**3GPP TSG- Meeting #**

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| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
|  |
| *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)*.* |
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|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

|  |
| --- |
|  |
| ***Title:***  |  |
|  |  |
| ***Source to WG:*** |  |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** |  |  | ***Date:*** |  |
|  |  |  |  |  |
| ***Category:*** |  |  | ***Release:*** |  |
|  | *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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | 23.288 clauses 6.2B.2, 6.2B.3, and 5B.1 (complemented by the respective additions in the service definitions that were agreed in S2-2306087) require that the NF service consumer of the Nnwdaf\_DataManagement\_Subscribe service may provide Storage Handling information (i.e. lifetime of the data to be stored in the ADRF, indication of request to be notified about their deletion). |
|  |  |
| ***Summary of change:*** | Added Storage Handling information (i.e. lifetime of the data in the ADRF, indication of request to be notified about their deletion) to the inputs of Nadrf\_DataManagement\_Subscribe. |
|  |  |
| ***Consequences if not approved:*** | Not fulfilled stage 2 requirements. |
|  |  |
| ***Clauses affected:*** | 4.4.2.2.2, 4.4.2.2.3, 5.3.6.1, 5.3.6.2.2, A.4 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR 23.288 CR 0726  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** | This CR introduces a backwards compatible feature in the OpenAPI file of the Nnwdaf\_DataManagement API. |
|  |  |
| ***This CR's revision history:*** |  |

\* \* \* \* First change \* \* \* \*

4.4.2.2.2 Subscription for data notifications

Figure 4.4.2.2.2-1 shows a scenario where the NF service consumer sends a request to the NWDAF to subscribe for data notification(s).

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**Figure 4.4.2.2.2-1: NF service consumer subscribes to data notifications**

The NF service consumer shall invoke the Nnwdaf\_DataManagement\_Subscribe service operation to subscribe to data notification(s). The NF service consumer shall send an HTTP POST request with "{apiRoot}/nnwdaf-datamanagement/<apiVersion>/subscriptions" as Resource URI representing the "NWDAF Data Management Subscriptions", as shown in figure 4.4.2.2.2-1, step 1, to create a subscription for an "Individual NWDAF Data Management Subscription" according to the information in message body.

The NnwdafDataManagementSubsc data structure provided in the request body shall include:

- an URI where to receive the requested notifications as "notificURI" attribute;

- notification correlation identfier within the "notifCorrId" attribute; and

- one of the following:

- analytics subscription information to be used to determine which data shall be collected and reported within the "anaSub" attribute;

- data subscription information within the "dataSub" attribute;

The NnwdafDataManagementSubsc data structure provided in the request body may include:

- the notification endpoints within the "notifEndpoints" attribute;

- formatting instructions within the "formatInstruct" attribute;

- processing instructions within the "procInstruct" attribute or the "multiProcInstructs" attribute if the "MultiProcessingInstruction" feature is supported;

- one of the following identifiers related to the ADRF:

- ADRF instance identifier within the "adrfId" attribute;

- ADRF set identifier within the "adrfSetId" attribute;

- one of the following target identifiers:

- NF instance identifier within the "targetNfId" attribute;

- NF set identifier within the "targetNfSetId" attribute;

- time window of the occurrence of the requested data collection within the "timePeriod” attribute;

- the purpose of data collection within the "dataCollectPurposes" attribute.

- the indication that the NF service consumer has already checked the user consent within the "checkedConsentInd" attribute.

- storage handling information within the "storeHandl" attribute, if the "EnhDataMgmt" feature is supported.

Upon the reception of an HTTP POST request with: "{apiRoot}/nnwdaf-datamanagement/<apiVersion>/subscriptions" as Resource URI and NnwdafDataManagementSubsc data structure as request body, the NWDAF shall use the contents of the request to determine whether the subscription can already be served or interactions with the ADRF and/or data sources are required. If the NWDAF cannot use the contents of the request to determine this, the NWDAF shall send an HTTP "400 Bad Request" error response including the "cause" attribute set to "SUBSCRIPTION\_CANNOT\_BE\_SERVED".

NOTE 1: The "SUBSCRIPTION\_CANNOT\_BE\_SERVED" error can occur, for example, in the case where the "dataSub" or "anaSub" attributes are provided, when the request is syntactically valid and there is no NWDAF internal error, but the NWDAF can neither find an existing subscription to a data source nor construct one based on the received subscription contents.

If the user consent has not been checked by the NF service consumer and is required for the requested data collection depending on local policy and regulations, then the NWDAF shall check user consent for the targeted UE(s) by retrieving the user consent subscription data via the Nudm\_SDM service API of the UDM as described in clause 5.2.2 of 3GPP TS 29.503 [23]. If the NWDAF receives the response from the UDM that it is not granted for the impacted user(s), then the NWDAF shall send an HTTP "403 Forbidden" error response including the "cause" attribute set to "USER\_CONSENT\_NOT\_GRANTED".

NOTE 2: When the target of reporting is a SUPI or a GPSI then the subscription can be rejected, e.g. because user consent is not granted, and the error is sent to the consumer. When the target of reporting is an Internal Group Id, or a list of SUPIs/GPSI(s) or any UE, and the user consent is not granted for a subset of the impacted users, then no error is sent, but a subset of the SUPIs/GPSIs is skipped if user consent is not granted.

If the NWDAF determines that the subscription can already be served (without requiring further interactions with ADRF and/or data sources) or a successful response from the ADRF and/or data sources is received for the creation or modification of subscription(s) to serve this subscription, the NWDAF shall:

- create a new subscription;

- assign a subscriptionId;

- store the subscription.

If the NWDAF created an "Individual NWDAF Data Management Subscription" resource, the NWDAF shall respond with "201 Created" with the message body containing a representation of the created subscription, as shown in figure 4.4.2.2.2-1, step 2. The NWDAF shall include a Location HTTP header field. The Location header field shall contain the URI of the created subscription i.e. "{apiRoot}/nnwdaf-datamanagement/<apiVersion>/subscriptions/{subscriptionId}". If an immediate reporting indication is provided in the subscription, the NWDAF shall include the reports of the events subscribed, if available, in the HTTP POST response.

If the NWDAF receives storage handling information in the request but determines (e.g. based on local policy) that a different storage approach shall be followed, it indicates the determined storage approach to the consumer by setting accordingly the "storeHandl" attribute (e.g. providing a different lifetime, or setting the indication about deletion alerts to "false") in the message body of the response. When more than one consumer has requested storage lifetime for the same analytics, the storage approach should be based on the longest requested storage lifetime.

NOTE 2: The default operator policy for how long analytics is to be stored can be longer or shorter than the lifetime requested by the consumer. A default operator policy can for example accept only consumer requested lifetimes that are shorter or longer than the default policy.

If an error occurs when processing the HTTP POST request, the NWDAF shall send an HTTP error response as specified in clause 5.3.7.

\* \* \* \* Next change \* \* \* \*

4.4.2.2.3 Update subscription for data notifications

Figure 4.4.2.2.3-1 shows a scenario where the NF service consumer sends a request to the NWDAF to update the subscription for data notifications.

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**Figure 4.4.2.2.3-1: NF service consumer updates subscription to data notifications**

The NF service consumer shall invoke the Nnwdaf\_DataManagement\_Subscribe service operation to update subscription to data notifications. The NF service consumer shall send an HTTP PUT request with "{apiRoot}/nnwdaf-datamanagement/<apiVersion>/subscriptions/{subscriptionId}" as Resource URI representing the "Individual NWDAF Data Management Subscription", as shown in figure 4.4.2.2.3-1, step 1, to update the subscription for an "Individual NWDAF Data Management Subscription" resource identified by the {subscriptionId}. The NnwdafDataManagementSubsc data structure provided in the request body shall include the same contents as described in clause 4.4.2.2.2.

Upon the reception of an HTTP PUT request with: "{apiRoot}/nnwdaf-datamanagement/<apiVersion>/subscriptions/{subscriptionId}" as Resource URI and NnwdafDataManagementSubsc data structure as request body, the NWDAF shall use the contents of the request to determine whether the updated subscription can already be served or interactions with the ADRF and/or data sources are required. If the NWDAF cannot use the contents of the request to determine this, the NWDAF shall send an HTTP "400 Bad Request" error response including the "cause" attribute set to "SUBSCRIPTION\_CANNOT\_BE\_SERVED".

NOTE: The "SUBSCRIPTION\_CANNOT\_BE\_SERVED" error can occur, for example, in the case when the "dataSub" or "anaSub" attributes are provided, when the request is syntactically valid and there is no NWDAF internal error, but the NWDAF can neither find an existing subscription to a data source nor construct one based on the received subscription contents.

If the NWDAF determines that the updated subscription can already be served (without requiring further interactions with the ADRF and/or data sources) or a successful response from the ADRF and/or data sources is received for the creation or modification of subscription(s) to serve this subscription, the NWDAF shall:

- update the subscription of corresponding subscriptionId; and

- store the subscription.

If the NWDAF successfully processed and accepted the received HTTP PUT request, the NWDAF shall update an "Individual NWDAF Data Management Subscription" resource, and shall respond with:

a) HTTP "200 OK" status code with the message body containing a representation of the updated subscription, as shown in figure 4.4.2.2.3-1, step 2a; or

b) HTTP "204 No Content" status code, as shown in figure 4.4.2.2.3-1, step 2b.

If the NWDAF receives storage handling information in the request but determines (e.g. based on local policy) that a different storage approach shall be followed, it indicates the determined storage approach to the consumer by setting accordingly the "storeHandl" attribute (e.g. providing a different lifetime, or setting the indication about deletion alerts to "false") in the message body of the response. When more than one consumer has requested storage lifetime for the same analytics, the storage approach should be based on the longest requested storage lifetime.

NOTE 2: The default operator policy for how long analytics is to be stored can be longer or shorter than the lifetime requested by the consumer. A default operator policy can for example accept only consumer requested lifetimes that are shorter or longer than the default policy.

If errors occur when processing the HTTP PUT request, the NWDAF shall send an HTTP error response as specified in clause 5.3.7.

If the NWDAF determines the received HTTP PUT request needs to be redirected, the NWDAF shall send an HTTP redirect response as specified in clause 6.10.9 of 3GPP TS 29.500 [4].

\* \* \* \* Next change \* \* \* \*

5.3.6.1 General

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

Table 5.3.6.1-1 specifies the data types defined for the Nnwdaf\_DataManagement service based interface protocol.

**Table 5.3.6.1-1: Nnwdaf\_DataManagement specific Data Types**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Clause defined** | **Description** | **Applicability** |
| NnwdafDataManagementSubsc | 5.3.6.2.2 | Represents an Individual NWDAF Data Management Subscription resource. |  |
| NnwdafDataManagementNotif | 5.3.6.2.3 | Represents a notification that corresponds with an Individual NWDAF Data Management Subscription resource. |  |

Table 5.3.6.1-2 specifies data types re-used by the Nnwdaf\_DataManagement 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 Nnwdaf\_DataManagement service based interface.

**Table 5.3.6.1-2: Nnwdaf\_DataManagement re-used Data Types**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Reference** | **Comments** | **Applicability** |
| DataCollectionPurpose | 3GPP TS 29.574 [26] | Represents the purpose for data collection, e.g. analytics or model training. |  |
| DataNotification | 3GPP TS 29.575 [27] | Represents data subscription notification from data source (e.g. AMF, SMF, UDM, NEF, AF). |  |
| DataSubscription | 3GPP TS 29.575 [27] | Represents data subscription from data source (e.g. AMF, SMF, UDM, NEF, AF). |  |
| DateTime | 3GPP TS 29.571 [8] | Identifies the time. |  |
| FormattingInstruction | 3GPP TS 29.574 [26] | DCCF formatting Instructions. |  |
| FetchInstruction | 3GPP TS 29.576 [28] | The fetch instruction indicates whether the data can be fetched by the consumer. |  |
| NfInstanceId | 3GPP TS 29.571 [8] | NF instance identifier. |  |
| NfSetId | 3GPP TS 29.571 [8] | NF set identifier. |  |
| NnwdafEventsSubscription | 5.1.6.2.2 | Represents an NWDAF analytics subscription. |  |
| NotifSummaryReport | 3GPP TS 29.574 [26] | Contains a summary report of processed notifications. |  |
| NotifyEndpoint | 3GPP TS 29.574 [26] | The information of notification endpoint. | EnDataCollect |
| ProcessingInstruction | 3GPP TS 29.574 [26] | DCCF processing Instructions. |  |
| StorageHandlingInformation | 3GPP TS 29.574 [26] | Contains storage handling information for data or analytics. | EnhDataMgmt |
| SupportedFeatures | 3GPP TS 29.571 [8] |  |  |
| TimeWindow | 3GPP TS 29.122 [19] | Represents a time window. |  |
| Uri | 3GPP TS 29.571 [8] | URI. |  |

\* \* \* \* Next change \* \* \* \*

5.3.6.2.2 Type NnwdafDataManagementSubsc

**Table 5.3.6.2.2-1: Definition of type NnwdafDataManagementSubsc**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute name** | **Data type** | **P** | **Cardinality** | **Description** | **Applicability** |
| adrfId | NfInstanceId | O | 0..1 | Identifier of the ADRF to be used by the NWDAF.If the subscription is for runtime analytics (i.e. the "timePeriod" attribute is either absent or contains a time window in the future) then the NWDAF shall store the notifications in this ADRF.If the subscription is for historical analytics (i.e. the "timePeriod" attribute contains a time window in the past) then the NWDAF shall retrieve the data from this ADRF. (NOTE 2) |  |
| adrfSetId | NfSetId | O | 0..1 | Identifier of the ADRF Set to be used by the NWDAF.If the subscription is for runtime analytics (i.e. the "timePeriod" attribute is either absent or contains a time window in the future) then the NWDAF shall store the notifications in this ADRF Set.If the subscription is for historical analytics (i.e. the "timePeriod" attribute contains a time window in the past) then the NWDAF shall retrieve the data from this ADRF Set. (NOTE 2) |  |
| anaSub | NnwdafEventsSubscription | C | 0..1 | Analytics subscription information to be used by the NWDAF to determine the data that is relevant to these analytics and shall thus be collected and reported, i.e. the “anaSub” attribute may be provided when the consumer requests from the NWDAF data that it needs in order to compute the analytics that is specified by the “anaSub” attribute.(NOTE 1) |  |
| checkedConsentInd | boolean | O | 0..1 | If set to "true", it indicates that the NF service consumer has already checked the user consent. The default value is "false". | UserConsent |
| dataCollectPurposes | array(DataCollectionPurpose) | O | 1..N | The purpose of data collection. This attribute may only be provided if user consent is required depending on local policy and regulations, and the consumer has not checked user consent. |  |
| dataSub | DataSubscription | C | 0..1 | Subscribed data events.(NOTE 1) |  |
| formatInstruct | FormattingInstruction | O | 0..1 | Formatting instructions to be used for sending event notifications. |  |
| notifCorrId | string | M | 1 | Notification correlation identifier. |  |
| notificURI | Uri | M | 1 | Notification target address. |  |
| notifEndpoints | array(NotifyEndpoint) | O | 1..N | The additional information of notification target address and correlation identifier. | EnDataCollect |
| procInstruct | ProcessingInstruction | O | 0..1 | Processing instructions to be used for sending event notifications.This attribute may only be provided if the "dataSub" attribute is provided. (NOTE 4) |  |
| multiProcInstructs | array(ProcessingInstruction) | O | 1..N | Processing instructions to be used for sending event notifications.This attribute may only be provided if the "dataSub" attribute is provided. (NOTE 4) | MultiProcessingInstruction |
| suppFeat | SupportedFeatures | C | 0..1 | This IE represents a list of Supported features as described in clause 5.3.8.(NOTE 5) |  |
| targetNfId | NfInstanceId | O | 0..1 | NF instance identifier to which the NWDAF shall create the requested subscription. (NOTE 2) |  |
| targetNfSetId | NfSetId | O | 0..1 | NF set identifier to which the NWDAF shall create the requested subscription. (NOTE 2) |  |
| timePeriod | TimeWindow | O | 0..1 | Represents a start time and a stop time during which data was collected or is requested to be collected. If this attribute is included, then the internal attributes of the data subscription that indicate a subscription duration (e.g. the "targetPeriod" attribute of an "eventSubs" attribute of an "smfDataSub" attribute, or the "monDur" attribute of the ReportingInformation data type) shall not be provided.(NOTE 3) |  |
| storeHandl | StorageHandlingInformation | O | 0..1 | Contains storage handling information for the data that will be collected and stored in an ADRF based on the requested subscription. | EnhDataMgmt |
| NOTE 1: Exactly one of these attributes shall be provided.NOTE 2: "targetNfId" and "targetNfSetId" are mutually exclusive. "adrfId" and "adrfSetId" are also mutually exclusive.NOTE 3: It includes the time period either in the past or in the future (i.e., start time as past time and stop time as future time is not allowed).NOTE 4: The "multiProcInstructs" attribute shall be used instead of the "procInstruct" attribute when the "MultiProcessingInstruction" feature is supported.NOTE 5 It shall be present in the POST request if at least one feature defined in clause 5.3.8 is supported, and it shall be present in the POST response if the NF service consumer includes the "suppFeat" attribute in the POST request. |

\* \* \* \* Next change \* \* \* \*

A.4 Nnwdaf\_DataManagement API

openapi: 3.0.0

info:

 title: Nnwdaf\_DataManagement

 version: 1.1.0-alpha.2

 description: |

 Nnwdaf\_DataManagement API Service.

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externalDocs:

 description: 3GPP TS 29.520 V18.1.0; 5G System; Network Data Analytics Services.

 url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.520/'

servers:

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

 variables:

 apiRoot:

 default: https://example.com

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

security:

 - {}

 - oAuth2ClientCredentials:

 - nnwdaf-datamanagement

paths:

 /subscriptions:

 post:

 summary: subscribe to notifications

 operationId: CreateIndividualSubcription

 tags:

 - Subscriptions (Collection)

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: Success

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: >

 Contains the URI of the newly created resource, according to the structure

 {apiRoot}/nnwdaf-datamanagement/<apiVersion>/subscriptions/{subId}.

 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'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

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

 default:

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

 callbacks:

 myNotification:

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

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: No Content, Notification was succesfull

 '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'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

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

 default:

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

 callbacks:

 Fetch:

 '{request.body#/fetchInstruct/fetchUri}':

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

 type: array

 items:

 type: string

 minItems: 1

 description: Indicate the fetch correlation identifier.

 responses:

 '200':

 description: Expected response to a valid request

 content:

 application/json:

 schema:

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

 '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'

 '406':

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

 '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'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

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

 default:

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

 /subscriptions/{subscriptionId}:

 put:

 summary: Update an existing Individual NWDAF Data Subscription.

 operationId: UpdateNWDAFDataSubscription

 tags:

 - Individual NWDAF Data Management Subscription (Document)

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 parameters:

 - name: subscriptionId

 in: path

 description: Event Subscription ID

 required: true

 schema:

 type: string

 responses:

 '200':

 description: OK. Resource was succesfully modified and representation is returned

 content:

 application/json:

 schema:

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

 '204':

 description: No Content. Resource was succesfully modified

 '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'

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '503':

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

 default:

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

 delete:

 summary: unsubscribe from notifications

 operationId: DeleteNWDAFDataSubscription

 tags:

 - Individual NWDAF Data Management Subscription (Document)

 parameters:

 - name: subscriptionId

 in: path

 description: Event Subscription ID

 required: true

 schema:

 type: string

 responses:

 '204':

 description: No Content. Resource was succesfully 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'

 '429':

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

 '500':

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

 '502':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/502'

 '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:

 nnwdaf-datamanagement: Access to the Nnwdaf\_DataManagement API

 schemas:

 NnwdafDataManagementSubsc:

 description: Represents an Individual NWDAF Data Management Subscription resource.

 type: object

 properties:

 adrfId:

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

 adrfSetId:

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

 anaSub:

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

 dataCollectPurposes:

 type: array

 items:

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

 minItems: 1

 description: >

 The purposes of data collection. This attribute may only be provided if user consent

 is reqiured depending on local policy and regulations and the consumer has

 not checked user consent.

 checkedConsentInd:

 type: boolean

 description: Indication that the NF service consumer has already checked the user consent.

 dataSub:

 $ref: 'TS29575\_Nadrf\_DataManagement.yaml#/components/schemas/DataSubscription'

 formatInstruct:

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

 notifCorrId:

 type: string

 description: Notification correlation identifier.

 notificURI:

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

 notifEndpoints:

 type: array

 items:

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

 minItems: 1

 description: The information of notification endpoints.

 procInstruct:

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

 multiProcInstructs:

 type: array

 items:

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

 minItems: 1

 description: Processing instructions to be used for sending event notifications.

 suppFeat:

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

 targetNfId:

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

 targetNfSetId:

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

 timePeriod:

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

 storeHandl:

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

 required:

 - notifCorrId

 - notificURI

 oneOf:

 - required: [anaSub]

 - required: [dataSub]

 NnwdafDataManagementNotif:

 description: Represents an Individual Notification.

 type: object

 properties:

 dataNotification:

 $ref: 'TS29575\_Nadrf\_DataManagement.yaml#/components/schemas/DataNotification'

 dataReports:

 type: array

 items:

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

 minItems: 1

 description: List of summary reports of processed notifications.

 notifCorrId:

 type: string

 description: Notification correlation identifier.

 terminationReq:

 type: string

 description: >

 It indicates that the termination of the data management subscription

 is requested by the NWDAF.

 fetchInstruct:

 $ref: 'TS29576\_Nmfaf\_3caDataManagement.yaml#/components/schemas/FetchInstruction'

 notifTimestamp:

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

 required:

 - notifCorrId

 - notifTimestamp

 oneOf:

 - required: [dataNotification]

 - required: [dataReports]

 - required: [fetchInstruct]

\* \* \* \* End of changes \* \* \* \*