**3GPP TSG CT WG3 Meeting #134 *C3-242181r2***

**Changsha, China, 15-19 April 2024**

|  |
| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **29.574** | **CR** | **0093** | **rev** | **1** | **Current version:** | **18.5.0** |  |
|  |
| *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:***  | Incorrect description of storeInd attribute |
|  |  |
| ***Source to WG:*** | ZTE |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | eNetAE |  | ***Date:*** | 2024-04-08 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** |  Rel-18 |
|  | *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:*** | NdccfDataSubscription data type is used to subscribe for data notifications, but the description of storeInd attribute within this data type wrongly indicates the consumer requests to store the analytics in an ADRF.The 1st paragraph and 2nd paragraph of 4.4.2.4.2 are the same. |
|  |  |
| ***Summary of change:*** | Correct storeInd attribute description to replace analytics to data.The openAPI file also updated accordingly.Remove the duplicated paragraph. |
|  |  |
| ***Consequences if not approved:*** | Incorrect description remains. |
|  |  |
| ***Clauses affected:*** | 4.4.2.4.2, 5.1.6.2.3, 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 correction to the OpenAPI file for Ndccf\_DataManagement API, |
|  |  |
| ***This CR's revision history:*** |  |

**Additional discussion(if needed):**

**Proposed changes:**

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

##### 4.4.2.4.2 Notification about subscribed data

Figure 4.2.2.4.2-1 shows a scenario where the NWDAF sends a request to the NF service consumer to notify for event notifications (see also 3GPP TS 23.288 [17]).



Figure 4.4.2.4.2-1: NWDAF notifies the subscribed event

The NWDAF shall invoke the Nnwdaf\_DataManagement\_Notify service operation to notify the subscribed event. The NWDAF shall send an HTTP POST request with "{notificURI}" received in the Nnwdaf\_DataManagement\_Subscribe service operation as Resource URI, as shown in figure 4.4.2.4.2-1, step 1.

The NnwdafDataManagementNotif data structure provided in the request body that shall include:

- the notification correlation identifier within the "notifCorrId" attribute;

- the timestamp of the notification within the "notifTimestamp" attribute;

- one of the following:

- data collected from data sources (e.g. SMF, NEF) in the "dataNotification" attribute;

- summarized data derived from events that occurred based on processing and formatting instructions in the "dataReports" attribute;

- information for fetching the contents of the notification in the "fetchInstruct" attribute.

- a deletion alert in the "delAlert" attribute, if the "EnhDataMgmt" feature is supported.

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

- an indication that the NWDAF has requested a termination of the subscription within the "terminationReq" attribute; and/or

- a pending notification cause for the stored unsent data in the "pendNotifCause" attribute if the "EnhDataMgmt" feature is supported.

Upon the reception of an HTTP POST request, if the NF service consumer successfully processed and accepted the received HTTP POST request, the NF Service Consumer shall store the notification and respond with HTTP "204 No Content" status code, or with HTTP "200 OK" status code and the NotifResponse data structure in the response body if the "EnhDataMgmt" feature is supported.

After the successful processing of the HTTP POST request:

- if the NWDAF requests the NF service consumer with the "fetchInstruct" attribute to retrieve the data, the NF service consumer may invoke the Nnwdaf\_DataManagement\_Fetch service operation to retrieve the notified data as defined in clause 4.4.2.5.

- if the NWDAF provided a deletion alert to the NF service consumer, the NF service consumer may invoke the Nadrf\_DataManagement\_RetrievalRequest service operation as defined in 3GPP TS 29.575 [27] clause 4.2.2.5, using the storage transaction identifier received within the "alertStorTransId" attribute of the "delAlert" attribute, in order to retrieve the data that are about to be deleted.

NOTE: The "alertStorTransId" attribute, which is used for retrieving data prior to deletion, does not have to be the same with or related to the storage transaction identifier that is assigned and returned during the storage of the data in the ADRF.

If errors occur when processing the HTTP POST request, the NF service consumer shall send an HTTP error response as specified in clause 5.3.7.

If the NF service consumer determines the received HTTP POST request needs to be redirected, the NF service consumer shall send an HTTP redirect response as specified in clause 6.10.9 of 3GPP TS 29.500 [6].

\*\*\* 2nd Change \*\*\*

##### 5.1.6.2.3 Type NdccfDataSubscription

Table 5.1.6.2.3-1: Definition of type NdccfDataSubscription

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| dataSub | DataSubscription | M | 1 | Represents the requested events subscription.(NOTE 1) |  |
| dataNotifUri | Uri | M | 1 | Notification target address. |  |
| dataNotifCorrId | string | M | 1 | Notification correlation identifier. |  |
| notifEndpoints | array(NotifyEndpoint) | O | 1..N | The additional information of notification target address and correlation identifier. | DataAnaCollect |
| formatInstruct | FormattingInstruction | O | 0..1 | Formatting instructions to be used for sending event notifications. If provided, they take the precedence over any potentially conflicting event reporting requirements provided within the "dataSub" attribute. |  |
| procInstructs | array(ProcessingInstruction) | O | 1..N | Processing instructions to be used for sending event notifications. |  |
| targetNfId | NfInstanceId | O | 0..1 | Data Producer NF instance identifier to which the DCCF shall create the requested subscription. (NOTE 3) |  |
| targetNfSetId | NfSetId | O | 0..1 | Data Producer NF set identifier to which the DCCF shall create the requested subscription. (NOTE 3) |  |
| adrfId | NfInstanceId | O | 0..1 | Identifier of the ADRF to be used by the DCCF.If the subscription is for runtime data (i.e. the "timePeriod" attribute is either absent or contains a time window in the future) then the DCCF shall store the notifications in this ADRF.If the subscription is for historical data (i.e. the "timePeriod" attribute contains a time window in the past) then the DCCF shall retrieve the data from this ADRF. (NOTE 3) |  |
| adrfSetId | NfSetId | O | 0..1 | Identifier of the ADRF Set to be used by the DCCF.If the subscription is for runtime data (i.e. the "timePeriod" attribute is either absent or contains a time window in the future) then the DCCF shall store the notifications in this ADRF Set.If the subscription is for historical data (i.e. the "timePeriod" attribute contains a time window in the past) then the DCCF shall retrieve the data from this ADRF Set. (NOTE 3) |  |
| storeInd | boolean | C | 0..1 | The indication for data storage. This attribute shall be provided and set to "true" if the consumer requests to store the data in an ADRF but both the "adrfId" and "adrfSetId" attributes are not provided. The default value is "false". | DataAnaCollect |
| 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 |
| immReport | NdccfDataSubscriptionNotification | O | 0..1 | Immediate report including available DCCF notification.May only be present in the DCCF response to a subscription request and only if immediate reporting together with formatting/processing instructions was requested in the subscription request. | DataAnaCollect |
| 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 2) |  |
| dataCollectPurposes | array(DataCollectionPurpose) | O | 1..N | The purposes 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. |  |
| 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 |
| suppFeat | SupportedFeatures | C | 0..1 | This attribute represents a list of Supported features as described in clause 5.1.8.It shall be present in the POST request if at least one feature defined in clause 5.1.8 is supported, and it shall be present in the POST response if the NF service consumer included the"suppFeat" attribute in the POST request. |  |
| NOTE 1: The notification target address contained in the subscription attribute that is provided within the "dataSub" attribute (i.e. "eventNotifyUri" of "amfDataSub", "notifUri" of "smfDataSub", "callbackReference" of "udmDataSub", "notifUri" of "nefDataSub", "notifUri" of "afDataSub", "nfStatusNotificationUri" of "nrfDataSub", "eventNotifyUri" of "nsacfDataSub", "eventNotifyUri" of "upfDataSub" if the UpEvents feature is supported or "eventNotificationUri" of "gmlcDataSub") and the notification correlation ID contained in the subscription attribute that is provided within the "dataSub" attribute (i.e. the "notifyCorrelationId" of "amfDataSub", "notifId" of "smfDataSub", "notifyCorrelationId" of "udmDataSub", "notifId" of "nefDataSub", "notifId" of "afDataSub", "notifyCorrelationId" of "nsacfDataSub", "notifyCorrelationId" of "upfDataSub" if the UpEvents feature is supported or "ldrReference" of "gmlcDataSub") shall be ignored by the DCCF. The DCCF will provide the notification target address and the notification correlation ID of the DCCF itself in the data type during the event subscription request to each NF. The event reporting information (e.g. "eventsRepInfo" attribute in the case of AF events) may include muting instructions (e.g. within the "notifFlagInstruct" attribute in the case of AF events) and/or muting notifications settings (e.g. within the "mutingSetting" attribute in the case of AF events) only if the EnhDataMgmt feature is supported.NOTE 2: 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 3: "targetNfId" and "targetNfSetId" are mutually exclusive. "adrfId" and "adrfSetId" are also mutually exclusive. |

\*\*\* 3rd Change \*\*\*

# A.2 Ndccf\_DataManagement API

openapi: 3.0.0

info:

 version: 1.1.0-alpha.6

 title: Ndccf\_DataManagement

 description: |

 DCCF Data Management Service.

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externalDocs:

 description: 3GPP TS 29.574 V18.5.0; 5G System; Data Collection Coordination Services; Stage 3.

 url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.574/'

#

servers:

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

 variables:

 apiRoot:

 default: https://example.com

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

#

security:

 - oAuth2ClientCredentials:

 - ndccf-datamanagement

 - {}

#

paths:

 /analytics-subscriptions:

 post:

 summary: Creates a new Individual DCCF Analytics Subscription resource.

 operationId: CreateDCCFAnalyticsSubscription

 tags:

 - DCCF Analytics Subscriptions (Collection)

 requestBody:

 description: Contains the information for the creation the resource.

 content:

 application/json:

 schema:

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

 required: true

 responses:

 '201':

 description: Create a new Individual DCCF Analytics Subscription resource.

 headers:

 Location:

 description: >

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

 {apiRoot}/ndccf-datamanagement/<apiVersion>/analytics-subscriptions/{subscriptionId}

 required: true

 schema:

 type: string

 content:

 application/json:

 schema:

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

 '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:

 dccfAnalyticsNotification:

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

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: The notification is acknowledged and a planned action is provided.

 content:

 application/json:

 schema:

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

 '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'

 '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: Fetch correlation identifiers.

 responses:

 '200':

 description: Expected response to a valid request

 content:

 application/json:

 schema:

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

 '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'

 /analytics-subscriptions/{subscriptionId}:

 delete:

 summary: Deletes an existing Individual DCCF Data Subscription.

 operationId: DeleteDCCFAnalyticsSubscription

 tags:

 - Individual DCCF Analytics Subscription (Document)

 parameters:

 - name: subscriptionId

 in: path

 description: >

 String identifying an analytics subscription to the Ndccf\_DataManagement Service.

 required: true

 schema:

 type: string

 responses:

 '204':

 description: >

 No Content. The Individual DCCF Analytics 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'

 '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'

 put:

 summary: Updates an existing Individual DCCF Analytics Subscription resource.

 operationId: UpdateDCCFAnalyticsSubscription

 tags:

 - Individual DCCF Analytics Subscription (Document)

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 parameters:

 - name: subscriptionId

 in: path

 description: >

 String identifying an analytics subscription to the Ndccf\_DataManagement Service.

 required: true

 schema:

 type: string

 responses:

 '200':

 description: >

 The Individual DCCF Analytics Subscription resource was modified successfully and a

 representation of that resource is returned.

 content:

 application/json:

 schema:

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

 '204':

 description: >

 The Individual DCCF Analytics Subscription resource was modified successfully.

 '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':

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 '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'

 /data-subscriptions:

 post:

 summary: Creates a new Individual DCCF Data Subscription resource.

 operationId: CreateDCCFDataSubscription

 tags:

 - DCCF Data Subscriptions (Collection)

 requestBody:

 content:

 application/json:

 schema:

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

 required: true

 responses:

 '201':

 description: Creates a new Individual DCCF Data Subscription resource.

 headers:

 Location:

 description: >

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

 {apiRoot}/ndccf-datamanagement/<apiVersion>/data-subscriptions/{subscriptionId}

 required: true

 schema:

 type: string

 content:

 application/json:

 schema:

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

 '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:

 dccfDataNotification:

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

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: The notification is acknowledged and a planned action is provided.

 content:

 application/json:

 schema:

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

 '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'

 '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: Fetch correlation identifiers.

 responses:

 '200':

 description: Expected response to a valid request

 content:

 application/json:

 schema:

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

 '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'

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 '411':

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 '415':

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 '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'

 /data-subscriptions/{subscriptionId}:

 delete:

 summary: Deletes an existing Individual DCCF Data Subscription resource.

 operationId: DeleteDCCFDataSubscription

 tags:

 - Individual DCCF Data Subscription (Document)

 parameters:

 - name: subscriptionId

 in: path

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

 required: true

 schema:

 type: string

 responses:

 '204':

 description: >

 No Content. The Individual DCCF Data Subscription resource matching the subscriptionId

 was deleted.

 '200':

 description: >

 The Individual DCCF Data Subscription resource matching the subscriptionId was deleted

 and including the stored unsent data events in the response.

 content:

 application/json:

 schema:

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

 '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'

 put:

 summary: Updates an existing Individual DCCF Data Subscription resource.

 operationId: UpdateDCCFDataSubscription

 tags:

 - Individual DCCF Data Subscription (Document)

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 parameters:

 - name: subscriptionId

 in: path

 description: >

 String identifying a data subscription to the Ndccf\_DataManagement Service.

 required: true

 schema:

 type: string

 responses:

 '200':

 description: >

 The Individual DCCF Data Subscription resource was modified successfully and a

 representation of that resource is returned.

 content:

 application/json:

 schema:

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

 '204':

 description: >

 The Individual DCCF Data Subscription resource was modified successfully.

 '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'

 /transfers:

 post:

 summary: Creates a new Individual DCCF Data Management Transfer resource.

 operationId: CreateDCCFDataManagementTransfer

 tags:

 - DCCF Data Management Transfers (Collection)

 requestBody:

 content:

 application/json:

 schema:

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

 required: true

 responses:

 '201':

 description: Creates a new Individual DCCF Data Management Transfer resource.

 headers:

 Location:

 description: >

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

 {apiRoot}/ndccf-datamanagement/<apiVersion>/tranfers/{tranferId}

 required: true

 schema:

 type: string

 content:

 application/json:

 schema:

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

 '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'

 /transfers/{transferId}:

 put:

 summary: Updates an existing Individual DCCF Data Management Transfer resource.

 operationId: UpdateDCCFDataManagementTransfer

 tags:

 - Individual DCCF Data Management Transfer (Document)

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 parameters:

 - name: transferId

 in: path

 description: >

 String identifying a data management transfer to the Ndccf\_DataManagement Service.

 required: true

 schema:

 type: string

 responses:

 '200':

 description: >

 The Individual DCCF Data Management Transfer resource was modified successfully and a

 representation of that resource is returned.

 content:

 application/json:

 schema:

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

 '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: Deletes an existing Individual DCCF Data Management Transfer resource.

 operationId: DeleteDCCFDataManagementTransfer

 tags:

 - Individual DCCF Data DataManagementTransfer (Document)

 parameters:

 - name: transferId

 in: path

 description: >

 String identifying a data management transfer to the Ndccf\_DataManagement Service.

 required: true

 schema:

 type: string

 responses:

 '204':

 description: >

 No Content. The Individual DCCF Data Subscription resource matching the transferId 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'

 '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:

 ndccf-datamanagement: Access to the ndccf-datamanagement API

#

 schemas:

#

 NdccfAnalyticsSubscription:

 description: Represents an Individual DCCF Analytics Subscription.

 type: object

 required:

 - anaSub

 - anaNotifUri

 - anaNotifCorrId

 properties:

 anaSub:

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

 anaNotifUri:

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

 anaNotifCorrId:

 type: string

 description: Notification correlation identifier.

 notifEndpoints:

 type: array

 items:

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

 minItems: 1

 description: The information of notification endpoints.

 formatInstruct:

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

 procInstructs:

 type: array

 items:

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

 minItems: 1

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

 targetNfId:

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

 targetNfSetId:

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

 adrfId:

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

 ardfSetId:

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

 storeInd:

 type: boolean

 description: >

 The indication for analytics storage. This attribute shall be provided and set to "true"

 if the consumer requests to store the analytics in an ADRF but both the "adrfId" and

 "adrfSetId" attributes are not provided. The default value is "false".

 storeHandl:

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

 suppFeat:

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

 timePeriod:

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

 dataCollectPurposes:

 type: array

 items:

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

 minItems: 1

 description: >

 The purposes 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.

 checkedConsentInd:

 type: boolean

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

 immReport:

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

#

 NdccfDataSubscription:

 description: Represents an Individual DCCF Data Subscription.

 type: object

 required:

 - dataNotifUri

 - dataNotifCorrId

 - dataSub

 properties:

 dataSub:

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

 dataNotifUri:

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

 dataNotifCorrId:

 type: string

 description: Notification correlation identifier.

 notifEndpoints:

 type: array

 items:

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

 minItems: 1

 description: The information of notification endpoints.

 formatInstruct:

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

 procInstructs:

 type: array

 items:

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

 minItems: 1

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

 targetNfId:

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

 targetNfSetId:

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

 adrfId:

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

 ardfSetId:

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

 storeInd:

 type: boolean

 description: >

 The indication for data storage. This attribute shall be provided and set to "true"

 if the consumer requests to store the data in an ADRF but both the "adrfId" and

 "adrfSetId" attributes are not provided. The default value is "false".

 storeHandl:

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

 timePeriod:

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

 suppFeat:

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

 dataCollectPurposes:

 type: array

 items:

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

 minItems: 1

 description: >

 The purposes 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.

 checkedConsentInd:

 type: boolean

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

 immReport:

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

#

 NdccfAnalyticsSubscriptionNotification:

 description: Represents a notification for a DCCF analytics subscription.

 type: object

 required:

 - anaNotifCorrId

 - timeStamp

 oneOf:

 - required: [anaNotifications]

 - required: [anaReports]

 - required: [fetchInstruct]

 properties:

 anaNotifCorrId:

 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.

 anaReports:

 type: array

 items:

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

 minItems: 1

 description: >

 List of reports with summarized data from multiple analytics notifications that the DCCF

 has received from NWDAF.

 fetchInstruct:

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

 terminationReq:

 type: boolean

 description: >

 If provided and set to true, it indicates the termination of the data management

 subscription that requested by the DCCF, i.e. no further notifications related to this

 subscription will be provided, apart from sending final report (if available).

 The default value is false.

 delAlert:

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

 termCause:

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

 pendDataNotifCause:

 $ref: 'TS29520\_Nnwdaf\_DataManagement.yaml#/components/schemas/PendingNotificationCause'

 reUserConsentPurs:

 type: array

 items:

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

 minItems: 1

 description: The purposes of data collection for which the user consent is revoked.

 timeStamp:

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

#

 NdccfDataSubscriptionNotification:

 description: Represents a notification for a DCCF data subscription.

 type: object

 required:

 - dataNotifCorrId

 - timeStamp

 oneOf:

 - required: [dataNotif]

 - required: [dataReports]

 - required: [fetchInstruct]

 properties:

 dataNotifCorrId:

 type: string

 description: Notification correlation identifier.

 newSubscriptionUri:

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

 dataNotif:

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

 dataReports:

 type: array

 items:

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

 minItems: 1

 description: >

 List of reports with summarized data from multiple notifications received from data

 producer.

 delAlert:

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

 fetchInstruct:

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

 terminationReq:

 type: boolean

 description: >

 If provided and set to true, it indicates the termination of the data management

 subscription that requested by the DCCF, i.e. no further notifications related to this

 subscription will be provided, apart from sending final report (if available).

 The default value is false.

 timeStamp:

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

#

 FormattingInstruction:

 description: Contains data or analytics formatting instructions.

 type: object

 properties:

 consTrigNotif:

 type: boolean

 description: >

 Indicates that notifications shall be buffered until the NF service consumer requests

 their delivery.

 reportingOptions:

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

#

 ReportingOptions:

 description: Represents reporting options for processed notifications.

 type: object

 oneOf:

 - required: [notifyWindow]

 - required: [notifyPeriod]

 - required: [notifyPeriodInc]

 - required: [depEventSubId]

 properties:

 notifyWindow:

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

 notifyPeriod:

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

 notifyPeriodInc:

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

 depEventSubId:

 type: string

 description: >

 Notifications for the present subscription are sent only upon occurrence of events of the

 subscription with identifier that matches this attribute.

 minClubbedNotif:

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

 maxClubbedNotif:

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

#

 ProcessingInstruction:

 description: Contains instructions related to the processing of notifications.

 type: object

 required:

 - eventId

 - procInterval

 properties:

 eventId:

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

 procInterval:

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

 paramProcInstructs:

 type: array

 items:

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

 minItems: 1

 description: >

 List of event parameter names, and for each event parameter name, respective event

 parameter values and sets of the attributes to be used in the summarized reports.

 NotifyEndpoint:

 description: The information of notification endpoint.

 type: object

 required:

 - notifUri

 properties:

 notifUri:

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

 notifCorrId:

 type: string

 description: Notification correlation identifier.

#

 DccfEvent:

 description: >

 Identifies the (event exposure or analytics) event that the processing instructions

 shall apply to. Contains all event IDs related to DCCF.

 type: object

 oneOf:

 - required: [nwdafEvent]

 - required: [smfEvent]

 - required: [amfEvent]

 - required: [nefEvent]

 - required: [afEvent]

 - required: [sacEvent]

 - required: [nrfEvent]

 - required: [udmEvent]

 - required: [gmlcEvent]

 - required: [upfEvent]

 properties:

 nwdafEvent:

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

 smfEvent:

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

 amfEvent:

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

 nefEvent:

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

 udmEvent:

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

 afEvent:

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

 sacEvent:

 $ref: 'TS29536\_Nnsacf\_SliceEventExposure.yaml#/components/schemas/SACEvent'

 nrfEvent:

 $ref: 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/NotificationEventType'

 gmlcEvent:

 $ref: 'TS29515\_Ngmlc\_Location.yaml#/components/schemas/EventNotifyDataType'

 upfEvent:

 $ref: 'TS29564\_Nupf\_EventExposure.yaml#/components/schemas/EventType'

#

 ParameterProcessingInstruction:

 description: >

 Contains an event parameter name and the respective event parameter values and sets of

 attributes to be used in summarized reports.

 type: object

 required:

 - name

 - values

 - sumAttrs

 properties:

 name:

 type: string

 description: >

 A JSON pointer value that references an attribute within the notification object to which

 the processing instruction is applied.

 values:

 type: array

 items: {}

 minItems: 1

 description: A list of values for the attribute identified by the name attribute.

 sumAttrs:

 type: array

 items:

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

 minItems: 1

 description: Attributes requested to be used in the summarized reports.

 aggrLevel:

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

 supis:

 type: array

 items:

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

 minItems: 1

 description: Indicates the UEs for which processed reports are requested.

 temporalAggrLevel:

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

 areas:

 type: array

 items:

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

 minItems: 1

 description: Indicates the Areas of Interest for which processed reports are requested.

#

 NotifSummaryReport:

 description: Represents summarized notifications based on processing instructions.

 type: object

 required:

 - eventId

 - procInterval

 - eventReports

 properties:

 eventId:

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

 procInterval:

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

 eventReports:

 type: array

 items:

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

 minItems: 1

 description: List of event parameter reports.

#

 EventParamReport:

 description: Represents a summarized report for one event parameter.

 type: object

 required:

 - name

 - values

 properties:

 name:

 type: string

 description: The name of the reported parameter.

 values:

 type: array

 items: {}

 minItems: 1

 description: The list of values of the reported parameter.

 supi:

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

 area:

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

 spacing:

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

 duration:

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

 avgAndVar:

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

 mostFreqVal: {}

 leastFreqVal: {}

 count:

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

 minValue:

 type: string

 description: The minimum value of the parameter.

 maxValue:

 type: string

 description: The maximum value of the parameter.

#

 StorageHandlingInformation:

 description: Contains storage handling information about data or analytics.

 type: object

 properties:

 lifetime:

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

 delNotifInd:

 type: boolean

 description: Indicates if deletion alerts are requested.

#

 DeletionAlert:

 description: Contains information about data or analytics that are about to be deleted.

 type: object

 properties:

 alertStorTransId:

 type: string

 description: >

 Storage transaction identifier that can be used to retrieve data or analytics.

 required:

 - alertStorTransId

#

 NotifResponse:

 description: >

 Contains information about planned actions related to data or analytics

 that are about to be deleted.

 type: object

 properties:

 retrievalInd:

 type: boolean

 description: >

 Indicates if the NF service consumer has determined to retrieve data

 or analytics that are about to be deleted.

 required:

 - retrievalInd

#

 NdccfDataManagementTransfer:

 description: Represents an Individual DCCF Data Management Transfer.

 type: object

 properties:

 subscriptionId:

 type: string

 description: The identifier of a subscription that needs to be transferred.

 subInfo:

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

 required:

 - subscriptionId

 - subInfo

#

 SummarizationAttribute:

 anyOf:

 - type: string

 enum:

 - SPACING

 - DURATION

 - OCCURRENCES

 - AVG\_VAR

 - FREQ\_VAL

 - MIN\_MAX

 - 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: |

 Represents the attribute in the summarized report.

 Possible values are:

 - SPACING: Average and variance of the time interval separating two consecutive occurrences

 of the same event and parameter value, or periodicity for periodic reporting.

 - DURATION: Average and variance of the time for which the parameter value applies.

 - OCCURRENCES: Number of countable occurrences for the parameter.

 - AVG\_VAR: Average and variance of the parameter.

 - FREQ\_VAL: Most and least frequent values.

 - MIN\_MAX: Maximum and minimum parameter values.

#

 AggregationLevel:

 anyOf:

 - type: string

 enum:

 - UE

 - AOI

 - 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: |

 Represents the aggregation level for processing instructions.

 Possible values are:

 - UE: Indicates that the summarized reports shall be provided per UE.

 - AOI: Indicates that the summarized reports shall be provided per Area of Interest.

#

 DataCollectionPurpose:

 anyOf:

 - type: string

 enum:

 - ANALYTICS\_GENERATION

 - MODEL\_TRAINING

 - 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: |

 Represents the purpose for data collection.

 Possible values are:

 - ANALYTICS\_GENERATION: The data is collected for generating the analytics.

 - MODEL\_TRAINING: The data is collected for ML model training.

#

 TermCause:

 anyOf:

 - type: string

 enum:

 - USER\_CONSENT\_REVOKED

 - DCCF\_OVERLOAD

 - OTHER

 - OUT\_OF\_SERVING\_AREA

 - 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: |

 Represents the cause for the subscription termination request by DCCF for data collection.

 Possible values are:

 - USER\_CONSENT\_REVOKED: The user consent has been revoked.

 - DCCF\_OVERLOAD: The DCCF is overloaded.

 - OTHER: Indicates that the termination is due to other reason.

 - OUT\_OF\_SERVING\_AREA: Indicates that that the UE(s) moved outside of the DCCF serving area.

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