | 3 | F | CR 0062r1 was not correctly implemented                               | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0079 | 2 | F | Subscriptions Deletion                                                | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0087 |   | F | PduSessionId                                                          | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0063 | 2 | F | UE Parameter Update (UPU)                                             | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0078 | 2 | F | Group Identifier Translation                                          | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0080 | 2 | F | Authentication Subscription                                           | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0069 | 2 | F | CR 0062r1 was not correctly implemented                               | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0088 | 1 | F | Protection Parameter ID                                               | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0089 | 1 | F | Copyright Note in YAML file                                           | 15.4.0 |
| 2019-06 | CT#84   | CP-191032 | 0083 | 6 | F | SubscriptionDataSubscriptions identification                          | 15.4.0 |
| 2019-09 | CT#85   | CP-192229 | 0094 | 1 | B | Definition of OperatorSpecificDataContainer                           | 16.0.0 |
| 2019-09 | CT#85   | CP-192123 | 0100 | - | F | Missing supportedFeatures                                             | 16.0.0 |
| 2019-09 | CT#85   | CP-192123 | 0090 | 1 | B | Network Slicing Subscription Change                                   | 16.0.0 |
| 2019-09 | CT#85   | CP-192123 | 0098 | 1 | F | UDR Application Errors                                                | 16.0.0 |
| 2019-09 | CT#85   | CP-192123 | 0101 | 1 | B | Application errors for DELETE method                                  | 16.0.0 |
| 2019-09 | CT#85   | CP-192133 | 0095 | 1 | B | Closed Access Group                                                   | 16.0.0 |
| 2019-09 | CT#85   | CP-192027 | 0096 | 2 | B | VN-Group parameter provisioning                                       | 16.0.0 |
| 2019-09 | CT#85   | CP-192120 | 0104 | - | F | 3GPP TS 29.505 externalDoc correction                                 | 16.0.0 |
| 2019-10 |         |           |      |   |   | Corrupted references fixed                                            | 16.0.1 |
| 2019-12 | CT#86   | CP-193029 | 0108 |   | A | Monitored Resurce URI                                                 | 16.1.0 |
| 2019-12 | CT#86   | CP-193029 | 0263 | 1 | A | GroupIdentifier resource URI                                          | 16.1.0 |
| 2019-12 | CT#86   | CP-193049 | 0112 | 1 | B | Id translation for MSISDN-less MO SMS service                         | 16.1.0 |
| 2019-12 | CT#86   | CP-193278 | 0258 | 4 | B | NIDD Authorization Data                                               | 16.1.0 |
| 2019-12 | CT#86   | CP-193131 | 0257 | 1 | B | Authentication Subscription Data                                      | 16.1.0 |
| 2019-12 | CT#86   | CP-193055 | 0109 | 2 | B | LCS Private                                                           | 16.1.0 |
| 2019-12 | CT#86   | CP-193055 | 0110 | 3 | B | Mobile Originated Data                                                | 16.1.0 |
| 2019-12 | CT#86   | CP-193063 | 0105 | 1 | F | DataChangeNotify                                                      | 16.1.0 |
| 2019-12 | CT#86   | CP-193063 | 0106 | 1 | B | Patch Report                                                          | 16.1.0 |
| 2019-12 | CT#86   | CP-193063 | 0259 | 1 | B | Feature Negotiation for OperatorSpecificData resource                 | 16.1.0 |
| 2019-12 | CT#86   | CP-193124 | 0265 | - | F | externalDocs correction                                               | 16.1.0 |
| 2020-03 | CT#87   | CP-200018 | 0269 |   | B | Translation of Group Id to UE identifier list                         | 16.2.0 |
| 2020-03 | CT#87   | CP-200020 | 0271 | 1 | F | GET Method to subscriptions                                           | 16.2.0 |
| 2020-03 | CT#87   | CP-200020 | 0272 |   | F | Add SMFRegistration to ContextDataSet                                 | 16.2.0 |
| 2020-03 | CT#87   | CP-200020 | 0266 | 2 | F | AuthEvent deletion                                                    | 16.2.0 |
| 2020-03 | CT#87   | CP-200033 | 0267 | 1 | B | Retrieve the status of Enhanced Coverage Restriction                  | 16.2.0 |
| 2020-03 | CT#87   | CP-200020 | 0268 | 1 | B | 29505 CR optionality of ProblemDetails                                | 16.2.0 |
| 2020-03 | CT#87   | CP-200052 | 0273 |   | F | 3GPP TS 29.505 Rel16 External doc update                              | 16.2.0 |
| 2020-06 | CT#88-e | CP-201032 | 0275 |   | B | Location information retrieval for GMLC                               | 16.3.0 |
| 2020-06 | CT#88-e | CP-201032 | 0276 | 1 | B | Resource LcsPrivacySubscriptionData                                   | 16.3.0 |
| 2020-06 | CT#88-e | CP-201071 | 0281 |   | F | Storage of YAML files in ETSI Forge                                   | 16.3.0 |
| 2020-06 | CT#88-e | CP-201049 | 0283 |   | B | Correction on V2X Subscription data                                   | 16.3.0 |
| 2020-06 | CT#88-e | CP-201033 | 0285 |   | B | Auth Vector Generation for HSS                                        | 16.3.0 |
| 2020-06 | CT#88-e | CP-201034 | 0286 |   | B | Resource Level Authorization                                          | 16.3.0 |
| 2020-06 | CT#88-e | CP-201034 | 0282 | 1 | F | Authentication results for multiple registrations                     | 16.3.0 |
| 2020-06 | CT#88-e | CP-201032 | 0288 | 1 | F | Mobile Originated Data retrieval                                      | 16.3.0 |
| 2020-06 | CT#88-e | CP-201048 | 0280 | 1 | B | N5GC device Authentication                                            | 16.3.0 |
| 2020-06 | CT#88-e | CP-201033 | 0287 | 1 | B | Support of SMSoIP                                                     | 16.3.0 |
| 2020-06 | CT#88-e | CP-201073 | 0290 |   | F | 29.505 Rel16 External doc update                                      | 16.3.0 |
| 2020-06 | CT#88-e | CP-201021 | 0279 | 1 | A | Correction of PUT responses                                           | 16.3.0 |
| 2020-09 | CT#89-e | CP-202110 | 0291 |   | F | Security for Authentication Subscription Data                         | 16.4.0 |
| 2020-09 | CT#89-e | CP-202110 | 0294 |   | F | Corrections to default responses                                      | 16.4.0 |
| 2020-09 | CT#89-e | CP-202110 | 0295 |   | F | Corrections to the Event Group Subscription                           | 16.4.0 |
| 2020-09 | CT#89-e | CP-202112 | 0297 | 1 | F | Store Broadcast Location Assistance Data                              | 16.4.0 |
| 2020-09 | CT#89-e | CP-202110 | 0298 |   | F | Correct mismatches of definition between table and yaml               | 16.4.0 |

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| 2020-09 | CT#89-e | CP-202111 | 0299 |   | F | Incorrect index type                                          | 16.4.0  |
| 2020-09 | CT#89-e | CP-202096 | 0301 |   | F | API version and External doc update                           | 16.4.0  |
| 2020-12 | CT#90-e | CP-203048 | 0302 |   | F | Data Removal Notification                                     | 16.5.0  |
| 2020-12 | CT#90-e | CP-203039 | 0304 |   | F | Retrieval of SUPI from Authentication Data                    | 16.5.0  |
| 2020-12 | CT#90-e | CP-203048 | 0306 |   | F | Retrieve Context Data                                         | 16.5.0  |
| 2020-12 | CT#90-e | CP-203042 | 0308 | 1 | F | 5G VN Groups                                                  | 16.5.0  |
| 2020-12 | CT#90-e | CP-203039 | 0311 | 1 | F | Pattern alignment for ueld in resource URIs                   | 16.5.0  |
| 2020-12 | CT#90-e | CP-203035 | 0313 |   | F | Storage of YAML files in 3GPP Forge                           | 16.5.0  |
| 2020-12 | CT#90-e | CP-203048 | 0315 |   | F | Subs-To-Notify Tag Description                                | 16.5.0  |
| 2020-12 | CT#90-e | CP-203048 | 0317 |   | F | Snssai query parameter                                        | 16.5.0  |
| 2020-12 | CT#90-e | CP-203036 | 0319 |   | F | Rel16 External doc update                                     | 16.5.0  |
| 2021-03 | CT#91-e | CP-210043 | 0323 | 1 | F | Missing requestBody required indication in PUT operations     | 16.6.0  |
| 2021-03 | CT#91-e | CP-210048 | 0327 | 2 | F | Event Subscription Storage for SMF                            | 16.6.0  |
| 2021-03 | CT#91-e | CP-210054 | 0332 |   | F | 29.505 Rel-16 External doc update                             | 16.6.0  |
| 2021-06 | CT#92-e | CP-211064 | 0333 |   | F | Event subscription Storage for HSS                            | 16.7.0  |
| 2021-06 | CT#92-e | CP-211065 | 0342 |   | F | UPU and SOR negative ack                                      | 16.7.0  |
| 2021-06 | CT#92-e | CP-211065 | 0356 | 1 | F | Monitored Resource URI                                        | 16.7.0  |
| 2021-06 | CT#92-e | CP-211067 | 0335 |   | F | CR implementation error                                       | 16.7.0  |
| 2021-06 | CT#92-e | CP-211067 | 0336 |   | F | References                                                    | 16.7.0  |
| 2021-06 | CT#92-e | CP-211073 | 0362 |   | F | 29.505 Rel-16 External doc update                             | 16.7.0  |
| 2021-06 | CT#92-e | CP-211079 | 0353 |   | F | Subscribed PP profile data                                    | 16.7.0  |
| 2021-06 | CT#92-e | CP-211079 | 0359 |   | F | Subscribed EE profile data                                    | 16.7.0  |
| 2021-06 | CT#92-e | CP-211079 | 0351 | 1 | F | Subscribed PP profile data for 5g-VN-group                    | 16.7.0  |
| 2021-06 | CT#92-e | CP-211079 | 0349 | 2 | F | Subscribed EE profile data for a group                        | 16.7.0  |
| 2021-09 | CT#93-e | CP-212063 | 0365 |   | F | SDM subscription Storage for HSS                              | 16.8.0  |
| 2021-09 | CT#93-e | CP-212064 | 0386 | 1 | F | SharedDataId Resource                                         | 16.8.0  |
| 2021-09 | CT#93-e | CP-212080 | 0385 |   | F | 29.505 Rel-16 External doc update                             | 16.8.0  |
| 2021-12 | CT#94-e | CP-213088 | 0401 |   | F | Wrong "security" section in OpenAPI                           | 16.9.0  |
| 2021-12 | CT#94-e | CP-213088 | 0402 | 1 | F | Naming Convention                                             | 16.9.0  |
| 2021-12 | CT#94-e | CP-213146 | 0410 |   | F | 29.505 Rel-16 External doc update                             | 16.9.0  |
| 2022-03 | CT#95-e | CP-220026 | 0418 |   | F | Missing path parameter                                        | 16.10.0 |
| 2022-03 | CT#95-e | CP-220026 | 0422 |   | F | Chapter and OperationId Updates                               | 16.10.0 |
| 2022-03 | CT#95-e | CP-220026 | 0427 | 1 | F | One SDM Subscription                                          | 16.10.0 |
| 2022-03 | CT#95-e | CP-220067 | 0429 |   | F | 29.505 Rel-16 External doc update                             | 16.10.0 |
| 2022-09 | CT#97-e | CP-222059 | 0442 |   | F | Corrections on the Cardinality of map(5GVnGroupConfiguration) | 16.11.0 |

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# History

| <b>Document history</b> |                |             |
|-------------------------|----------------|-------------|
| V16.3.0                 | July 2020      | Publication |
| V16.4.0                 | November 2020  | Publication |
| V16.5.0                 | January 2021   | Publication |
| V16.6.0                 | April 2021     | Publication |
| V16.7.0                 | August 2021    | Publication |
| V16.8.0                 | September 2021 | Publication |
| V16.9.0                 | January 2022   | Publication |
| V16.10.0                | March 2022     | Publication |
| V16.11.0                | October 2022   | Publication |