**3GPP TSG-CT WG3 Meeting #108-eC3-201419**

[**E-Meeting**](https://www.3gpp.org/ftp/tsg_ct/WG3_interworking_ex-CN3/TSGC3_108_Sophia_Antipolis/)**, 19th -28th February 2020 (Revision of C3-201091)**

|  |
| --- |
| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **29.519** | **CR** | **0167** | **rev** | **-** | **Current version:** | **16.2.0** |  |
|  |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
|  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

|  |
| --- |
|  |
| ***Title:***  | Application Data Change Notification |
|  |  |
| ***Source to WG:*** | Huawei |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | en5GPccSer, 5WWC, xBDT |  | ***Date:*** | 2020-02-28 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-16 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)Rel-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
|  |  |
| ***Reason for change:*** | It was agreed that a general method shall be used for the application data change notification. |
|  |  |
| ***Summary of change:*** | We propose that this method can be used to notify the changes of the PFD data, IPTV Configuration Data, BDT Policy Data.In order to enable the deletion of the application data, the resource URI is included in the application data provisioned by the UDR. |
|  |  |
| ***Consequences if not approved:*** | The application data change can’t be notified to the PCF. |
|  |  |
| ***Clauses affected:*** | 6.2.13.3.2, 6.4.1, 6.4.2.2, 6.4.2.7, 6.4.2.9, 6.4.2.11, 6.4.2.12, A.3 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** | This CR introduces backward compatible feature into OpenAPI file of Nudrt\_DataRepository API for Application Data. |
|  |  |
| ***This CR's revision history:*** |  |

**Additional discussion(if needed):**

**…**

**Proposed changes:**

\*\*\* 1st Change \*\*\*

##### 6.2.13.3.2 GET

This method shall support the URI query parameters specified in table 6.2.13.3.2-1.

Table 6.2.13.3.2-1: URI query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| dnn | Dnn | O | 0..1 | Identifies a DNN. |
| snssai | Snssai | O | 0..1 | Identifies a slice. |
| internal-group-id | string | O | 0..1 | Identifies a group of users. |
| supi | Supi | O | 0..1 | Identifies a user. |
| appId | ApplicationId | O | 0..1 | Identifies an application. |
| data-inds | array(DataInd) | O | 0..1 | Each element indicates the data for query |
| NOTE: At least one of the above attribute shall be provided. |

This method shall support the request data structures specified in table 6.2.13.3.2-2 and the response data structures and response codes specified in table 6.2.13.3.2-3.

Table 6.2.13.3.2-2: Data structures supported by the GET Request Body on this resource

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

Table 6.2.13.3.2-3: Data structures supported by the GET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Responsecodes | Description |
| array(ApplicationDataSubs) | M | 0..N | 200 OK | The subscription information as request in the request URI query parameter(s) are returned. |
| NOTE: The mandatory HTTP error status codes for the GET method listed in table 5.2.7.1-1 of 3GPP TS 29.500 [4] also apply. |

\*\*\* Next Change \*\*\*

### 6.4.1 General

This subclause specifies the application data model supported by the API.

Table 6.4.1-1 specifies the data types defined for the Nudr\_DataRepository Service API for Application Data service based interface protocol.

Table 6.4.1-1: Nudr\_DataRepository specific Data Types for Application Data

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Section defined | Description | Applicability |
| ApplicationDataSubs | 6.4.2.10 | Contains application data subscription data. | EnhancedApplicationDataChangeNotification |
| ApplicationDataChangeNotif | 6.4.2.11 | Contains the new or updated application data or removed indication. | EnhancedApplicationDataChangeNotification |
| BdtPolicyData | 6.4.2.7 | Contains applied BDT policy data. | EnhancedBackgroundDataTransfer |
| BdtPolicyDataPatch | 6.4.2.8 | Contains modification instructions to be performed on the applied BDT policy data. | EnhancedBackgroundDataTransfer |
| IptvConfigData | 6.4.2.9 | Represents IPTV configuration data information. | IptvConfigData |
| PfdDataForAppExt | 6.4.2.6 | The PFDs and related data for the application |  |
| TrafficInfluData | 6.4.2.2 | Contains traffic influence data. |  |
| TrafficInfluDataPatch | 6.4.2.3 | Contains modification instructions to be performed on the traffic influence data. |  |
| TrafficInfluSub | 6.4.2.4 | Contains traffic influence subscription data. |  |

Table 6.4.1-2 specifies data types re-used by the Nudr\_DataRepository Service API for Application Data 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\_DataRepository Service API for Application Data service based interface.

Table 6.4.1-2: Nudr\_DataRepository re-used Data Types for Application Data

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Reference | Comments | Applicability |
| ApplicationId | 3GPP TS 29.571 [7] | Indicates an application identifier. |  |
| BdtReferenceId | 3GPP TS 29.122 [9] | Identifies a selected policy of background data transfer. | EnhancedBackgroundDataTransfer |
| DateTime | 3GPP TS 29.571 [7] | Indicates a date and time. |  |
| DnaiChangeType | 3GPP TS 29.571 [7] | Describes the types of DNAI change. |  |
| Dnn | 3GPP TS 29.571 [7] | Identifies a Data Network Name. |  |
| EthFlowDescription | 3GPP TS 29.514 [16] | Contains the Ethernet data flow information.(NOTE) |  |
| FlowInfo | 3GPP TS 29.122 [9] | Contains the flow information. |  |
| MulticastAccessControl | 3GPP TS 29.522 [19] | Represents the multicast access control information. |  |
| NetworkAreaInfo | 3GPP TS 29.554 [13] | Describes a network area information. |  |
| PfdChangeNotification | 3GPP TS 29.551 [8] | Describes the PFD change. |  |
| PfdChangeReport | 3GPP TS 29.551 [8] | Describes errors that can occur during the PFD update notification. |  |
| PfdDataForApp | 3GPP TS 29.551 [8] | Identifies the PFDs for one application identifier. |  |
| PfdSubscription | 3GPP TS 29.551 [8] | Identifies the PFDs for subscription. |  |
| RouteToLocation | 3GPP TS 29.571 [7] | Identifies the N6 traffic routing requirement. |  |
| Snssai | 3GPP TS 29.571 [7] | Identifies a Single Network Slice Selection Assistance Information. |  |
| SubscribedEvent | 3GPP TS 29.522 [19] | Identified the type of UP path management events of which the AF requests to be notified. |  |
| Supi | 3GPP TS 29.571 [7] | Identifies a SUPI that shall contain either an IMSI or an NAI. |  |
| SupportedFeatures | 3GPP TS 29.571 [7] | Used to negotiate the applicability of the optional features. |  |
| Uri | 3GPP TS 29.571 [7] | Identifies a URI. |  |
| NOTE: In order to support a set of MAC addresses with a specific range in the traffic filter, feature MacAddressRange as specified in clause 6.1.8 of TS 29.504 [6] shall be supported. |

\*\*\* Next Change \*\*\*

#### 6.4.2.7 Type BdtPolicyData

Table 6.4.2.7-1: Definition of type BdtPolicyData

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute name** | **Data type** | **P** | **Cardinality** | **Description** | **Applicability** |
| interGroupId | string | O | 0..1 | Identifies a group of users. (NOTE)  |  |
| supi | Supi | O | 0..1 | Identifies a user. (NOTE)  |  |
| bdfRefId | BdtReferenceId | M | 1 | Identifies a selected policy of background data transfer. |  |
| dnn | Dnn | O | 0..1 | Identifies a DNN |  |
| snssai | Snssai | O | 0..1 | The identification of slice. |  |
| bdtPolicyId | Uri | M | 1 | Represents the URI of Individual Applied BDT Policy Data. |  |
| NOTE: Either "supi" or "interGroupId" shall be included. |

\*\*\* Next Change \*\*\*

#### 6.4.2.9 Type IptvConfigData

Table 6.4.2.9-1: Definition of type IptvConfigData

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute name** | **Data type** | **P** | **Cardinality** | **Description** | **Applicability** |
| supi | Supi | C | 0..1 | Identifies a user. (NOTE) |  |
| interGroupId | string | C | 0..1 | Identifies a group of users. (NOTE) |  |
| dnn | Dnn | M | 1 | Identifies a DNN |  |
| snssai | Snssai | M | 1 | The identification of slice. |  |
| afAppId | string | M | 1 | Identifies an application. |  |
| multiAccCtrls | array(MulticastAccessControl) | M | 1..N | Identifies a list of multicast address access control information. |  |
| configurationId | Uri | M | 1 | Represents the URI of IndividualIptvConfiguration. |  |
| NOTE: Either "supi" or "interGroupId" shall be included.  |

Editor’s Note: It’s FFS whether other UE identifier (e.g. any UE indication) allowed to be included.

\*\*\* Next Change \*\*\*

#### 6.4.2.11 Type ApplicationDataChangeNotif

Table 6.4.2.11-1: Definition of type ApplicationDataChangeNotif

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| iptvConfigData | IptvConfigData | O | 0..1 | IPTV Configuration Data, if changed and notification was requested. |  |
| pfdData | PfdChangeNotification | O | 0..1 | PFD Data, if changed and notification was requested. |  |
| bdtPolicyData | BdtPolicyData | O | 0..1 | BDT Policy Data, if changed and notification was requested. |  |
| delResources | array(Uri) | O | 1..N | Identifies the resources if it was removed from UDR and notification on resource data change was requested.  |  |

\*\*\* Next Change \*\*\*

#### 6.4.2.12 Type DataFilter

Table 6.4.2.12-1: Definition of type DataFilter

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| dataInd | DataInd | M | 1 | Indicate the type of data. |
| dnns | array(Dnn) | O | 1..N | Each element identifies a DNN. |
| snssais | array(Snssai) | O | 1..N | Each element identifies a slice. |
| internalGroupIds | array(string) | O | 1..N | Each element identifies a group of users. |
| supis | array(Supi) | O | 1..N | Each element identifies the user. |
| appIds | array(ApplicationId) | O | 1..N | Each element identifies an application. |
| NOTE x1: At least one of "dnns", "snssais", "internalGroupIds", "supis" or "appId" attribute shall be provided.NOTE x2: The "dnns", "snssais", "internalGroupIds" and "supis" attributes are applicable to the BDT Policy Data, IPTV Configuration Data and "appIds" attribute is applicable to the PFD Data and IPTV Configuration Data. |

\*\*\* Next Change \*\*\*

# A.3 Nudr\_DataRepository API for Application 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 "TS29519\_Application\_Data.yaml".

openapi: 3.0.0

info:

 version: '-'

 title: Unified Data Repository Service API file for Application Data

 description: |

 The API version is defined in 3GPP TS 29.504

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externalDocs:

 description: 3GPP TS 29.519 V16.2.0; 5G System; Usage of the Unified Data Repository Service for Policy Data, Application Data and Structured Data for Exposure.

 url: 'http://www.3gpp.org/ftp/Specs/archive/29\_series/29.519/'

paths:

 /application-data/pfds:

 get:

 summary: Retrieve PFDs for application identifier(s)

 operationId: ReadPFDData

 tags:

 - PFD Data (Store)

 parameters:

 - name: appId

 in: query

 description: Contains the information of the application identifier(s) for the querying PFD Data resource. If none appId is included in the URI, it applies to all application identifier(s) for the querying PFD Data resource.

 required: false

 schema:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/ApplicationId'

 minItems: 1

 responses:

 '200':

 description: A representation of PFDs for request applications is returned.

 content:

 application/json:

 schema:

 type: array

 items:

 $ref: '#/components/schemas/PfdDataForAppExt'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '414':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/414'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /application-data/pfds/{appId}:

 get:

 summary: Retrieve the corresponding PFDs of the specified application identifier

 operationId: ReadIndividualPFDData

 tags:

 - Individual PFD Data (Document)

 parameters:

 - name: appId

 in: path

 description: Indicate the application identifier for the request pfd(s). It shall apply the format of Data type ApplicationId.

 required: true

 schema:

 type: string

 responses:

 '200':

 description: A representation of PFDs for the request application identified by the application identifier is returned.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/PfdDataForAppExt'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 delete:

 summary: Delete the corresponding PFDs of the specified application identifier

 operationId: DeleteIndividualPFDData

 tags:

 - Individual PFD Data (Document)

 parameters:

 - name: appId

 in: path

 description: Indicate the application identifier for the request pfd(s). It shall apply the format of Data type ApplicationId.

 required: true

 schema:

 type: string

 responses:

 '204':

 description: Successful case. The Individual PFD Data resource related to the application identifier was deleted.

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 put:

 summary: Create or update the corresponding PFDs for the specified application identifier

 operationId: CreateOrReplaceIndividualPFDData

 tags:

 - Individual PFD Data (Document)

 requestBody:

 required: true

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/PfdDataForAppExt'

 parameters:

 - name: appId

 in: path

 description: Indicate the application identifier for the request pfd(s). It shall apply the format of Data type ApplicationId.

 required: true

 schema:

 type: string

 responses:

 '201':

 description: The creation of an Individual PFD Data resource related to the application-identifier is confirmed and a representation of that resource is returned.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/PfdDataForAppExt'

 headers:

 Location:

 description: 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/nudr-dr/{apiVersion}/application-data/pfds/{appId}'

 required: true

 schema:

 type: string

 '200':

 description: Successful case. The upgrade of an Individual PFD Data resource related to the application identifier is confirmed and a representation of that resource is returned.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/PfdDataForAppExt'

 '204':

 description: No content

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '414':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/414'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /application-data/influenceData:

 get:

 summary: Retrieve Traffic Influence Data

 operationId: ReadInfluenceData

 tags:

 - Influence Data (Store)

 parameters:

 - name: influence-Ids

 in: query

 description: Each element identifies a service.

 required: false

 schema:

 type: array

 items:

 type: string

 minItems: 1

 - name: dnns

 in: query

 description: Each element identifies a DNN.

 required: false

 schema:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'

 minItems: 1

 - name: snssais

 in: query

 description: Each element identifies a slice.

 required: false

 content:

 application/json:

 schema:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Snssai'

 minItems: 1

 - name: internal-Group-Ids

 in: query

 description: Each element identifies a group of users.

 required: false

 schema:

 type: array

 items:

 type: string

 minItems: 1

 - name: supis

 in: query

 description: Each element identifies the user.

 required: false

 schema:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Supi'

 minItems: 1

 - name: supp-feat

 in: query

 description: Supported Features

 schema:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

 responses:

 '200':

 description: The Traffic Influence Data stored in the UDR are returned.

 content:

 application/json:

 schema:

 type: array

 items:

 $ref: '#/components/schemas/TrafficInfluData'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '414':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/414'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /application-data/influenceData/{influenceId}:

 put:

 summary: Create or update an individual Influence Data resource

 operationId: CreateOrReplaceIndividualInfluenceData

 tags:

 - Individual Influence Data (Document)

 requestBody:

 required: true

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/TrafficInfluData'

 parameters:

 - name: influenceId

 in: path

 description: The Identifier of an Individual Influence Data to be created or updated. It shall apply the format of Data type string.

 required: true

 schema:

 type: string

 responses:

 '201':

 description: The creation of an Individual Traffic Influence Data resource is confirmed and a representation of that resource is returned.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/TrafficInfluData'

 headers:

 Location:

 description: 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/nudr-dr/{apiVersion}/application-data/influenceData/{influenceId}'

 required: true

 schema:

 type: string

 '200':

 description: The update of an Individual Traffic Influence Data resource is confirmed and a response body containing Traffic Influence Data shall be returned.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/TrafficInfluData'

 '204':

 description: No content

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

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 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '414':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/414'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 patch:

 summary: Modify part of the properties of an individual Influence Data resource

 operationId: UpdateIndividualInfluenceData

 tags:

 - Individual Influence Data (Document)

 requestBody:

 required: true

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/TrafficInfluDataPatch'

 parameters:

 - name: influenceId

 in: path

 description: The Identifier of an Individual Influence Data to be updated. It shall apply the format of Data type string.

 required: true

 schema:

 type: string

 responses:

 '200':

 description: The update of an Individual Traffic Influence Data resource is confirmed and a response body containing Traffic Influence Data shall be returned.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/TrafficInfluData'

 '204':

 description: No content

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 delete:

 summary: Delete an individual Influence Data resource

 operationId: DeleteIndividualInfluenceData

 tags:

 - Individual Influence Data (Document)

 parameters:

 - name: influenceId

 in: path

 description: The Identifier of an Individual Influence Data to be updated. It shall apply the format of Data type string.

 required: true

 schema:

 type: string

 responses:

 '204':

 description: The Individual Influence Data was deleted successfully.

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /application-data/influenceData/subs-to-notify:

 post:

 summary: Create a new Individual Influence Data Subscription resource

 operationId: CreateIndividualInfluenceDataSubscription

 tags:

 - Influence Data Subscriptions (Collection)

 requestBody:

 required: true

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/TrafficInfluSub'

 responses:

 '201':

 description: The subscription was created successfully.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/TrafficInfluSub'

 headers:

 Location:

 description: 'Contains the URI of the newly created resource'

 required: true

 schema:

 type: string

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 callbacks:

 trafficInfluenceDataChangeNotification:

 '{$request.body#/notificationUri}':

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

 type: array

 items:

 $ref: '#/components/schemas/TrafficInfluData'

 minItems: 1

 responses:

 '204':

 description: No Content, Notification was successful

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '403':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 get:

 summary: Read Influence Data Subscriptions

 operationId: ReadInfluenceDataSubscriptions

 tags:

 - Influence Data Subscriptions (Collection)

 parameters:

 - name: dnn

 in: query

 description: Identifies a DNN.

 required: false

 schema:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'

 - name: snssai

 in: query

 description: Identifies a slice.

 required: false

 content:

 application/json:

 schema:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Snssai'

 - name: internal-Group-Id

 in: query

 description: Identifies a group of users.

 required: false

 schema:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/ExternalGroupId'

 - name: supi

 in: query

 description: Identifies a user.

 required: false

 schema:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Supi'

 responses:

 '200':

 description: The subscription information as request in the request URI query parameter(s) are returned.

 content:

 application/json:

 schema:

 type: array

 items:

 $ref: '#/components/schemas/TrafficInfluSub'

 minItems: 0

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '414':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/414'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /application-data/influenceData/subs-to-notify/{subscriptionId}:

 get:

 summary: Get an existing individual Influence Data Subscription resource

 operationId: ReadIndividualInfluenceDataSubscription

 tags:

 - Individual Influence Data Subscription (Document)

 parameters:

 - name: subscriptionId

 in: path

 description: String identifying a subscription to the Individual Influence Data Subscription

 required: true

 schema:

 type: string

 responses:

 '200':

 description: The subscription information is returned.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/TrafficInfluSub'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '414':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/414'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 put:

 summary: Modify an existing individual Influence Data Subscription resource

 operationId: ReplaceIndividualInfluenceDataSubscription

 tags:

 - Individual Influence Data Subscription (Document)

 requestBody:

 required: true

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/TrafficInfluSub'

 parameters:

 - name: subscriptionId

 in: path

 description: String identifying a subscription to the Individual Influence Data Subscription

 required: true

 schema:

 type: string

 responses:

 '200':

 description: The subscription was updated successfully.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/TrafficInfluSub'

 '204':

 description: No content

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 delete:

 summary: Delete an individual Influence Data Subscription resource

 operationId: DeleteIndividualInfluenceDataSubscription

 tags:

 - Individual Influence Data Subscription (Document)

 parameters:

 - name: subscriptionId

 in: path

 description: String identifying a subscription to the Individual Influence Data Subscription

 required: true

 schema:

 type: string

 responses:

 '204':

 description: The subscription was terminated successfully.

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /application-data/bdtPolicyData:

 get:

 summary: Retrieve applied BDT Policy Data

 operationId: ReadBdtPolicyData

 tags:

 - BdtPolicy Data (Store)

 parameters:

 - name: bdt-policy-ids

 in: query

 description: Each element identifies a service.

 required: false

 schema:

 type: array

 items:

 type: string

 minItems: 1

 - name: internal-group-ids

 in: query

 description: Each element identifies a group of users.

 required: false

 schema:

 type: array

 items:

 type: string

 minItems: 1

 - name: supis

 in: query

 description: Each element identifies the user.

 required: false

 schema:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Supi'

 minItems: 1

 responses:

 '200':

 description: The applied BDT policy Data stored in the UDR are returned.

 content:

 application/json:

 schema:

 type: array

 items:

 $ref: '#/components/schemas/BdtPolicyData'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '414':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/414'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /application-data/bdtPolicyData/{bdtPolicyId}:

 put:

 summary: Create an individual applied BDT Policy Data resource

 operationId: CreateIndividualAppliedBdtPolicyData

 tags:

 - Individual BDT Policy Data (Document)

 requestBody:

 required: true

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/BdtPolicyData'

 parameters:

 - name: bdtPolicyId

 in: path

 description: The Identifier of an Individual Applied BDT Policy Data to be created or updated. It shall apply the format of Data type string.

 required: true

 schema:

 type: string

 responses:

 '201':

 description: The creation of an Individual Applied BDT Policy Data resource is confirmed and a representation of that resource is returned.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/BdtPolicyData'

 headers:

 Location:

 description: 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/nudr-dr/{apiVersion}/application-data/bdtPolicyData/{bdtPolicyId}'

 required: true

 schema:

 type: string

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '414':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/414'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 patch:

 summary: Modify part of the properties of an individual Applied BDT Policy Data resource

 operationId: UpdateIndividualAppliedBdtPolicyData

 tags:

 - Individual Applied BDT Policy Data (Document)

 requestBody:

 required: true

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/BdtPolicyDataPatch'

 parameters:

 - name: bdtPolicyId

 in: path

 description: The Identifier of an Individual Applied BDT Policy Data to be updated. It shall apply the format of Data type string.

 required: true

 schema:

 type: string

 responses:

 '200':

 description: The update of an Individual Applied BDT Policy Data resource is confirmed and a response body containing Applied BDT Policy Data shall be returned.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/BdtPolicyData'

 '204':

 description: No content

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 delete:

 summary: Delete an individual Applied BDT Policy Data resource

 operationId: DeleteIndividualAppliedBdtPolicyData

 tags:

 - Individual Applied BDT Policy Data (Document)

 parameters:

 - name: bdtPolicyId

 in: path

 description: The Identifier of an Individual Applied BDT Policy Data to be updated. It shall apply the format of Data type string.

 required: true

 schema:

 type: string

 responses:

 '204':

 description: The Individual Applied BDT Policy Data was deleted successfully.

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /application-data/iptvConfigData:

 get:

 summary: Retrieve IPTV configuration Data

 operationId: ReadIPTVCongifurationData

 tags:

 - IPTV Configuration Data (Store)

 parameters:

 - name: config-ids

 in: query

 description: Each element identifies a configuration.

 required: false

 schema:

 type: array

 items:

 type: string

 minItems: 1

 - name: dnns

 in: query

 description: Each element identifies a DNN.

 required: false

 schema:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'

 minItems: 1

 - name: snssais

 in: query

 description: Each element identifies a slice.

 required: false

 content:

 application/json:

 schema:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Snssai'

 minItems: 1

 - name: supis

 in: query

 description: Each element identifies the user.

 required: false

 schema:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Supi'

 minItems: 1

 - name: inter-group-ids

 in: query

 description: Each element identifies a group of users.

 required: false

 schema:

 type: array

 items:

 type: string

 minItems: 1

 responses:

 '200':

 description: The IPTV configuration data stored in the UDR are returned.

 content:

 application/json:

 schema:

 type: array

 items:

 $ref: '#/components/schemas/IptvConfigData'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '414':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/414'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /application-data/iptvConfigData/{configurationId}:

 put:

 summary: Create or update an individual IPTV configuration resource

 operationId: CreateOrReplaceIndividualIPTVConfigurationData

 tags:

 - Individual IPTV Configuration Data (Document)

 requestBody:

 required: true

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/IptvConfigData'

 parameters:

 - name: configurationId

 in: path

 description: The Identifier of an Individual IPTV Configuration Data to be created or updated. It shall apply the format of Data type string.

 required: true

 schema:

 type: string

 responses:

 '201':

 description: The creation of an Individual IPTV Configuration Data resource is confirmed and a representation of that resource is returned.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/IptvConfigData'

 headers:

 Location:

 description: 'Contains the URI of the newly created resource'

 required: true

 schema:

 type: string

 '200':

 description: The update of an Individual IPTV configuration resource.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/IptvConfigData'

 '204':

 description: No content

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '414':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/414'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 patch:

 summary: Partial update an individual IPTV configuration resource

 operationId: PartialReplaceIndividualIPTVConfigurationData

 tags:

 - Individual IPTV Configuration Data

 requestBody:

 required: true

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/IptvConfigDataPatch'

 parameters:

 - name: configurationId

 in: path

 description: The Identifier of an Individual IPTV Configuration Data to be updated. It shall apply the format of Data type string.

 required: true

 schema:

 type: string

 responses:

 '200':

 description: The update of an Individual IPTV configuration resource.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/IptvConfigData'

 '204':

 description: No content

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '414':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/414'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 delete:

 summary: Delete an individual IPTV configuration resource

 operationId: DeleteIndividualIPTVConfigurationData

 tags:

 - Individual IPTV Configuration Data (Document)

 parameters:

 - name: configurationId

 in: path

 description: The Identifier of an Individual IPTV Configuration to be updated. It shall apply the format of Data type string.

 required: true

 schema:

 type: string

 responses:

 '204':

 description: The resource was deleted successfully.

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /application-data/subs-to-notify:

 post:

 summary: Create a subscription to receive notification of application data changes

 operationId: CreateIndividualApplicationDataSubscription

 tags:

 - ApplicationDataSubscriptions (Collection)

 requestBody:

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/ApplicationDataSubs'

 responses:

 '201':

 description: Upon success, a response body containing a representation of each Individual subscription resource shall be returned.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/ApplicationDataSubs'

 headers:

 Location:

 description: 'Contains the URI of the newly created resource'

 required: true

 schema:

 type: string

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 callbacks:

 applicationDataChangeNotif:

 '{$request.body#/notificationUri}':

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

 type: array

 items:

 $ref: '#/components/schemas/ApplicationDataChangeNotif'

 minItems: 1

 responses:

 '204':

 description: No Content, Notification was successful

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 get:

 summary: Read Application Data change Subscriptions

 operationId: ReadApplicationDataChangeSubscriptions

 tags:

 - ApplicationDataSubscriptions (Collection)

 parameters:

 - name: dnn

 in: query

 description: Identifies a DNN.

 required: false

 schema:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'

 - name: snssai

 in: query

 description: Identifies a slice.

 required: false

 content:

 application/json:

 schema:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Snssai'

 - name: internal-group-id

 in: query

 description: Identifies a group of users.

 required: false

 schema:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/ExternalGroupId'

 - name: supi

 in: query

 description: Identifies a user.

 required: false

 schema:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Supi'

 - name: appId

 in: query

 description: Identifies an application id.

 required: false

 schema:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/ApplicationId'

 - name: data-inds

 in: query

 required: false

 schema:

 type: array

 items:

 $ref: '#/components/schemas/DataInd'

 responses:

 '200':

 description: The subscription information as request in the request URI query parameter(s) are returned.

 content:

 application/json:

 schema:

 type: array

 items:

 $ref: '#/components/schemas/ApplicationDataSubs'

 minItems: 0

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '414':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/414'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /application-data/subs-to-notify/{subsId}:

 parameters:

 - name: subsId

 in: path

 required: true

 schema:

 type: string

 put:

 summary: Modify a subscription to receive notification of application data changes

 operationId: ReplaceIndividualApplicationDataSubscription

 tags:

 - IndividualApplicationDataSubscription (Document)

 requestBody:

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/ApplicationDataSubs'

 responses:

 '200':

 description: The individual subscription resource was updated successfully.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/ApplicationDataSubs'

 '204':

 description: The individual subscription resource was updated successfully and no additional content is to be sent in the response message.

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 delete:

 summary: Delete the individual Application Data subscription

 operationId: DeleteIndividualApplicationDataSubscription

 tags:

 - IndividualApplicationDataSubscription (Document)

 responses:

 '204':

 description: Upon success, an empty response body shall be returned.

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 get:

 summary: Get an existing individual Application Data Subscription resource

 operationId: ReadIndividualApplicationDataSubscription

 tags:

 - IndividualApplicationDataSubscription (Document)

 parameters:

 - name: subsId

 in: path

 description: String identifying a subscription to the Individual Application Data Subscription

 required: true

 schema:

 type: string

 responses:

 '200':

 description: The subscription information is returned.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/ApplicationDataSubs'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '406':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/406'

 '414':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/414'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

components:

 schemas:

 TrafficInfluData:

 type: object

 properties:

 upPathChgNotifCorreId:

 type: string

 description: Contains the Notification Correlation Id allocated by the NEF for the UP path change notification.

 appReloInd:

 type: boolean

 description: Identifies whether an application can be relocated once a location of the application has been selected.

 afAppId:

 type: string

 description: Identifies an application.

 dnn:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'

 ethTrafficFilters:

 type: array

 items:

 $ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/EthFlowDescription'

 minItems: 1

 description: Identifies Ethernet packet filters. Either "trafficFilters" or "ethTrafficFilters" shall be included if applicable.

 snssai:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Snssai'

 interGroupId:

 type: string

 description: Identifies a group of users.

 supi:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Supi'

 trafficFilters:

 type: array

 items:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/FlowInfo'

 minItems: 1

 description: Identifies IP packet filters. Either "trafficFilters" or "ethTrafficFilters" shall be included if applicable.

 trafficRoutes:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/RouteToLocation'

 minItems: 1

 description: Identifies the N6 traffic routing requirement.

 validStartTime:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/DateTime'

 validEndTime:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/DateTime'

 tempValidities:

 type: array

 items:

 $ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/TemporalValidity'

 minItems: 1

 description: Identifies the temporal validities for the N6 traffic routing requirement.

 nwAreaInfo:

 $ref: 'TS29554\_Npcf\_BDTPolicyControl.yaml#/components/schemas/NetworkAreaInfo'

 upPathChgNotifUri:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uri'

 subscribedEvents:

 type: array

 items:

 $ref: 'TS29522\_TrafficInfluence.yaml#/components/schemas/SubscribedEvent'

 minItems: 1

 dnaiChgType:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/DnaiChangeType'

 afAckInd:

 type: boolean

 addrPreserInd:

 type: boolean

 supportedFeatures:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

 allOf:

 - oneOf:

 - required: [afAppId]

 - required: [trafficFilters]

 - required: [ethTrafficFilters]

 - oneOf:

 - required: [supi]

 - required: [interGroupId]

 TrafficInfluDataPatch:

 type: object

 properties:

 upPathChgNotifCorreId:

 type: string

 description: Contains the Notification Correlation Id allocated by the NEF for the UP path change notification.

 appReloInd:

 type: boolean

 description: Identifies whether an application can be relocated once a location of the application has been selected.

 dnn:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'

 ethTrafficFilters:

 type: array

 items:

 $ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/EthFlowDescription'

 minItems: 1

 description: Identifies Ethernet packet filters. Either "trafficFilters" or "ethTrafficFilters" shall be included if applicable.

 snssai:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Snssai'

 internalGroupId:

 type: string

 description: Identifies a group of users.

 supi:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Supi'

 trafficFilters:

 type: array

 items:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/FlowInfo'

 minItems: 1

 description: Identifies IP packet filters. Either "trafficFilters" or "ethTrafficFilters" shall be included if applicable.

 trafficRoutes:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/RouteToLocation'

 minItems: 1

 description: Identifies the N6 traffic routing requirement.

 validStartTime:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/DateTime'

 validEndTime:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/DateTime'

 tempValidities:

 type: array

 items:

 $ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/TemporalValidity'

 minItems: 1

 nullable: true

 description: Identifies the temporal validities for the N6 traffic routing requirement.

 nwAreaInfo:

 $ref: 'TS29554\_Npcf\_BDTPolicyControl.yaml#/components/schemas/NetworkAreaInfo'

 upPathChgNotifUri:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uri'

 afAckInd:

 type: boolean

 addrPreserInd:

 type: boolean

 TrafficInfluSub:

 type: object

 properties:

 dnns:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'

 minItems: 1

 description: Each element identifies a DNN.

 snssais:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Snssai'

 minItems: 1

 description: Each element identifies a slice.

 internalGroupIds:

 type: array

 items:

 type: string

 minItems: 1

 description: Each element identifies a group of users.

 supis:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Supi'

 minItems: 1

 description: Each element identifies the user.

 notificationUri:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uri'

 expiry:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/DateTime'

 supportedFeatures:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

 required:

 - notificationUri

 oneOf:

 - required: [dnns]

 - required: [snssais]

 - required: [internalGroupIds]

 - required: [supis]

 PfdDataForAppExt:

 allOf:

 - $ref: 'TS29551\_Nnef\_PFDmanagement.yaml#/components/schemas/PfdDataForApp'

 - type: object

 properties:

 suppFeat:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

 BdtPolicyData:

 type: object

 properties:

 interGroupId:

 type: string

 description: Identifies a group of users.

 supi:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Supi'

 bdtRefId:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/BdtReferenceId'

 dnn:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'

 snssai:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Snssai'

 bdtPolicyId:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uri'

 required:

 - bdtRefId

 - bdtPolicyId

 BdtPolicyDataPatch:

 type: object

 properties:

 bdtRefId:

 $ref: 'TS29122\_CommonData.yaml#/components/schemas/BdtReferenceId'

 required:

 - bdtRefId

 IptvConfigData:

 type: object

 properties:

 supi:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Supi'

 internalGroupId:

 type: string

 description: Identifies a group of users.

 dnn:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'

 snssai:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Snssai'

 afAppId:

 type: string

 multiAccCtrls:

 type: array

 items:

 $ref: 'TS29522\_IPTVConfiguration.yaml#/components/schemas/MulticastAccessControl'

 configurationId:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uri'

 required:

 - dnn

 - snssai

 - afAppId

 - multiAccCtrls

 - configurationId

 oneOf:

 - required: [internalGroupId]

 - required: [supi]

 IptvConfigDataPatch:

 type: object

 properties:

 multiAccCtrls:

 type: object

 additionalProperties:

 $ref: 'TS29522\_IPTVConfiguration.yaml#/components/schemas/MulticastAccessControl'

 minProperties: 1

 ApplicationDataSubs:

 description: Identifies a subscription to application data change notification.

 type: object

 properties:

 notificationUri:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uri'

 dataFilters:

 type: array

 items:

 $ref: '#/components/schemas/DataFilter'

 minItems: 1

 expiry:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/DateTime'

 supportedFeatures:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

 required:

 - notificationUri

 ApplicationDataChangeNotif:

 description: Contains changed application data for which notification was requested.

 type: object

 properties:

 iptvConfigData:

 $ref: '#/components/schemas/IptvConfigData'

 pfdData:

 $ref: 'TS29551\_Nnef\_PFDmanagement.yaml#/components/schemas/PfdChangeNotification'

 bdtPolicyData:

 $ref: '#/components/schemas/BdtPolicyData'

 delResources:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uri'

 minItems: 1

 DataFilter:

 description: Identifies a data filter.

 type: object

 properties:

 dataInd:

 type: array

 items:

 $ref: '#/components/schemas/DataInd'

 minItems: 1

 dnns:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'

 minItems: 1

 snssais:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Snssai'

 minItems: 1

 internalGroupIds:

 type: array

 items:

 type: string

 minItems: 1

 supis:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Supi'

 minItems: 1

 appIds:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/ApplicationId'

 minItems: 1

 required:

 - dataInd

 oneOf:

 - required: [dnns]

 - required: [snssais]

 - required: [internalGroupIds]

 - required: [supis]

 DataInd:

 anyOf:

 - type: string

 enum:

 - PFD

 - IPTV

 - BDT

 - type: string

 description: >

 This string provides forward-compatibility with future

 extensions to the enumeration but is not used to encode

 content defined in the present version of this API.

 description: >

 Possible values are

 - PFD

 - IPTV

 - BDT

\*\*\* End of Changes \*\*\*