**3GPP TSG-CT WG4 Meeting #115eC4-231304r1**

**E-Meeting, 17th– 21st April 2023 (revision of C4-231404)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.503** | **CR** | **1050** | **rev** | **1** | **Current version:** | **18.1.0** |  |
|  | | | | | | | | |
| *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 in Nudm\_ParameterProvision API | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI18, eNPN | | | | |  | ***Date:*** | | | 2023-03-23 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***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:*** | | TS 23.501 supporting NPN including SNPN and PNI-NPN, and PNI-NPN may be specific DNN and/or S-NSSAI and may including CAG information in UE subscription data, which may be enhanced in Nudm\_PP API upon the PNI-NPN owner may be outside of 3GPP core network not supporting the UDM local configuration for NPN UE subscription data.  Also, the data type re-use table need to add the missing data types already reused. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Updates in PpData types to support SNPN and PNI-NPN.  Adding the missing reused data types in the reuse data typetable. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Not supporting NPN of SNPN and PNI-NPN, missing reuse data types in the reuse data table. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.5.6.1, 6.5.6.2.2, 6.5.6.2.9(new), 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 corrections with impacts on the following APIs:  - TS29503\_Nudm\_PP.yaml | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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

#### 6.5.6.1 General

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

Table 6.5.6.1-1 specifies the data types defined for the Nudm\_PP service API.

Table 6.5.6.1-1: Nudm\_PP specific Data Types

|  |  |  |
| --- | --- | --- |
| Data type | Clause defined | Description |
| PpData | 6.5.6.2.2 | Parameter Provision Data |
| CommunicationCharacteristics | 6.5.6.2.3 | Communication Characteristics |
| PpSubsRegTimer | 6.5.6.2.4 |  |
| PpActiveTime | 6.5.6.2.5 |  |
| 5GVnGroupConfiguration | 6.5.6.2.6 |  |
| 5GVnGroupData | 6.5.6.2.7 |  |
| ExpectedUeBehaviour | 6.5.6.2.8 | Expected UE Behaviour Parameters |
| LocationArea | 6.5.6.2.10 | Location Area |
| NetworkAreaInfo | 6.5.6.2.11 | Network Area Information |
| EcRestriction | 6.5.6.2.12 |  |
| PlmnEcInfo | 6.5.6.2.13 |  |
| PpDlPacketCountExt | 6.5.6.2.14 |  |
| PpMaximumResponseTime | 6.5.6.2.15 |  |
| PpMaximumLatency | 6.5.6.2.16 |  |
| LcsPrivacy | 6.5.6.2.17 |  |
| UmtTime | 6.5.6.2.18 |  |
| PpDataEntry | 6.5.6.2.19 | Provisioning Parameter Data Entry |
| CommunicationCharacteristicsAF | 6.5.6.2.20 | Communication Characteristics per AF |
| EcsAddrConfigInfo | 6.5.6.2.21 | ECS Address Configuration Information |
| 5MbsAuthorizationInfo | 6.5.6.2.22 | 5MBS Session Authorization Information |
| NpnData | 6.5.6.2.23 | Identifies NPN related data. |
| ReferenceId | 6.5.6.3.2 |  |
| PpDlPacketCount | 6.5.6.3.2 |  |

Table 6.5.6.1-2 specifies data types re-used by the Nudm\_PP service API from other APIs, including a reference and when needed, a short description of their use within the Nudm\_PP service API.

Table 6.5.6.1-2: Nudm\_PP re-used Data Types

|  |  |  |
| --- | --- | --- |
| Data type | Reference | Comments |
| DurationSec | 3GPP TS 29.571 [7] | Time value in seconds |
| DurationSecRm | 3GPP TS 29.571 [7] | Time value in seconds; nullable |
| SupportedFeatures | 3GPP TS 29.571 [7] |  |
| NfInstanceId | 3GPP TS 29.571 [7] |  |
| ProblemDetails | 3GPP TS 29.571 [7] |  |
| Gpsi | 3GPP TS 29.571 [7] |  |
| ExtGroupId | 6.1.6.3.2 |  |
| GroupId | 3GPP TS 29.571 [7] |  |
| IpAddress | 6.1.6.2.22 |  |
| TimeOfDay | 3GPP TS 29.571 [7] |  |
| DayOfWeek | 3GPP TS 29.571 [7] |  |
| PatchResult | 3GPP TS 29.571 [7] |  |
| DateTime | 3GPP TS 29.571 [7] |  |
| Ecgi | 3GPP TS 29.571 [7] | an EUTRA cell identifier |
| Ncgi | 3GPP TS 29.571 [7] | an NR cell identifier |
| GlobalRanNodeId | 3GPP TS 29.571 [7] | an identity of the NG-RAN node |
| Tai | 3GPP TS 29.571 [7] | a tracking area identity |
| GeographicArea | 3GPP TS 29.572 [34] | Identifies the geographical information of the user(s). |
| CivicAddress | 3GPP TS 29.572 [34] | Identifies the civic address information of the user(s). |
| PduSessionType | 3GPP TS 29.571 [7] |  |
| AppDescriptor | 6.1.6.2.40 |  |
| AcsInfoRm | 3GPP TS 29.571 [7] |  |
| StnSrRm | 3GPP TS 29.571 [7] | Session Transfer Number for SRVCC |
| Supi | 3GPP TS 29.571 [7] |  |
| Lpi | 6.1.6.2.43 |  |
| MtcProviderInformation | 3GPP TS 29.571 [7] | MTC Provider Information |
| Dnn | 3GPP TS 29.571 [7] | Identifies a DNN. |
| Snssai | 3GPP TS 29.571 [7] | Identifies an S-NSSAI. |
| PlmnIdNid | 3GPP TS 29.571 [7] | Identifies the PLMN Identifier or the SNPN Identifier. |
| CagInfo | 6.1.6.2.37 | Represents Closed Access Group Information. |
| StationaryIndicationRm | 3GPP TS 29.571 [7] |  |
| ScheduledCommunicationTimeRm | 3GPP TS 29.571 [7] |  |
| ScheduledCommunicationTypeRm | 3GPP TS 29.571 [7] |  |
| TrafficProfileRm | 3GPP TS 29.571 [7] |  |
| BatteryIndicationRm | 3GPP TS 29.571 [7] |  |
| EcsServerAddr | 3GPP TS 29.571 [7] |  |
| Fqdn | 3GPP TS 29.571 [7] | Fully Qualified Domain Name |
| SpatialValidityCond | 3GPP TS 29.571 [7] |  |
| MbsSessionId | 3GPP TS 29.571 [7] | 5MBS Session Identifier |

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

##### 6.5.6.2.2 Type: PpData

Table 6.5.6.2.2-1: Definition of type PpData

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| supportedFeatures | SupportedFeatures | O | 0..1 |  |
| communicationCharacteristics | CommunicationCharacteristics | O | 0..1 | communication characteristics |
| expectedUeBehaviour | ExpectedUeBehaviour | O | 0..1 | Expected UE Behaviour Parameters |
| ecRestriction | EcRestriction | O | 0..1 | Enhanced Coverage Restriction Parameters |
| acsInfo | AcsInfoRm | O | 0..1 | Identifies the ACS Information (see TS 23.316 [37] clause 9.6.3); nullable. |
| stnSr | StnSrRm | O | 0..1 | Session Transfer Number for SRVCC |
| lcsPrivacy | LcsPrivacy | O | 0..1 | LCS Privacy Parameters (see clause 5.4.3 of 3GPP TS 23.273 [38]) |
| sorInfo | SorInfo | O | 0..1 | Steering of Roaming information to be conveyed to a UE  See NOTE°1 and NOTE°2. |
| 5mbsAuthorizationInfo | 5MbsAuthorizationInfo | O | 0..1 | When present, this IE shall include the 5MBS Session Authorization Information as specified in 3GPP TS 23.247 [59] |
| npnData | NpnData | O | 0..1 | Identifies NPN related data. |
| NOTE 1: If the UDM is not able to immediately (after conducting integrity protection with the AUSF) convey the received Steering of Roaming information to the concerned UE for any reason (e.g. no AMF registered for the UE), it shall discard it.  NOTE 2: The behaviour of the UDM at reception of Steering of Roaming information within PpData is specified in Annex C.3 of 3GPP°TS°23.122°[20]. | | | | |

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

##### 6.5.6.2.23 Type: NpnData

Table 6.5.6.2.23-1: Definition of type NpnData

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| dnn | Dnn | O | 0..1 | Identifies a DNN, the DNN shall be the DNN Network Identifier only. |
| snssai | Snssai | O | 0..1 | Identifies an S-NSSAI. |
| plmnId | PlmnIdNid | O | 0..1 | Identifies the PLMN Identifier or the SNPN Identifier.  It may be present when the reported event is "PLMN\_CHG" and which is allowed to be exposured to the AF based on the local policy or local configuration. See NOTE°3. |
| cagInfo | CagInfo | O | 0..1 | Identfies the Close Access Group Information. See NOTE°3. |
| NOTE: For NPN usage, the SNPN "nid" attribute within the "plmnId” attribute and the PNI-NPN "cagInfo" attribute are mutually exclusive. | | | | |

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

# A.6 Nudm\_PP API

openapi: 3.0.0

info:

version: '1.3.0-alpha.1'

title: 'Nudm\_PP'

description: |

Nudm Parameter Provision Service.

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externalDocs:

description: 3GPP TS 29.503 Unified Data Management Services, version 18.0.0

url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.503/'

servers:

- url: '{apiRoot}/nudm-pp/v1'

variables:

apiRoot:

default: https://example.com

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

security:

- oAuth2ClientCredentials:

- nudm-pp

- {}

paths:

/{ueId}/pp-data:

patch:

summary: provision parameters

operationId: Update

tags:

- Subscription Data Update

parameters:

- name: ueId

in: path

description: Identifier of the UE

required: true

schema:

anyOf:

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

- $ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/ExtGroupId'

- name: supported-features

in: query

description: Features required to be supported by the target NF

schema:

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

requestBody:

content:

application/merge-patch+json:

schema:

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

required: true

responses:

'200':

description: Expected response to a valid request

content:

application/json:

schema:

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

'204':

description: Expected response to a valid request

'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:

description: Unexpected error

/5g-vn-groups/{extGroupId}:

put:

summary: create a 5G VN Group

operationId: Create 5G VN Group

tags:

- 5G VN Group Creation

parameters:

- name: extGroupId

in: path

description: External Identifier of the Group

required: true

schema:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/ExtGroupId'

requestBody:

content:

application/json:

schema:

$ref: '#/components/schemas/5GVnGroupConfiguration'

required: true

responses:

'201':

description: Expected response to a valid request

'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:

description: Unexpected error

delete:

summary: delete a 5G VN Group

operationId: Delete 5G VN Group

tags:

- 5G VN Group Deletion

parameters:

- name: extGroupId

in: path

description: External Identifier of the Group

required: true

schema:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/ExtGroupId'

- name: mtc-provider-info

in: query

description: MTC Provider Information that originated the service operation

schema:

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

- name: af-id

in: query

description: AF ID that originated the service operation

schema:

type: string

responses:

'204':

description: Expected response to a valid request

'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:

description: Unexpected error

patch:

summary: modify a 5G VN Group

operationId: Modify 5G VN Group

tags:

- 5G VN Group Modification

parameters:

- name: extGroupId

in: path

description: External Identifier of the group

required: true

schema:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/ExtGroupId'

- name: supported-features

in: query

description: Features required to be supported by the target NF

schema:

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

requestBody:

content:

application/merge-patch+json:

schema:

$ref: '#/components/schemas/5GVnGroupConfiguration'

required: true

responses:

'204':

description: Expected response to a valid request

'200':

description: Expected response to a valid request

content:

application/json:

schema:

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

'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:

description: Unexpected error

get:

summary: get 5G VN Group

operationId: Get 5G VN Group

tags:

- 5G VN Group Modification

parameters:

- name: extGroupId

in: path

description: External Identifier of the group

required: true

schema:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/ExtGroupId'

responses:

'200':

description: Expected response to a valid request

content:

application/json:

schema:

$ref: '#/components/schemas/5GVnGroupConfiguration'

'400':

$ref: 'TS29571\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29571\_CommonData.yaml#/components/responses/401'

'403':

$ref: 'TS29571\_CommonData.yaml#/components/responses/403'

'404':

$ref: 'TS29571\_CommonData.yaml#/components/responses/404'

'406':

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

'429':

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

'500':

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

'502':

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

'503':

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

default:

description: Unexpected error

/{ueId}/pp-data-store/{afInstanceId}:

put:

summary: Create a Provisioning Parameter Data Entry

operationId: Create PP Data Entry

tags:

- ParameterProvisioningDataEntry (Document)

parameters:

- name: ueId

in: path

description: Identifier of the UE

required: true

schema:

anyOf:

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

- $ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/ExtGroupId'

- type: string

pattern: '^anyUE$'

- name: afInstanceId

in: path

description: Application Function Instance Identifier

required: true

schema:

type: string

requestBody:

content:

application/json:

schema:

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

required: true

responses:

'201':

description: Indicating a successful creation of the resource

content:

application/json:

schema:

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

'204':

description: Indicating a successful update of the resource

'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:

description: Unexpected error

delete:

summary: Delete a Provisioning Parameter Data Entry

operationId: Delete PP Data Entry

tags:

- ParameterProvisioningDataEntry (Document)

parameters:

- name: ueId

in: path

description: Identifier of the UE

required: true

schema:

anyOf:

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

- $ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/ExtGroupId'

- type: string

pattern: '^anyUE$'

- name: afInstanceId

in: path

description: Application Function Instance Identifier

required: true

schema:

type: string

responses:

'204':

description: Expected response to a valid request

'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:

description: Unexpected error

get:

summary: get Parameter Provisioning Data Entry

operationId: Get PP Data Entry

tags:

- ParameterProvisioningDataEntry (Document)

parameters:

- name: ueId

in: path

description: Identifier of the UE

required: true

schema:

anyOf:

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

- $ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/ExtGroupId'

- type: string

pattern: '^anyUE$'

- name: afInstanceId

in: path

description: Application Function Instance Identifier

required: true

schema:

type: string

- name: supported-features

in: query

description: Features required to be supported by the target NF

schema:

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

responses:

'200':

description: Expected response to a valid request

content:

application/json:

schema:

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

'400':

$ref: 'TS29571\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29571\_CommonData.yaml#/components/responses/401'

'403':

$ref: 'TS29571\_CommonData.yaml#/components/responses/403'

'404':

$ref: 'TS29571\_CommonData.yaml#/components/responses/404'

'406':

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

'429':

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

'500':

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

'502':

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

'503':

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

default:

description: Unexpected error

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{nrfApiRoot}/oauth2/token'

scopes:

nudm-pp: Access to the nudm-pp API

schemas:

# COMPLEX TYPES:

PpData:

type: object

properties:

communicationCharacteristics:

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

supportedFeatures:

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

expectedUeBehaviourParameters:

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

ecRestriction:

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

acsInfo:

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

stnSr:

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

lcsPrivacy:

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

sorInfo:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/SorInfo'

5mbsAuthorizationInfo:

$ref: '#/components/schemas/5MbsAuthorizationInfo'

npnData:

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

nullable: true

NpnData:

type: object

properties:

dnn:

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

snssai:

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

cagInfo:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/CagInfo'

plmnId:

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

nullable: true

CommunicationCharacteristics:

type: object

properties:

ppSubsRegTimer:

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

ppActiveTime:

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

ppDlPacketCount:

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

ppDlPacketCountExt:

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

ppMaximumResponseTime:

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

ppMaximumLatency:

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

nullable: true

PpSubsRegTimer:

type: object

required:

- subsRegTimer

- afInstanceId

- referenceId

properties:

subsRegTimer:

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

afInstanceId:

type: string

referenceId:

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

validityTime:

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

mtcProviderInformation:

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

nullable: true

PpActiveTime:

type: object

required:

- activeTime

- afInstanceId

- referenceId

properties:

activeTime:

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

afInstanceId:

type: string

referenceId:

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

validityTime:

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

mtcProviderInformation:

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

nullable: true

5GVnGroupConfiguration:

type: object

properties:

5gVnGroupData:

$ref: '#/components/schemas/5GVnGroupData'

members:

type: array

items:

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

minItems: 1

referenceId:

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

afInstanceId:

type: string

internalGroupIdentifier:

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

mtcProviderInformation:

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

5GVnGroupData:

type: object

required:

- dnn

- sNssai

properties:

dnn:

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

sNssai:

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

pduSessionTypes:

type: array

items:

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

minItems: 1

appDescriptors:

type: array

items:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/AppDescriptor'

minItems: 1

secondaryAuth:

type: boolean

dnAaaIpAddressAllocation:

type: boolean

dnAaaAddress:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/IpAddress'

additionalDnAaaAddresses:

type: array

items:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/IpAddress'

minItems: 1

dnAaaFqdn:

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

ExpectedUeBehaviour:

type: object

required:

- afInstanceId

- referenceId

properties:

afInstanceId:

type: string

referenceId:

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

stationaryIndication:

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

communicationDurationTime:

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

scheduledCommunicationType:

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

periodicTime:

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

scheduledCommunicationTime:

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

expectedUmts:

type: array

items:

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

minItems: 1

nullable: true

description: Identifies the UE's expected geographical movement. The attribute is only applicable in 5G.

trafficProfile:

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

batteryIndication:

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

validityTime:

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

mtcProviderInformation:

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

nullable: true

LocationArea:

type: object

properties:

geographicAreas:

type: array

items:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/GeographicArea'

minItems: 0

description: Identifies a list of geographic area of the user where the UE is located.

civicAddresses:

type: array

items:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/CivicAddress'

minItems: 0

description: Identifies a list of civic addresses of the user where the UE is located.

nwAreaInfo:

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

umtTime:

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

UmtTime:

type: object

required:

- timeOfDay

- dayOfWeek

properties:

timeOfDay:

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

dayOfWeek:

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

NetworkAreaInfo:

description: Describes a network area information in which the NF service consumer requests the number of UEs.

type: object

properties:

ecgis:

description: Contains a list of E-UTRA cell identities.

type: array

items:

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

minItems: 1

ncgis:

description: Contains a list of NR cell identities.

type: array

items:

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

minItems: 1

gRanNodeIds:

description: Contains a list of NG RAN nodes.

type: array

items:

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

minItems: 1

tais:

description: Contains a list of tracking area identities.

type: array

items:

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

minItems: 1

EcRestriction:

type: object

required:

- afInstanceId

- referenceId

properties:

afInstanceId:

type: string

referenceId:

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

plmnEcInfos:

type: array

items:

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

minItems: 1

mtcProviderInformation:

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

nullable: true

PlmnEcInfo:

type: object

required:

- plmnId

properties:

plmnId:

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

ecRestrictionDataWb:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/EcRestrictionDataWb'

ecRestrictionDataNb:

type: boolean

default: false

PpDlPacketCountExt:

type: object

required:

- afInstanceId

- referenceId

properties:

afInstanceId:

type: string

referenceId:

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

dnn:

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

singleNssai:

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

validityTime:

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

mtcProviderInformation:

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

nullable: true

PpMaximumResponseTime:

type: object

required:

- maximumResponseTime

- afInstanceId

- referenceId

properties:

maximumResponseTime:

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

afInstanceId:

type: string

referenceId:

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

validityTime:

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

mtcProviderInformation:

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

nullable: true

PpMaximumLatency:

type: object

required:

- maximumLatency

- afInstanceId

- referenceId

properties:

maximumLatency:

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

afInstanceId:

type: string

referenceId:

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

validityTime:

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

mtcProviderInformation:

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

nullable: true

LcsPrivacy:

type: object

properties:

afInstanceId:

type: string

referenceId:

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

lpi:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/Lpi'

mtcProviderInformation:

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

nullable: true

PpDataEntry:

type: object

properties:

communicationCharacteristics:

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

referenceId:

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

validityTime:

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

mtcProviderInformation:

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

supportedFeatures:

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

ecsAddrConfigInfo:

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

additionalEcsAddrConfigInfos:

type: array

items:

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

minItems: 1

ecRestriction:

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

nullable: true

CommunicationCharacteristicsAF:

type: object

properties:

ppDlPacketCount:

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

maximumResponseTime:

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

maximumLatency:

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

nullable: true

EcsAddrConfigInfo:

type: object

properties:

ecsServerAddr:

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

spatialValidityCond:

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

nullable: true

5MbsAuthorizationInfo:

type: object

properties:

5mbsSessionIds:

type: array

items:

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

minItems: 1

nullable: true

# SIMPLE TYPES:

ReferenceId:

type: integer

PpDlPacketCount:

type: integer

nullable: true

# ENUMS:

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