**3GPP TSG-CT WG3 Meeting #137 *C3-245552***

**Hefei, CN, 14 - 18 October, 2024 (Revision of C3-245348)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.522** | **CR** | **1410** | **rev** | **1** | **Current version:** | **19.0.0** |  |
|  | | | | | | | | |
| *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:*** | Provisioning of User Plane Security Policy in 5G VN group data | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson, China Telecom, Nokia | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI19\_IP\_SP\_EXP | | | | |  | ***Date:*** | | | 2024-09-16 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19) Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | TS 23.502 clause 4.15.6.3b added User Plane Security Policy for PDU Sessions associated with the 5G VN group in the 5G VN group data upon the approved CR S2-2409270, TS 23.501 clause 5.29.2 also added User Plane Security Policy which can be stored/updated but not modified upon the approved CR S2-2409269. hence needs to be implemented accordingly in this TS accordingly. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Adding User Plane Security Policy for PDU Sessions associated with the 5G VN group in the 5G VN group data. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Not supporting stage 2 requirements on provisioning User Plane Security Policy for PDU Sessions associated with the 5G VN group. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.4.15.2, 5.7.2.2, 5.7.2.3.3, 5.7.3, A.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 backwards compatible feature in the OpenAPI file of the 5GLANParameterProvision API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

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

#### 4.4.15.2 Creation of a new subscription for 5G LAN parameter provisioning

In order to create a new subscription to provision 5G LAN related parameters, the AF shall initiate an HTTP POST request to the NEF for the "5GLAN Parameters Provision Subscriptions" resource. The body of the HTTP POST message shall include the 5GLanParametersProvision data type that shall contain the 5G LAN service related parameters to be provisioned within the "5gLanParams" attribute.

When the "GMEC" feature is supported, the AF may also provision the 5G VN group related parameters (e.g., LPI parameters, ECS Address information, Network Parameter Configuration).

Upon receipt of the corresponding HTTP POST message, if the AF is authorized by the NEF to provision the parameters, the NEF shall interact with the UDM to create a subscription at the UDM by using Nudm\_ParameterProvision service as defined in 3GPP TS 29.503 [17]. If the request is accepted by the UDM and the UDM informs the NEF with a successful response, the NEF shall create a new subscription and assign a subscription identifier for the "Individual 5GLAN Parameters Provision Subscription" resource. Then the NEF shall send a HTTP "201 Created" response with 5GLanParametersProvision data structure as response body and a Location header field containing the URI of the created individual subscription resource.

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

#### 5.7.2.2 Reused data types

The data types reused by the 5GLANParameterProvision API from other specifications are listed in table 5.7.2.2-1.

Table 5.7.2.2-1: Re-used Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Reference | Comments | Applicability |
|  |  |  |  |
| AfReqDefaultQoS | Clause 5.33.5.2.5 | Represents the AF requested default QoS. |  |
| AppliedParameterConfiguration | 3GPP TS 29.122 [4] | Represents the parameter configuration applied in the network. |  |
| ApplicationId | 3GPP TS 29.571 [8] | Represents the identifier of an application. |  |
| AcsInfo | 3GPP TS 29.571 [8] | Contains the ACS information. |  |
| BitRate | 3GPP TS 29.571 [8] | Represents a bit rate. |  |
| CpParameterSet | 3GPP TS 29.122 [4] | Represents an offered Communication Pattern parameter set. |  |
| CpReport | 3GPP TS 29.122 [4] | Represents a CP report. |  |
| ConfigResult | 3GPP TS 29.122 [4] | Represents one configuration processing result for a group's members. |  |
| DateTime | 3GPP TS 29.122 [4] | Represents a data and a time. |  |
| Dnn | 3GPP TS 29.571 [8] | Identifies a DNN. |  |
| DurationSec | 3GPP TS 29.122 [4] | Indicates a time duration. |  |
| EcsAuthMethod | 3GPP TS 29.503 [17] | Represents the ECS Authentication Methods. | ECSAuthMethods |
| EcsServerAddr | 3GPP TS 29.571 [8] | Represents the Edge Configuration Server (ECS) address configuration information. |  |
| ExternalGroupId | 3GPP TS 29.122 [4] | External Group Identifier for a user group. |  |
| Gpsi | 3GPP TS 29.571 [8] | Identifies a GPSI. |  |
| Ipv4Addr | 3GPP TS 29.571 [8] | Identifies an IPv4 address. |  |
| Ipv6Addr | 3GPP TS 29.571 [8] | Identifies an IPv6 address. |  |
| LadnServArea | Clause 5.33.5.2.6 | Represents an LADN Service Area. |  |
| Link | 3GPP TS 29.122 [4] | Represents a referenced resource. |  |
| Lpi | 3GPP TS 29.503 [17] | Represents the Location Privacy Indication information. |  |
| MtcProviderInformation | 3GPP TS 29.571 [8] | Indicates MTC provider information for 5G VN Group Configuration authorization. |  |
| OsId | 3GPP TS 29.519 [23] | Operating System. |  |
| PduSessionType | 3GPP TS 29.571 [8] | PDU session type. |  |
| Snssai | 3GPP TS 29.571 [8] | Identifies the S-NSSAI. |  |
| SpatialValidityCond | 3GPP TS 29.571 [8] | Represents the Spatial Validity Condition. |  |
| SupportedFeatures | 3GPP TS 29.571 [8] | Used to negotiate the applicability of the optional features. |  |
| SupportedPlmn | 3GPP TS 29.503 [17] | Represents the ID of the PLMN supported by the ECS along with the list of ECSPs associated with the PLMN. | ECSSuppPlmns |
| UpSecurity | 3GPP TS 29.571 [8] | Represents the User Plane Security Policy information. | UPSecPolicy |
|  |  |  |  |

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

##### 5.7.2.3.3 Type: 5GLanParameters

This type represents the 5G LAN service related parameters need to be provisioned.

Table 5.7.2.3.3-1: Definition of type 5GLanParameters

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| exterGroupId | ExternalGroupId | M | 1 | Identifies an 5G Virtual Network Group. |  |
| gpsis | map(Gpsi) | M | 1..N | Represents the list of 5G VN Group members, each member is identified by GPSI.  Any string value can be used as a key of the map. |  |
| dnn | Dnn | M | 1 | DNN for the 5G VN group, a full DNN with both the Network Identifier and Operator Identifier, or a DNN with the Network Identifier only. |  |
| aaaIpv4Addr | Ipv4Addr | O | 1 | Identifies the DN-AAA server IPv4 address provided by AF, for the secondary authentication/authorization and/or UE IP address allocation by DN-AAA server. |  |
| aaaIpv6Addr | Ipv6Addr | O | 1 | Identifies the DN-AAA server IPv6 address provided by AF, for the secondary authentication/authorization and/or UE IP address allocation by DN-AAA server. |  |
| aaaUsgs | array(AaaUsage) | O | 1..N | Identifies the usage needs for secondary authentication/authorization and/or UE IP address allocation from the DN-AAA server. (NOTE 3) |  |
| mtcProviderId | MtcProviderInformation | O | 0..1 | Indicates MTC provider information for 5G VN Group Configuration authorization. (NOTE 1) |  |
| snssai | Snssai | M | 1 | S-NSSAI for the 5G VN group. |  |
| sessionType | PduSessionType | M | 1 | PDU Session Type allowed for 5G VN group. |  |
| sessionTypes | array(PduSessionType) | O | 1..N | If further PDU Session Types (in addition to the PDU Session Type indicated in the "sessionType" attribute) are allowed for the 5G VN group, they are provided in this attribute. (NOTE 2) | multipleSessionTypes |
| appDesps | map(AppDescriptor) | M | 1..N | Describes the operation systems and the corresponding applications for each operation systems. The key of map is osId. |  |
| upSecPolInfo | UpSecurity | O | 0..1 | Contains the User Plane Security Policy for PDU sessions associated with the 5G VN group. | UPSecPolicy |
| vnGroupCommInd | boolean | O | 0..1 | Indicates whether the 5G VN group is associated with 5G VN group communication.  - "true" indicates that the 5G VN group is associated with 5G VN group communication.  - "false" indicates that the 5G VN group is not associated with 5G VN group communication.  - The default value when omitted is "false". | GMEC |
| vnGroupCommType | 5GVnGroupCommunicationType | O | 0..1 | Contains the 5G VN group communication type.  This attribute shall be present only when the "vnGroupCommInd" is present and set to "true". | GMEC |
| maxGrpDataRateInfo | MaxGrpDataRateInfo | O | 0..1 | Represents the Maximum Group Data Rate related information. | GMEC |
| cpParams | CpParams | O | 0..1 | Contains Communication Pattern Parameters for the 5G VN group. | GMEC |
| npConfigParams | NpConfigParams | O | 0..1 | Contains Network Parameters Configuration information for the 5G VN group. | GMEC |
| lpiParams | LpiParams | O | 0..1 | Contains Location Privacy Indication parameters for the 5G VN group. | GMEC |
| acsParams | AcsParams | O | 0..1 | Contains ACS configuration parameters for the 5G VN group. | GMEC |
| ecsAddrParams | ECSAddrParams | O | 0..1 | Contains ECS address configuration parameters for the 5G VN group. | GMEC |
| dnnSnssaiParams | DnnSnssaiParams | O | 0..1 | Contains DNN and S-NSSAI specific group parameters for the 5G VN group. | GMEC |
| notifUri | Link | O | 0..1 | Contains a URI indicating the notification destination where notification requests shall be delivered.  This attribute may be present only when 5G LAN Parameters Provisioning Event notifications (e.g., Network Parameters Configuration related notifications) need to be delivered. | GMEC |
| NOTE 1: The NEF should check received MTC Provider information and then the NEF may:  - override it with local configured value and send it to UDM;  - send it directly to the UDM; or  - reject the 5G VN Group Configuration request.  NOTE 2: Only one PDU Session type is applied for a PDU Session of a VN group at a time.  NOTE 3: This attribute shall contain at most 2 array elements. It is however kept defined as it is (i.e. with a cardinality of "1..N") for backward compatibility considerations. | | | | | |

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

### 5.7.3 Used Features

The table below defines the features applicable to the 5GLANParameterProvision API. Those features are negotiated as described in clause 5.2.7 of 3GPP TS 29.122 [4].

Table 5.7.3-1: Features used by 5GLANParameterProvision API

|  |  |  |
| --- | --- | --- |
| Feature number | Feature Name | Description |
| 1 | multipleSessionTypes | Indicates that multiple allowed PDU Session Types can be provided for a 5G VN group. |
| 2 | GMEC | This feature indicates the support of Generic Group Management, Exposure and Communication Enhancements.  The following functionalities are supported:  - Support the provisioning of the Maximum Group Data Rate related information for 5G VN groups.  - Support the simultaneous provisioning of 5G VN group information and 5G VN group parameters.  - Support the provisioning of the indication on whether the 5G VN group is associated with 5G VN group communications or not. |
| 3 | Void |  |
| 4 | Void |  |
| 5 | ECSAuthMethods | This feature indicates the support of ECS authentication methods for 5G VN group. |
| 6 | ECSSuppPlmns | This feature indicates the support of ECS supported PLMNs. |
| 7 | UPSecPolicy | This feature indicates the support of the enhancements to enable User Plane Security Policy parameters provisioning.  The following functionalities are supported:  - Support the provisioning of the User Plane Security Policy information for PDU Session(s) associated with the 5G VN group. |

\*\*\* 5th Change \*\*\*

# A.5 5GLANParameterProvision API

openapi: 3.0.0

info:

title: 3gpp-5glan-pp

version: 1.2.1

description: |

API for 5G LAN Parameter Provision.

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externalDocs:

description: >

3GPP TS 29.522 V18.7.0; 5G System; Network Exposure Function Northbound APIs.

url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.522/'

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-5glan-pp/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/{afId}/subscriptions:

get:

summary: read all of the active subscriptions for the AF

operationId: RealAllSubscriptions

tags:

- 5GLAN Parameters Provision Subscriptions

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get all of the active subscriptions for the AF)

content:

application/json:

schema:

type: array

items:

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

minItems: 0

'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:

summary: Creates a new subscription resource

operationId: CreateAnSubscription

tags:

- 5GLAN Parameters Provision Subscriptions

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

requestBody:

description: new subscription creation

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Created (Successful creation)

content:

application/json:

schema:

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

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:

5GLANParamProvNotif:

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

post:

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'204':

description: No Content. Successful reception of the notification.

'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'

/{afId}/subscriptions/{subscriptionId}:

get:

summary: read an active subscription for the AF and the subscription Id

operationId: ReadAnSubscription

tags:

- Individual 5GLAN Parameters Provision Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get the active subscription)

content:

application/json:

schema:

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

'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:

summary: Fully updates/replaces an existing subscription resource

operationId: FullyUpdateAnSubscription

tags:

- Individual 5GLAN Parameters Provision Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

requestBody:

description: Parameters to update/replace the existing subscription

required: true

content:

application/json:

schema:

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

responses:

'200':

description: OK (Successful deletion of the existing subscription)

content:

application/json:

schema:

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

'204':

description: >

Successful case. The resource has been successfully updated and no additional

content is to be sent in the response message.

'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'

patch:

summary: Partial updates an existing subscription resource

operationId: PartialUpdateAnSubscription

tags:

- Individual 5GLAN Parameters Provision Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

requestBody:

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: OK. The subscription was modified successfully.

content:

application/json:

schema:

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

'204':

description: >

Successful case. The resource has been successfully updated and no additional

content is to be sent in the response message.

'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:

summary: Deletes an already existing subscription

operationId: DeleteAnSubscription

tags:

- Individual 5GLAN Parameters Provision Subscription

parameters:

- name: afId

in: path

description: Identifier of the AF

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

responses:

'204':

description: No Content (Successful deletion of the existing subscription)

'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'

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{tokenUrl}'

scopes: {}

schemas:

5GLanParametersProvision:

description: Represents an individual 5G LAN parameters provision subscription resource.

type: object

properties:

self:

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

5gLanParams:

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

suppFeat:

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

required:

- 5gLanParams

- suppFeat

5GLanParametersProvisionPatch:

description: >

Represents the 5G LAN parameters to request the modification of a subscription

to provision parameters.

type: object

properties:

5gLanParamsPatch:

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

5gLanParams:

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

5GLanParameters:

description: Represents 5G LAN service related parameters that need to be provisioned.

type: object

properties:

exterGroupId:

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

gpsis:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains the list of 5G VN Group members, each member is identified by GPSI.

Any string value can be used as a key of the map.

dnn:

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

aaaIpv4Addr:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv4Addr'

aaaIpv6Addr:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Addr'

aaaUsgs:

type: array

items:

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

minItems: 1

description: >

This attribute shall contain at most 2 array elements. It is however kept

defined as it is (i.e. with a cardinality of "1..N") for backward

compatibility considerations.

mtcProviderId:

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

snssai:

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

sessionType:

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

sessionTypes:

type: array

items:

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

minItems: 1

description: Further allowed PDU Session types.

appDesps:

type: object

additionalProperties:

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

minProperties: 1

description: >

Describes the operation systems and the corresponding applications for each

operation systems. The key of map is osId.

upSecPolInfo:

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

vnGroupCommInd:

type: boolean

description: >

Indicates whether the 5G VN group is associated with 5G VN group communication when

When set to "true", it indicates that the 5G VN group is associated with 5G VN group

communication. When set to "false", it indicates that the 5G VN group is not

associated with 5G VN group communication. The default value when omitted is "false".

vnGroupCommType:

$ref: 'TS29503\_Nudm\_PP.yaml#/components/schemas/5GVnGroupCommunicationType'

maxGrpDataRateInfo:

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

cpParams:

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

npConfigParams:

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

lpiParams:

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

acsParams:

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

ecsAddrParams:

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

dnnSnssaiParams:

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

notifUri:

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

required:

- exterGroupId

- gpsis

- dnn

- snssai

- sessionType

- appDesps

5GLanParametersPatch:

deprecated: true

description: Represents 5G LAN service related parameters that need to be modified.

type: object

properties:

gpsis:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains the list of 5G VN Group members, each member is identified by GPSI.

Any string value can be used as a key of the map.

appDesps:

type: object

additionalProperties:

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

minProperties: 1

description: >

Describes the operation systems and the corresponding applications for

each operation systems. The key of map is osId.

cpParams:

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

npConfigParams:

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

lpiParams:

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

acsParams:

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

ecsAddrParams:

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

dnnSnssaiParams:

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

notifUri:

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

AppDescriptor:

description: Represents an operation system and the corresponding applications.

type: object

properties:

osId:

$ref: 'TS29519\_Policy\_Data.yaml#/components/schemas/OsId'

appIds:

type: object

additionalProperties:

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

minProperties: 1

description: >

Identifies applications that are running on the UE's operating system.

Any string value can be used as a key of the map.

required:

- osId

- appIds

AppDescriptorRm:

description: >

Represents the same as the AppDescriptor data type but with the nullable:true

property.

type: object

properties:

appIds:

type: object

additionalProperties:

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

minProperties: 1

description: >

Identifies applications that are running on the UE's operating system.

Any string value can be used as a key of the map.

MaxGrpDataRateInfo:

description: >

Represents the Maximum Group Data Rate related information.

type: object

properties:

maxGrpDataRateUl:

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

maxGrpDataRateDl:

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

anyOf:

- required: [maxGrpDataRateUl]

- required: [maxGrpDataRateDl]

CpParams:

description: Represents Communication Pattern parameters.

type: object

properties:

cpParameterSets:

type: object

additionalProperties:

$ref: 'TS29122\_CpProvisioning.yaml#/components/schemas/CpParameterSet'

minProperties: 1

description: >

Contains one or more set(s) of CP parameters information for the 5G VN group.

Any string value may be used as a key of the map.

cpReports:

type: object

additionalProperties:

$ref: 'TS29122\_CpProvisioning.yaml#/components/schemas/CpReport'

minProperties: 1

description: >

Contains the identifier(s) of the set(s) of CP parameters for which the provided CP

parameters are not added or modified successfully with the corresponding failure reason.

Each element provides the related information for one or more CP set identifier(s).

The key of the map is a string representing the failure identifier.

readOnly: true

required:

- cpParameterSets

NpConfigParams:

description: Represents Network Parameters Configuration information.

type: object

properties:

maximumLatency:

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

maximumResponseTime:

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

suggestedNumberOfDlPackets:

type: integer

minimum: 0

description: >

Contains the number of packets that the serving gateway shall buffer in case the UE is

not reachable.

groupReportingGuardTime:

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

validityTime:

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

LpiParams:

description: Represents Location Privacy Indication parameters.

type: object

properties:

lpi:

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

required:

- lpi

AcsParams:

description: Represents ACS configuration parameters.

type: object

properties:

acsInfo:

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

required:

- acsInfo

ECSAddrParams:

description: Represents ECS address configuration parameters.

type: object

properties:

ecsServerAddr:

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

spatialValidityCond:

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

ecsAuthMethods:

type: array

items:

$ref: 'TS29503\_Nudm\_PP.yaml#/components/schemas/EcsAuthMethod'

minItems: 1

supportedPlmns:

type: array

items:

$ref: 'TS29503\_Nudm\_PP.yaml#/components/schemas/SupportedPlmn'

minItems: 1

required:

- ecsServerAddr

DnnSnssaiParams:

description: Represents DNN and S-NSSAI specific Group Parameters.

type: object

properties:

defQos:

$ref: 'TS29522\_GroupParametersProvisioning.yaml#/components/schemas/AfReqDefaultQoS'

ladnServArea:

$ref: 'TS29522\_GroupParametersProvisioning.yaml#/components/schemas/LadnServArea'

anyOf:

- required: [ defQos ]

- required: [ ladnServArea ]

5GLanParamProvNotif:

description: Represents a 5G LAN Parameter Provisioning Event Notification.

type: object

properties:

npConfigNotif:

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

NpConfigNotif:

description: Represents a Network Parameters Configuration related notification.

type: object

properties:

configResults:

type: array

items:

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

minItems: 1

appliedParam:

$ref: 'TS29122\_MonitoringEvent.yaml#/components/schemas/AppliedParameterConfiguration'

AaaUsage:

anyOf:

- type: string

enum:

- AUTH

- IP\_ALLOC

- type: string

description: >

This string provides forward-compatibility with future extensions to the enumeration

and is not used to encode content defined in the present version of this API.

description: |

Represents the usage of the DN-AAA server.

Possible values are:

- AUTH: secondary authentication/authorization needed from DN-AAA server.

- IP\_ALLOC: UE IP address allocation needed from DN-AAA server.

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