**3GPP TSG-CT WG3 Meeting #116e C3-213216**

**E-Meeting, 19th – 28th May 2021 (Revision of C3-21xxxx)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.122** | **CR** | **0440** | **rev** |  | **Current version:** | **17.1.0** |  |
|  | | | | | | | | |
| *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:*** | Updates 204 No Content in PUT in NIDD API | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NBI17 | | | | |  | ***Date:*** | | | 2021-05-10 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories 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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Response code 204 No Content in PUT method is missing for modification of the buffered downlink non-IP data in NIDD API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Adding response code 204 No Content in PUT method for partial modification or replacement of the buffered downlink non-IP data successfully with no content in message body in NIDD API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Missing 204 No Content response code for the successful replacement of downlink NIDD delivery in PUT method and no content in message body in NIDD API, not effective for message handling when no updated contents is required in response. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.6.3.5.3.2, A.6 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 into the OpenAPI file applicable to NIDD API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

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

###### 5.6.3.5.3.2 PUT

To replace the buffered downlink non-IP data, the SCS/AS shall use the HTTP PUT method on the"Individual NIDD downlink data delivery" resource with the body of the message is encoded in JSON format with the data structure defined in table 5.6.2.1.3-1.

The possible response messages from the SCEF, depending on whether the PUT request is successful or unsuccessful, are shown in Table 5.6.3.5.3.2-1.

Table 5.6.3.5.3.2-1: Data structures supported by the PUT request/response by the resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Request body | Data type | Cardinality | Remarks | |
| NiddDownlinkDataTransfer | 1 | The parameters and non-IP data for the MT delivery. | |
| Response body | Data type | Cardinality | Response  codes | Remarks |
|  | NiddDownlinkDataTransfer | 1 | 200 OK | The NIDD downlink data delivery was accepted by the SCEF, the NIDD will be performed later.  The SCEF shall return a data structure of type "NiddDownlinkDataTransfer" in the response payload body. |
| None |  | 204 No Content | The NIDD downlink data delivery has been replaced successfully and no content is to be sent in the response message body. |
| ProblemDetails | 0..1 | 403 Forbidden | The resource is not allowed to be updated since the HTTP PUT method is not supported.  (NOTE 2) |
| ProblemDetails | 0..1 | 404 Not Found | The buffered data is not allowed to be replaced since data delivery has already been delivered.  (NOTE 3) |
| ProblemDetails | 0..1 | 409 Conflict | The buffered data is not allowed to be replaced since data delivery is ongoing sent.  (NOTE 4) |
| NiddDownlinkDataDeliveryFailure | 0..1 | 500 Internal Server Error | The NIDD downlink data replacement request was not successful, the "cause" attribute in "ProblemDetails" data type may include value defined in subclause 5.6.5.3. |
| None |  | 307 Temporary Redirect | Temporary redirection, during configuration modification. The response shall include a Location header field containing an alternative URI of the resource located in an alternative SCEF.  Redirection handling is described in subclause 5.2.10. |
| None |  | 308 Permanent Redirect | Permanent redirection, during configuration modification. The response shall include a Location header field containing an alternative URI of the resource located in an alternative SCEF.  Redirection handling is described in subclause 5.2.10. |
| NOTE 1: The mandatory HTTP error status codes for the PUT method listed in table 5.2.6-1 also apply.  NOTE 2: The "cause" attribute within the "ProblemDetails" data structure may be set to "OPERATION\_PROHIBITED" as defined in subclause 5.6.5.3.  NOTE 3: The "cause" attribute within the "ProblemDetails" data structure may be set to "ALREADY\_DELIVERED" as defined in subclause 5.6.5.3.  NOTE 4: The "cause" attribute within the "ProblemDetails" data structure may be set to "SENDING" as defined in subclause 5.6.5.3. | | | | |

Table 5.6.3.5.3.2-2: Headers supported by the 307 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | An alternative URI of the resource located in an alternative SCEF. |

Table 5.6.3.5.3.2-3: Headers supported by the 308 Response Code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| Location | string | M | 1 | An alternative URI of the resource located in an alternative SCEF. |

\*\*\* 4th Change \*\*\*

## A.6 NIDD API

openapi: 3.0.0

info:

title: 3gpp**-**nidd

version: 1.2.0-alpha.2

description: |

API for non IP data delivery.

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externalDocs:

description: 3GPP TS 29.122 V17.1.0 T8 reference point for Northbound APIs

url: 'http://www.3gpp.org/ftp/Specs/archive/29\_series/29.122/'

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp**-**nidd/v1'

variables:

apiRoot:

default: https://example.com

description: apiRoot as defined in subclause 5.2.4 of 3GPP TS 29.122.

paths:

/{scsAsId}/configurations:

parameters:

- name: scsAsId

description: String identifying the SCS/AS.

in: path

required: true

schema:

type: string

get:

responses:

'200':

description: all NIDD configurations.

content:

application/json:

schema:

type: array

items:

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

minItems: 0

description: individual NIDD configuration.

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'406':

$ref: 'TS29122\_CommonData.yaml#/components/responses/406'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

post:

requestBody:

description: Contains the data to create a NIDD configuration.

required: true

content:

application/json:

schema:

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

responses:

'201':

description: NIDD configuration is successfully created.

content:

application/json:

schema:

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

headers:

Location:

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

required: true

schema:

type: string

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'411':

$ref: 'TS29122\_CommonData.yaml#/components/responses/411'

'413':

$ref: 'TS29122\_CommonData.yaml#/components/responses/413'

'415':

$ref: 'TS29122\_CommonData.yaml#/components/responses/415'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

callbacks:

niddNotifications:

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

post:

requestBody:

description: Notification for NIDD configuration status, MO NIDD, MT NIDD delivery report.

required: true

content:

application/json:

schema:

oneOf:

- $ref: '#/components/schemas/NiddConfigurationStatusNotification'

- $ref: '#/components/schemas/NiddUplinkDataNotification'

- $ref: '#/components/schemas/NiddDownlinkDataDeliveryStatusNotification'

- $ref: '#/components/schemas/GmdNiddDownlinkDataDeliveryNotification'

- $ref: '#/components/schemas/ManagePortNotification'

responses:

'204':

description: Expected response to a successful callback processing without a body

'200':

description: Expected response to a successful callback processing with a body

content:

application/json:

schema:

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

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'411':

$ref: 'TS29122\_CommonData.yaml#/components/responses/411'

'413':

$ref: 'TS29122\_CommonData.yaml#/components/responses/413'

'415':

$ref: 'TS29122\_CommonData.yaml#/components/responses/415'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

/{scsAsId}/configurations/{configurationId}:

parameters:

- name: scsAsId

description: String identifying the SCS/AS.

in: path

required: true

schema:

type: string

- name: configurationId

description: String identifying the individual NIDD configuration resource in the SCEF.

in: path

required: true

schema:

type: string

get:

responses:

'200':

description: The individual NIDD configuration is successfully retrieved.

content:

application/json:

schema:

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

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'406':

$ref: 'TS29122\_CommonData.yaml#/components/responses/406'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

patch:

requestBody:

description: Contains information to be applied to the individual NIDD configuration.

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: The Individual NIDD configuration is modified successfully and a representation of that resource is returned.

content:

application/json:

schema:

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

'204':

description: The Individual NIDD configuration is modified successfully and no content is to be sent in the response message body.

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'411':

$ref: 'TS29122\_CommonData.yaml#/components/responses/411'

'413':

$ref: 'TS29122\_CommonData.yaml#/components/responses/413'

'415':

$ref: 'TS29122\_CommonData.yaml#/components/responses/415'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

delete:

responses:

'204':

description: The Individual NIDD configuration is deleted.

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

/{scsAsId}/configurations/{configurationId}/downlink-data-deliveries:

parameters:

- name: scsAsId

description: String identifying the SCS/AS.

in: path

required: true

schema:

type: string

- name: configurationId

description: String identifying the individual NIDD configuration resource in the SCEF.

in: path

required: true

schema:

type: string

get:

responses:

'200':

description: all NIDD downlink data deliveries.

content:

application/json:

schema:

type: array

items:

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

minItems: 0

description: individual NIDD downlink data delivery.

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'406':

$ref: 'TS29122\_CommonData.yaml#/components/responses/406'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

post:

requestBody:

description: Contains the data to create a NIDD downlink data delivery.

required: true

content:

application/json:

schema:

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

responses:

'200':

description: NIDD downlink data delivery is successful.

content:

application/json:

schema:

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

'201':

description: NIDD downlink data delivery is pending.

content:

application/json:

schema:

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

headers:

Location:

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

required: true

schema:

type: string

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'411':

$ref: 'TS29122\_CommonData.yaml#/components/responses/411'

'413':

$ref: 'TS29122\_CommonData.yaml#/components/responses/413'

'415':

$ref: 'TS29122\_CommonData.yaml#/components/responses/415'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

description: The NIDD downlink data delivery request was not successful.

content:

application/json:

schema:

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

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

/{scsAsId}/configurations/{configurationId}/downlink-data-deliveries/{downlinkDataDeliveryId}:

parameters:

- name: scsAsId

description: String identifying the SCS/AS.

in: path

required: true

schema:

type: string

- name: configurationId

description: String identifying the individual NIDD configuration resource in the SCEF.

in: path

required: true

schema:

type: string

- name: downlinkDataDeliveryId

description: String identifying the individual NIDD downlink data delivery in the SCEF.

in: path

required: true

schema:

type: string

get:

responses:

'200':

description: The individual NIDD downlink data delivery is successfully retrieved.

content:

application/json:

schema:

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

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'406':

$ref: 'TS29122\_CommonData.yaml#/components/responses/406'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

put:

requestBody:

description: Contains information to be applied to the individual NIDD downlink data delivery.

required: true

content:

application/json:

schema:

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

responses:

'200':

description: The pending NIDD downlink data is replaced sucessfully but delivery is pending.

content:

application/json:

schema:

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

'204':

description: The NIDD downlink data delivery has been replaced successfully and no content is to be sent in the response message body.

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'409':

$ref: 'TS29122\_CommonData.yaml#/components/responses/409'

'411':

$ref: 'TS29122\_CommonData.yaml#/components/responses/411'

'413':

$ref: 'TS29122\_CommonData.yaml#/components/responses/413'

'415':

$ref: 'TS29122\_CommonData.yaml#/components/responses/415'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

description: The NIDD downlink data replacement request was not successful.

content:

application/json:

schema:

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

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

delete:

responses:

'204':

description: The pending NIDD downlink data is deleted.

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'409':

$ref: 'TS29122\_CommonData.yaml#/components/responses/409'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

description: The NIDD downlink data cancellation request was not successful.

content:

application/json:

schema:

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

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

/{scsAsId}/configurations/{configurationId}/rds-ports:

parameters:

- name: scsAsId

description: String identifying the SCS/AS.

in: path

required: true

schema:

type: string

- name: configurationId

description: String identifying the individual NIDD configuration resource in the SCEF.

in: path

required: true

schema:

type: string

get:

responses:

'200':

description: all ManagePort configurations.

content:

application/json:

schema:

type: array

items:

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

minItems: 0

description: individual ManagePort configuration.

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'406':

$ref: 'TS29122\_CommonData.yaml#/components/responses/406'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

/{scsAsId}/configurations/{configurationId}/rds-ports/{portId}:

parameters:

- name: scsAsId

description: String identifying the SCS/AS.

in: path

required: true

schema:

type: string

- name: configurationId

description: String identifying the individual NIDD configuration resource in the SCEF.

in: path

required: true

schema:

type: string

- name: portId

description: The UE port number.

in: path

required: true

schema:

type: string

pattern: '^(ue([0-9]|(1[0-5]))-ef([0-9]|(1[0-5])))$'

get:

responses:

'200':

description: The individual ManagePort configuration is successfully retrieved.

content:

application/json:

schema:

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

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'406':

$ref: 'TS29122\_CommonData.yaml#/components/responses/406'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

put:

requestBody:

description: Contains information to be applied to the individual ManagePort configuration.

required: true

content:

application/json:

schema:

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

responses:

'201':

description: The individual ManagePort configuration is created.

content:

application/json:

schema:

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

headers:

Location:

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

required: true

schema:

type: string

'202':

description: The request is accepted and under processing.

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'409':

$ref: 'TS29122\_CommonData.yaml#/components/responses/409'

'411':

$ref: 'TS29122\_CommonData.yaml#/components/responses/411'

'413':

$ref: 'TS29122\_CommonData.yaml#/components/responses/413'

'415':

$ref: 'TS29122\_CommonData.yaml#/components/responses/415'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

description: The request was not successful.

content:

application/problem+json:

schema:

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

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

delete:

responses:

'202':

description: The request is accepted and under processing.

'204':

description: The individual ManagePort configuration is deleted.

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'409':

$ref: 'TS29122\_CommonData.yaml#/components/responses/409'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

description: The request was not successful.

content:

application/problem+json:

schema:

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

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

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

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{tokenUrl}'

scopes: {}

schemas:

NiddConfiguration:

type: object

properties:

self:

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

supportedFeatures:

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

mtcProviderId:

type: string

description: Identifies the MTC Service Provider and/or MTC Application.

externalId:

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

msisdn:

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

externalGroupId:

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

duration:

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

reliableDataService:

type: boolean

description: The reliable data service (as defined in subclause 4.5.15.3 of 3GPP TS 23.682) to indicate if a reliable data service acknowledgment is enabled or not.

rdsPorts:

type: array

items:

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

minItems: 1

description: Indicates the static port configuration that is used for reliable data transfer between specific applications using RDS (as defined in subclause 5.2.4 and 5.2.5 of 3GPP TS 24.250).

pdnEstablishmentOption:

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

notificationDestination:

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

requestTestNotification:

type: boolean

description: Set to true by the SCS/AS to request the SCEF to send a test notification as defined in subclause 5.2.5.3. Set to false or omitted otherwise.

websockNotifConfig:

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

maximumPacketSize:

type: integer

minimum: 1

description: The Maximum Packet Size is the maximum NIDD packet size that was transferred to the UE by the SCEF in the PCO, see subclause 4.5.14.1 of 3GPP TS 23.682. If no maximum packet size was provided to the UE by the SCEF, the SCEF sends a default configured max packet size to SCS/AS. Unit bit.

readOnly: true

niddDownlinkDataTransfers:

type: array

items:

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

minItems: 1

description: The downlink data deliveries that needed to be executed by the SCEF. The cardinality of the property shall be 0..1 in the request and 0..N in the response (i.e. response may contain multiple buffered MT NIDD).

status:

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

required:

- notificationDestination

oneOf:

- required: [externalId]

- required: [msisdn]

- required: [externalGroupId]

NiddDownlinkDataTransfer:

type: object

properties:

externalId:

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

externalGroupId:

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

msisdn:

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

self:

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

data:

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

reliableDataService:

type: boolean

description: The reliable data service (as defined in subclause 4.5.15.3 of 3GPP TS 23.682) to indicate if a reliable data service acknowledgment is enabled or not.

rdsPort:

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

maximumLatency:

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

priority:

type: integer

description: It is used to indicate the priority of the non-IP data packet relative to other non-IP data packets.

pdnEstablishmentOption:

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

deliveryStatus:

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

requestedRetransmissionTime:

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

required:

- data

oneOf:

- required: [externalId]

- required: [msisdn]

- required: [externalGroupId]

NiddUplinkDataNotification:

type: object

properties:

niddConfiguration:

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

externalId:

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

msisdn:

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

data:

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

reliableDataService:

type: boolean

description: Indicates whether the reliable data service is enabled.

rdsPort:

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

required:

- niddConfiguration

- data

oneOf:

- required: [externalId]

- required: [msisdn]

NiddDownlinkDataDeliveryStatusNotification:

type: object

properties:

niddDownlinkDataTransfer:

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

deliveryStatus:

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

requestedRetransmissionTime:

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

required:

- niddDownlinkDataTransfer

- deliveryStatus

NiddConfigurationStatusNotification:

type: object

properties:

niddConfiguration:

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

externalId:

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

msisdn:

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

status:

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

rdsCapIndication:

type: boolean

description: It indicates whether the network capability for the reliable data service is enabled or not.

rdsPort:

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

required:

- niddConfiguration

- status

oneOf:

- required: [externalId]

- required: [msisdn]

GmdNiddDownlinkDataDeliveryNotification:

type: object

properties:

niddDownlinkDataTransfer:

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

gmdResults:

type: array

items:

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

minItems: 1

description: Indicates the group message delivery result.

required:

- niddDownlinkDataTransfer

- gmdResults

RdsPort:

type: object

properties:

portUE:

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

portSCEF:

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

required:

- portUE

- portSCEF

GmdResult:

type: object

properties:

externalId:

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

msisdn:

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

deliveryStatus:

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

requestedRetransmissionTime:

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

required:

- deliveryStatus

oneOf:

- required: [externalId]

- required: [msisdn]

NiddDownlinkDataDeliveryFailure:

type: object

properties:

problemDetail:

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

requestedRetransmissionTime:

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

required:

- problemDetail

ManagePort:

type: object

properties:

self:

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

appId:

type: string

description: Identifies the application.

manageEntity:

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

skipUeInquiry:

type: boolean

description: Indicate whether to skip UE inquiry.

supportedFormats:

type: array

items:

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

minItems: 1

description: Indicates the serialization format(s) that are supported by the SCS/AS on the associated RDS port.

configuredFormat:

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

required:

- appId

ManagePortNotification:

type: object

properties:

niddConfiguration:

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

externalId:

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

msisdn:

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

managedPorts:

type: array

items:

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

minItems: 1

description: Indicates the reserved RDS port configuration information.

required:

- niddConfiguration

oneOf:

- required: [externalId]

- required: [msisdn]

RdsDownlinkDataDeliveryFailure:

allOf:

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

- type: object

properties:

requestedRetransmissionTime:

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

supportedUeFormats:

type: array

items:

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

minItems: 1

description: Indicates the serialization format(s) that are supported by the UE on the associated RDS port.

PdnEstablishmentOptions:

anyOf:

- type: string

enum:

- WAIT\_FOR\_UE

- INDICATE\_ERROR

- SEND\_TRIGGER

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: >

Possible values are

- WAIT\_FOR\_UE: wait for the UE to establish the PDN connection

- INDICATE\_ERROR: respond with an error cause

- SEND\_TRIGGER: send a device trigger

PdnEstablishmentOptionsRm:

anyOf:

- $ref: '#/components/schemas/PdnEstablishmentOptions'

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

DeliveryStatus:

anyOf:

- type: string

enum:

- SUCCESS

- SUCCESS\_NEXT\_HOP\_ACKNOWLEDGED

- SUCCESS\_NEXT\_HOP\_UNACKNOWLEDGED

- SUCCESS\_ACKNOWLEDGED

- SUCCESS\_UNACKNOWLEDGED

- TRIGGERED

- BUFFERING

- BUFFERING\_TEMPORARILY\_NOT\_REACHABLE

- SENDING

- FAILURE

- FAILURE\_RDS\_DISABLED

- FAILURE\_NEXT\_HOP

- FAILURE\_TIMEOUT

- FAILURE\_TEMPORARILY\_NOT\_REACHABLE

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: >

Possible values are

- SUCCESS: Success but details not provided

- SUCCESS\_NEXT\_HOP\_ACKNOWLEDGED: Successful delivery to the next hop with acknowledgment.

- SUCCESS\_NEXT\_HOP\_UNACKNOWLEDGED: Successful delivery to the next hop without acknowledgment

- SUCCESS\_ACKNOWLEDGED: Reliable delivery was acknowledged by the UE

- SUCCESS\_UNACKNOWLEDGED: Reliable delivery was not acknowledged by the UE

- TRIGGERED: The SCEF triggered the device and is buffering the data.

- BUFFERING: The SCEF is buffering the data due to no PDN connection established.

- BUFFERING\_TEMPORARILY\_NOT\_REACHABLE: The SCEF has been informed that the UE is temporarily not reachable but is buffering the data

- SENDING: The SCEF has forwarded the data, but they may be stored elsewhere

- FAILURE: Delivery failure but details not provided

- FAILURE\_RDS\_DISABLED: RDS was disabled

- FAILURE\_NEXT\_HOP: Unsuccessful delivery to the next hop.

- FAILURE\_TIMEOUT: Unsuccessful delivery due to timeout.

- FAILURE\_TEMPORARILY\_NOT\_REACHABLE: The SCEF has been informed that the UE is temporarily not reachable without buffering the data.

readOnly: true

NiddStatus:

anyOf:

- type: string

enum:

- ACTIVE

- TERMINATED\_UE\_NOT\_AUTHORIZED

- TERMINATED

- RDS\_PORT\_UNKNOWN

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: >

Possible values are

- ACTIVE: The NIDD configuration is active.

- TERMINATED\_UE\_NOT\_AUTHORIZED: The NIDD configuration was terminated because the UE´s authorisation was revoked.

- TERMINATED: The NIDD configuration was terminated.

- RDS\_PORT\_UNKNOWN: The RDS port is unknown.

readOnly: true

ManageEntity:

anyOf:

- type: string

enum:

- UE

- AS

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: >

Possible values are

- UE: Representing the UE.

- AS: Representing the Application Server.

readOnly: true

SerializationFormat:

anyOf:

- type: string

enum:

- CBOR

- JSON

- XML

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: >

Possible values are

- CBOR: The CBOR Serialzition format

- JSON: The JSON Serialzition format

- XML: The XML Serialzition format

NiddConfigurationPatch:

type: object

properties:

duration:

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

reliableDataService:

type: boolean

description: The reliable data service (as defined in subclause 4.5.15.3 of 3GPP TS 23.682) to indicate if a reliable data service acknowledgment is enabled or not.

nullable: true

rdsPorts:

type: array

items:

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

minItems: 1

description: Indicates the static port configuration that is used for reliable data transfer between specific applications using RDS (as defined in subclause 5.2.4 and 5.2.5 of 3GPP TS 24.250).

pdnEstablishmentOption:

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

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