**3GPP TSG-CT WG3 Meeting #122eC3-223448**

**E-Meeting, 12th – 20th May 2022 *(revision of C3-22xxxx)***

|  |
| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **29.575** | **CR** | **0019** | **rev** | **-** | **Current version:** | **17.0.0** |  |
|  |
| *For* ***[HE](http://www.3gpp.org/3G_Specs/CRs.htm%22%20%5Cl%20%22_blank)******[LP](http://www.3gpp.org/3G_Specs/CRs.htm%22%20%5Cl%20%22_blank)*** *on using this form: comprehensive instructions can be found at <http://www.3gpp.org/Change-Requests>.* |
|  |

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

|  |
| --- |
|  |
| ***Title:***  | Update the apiVersion placeholder |
|  |  |
| ***Source to WG:*** | China Mobile Communications Group Co.,Ltd. |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | SBIProtoc17 |  | ***Date:*** | 2022-4-30 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-17 |
|  | *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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | The "apiVersion" placeholder need to be updated as described in C4-222295. |
|  |  |
| ***Summary of change:*** | 1. Replace the "apiVersion" placeholder in Table 5.1.3.2.2-1.2. Update the "v1" into “<apiVersion>” to in the core of the specification to avoid updating all the occurrences of the API version when the latter is changed3. Adding a description before Table 5.1.3.1-1. |
|  |  |
| ***Consequences if not approved:*** | The quality of the TS is not improved. |
|  |  |
| ***Clauses affected:*** | 4.2.2.2.2, 4.2.2.3.2, 4.2.2.4.2, 4.2.2.6.2, 4.2.2.9.2, 4.2.2.9.3, 5.1.3.1, 5.1.3.2.2, 5.1.3.2.3, 5.1.3.3.2, 5.1.3.4.2, 5.1.3.4.3, A.2 |
|  |  |
|  | **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 chage in the OpenAPI file. |
|  |  |
| ***This CR's revision history:*** |  |

\*\*\* First Change \*\*\*

##### 4.2.2.2.2 Request Storage of data or analytics

Figure 4.2.2.2.2-1 shows a scenario where the NF service consumer sends a request to the ADRF to store data or analytics.



Figure 4.2.2.2.2-1: NF service consumer requesting to store data or analytics

The NF service consumer shall invoke the Nadrf\_DataManagement\_StorageRequest service operation to store data or analytics. The NF service consumer shall send an HTTP POST request with "{apiRoot}/nadrf-datamanagement/<apiVersion>/data-store-records" as Resource URI representing the "ADRF Data Store Records" resource, as shown in figure 4.2.2.2.2-1, step 1, to create an "Individual ADRF Data Store Record" according to the information in the message body. The NadrfDataStoreRecord data structure provided in the request body shall include:

- one of the following:

- analytics subscription notification(s) within the "anaNotifications" attribute;

- network exposure function event exposure subscription notification(s) within the "nefEventNotifs" attribute;

- application function event exposure subscription notification(s) within the "afEventNotifs" attribute;

- access and mobility function event exposure subscription notification(s) within the "amfEventNotifs" attribute;

- session management function event exposure subscription notification(s) within the "smfEventNotifs" attribute;

- unified data management event exposure subscription notification(s) within the "udmEventNotifs" attribute;

Upon the reception of an HTTP POST request with "{apiRoot}/nadrf-datamanagement/<apiVersion>/data-store-records" as Resource URI and NadrfDataStoreRecord data structure as request body, the ADRF shall:

- create a new data store record;

- assign a storeTransId;

- store the data or analytics.

If the ADRF created an "Individual ADRF Data Store Record" resource, the ADRF shall respond with "201 Created" with the message body containing a representation of the created record, as shown in figure 4.2.2.2.2-1, step 2. The ADRF shall include a Location HTTP header field. The Location header field shall contain the URI of the created record i.e. "{apiRoot}/nadrf-datamanagement/<apiVersion>/data-store-records/{storeTransId}".

If an error occurs when processing the HTTP POST request, the ADRF shall send an HTTP error response as specified in clause 5.1.7.

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

##### 4.2.2.3.2 Requesting subscription and store of data or analytics

Figure 4.2.2.3.2-1 shows a scenario where the NF service consumer sends a request to the ADRF to subscribe for data or analytics to be stored in the ADRF.



Figure 4.2.2.3.2-1: NF service consumer requesting that the ADRF subscribes to and subsequently stores data or analytics

The NF service consumer shall invoke the Nadrf\_DataManagement\_StorageSubscriptionRequest service operation to request the ADRF to subscribe to data or analytics. The NF service consumer shall send an HTTP POST request with "{apiRoot}/nadrf-datamanagement/<apiVersion>/request-storage-sub" as URI, as shown in figure 4.2.2.3.2-1, step 1. The NadrfDataStoreSubscription data structure provided in the request body shall include:

- one of the following subscription attributes:

- analytics subscription information within the "anaSub" attribute;

- access and mobility function event exposure subscription within the "amfDataSub" attribute;

- session management function event exposure subscription within the "smfDataSub" attribute;

- unified data management event exposure subscription within the "udmDataSub" attribute;

- network exposure function event exposure subscription within the "nefDataSub" attribute;

- application function event exposure subscription within the "afDataSub" attribute;

- one of the following target identifiers:

- DCCF or NWDAF instance identifier within the "targetNfId" attribute;

- DCCF or NWDAF NF set identifier within the "targetNfSetId" attribute;

and may include:

- formatting instructions within the "formatInstruct" attribute;

- processing instructions within the "procInstruct" attribute.

Upon the reception of an HTTP POST request with "{apiRoot}/nadrf-datamanagement/<apiVersion>/request-storage-sub" as URI and NadrfDataStoreSubscription data structure as request body, the ADRF shall assign a transaction reference identifier to this request and, if the request is successfully processed and accepted, the ADRF shall respond with "200 OK" as shown in figure 4.2.2.3.2-1 step 2, with the message body containing an NadrfDataStoreSubscriptionRef data structure, which shall include the assigned transaction reference identifier as "transRefId" attribute.

If an error occurs when processing the HTTP POST request, the ADRF shall send an HTTP error response as specified in clause 5.1.7.

In the case of a successful response, the ADRF shall subsequently create a data or analytics subscription (according to inputs that had been received in the NadrfDataStoreSubscription data structure) with a DCCF as described in 3GPP TS 29.574 [23] or with an NWDAF as described in 3GPP TS 29.520 [15], and create a mapping between this subscription and the previously assigned and returned transaction reference identifier.

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

##### 4.2.2.4.2 Requesting removal of subscription of data or analytics

Figure 4.2.2.4.2-1 shows a scenario where the NF service consumer sends a request to the ADRF to unsubscribe for storage of data or analytics.



Figure 4.2.2.4.2-1: NF service consumer requesting the removal of a subscription to storage of data or analytics

The NF service consumer shall invoke the Nadrf\_DataManagement\_ StorageSubscriptionRemoval service operation to request the ADRF to remove a subscription to data or analytics that are stored in the ADRF. The NF service consumer shall send an HTTP POST request with "{apiRoot}/nadrf-datamanagement/<apiVersion>/request-storage-sub-removal" as URI, as shown in figure 4.2.2.4.2-1, step 1. The POST request body shall contain an NadrfDataStoreSubscriptionRef data structure, which shall include a transaction reference identifier as "transRefId" attribute.

Upon the reception of an HTTP POST request with "{apiRoot}/nadrf-datamanagement/<apiVersion>/request-storage-sub-removal" as URI, if the ADRF successfully processed and accepted the received HTTP POST request, the ADRF shall respond with HTTP "204 No Content" status. Subsequently, the ADRF shall remove the (DCCF or NWDAF) subscription that had been created and mapped to the received transaction reference identifier as described in clause 4.2.2.3.

If errors occur when processing the HTTP POST request, the ADRF shall send an HTTP error response as specified in clause 5.1.7.

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

##### 4.2.2.6.2 Requesting retrieval and subscription of data or analytics

Figure 4.2.2.6.2-1 shows a scenario where the NF service consumer sends a request to the ADRF to retrieve and subscribe to data or analytics.



Figure 4.2.2.6.2-1: NF service consumer requesting to retrieve and subscribe to data or analytics

The NF service consumer shall invoke the Nadrf\_DataManagement\_RetrievalSubscribe service operation to retrieve and subscribe to data or analytics. The NF service consumer shall send an HTTP POST request with "{apiRoot}/nadrf-datamanagement/<apiVersion>/data-retrieval-subscriptions" as Resource URI representing the "ADRF Data Retrieval Subscriptions" resource, as shown in figure 4.2.2.6.2-1, step 1, to create an "Individual ADRF Data Retrieval Subscription" according to the information in the message body. The NadrfDataRetrievalSubscription data structure provided in the request body shall include:

- notification correlation identfier within the "notifCorrId" attribute;

- one of the following:

- analytics subscription information within the "anaSub" attribute;

- access and mobility function event exposure subscription within the "amfDataSub" attribute;

- session management function event exposure subscription within the "smfDataSub" attribute;

- unified data management event exposure subscription within the "udmDataSub" attribute;

- network exposure function event exposure subscription within the "nefDataSub" attribute;

- application function event exposure subscription within the "afDataSub" attribute;

- a notification target address within the "notificationURI" attribute;

- a time window for the data retrieval and subscription within the "timePeriod" attribute;

Upon the reception of an HTTP POST request with "{apiRoot}/nadrf-datamanagement/v1/data-retrieval-subscriptions" as Resource URI and NadrfDataRetrievalSubscription data structure as request body, the ADRF shall:

- create a new subscription;

- assign a subscriptionId;

- store the subscription.

If the ADRF created an "Individual ADRF Data Retrieval Subscription" resource, the ADRF shall respond with "201 Created" with the message body containing a representation of the created subscription, as shown in figure 4.2.2.6.2-1, step 2. The ADRF shall include a Location HTTP header field. The Location header field shall contain the URI of the created record i.e. "{apiRoot}/nadrf-datamanagement/<apiVersion>/data-retrieval-subscriptions/{subscriptionId}".

If an error occurs when processing the HTTP POST request, the ADRF shall send an HTTP error response as specified in clause 5.1.7.

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

##### 4.2.2.7.2 Requesting removal of retrieval subscription for data or analytics

Figure 4.2.2.7.2-1 shows a scenario where the NF service consumer sends a request to the ADRF to remove a retrieval subscription for data or analytics.



Figure 4.2.2.7.2-1: NF service consumer requesting to remove retrieval subscription for data or analytics

The NF service consumer shall invoke the Nadrf\_DataManagement\_RetrievalUnsubscribe service operation to remove a retrieval subscription for data or analytics. The NF service consumer shall send an HTTP DELETE request with "{apiRoot}/nadrf-datamanagement/<apiVersion>/data-retrieval-subscriptions/{subscriptionId}" as Resource URI representing an "Individual ADRF Data Retrieval Subscription" resource, as shown in figure 4.2.2.7.2-1, step 1, where "{subscriptionId}" is the identifier of the existing data retrieval subscription that is to be deleted.

Upon the reception of an HTTP DELETE request with "{apiRoot}/nadrf-datamanagement/<apiVersion>/data-retrieval-subscriptions/{subscriptionId}" as Resource URI, if the ADRF successfully processed and accepted the received HTTP DELETE request, the ADRF shall:

- remove the corresponding subscription;

- respond with HTTP "204 No Content" status.

If errors occur when processing the HTTP DELETE request, the ADRF shall send an HTTP error response as specified in clause 5.1.7.

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

##### 4.2.2.9.2 Requesting removal of stored data or analytics

Figure 4.2.2.9.2-1 shows a scenario where the NF service consumer sends a request to the ADRF to delete stored data or analytics.



Figure 4.2.2.9.2-1: NF service consumer requesting to remove stored data or analytics

The NF service consumer shall invoke the Nadrf\_DataManagement\_Delete service operation to remove stored data or analytics. The NF service consumer shall send an HTTP DELETE request with "{apiRoot}/nadrf-datamanagement/<apiVersion>/data-store-records/{storeTransId}" as Resource URI representing an "Individual ADRF Data Store Record" resource, as shown in figure 4.2.2.9.2-1, step 1, where "{storeTransId}" is the transaction identifier of the stored record that is to be deleted.

Upon the reception of an HTTP DELETE request with "{apiRoot}/nadrf-datamanagement/<apiVersion>/data-store-records/{storeTransId}" as Resource URI, if the ADRF successfully processed and accepted the received HTTP DELETE request, the ADRF shall:

- remove the corresponding stored record;

- respond with HTTP "204 No Content" status code.

If errors occur when processing the HTTP DELETE request, the ADRF shall send an HTTP error response as specified in clause 5.1.7.

If the Individual ADRF Data Record resource does not exist, the ADRF shall respond with "404 Not Found".

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

##### 4.2.2.9.3 Requesting removal of stored data or analytics using data or analytics specification

Figure 4.2.2.9.3-1 shows a scenario where the NF service consumer sends a request to the ADRF to delete stored data or analytics based on a data or analytics specification.



Figure 4.2.2.9.3-1: NF service consumer requesting to remove stored data or analytics

The NF service consumer shall invoke the Nadrf\_DataManagement\_Delete service operation to remove stored data or analytics based on a data or analytics specification. The NF service consumer shall send an HTTP POST request with "{apiRoot}/nadrf-datamanagement/<apiVersion>/remove-stored-data-analytics" as URI, as shown in figure 4.2.2.9.3-1, step 1. The POST request body shall contain an NadrfStoredDataSpec data structure. The NadrfStoredDataSpec data structure provided in the request body shall include:

- a time window in which the data to be deleted was collected in the "timePeriod" attribute; and

- one of the following:

- a data specification in the "dataSpec" attribute;

- an analytics specification in the "anaSpec" attribute;

Upon the reception of an HTTP POST request with "{apiRoot}/nadrf-datamanagement/<apiVersion>/remove-stored-data-analytics" as URI, if the ADRF successfully processed and accepted the received HTTP POST request, the ADRF shall respond with HTTP "204 No Content" status. The ADRF shall remove any stored analytics or data that match the analytics or data specification received in the request.

Editor's Note: When the consumer requests to remove the stored data or analytics using data or analytics specification, how to ensure the data or analytics can be accurately filtered and removed is FFS.

If errors occur when processing the HTTP POST request, the ADRF shall send an HTTP error response as specified in clause 5.1.7.

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

#### 5.1.3.1 Overview

This clause describes the structure for the Resource URIs and the resources and methods used for the service.

Figure 5.1.3.1-1 depicts the resource URIs structure for the Nadrf\_DataManagement API.



Figure 5.1.3.1-1: Resource URI structure of the Nadrf\_DataManagement API

Table 5.1.3.1-1 provides an overview of the resources and applicable HTTP methods.

Table 5.1.3.1-1: Resources and methods overview

|  |  |  |  |
| --- | --- | --- | --- |
| Resource name | Resource URI | HTTP method or custom operation | Description |
| ADRF Data Store Records | /data-store-records | GET | Retrieve the stored data or analytics |
| POST | Create a new Individual Data Store resource. |
| Individual ADRF Data Store Record | /data-store-records/{storeTransId} | DELETE | Delete an individual ADRF Data Store Record identified by {storeTransId}. |
| ADRF Data Retrieval Subscriptions | /data-retrieval-subscriptions | POST | Create a new Individual ADRF Data Retrieval Subscription resource. |
| Individual ADRF Data Retrieval Subscription | /data-retrieval-subscriptions/{subscriptionId} | DELETE | Delete an individual ADRF Data Retrieval Subscription identified by {subscriptionId}. |

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

##### 5.1.3.2.2 Resource Definition

Resource URI: **{apiRoot}/nadrf-datamanagement/<apiVersion>/data-store-records**

The <apiVersion> shall be set as described in clause 5.1.1.

This resource shall support the resource URI variables defined in table 5.1.3.2.2-1.

Table 5.1.3.2.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 5.1.1 |

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

###### 5.1.3.2.3.1 POST

This method shall support the URI query parameters specified in table 5.1.3.2.3.1-1.

Table 5.1.3.2.3.1-1: URI query parameters supported by the POST method on this resource

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

This method shall support the request data structures specified in table 5.1.3.2.3.1-2 and the response data structures and response codes specified in table 5.1.3.2.3.1-3.

Table 5.1.3.2.3.1-2: Data structures supported by the POST Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| NadrfDataStoreRecord | M | 1 | New individual Data Store Record to be created |

Table 5.1.3.2.3.1-3: Data structures supported by the POST Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Responsecodes | Description |
| NadrfDataStoreRecord | M | 1 | 201 Created | The creation of an Individual Data Store Record resource is confirmed, and a representation of that resource is returned. |
| NOTE: The manadatory HTTP error status code for the POST method listed in Table 5.1.7.1-1 of 3GPP TS 29.500 [4] also apply. |

Table 5.1.3.2.3.1-4: Headers supported by the 201 response code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains the URI of the newly created resource, according to the structure: {apiRoot}/nadrf-datamanagement/<apiVersion>/data-store-records/{storeTransId} |

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

##### 5.1.3.3.2 Resource Definition

Resource URI: **{apiRoot}/nadrf-datamanagement/<apiVersion>/data-store-records/{storeTransId}**

The <apiVersion> shall be set as described in clause 5.1.1.

This resource shall support the resource URI variables defined in table 5.1.3.3.2-1.

Table 5.1.3.3.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 5.1.1. |
| storeTransId | string | Identifies an individual data store record. |

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

##### 5.1.3.4.2 Resource Definition

Resource URI: **{apiRoot}/nadrf-datamanagement/<apiVersion>/data-retrieval-subscriptions**

The <apiVersion> shall be set as described in clause 5.1.1.

This resource shall support the resource URI variables defined in table 5.1.3.4.2-1.

Table 5.1.3.4.2-1: Resource URI variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 5.1.1 |

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

###### 5.1.3.4.3.1 POST

This method shall support the URI query parameters specified in table 5.1.3.4.3.1-1.

Table 5.1.3.4.3.1-1: URI query parameters supported by the POST method on this resource

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

This method shall support the request data structures specified in table 5.1.3.4.3.1-2 and the response data structures and response codes specified in table 5.1.3.4.3.1-3.

Table 5.1.3.4.3.1-2: Data structures supported by the POST Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| NadrfDataRetrievalSubscription | M | 1 | Individual ADRF Data Retrieval Subscription resource to be created. |

Table 5.1.3.4.3.1-3: Data structures supported by the POST Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Responsecodes | Description |
| NadrfDataRetrievalSubscription | M | 1 | 201 Created | The creation of an Individual ADRF Data Retrieval Subscription resource is confirmed and a representation of that resource is returned. |
| NOTE: The manadatory HTTP error status code for the POST method listed in Table 5.2.7.1-1 of 3GPP TS 29.500 [4] also apply. |

Table 5.1.3.4.3.1-4: Headers supported by the 201 response code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | Contains the URI of the newly created resource, according to the structure: {apiRoot}/nadrf-datamanagement/<apiVersion>/data-retrieval-subscriptions/{subscriptionId} |

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

## A.2 Nadrf\_DataManagement API

openapi: 3.0.0

info:

 version: 1.0.0-alpha.3

 title: Nadrf\_DataManagement

 description: |

 ADRF Data Management Service.

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externalDocs:

 description: 3GPP TS 29.575 V17.0.0; 5G System; Analytics Data Repository Services; Stage 3.

 url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.575/'

#

servers:

 - url: '{apiRoot}/nadrf-datamanagement/v1'

 variables:

 apiRoot:

 default: https://example.com

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

#

security:

 - oAuth2ClientCredentials:

 - nadrf-datamanagement

 - {}

#

paths:

 /data-store-records:

 post:

 summary: Creates a new Individual Data Store Record resource.

 operationId: CreateADRFDataStoreRecord

 tags:

 - ADRF Data Store Records (Collection)

 requestBody:

 content:

 application/json:

 schema:

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

 required: true

 description: ADRF data store record to be stored.

 responses:

 '201':

 description: Successful creation of new Individual ADRF Data Store Record resource.

 headers:

 Location:

 description: 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/nadrf-datamanagement/<apiVersion>/data-store-records/{storeTransId}'

 required: true

 schema:

 type: string

 content:

 application/json:

 schema:

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

 '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: "Retrieves existing Individual ADRF Data Store Records"

 operationId: GetAdrfDataStoreRecords

 tags:

 - ADRF Data Store Records (Collection)

 parameters:

 - name: store-trans-id

 description: A storage transaction identifier of a data store record in ADRF.

 in: query

 required: false

 schema:

 type: string

 - name: fetch-correlation-ids

 description: Fetch correlation identifiers received as part of fetch instruction.

 in: query

 required: false

 style: form

 explode: false

 schema:

 type: array

 items:

 type: string

 minItems: 1

 - name: ana-sub

 description: Represents analytics event subscription.

 in: query

 required: false

 content:

 application/json:

 schema:

 $ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/NnwdafEventsSubscription'

 - name: amf-data-sub

 description: Represents AMF event subscription.

 in: query

 required: false

 content:

 application/json:

 schema:

 $ref: 'TS29518\_Namf\_EventExposure.yaml#/components/schemas/AmfEventSubscription'

 - name: smf-data-sub

 description: Represents SMF event subscription.

 in: query

 required: false

 content:

 application/json:

 schema:

 $ref: 'TS29508\_Nsmf\_EventExposure.yaml#/components/schemas/NsmfEventExposure'

 - name: nef-data-sub

 description: Represents NEF event subscription.

 in: query

 required: false

 content:

 application/json:

 schema:

 $ref: 'TS29591\_Nnef\_EventExposure.yaml#/components/schemas/NefEventExposureSubsc'

 - name: udm-data-sub

 description: Represents UDM event subscription.

 in: query

 required: false

 content:

 application/json:

 schema:

 $ref: 'TS29503\_Nudm\_EE.yaml#/components/schemas/EeSubscription'

 - name: af-data-sub

 description: Represents AF event subscription.

 in: query

 required: false

 content:

 application/json:

 schema:

 $ref: 'TS29517\_Naf\_EventExposure.yaml#/components/schemas/AfEventExposureSubsc'

 - name: time-period

 description: Represents a start time and a stop time during which requested data is collected or to be collected.

 in: query

 required: false

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: Data store records are returned.

 content:

 application/json:

 schema:

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

 '204':

 description: No matching ADRF data were found.

 '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'

 /data-store-records/{storeTransId}:

 delete:

 summary: Delete an existing Individual ADRF Data Store Record

 operationId: DeleteADRFDataStoreRecord

 tags:

 - Individual ADRF Data Store Record (Document)

 parameters:

 - name: storeTransId

 in: path

 description: String identifying a Data Store Record in ADRF

 required: true

 schema:

 type: string

 responses:

 '204':

 description: No Content. The Individual ADRF Data Store Record resource matching the storeTransId was deleted.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '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'

 /data-retrieval-subscriptions:

 post:

 summary: Creates a new Individual ADRF Data Retrieval Subscription resource.

 operationId: CreateADRFDataRetrievalSubscription

 tags:

 - ADRF Data Retrieval Subscriptions (Collection)

 requestBody:

 content:

 application/json:

 schema:

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

 required: true

 description: Individual ADRF Data Retrieval Subscription resource to be created.

 responses:

 '201':

 description: Created a new Individual ADRF Data Retrieval Subscription resource.

 headers:

 Location:

 description: 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/nadrf-datamanagement/<apiVersion>/data-retrieval-subscriptions/{subscriptionId}'

 required: true

 schema:

 type: string

 content:

 application/json:

 schema:

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

 '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:

 adrfDataRetrievalNotification:

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

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: The receipt of the Notification is acknowledged.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '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'

 /data-retrieval-subscriptions/{subscriptionId}:

 delete:

 summary: Delete an existing Individual ADRF Data Retrieval Subscription

 operationId: DeleteADRFDataRetrievalSubscription

 tags:

 - Individual ADRF Data Retrieval Subscription (Document)

 parameters:

 - name: subscriptionId

 in: path

 description: String identifying a data retrieval subscription to the Nadrf\_DataManagement Service.

 required: true

 schema:

 type: string

 responses:

 '204':

 description: No Content. The Individual ADRF Data Retrieval Subscription resource matching the subscriptionId was deleted.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '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'

 /request-storage-sub:

 post:

 summary: Triggers the creation of a new ADRF Storage Subscription.

 operationId: CreateADRFStorageSubscription

 tags:

 - ADRF Storage Subscriptions

 requestBody:

 content:

 application/json:

 schema:

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

 required: true

 responses:

 '200':

 description: Successful response with reference used to identify the subscription at the ADRF.

 content:

 application/json:

 schema:

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

 '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'

 /request-storage-sub-removal:

 post:

 summary: triggers the removal of ADRF storage subscription.

 operationId: DeleteADRFStorageSubscription

 tags:

 - ADRF Storage Subscriptions

 requestBody:

 content:

 application/json:

 schema:

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

 required: true

 responses:

 '204':

 description: No Content. The ADRF Storage Subscription matching the provided reference 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'

 '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'

 /remove-stored-data-analytics:

 post:

 summary: remove ADRF data based on data or analytics specification.

 operationId: DeleteADRFData

 tags:

 - ADRF Stored Data

 requestBody:

 content:

 application/json:

 schema:

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

 required: true

 responses:

 '204':

 description: No Content. The ADRF data matching the provided specification is 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'

 '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'

#

components:

 securitySchemes:

 oAuth2ClientCredentials:

 type: oauth2

 flows:

 clientCredentials:

 tokenUrl: '{nrfApiRoot}/oauth2/token'

 scopes:

 nadrf-datamanagement: Access to the nadrf-datamanagement API

#

 schemas:

#

 NadrfDataStoreRecord:

 description: Represents an Individual ADRF Data Store Record.

 type: object

 oneOf:

 - required: [anaNotifications]

 - required: [amfEventNotifs]

 - required: [smfEventNotifs]

 - required: [udmEventNotifs]

 - required: [nefEventNotifs]

 - required: [afEventNotifs]

 properties:

 anaNotifications:

 type: array

 items:

 $ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/NnwdafEventsSubscriptionNotification'

 minItems: 1

 description: List of analytics subscription notifications.

 amfEventNotifs:

 type: array

 items:

 $ref: 'TS29518\_Namf\_EventExposure.yaml#/components/schemas/AmfEventNotification'

 minItems: 1

 description: List of notifications of AMF events.

 smfEventNotifs:

 type: array

 items:

 $ref: 'TS29508\_Nsmf\_EventExposure.yaml#/components/schemas/NsmfEventExposureNotification'

 minItems: 1

 description: List of notifications of SMF events.

 udmEventNotifs:

 type: array

 items:

 $ref: 'TS29503\_Nudm\_EE.yaml#/components/schemas/MonitoringReport'

 minItems: 1

 description: List of notifications of UDM events.

 nefEventNotifs:

 type: array

 items:

 $ref: 'TS29591\_Nnef\_EventExposure.yaml#/components/schemas/NefEventExposureNotif'

 minItems: 1

 description: List of notifications of NEF events.

 afEventNotifs:

 type: array

 items:

 $ref: 'TS29517\_Naf\_EventExposure.yaml#/components/schemas/AfEventExposureNotif'

 minItems: 1

 description: List of notifications of AF events.

#

 NadrfDataStoreSubscription:

 description: Contains information to be used by the ADRF to create a Data or Analytics subscription.

 type: object

 allOf:

 - oneOf:

 - required: [anaSub]

 - required: [dataSub]

 - oneOf:

 - required: [targetNfId]

 - required: [targetNfSetId]

 properties:

 anaSub:

 $ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/NnwdafEventsSubscription'

 dataSub:

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

 targetNfId:

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

 targetNfSetId:

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

 formatInstruct:

 $ref: 'TS29574\_Ndccf\_DataManagement.yaml#/components/schemas/FormattingInstruction'

 procInstruct:

 $ref: 'TS29574\_Ndccf\_DataManagement.yaml#/components/schemas/ProcessingInstruction'

#

 NadrfDataRetrievalSubscription:

 description: Represents an Individual ADRF Data Retrieval Subscription.

 type: object

 required:

 - notifCorrId

 - notificationURI

 - timePeriod

 oneOf:

 - required: [anaSub]

 - required: [dataSub]

 properties:

 anaSub:

 $ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/NnwdafEventsSubscription'

 dataSub:

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

 notificationURI:

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

 timePeriod:

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

 notifCorrId:

 type: string

 description: Notification correlation identifier.

#

 NadrfDataRetrievalNotification:

 description: Represents a notification that corresponds with an Individual ADRF Data Retrieval Subscription.

 type: object

 required:

 - notifCorrId

 oneOf:

 - required: [anaNotifications]

 - required: [amfEventNotifs]

 - required: [smfEventNotifs]

 - required: [udmEventNotifs]

 - required: [nefEventNotifs]

 - required: [afEventNotifs]

 properties:

 notifCorrId:

 type: string

 description: Notification correlation identifier.

 anaNotifications:

 type: array

 items:

 $ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/NnwdafEventsSubscriptionNotification'

 minItems: 1

 description: List of analytics subscription notifications.

 amfEventNotifs:

 type: array

 items:

 $ref: 'TS29518\_Namf\_EventExposure.yaml#/components/schemas/AmfEventNotification'

 minItems: 1

 description: List of notifications of AMF events.

 smfEventNotifs:

 type: array

 items:

 $ref: 'TS29508\_Nsmf\_EventExposure.yaml#/components/schemas/NsmfEventExposureNotification'

 minItems: 1

 description: List of notifications of SMF events.

 udmEventNotifs:

 type: array

 items:

 $ref: 'TS29503\_Nudm\_EE.yaml#/components/schemas/MonitoringReport'

 minItems: 1

 description: List of notifications of UDM events.

 nefEventNotifs:

 type: array

 items:

 $ref: 'TS29591\_Nnef\_EventExposure.yaml#/components/schemas/NefEventExposureNotif'

 minItems: 1

 description: List of notifications of NEF events.

 afEventNotifs:

 type: array

 items:

 $ref: 'TS29517\_Naf\_EventExposure.yaml#/components/schemas/AfEventExposureNotif'

 minItems: 1

 description: List of notifications of AF events.

#

 NadrfDataStoreSubscriptionRef:

 description: Contains a reference to a request for a Data or Analytics subscription.

 type: object

 required:

 - transRefId

 properties:

 transRefId:

 type: string

 description: Transaction reference identifier.

#

 NadrfStoredDataSpec:

 description: Contains information about Data or Analytics specification.

 type: object

 required:

 - timePeriod

 oneOf:

 - required: [dataSpec]

 - required: [anaSpec]

 properties:

 dataSpec:

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

 anaSpec:

 $ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/NnwdafEventsSubscription'

 timePeriod:

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

#

 DataSubscription:

 description: Contains a data specification.

 type: object

 oneOf:

 - required: [amfDataSub]

 - required: [smfDataSub]

 - required: [udmDataSub]

 - required: [nefDataSub]

 - required: [afDataSub]

 properties:

 amfDataSub:

 $ref: 'TS29518\_Namf\_EventExposure.yaml#/components/schemas/AmfEventSubscription'

 smfDataSub:

 $ref: 'TS29508\_Nsmf\_EventExposure.yaml#/components/schemas/NsmfEventExposure'

 udmDataSub:

 $ref: 'TS29503\_Nudm\_EE.yaml#/components/schemas/EeSubscription'

 afDataSub:

 $ref: 'TS29517\_Naf\_EventExposure.yaml#/components/schemas/AfEventExposureSubsc'

 nefDataSub:

 $ref: 'TS29591\_Nnef\_EventExposure.yaml#/components/schemas/NefEventExposureSubsc'

#

End of Changes \*\*\*