**3GPP TSG CT WG3 Meeting #134 *C3-242181r1***

**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 can be 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. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Correct storeInd attribute description to replace analytics to data.  The openAPI file also updated accordingly. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Incorrect description remains. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 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 \*\*\*

##### 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. | | | | | |

\*\*\* 2nd 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'

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

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$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'

'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':

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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 \*\*\*