**3GPP TSG-CT WG3 Meeting #108eC3-201260**

**E-Meeting, 19th – 28th February 2020**

|  |
| --- |
| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **29.522** | **CR** | **0140** | **rev** | **1** | **Current version:** | **16.2.0** |  |
|  |
| *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:***  | UE Location Privacy Setting in NEF |
|  |  |
| ***Source to WG:*** | CATT |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | 5G\_eLCS |  | ***Date:*** | 2022-02-15 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-16 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)Rel-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
|  |  |
| ***Reason for change:*** | In subclause 6.12.2, TS 23.273 v16.2.0, it is proposed that AF may trigger Nnef\_ParameterProvision\_Create/Update/Delete service operation to create/update/delete Location Privacy Indication parameters information towards NEF. The NEF then trigger Nudm\_ParameterProvision\_ Create/Update/Delete service operation to change the Location Privacy Indication parameters information in UDM. |
|  |  |
| ***Summary of change:*** | Add the procedure of Location Privacy Setting initiated by AF. |
|  |  |
| ***Consequences if not approved:*** | Miss the feature defined by Stage 2.  |
|  |  |
| ***Clauses affected:*** | 4.1, 4.4.x(new), 5.y(new), 5.y.1(new), 5.y.2(new), 5.y.3(new), 5.y.1.1(new), 5.y.1.2(new), 5.y.1.3(new), 5.y.1.2.1(new), 5.y.1.2.2(new), 5.y.1.2.3.1(new), 5.y.1.2.3.2(new), 5.y.1.2.3.3(new), 5.y.1.3.1 (new), 5.y.1.3.2(new), 5.y.1.3.3(new), 5.y.1.3.3.1(new), 5.y.1.3.3.2(new), 5.y.1.3.3.3(new), 5.y.1.3.3.4(new), 5.y.2.1(new), 5.y.2.2(new), 5.y.2.3(new), 5.y.2.4(new), 5.y.2.3.1(new), 5.y.2.3.2(new), 5.y.2.4.1(new), 5.y.2.4.2(new), A.z(new) |
|  |  |
|  | **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 includes a backwards compatible feature to the OpenAPI file |
|  |  |
| ***This CR's revision history:*** |  |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*The start of changes\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## 4.1 Overview

The NEF Northbound interface is between the NEF and the AF. It specifies RESTful APIs that allow the AF to access the services and capabilities provided by 3GPP network entities and securely exposed by the NEF.

This document also specifies the procedures triggered at the NEF by API requests from the AF and by event notifications received from 3GPP network entities.

The stage 2 level requirements and signalling flows for the NEF Northbound interface are defined in 3GPP TS 23.502 [2].

The NEF Northbound interface supports the following procedures:

1) Procedures for Monitoring

2) Procedures for Device Triggering

3) Procedures for resource management of Background Data Transfer

4) Procedures for CP Parameters, Network Configuration Parameters Provisioning, 5G LAN Parameters Provisioning and Location Privacy Indication Parameters Provisioning

5) Procedures for PFD Management

6) Procedures for Traffic Influence

7) Procedures for changing the chargeable party at session set up or during the session

8) Procedures for setting up an AF session with required QoS

9) Procedures for MSISDN-less Mobile Originated SMS

10) Procedures for non-IP data delivery

11) Procedures for analytics information exposure

12) Procedure for applying BDT policy

13) Procedures for Enhanced Coverage Restriction Control

14) Procedures for IPTV Configuration

Which correspond to the following services respectively, supported by the NEF as defined in 3GPP TS 23.502 [2]:

1) Nnef\_EventExposure service and Nnef\_APISupportCapability service

2) Nnef\_Trigger service

3) Nnef\_BDTPNegotiation service

4) Nnef\_ParameterProvision service

5) Nnef\_PFDManagement service

6) Nnef\_TrafficInfluence service

7) Nnef\_ChargeableParty service

8) Nnef\_AFsessionWithQoS service

9) Nnef\_MSISDN-less\_MO\_SMS service

10) Nnef\_NIDDConfiguration and Nnef\_NIDD services

11) Nnef\_AnalyticsExposure service

12) Nnef\_ApplyPolicy service

13) Nnef\_ECRestriction service

14) Nnef\_IPTVConfiguration service

NOTE 1: For Nnef\_PFDManagement service, only the Nnef\_PFDManagement\_Create/Update/Delete service operations are applicable for the NEF Northbound interface.

NOTE 2: For Nnef\_NIDD service, NF consumer other than the AF does not use the NEF Northbound interface.

NOTE 3: For Nnef\_NIDDConfiguration service, the Nnef\_NIDDConfiguration\_Trigger service operation is only applicable for the NEF Northbound interface.

NOTE 4: The Nnef\_APISupportCapability service is only applicable in the MonitoringEvent API when the monitoring type sets to "API\_SUPPORT\_CAPABILITY"

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

4.4.x Procedures for Location Privacy Indication Parameters Provisioning

The procedures are used by the AF to provision Location Privacy Indication parameters to the NEF. The procedures are applicable for an individual UE or a group of UEs.

In order to provision Location Privacy Indication parameters, the AF shall initiate an HTTP POST request to the NEF for the "LPI Parameters Provisionings" resource. The body of the HTTP POST message shall include the Location Privacy Indication related parameters within the LpiParametersProvision data structure.

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 resource 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 resource and assign an identifier for the "Individual LPI Parameters Provisioning" resource. Then the NEF shall send a HTTP "201 Created" response with LpiParameterProvision data structure as response body and a Location header field containing the URI of the created individual resource. In order to update an existing individual LPI Parameters Provisioning, the AF may send an HTTP PUT message to the resource "individual LPI Parameters Provisioning" requesting the NEF to change all properties in the existing resource. The body of the HTTP PUT request message shall include LpiParametersProvision data type as defined in subclause 5.y.2.3.2. The External Group Identifier or GPSI shall remain unchanged from previous values.

Upon receipt of the corresponding HTTP PUT message, if the AF is authorized by the NEF to provision the parameters, the NEF shall interact with the UDM to modify an existing resource at the UDM by using Nudm\_ParameterProvision service as defined in 3GPP TS 29.503 [17]. If the modification request is accepted by the UDM and the UDM informs the NEF with a successful response, the NEF shall update the existing resource for the "Individual LPI Parameters Provisioning" resource. Then the NEF shall send a HTTP response including "200 OK" status code with LpiParametersProvision data structure or "204 No Content" status code.

To delete an existing to LPI Parameters Provisioning, the AF shall initiate an HTTP DELETE request to the NEF for the "Individual LPI Parameters Provisioning" resource.

Upon receipt of the corresponding HTTP DELETE message, if the AF is authorized, the NEF shall interact with the UDM to delete an existing LPI Parameters Provisioning at the UDM by using Nudm\_ParameterProvision service as defined in 3GPP TS 29.503 [17]. If the request is accepted by the UDM, the NEF shall delete the existing resource for the "Individual LPI Parameters Provisioning" resource. Then the NEF shall send a HTTP "204 No Content" response.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## 5.y LpiParameterProvision API

### 5.y.1 Resources

#### 5.y.1.1 Overview

This subclause describes the structure for the Resource URIs as shown in figure 5.y.1.1-1 and the resources and HTTP methods used for the LpiParameterProvision API.



Figure 5.y.1.1-1: Resource URI structure of the LpiParameterProvision API

Table 5.y.1.1-1 provides an overview of the resources and HTTP methods applicable for the LpiParameterProvision API.

Table 5.y.1.1-1: Resources and methods overview

|  |  |  |  |
| --- | --- | --- | --- |
| Resource name | Resource URI | HTTP method | Description |
| LPI Parameters Provisionings  | {apiRoot}/3gpp-lpi-pp/v1/{afId}/provisionedLpis | GET | Read all LPI Parameters Provisioningresources for a given AF |
| POST | Create a new Individual LPI Parameters Provisioning resource |
| Individual LPI Parameters Provisioning | {apiRoot}/3gpp-lpi-pp/v1/{afId}/provisionedLpis/{provisionedLpiId} | GET | Read an existing Individual LPI Parameters Provisioning resource identified by {provisionedLpiId} |
| PUT | Modify all of the properties of an existing Individual LPI Parameters Provisioning resource identified by {provisionedLpiId} |
| DELETE | Delete the existing Individual LPI Parameters Provisioning resource identified by {provisionedLpiId} |

#### 5.y.1.2 Resource: LPI Parameters Provisionings

##### 5.y.1.2.1 Introduction

This resource allows a AF to read all active LPI Parameters Provisionings for the given AF, or create an new individual LPI Parameters Provisioning resource to provision parameters to the NEF.

##### 5.y.1.2.2 Resource Definition

Resource URI: **{apiRoot}/3gpp-lpi-pp/v1/{afId}/provisionedLpis**

This resource shall support the resource URI variables defined in table 5.y.1.2.2-1.

Table 5.y.1.2.2-1: Resource URI variables for this resource

|  |  |
| --- | --- |
| Name | Definition |
| apiRoot | Subclause 5.2.4 of 3GPP TS 29.122 [4]. |
| afId | Identifier of the AF of type string. |

##### 5.y.1.2.3 Resource Methods

###### 5.y.1.2.3.1 General

The following subclauses specify the resource methods supported by the resource as described in subclause 5.y.1.2.3.

###### 5.y.1.2.3.2 GET

The GET method allows to read all active provisioned LPIs for a given AF. The AF shall initiate the HTTP GET request message and the NEF shall respond to the message.

This method shall support the URI query parameters specified in table 5.y.1.2.3.2-1.

Table 5.y.1.2.3.2-1: URI query parameters supported by the GETmethod on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| N/A |  |  |  |  |

This method shall support the request data structures specified in table 5.y.1.2.3.2-2 and the response data structures and response codes specified in table 5.y.1.2.3.2-3.

Table 5.y.1.2.3.2-2: Data structures supported by the GETRequest Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| N/A |  |  |  |

Table 5.y.1.2.3.2-3: Data structures supported by theGET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response codes | Description |
| array(LpiParametersProvision) | M | 0..N | 200 OK | All the LPI Parameters Provisioning information for the AF in the request URI are returned. |
| NOTE: The mandatory HTTP error status codes for the GET method listed in table 5.2.6-1 of 3GPP TS 29.122 [4] also apply. |

###### 5.y.1.2.3.3 POST

The POST method creates a new resource to LPI Parameters Provisionings for a given AF. The AF shall initiate the HTTP POST request message and the NEF shall respond to the message. The NEF shall construct the URI of the created resource.

This method shall support the request data structures specified in table 5.y.1.2.3.3-1 and the response data structures and response codes specified in table 5.y.1.2.3.3-2.

Table 5.y.1.2.3.3-1: Data structures supported by the POSTRequest Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| LpiParametersProvision | M | 1 | Parameters to create an LPI Parameters Provisionings resource to provision parameters. |

Table 5.y.1.2.3.3-2: Data structures supported by thePOST Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response codes | Description |
| LpiParametersProvision | M | 1 | 201 Created | The resource was created successfully. The URI of the created resource shall be returned in the "Location" HTTP header. |
| NOTE: The mandatory HTTP error status codes for the POST method listed in table 5.2.6-1 of 3GPP TS 29.122 [4] also apply. |

#### 5.y.1.3 Resource: Individual LPI Parameters Provisioning

##### 5.y.1.3.1 Introduction

This resource allows a AF to read, update or delete an existing provisioned LPI parameters resouce.

##### 5.y.1.3.2 Resource Definition

Resource URI: **{apiRoot}/3gpp-lpi-pp/v1/{afId}/provisionedLpis/{provisionedLpiId}**

This resource shall support the resource URI variables defined in table 5.y.1.3.2-1.

Table 5.y.1.3.2-1: Resource URI variables for this resource

|  |  |
| --- | --- |
| Name | Definition |
| apiRoot | Subclause 5.2.4 of 3GPP TS 29.122 [4]. |
| afId | Identifier of the AF of type string. |
| provisionedLpiId | Identifier of the provisioning resource of type string. |

##### 5.y.1.3.3 Resource Methods

###### 5.y.1.3.3.1 General

The following subclauses specify the resource methods supported by the resource as described in subclause 5.y.1.3.3.

###### 5.y.1.3.3.2 GET

The GET method allows to read an active providedLpis for a given AF and provisionedLpiId. The AF shall initiate the HTTP GET request message and the NEF shall respond to the message.

This method shall support the URI query parameters specified in table 5.y.1.3.3.2-1.

Table 5.y.1.3.3.2-1: URI query parameters supported by theGETmethod on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| N/A |  |  |  |  |

This method shall support the request data structures specified in table 5.y.1.3.3.2-2 and the response data structures and response codes specified in table 5.y.1.3.3.2-3.

Table 5.y.1.3.3.2-2: Data structures supported by the GETRequest Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| N/A |  |  |  |

Table 5.y.1.3.3.2-3: Data structures supported by theGET Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response codes | Description |
| LpiParametersProvision | M | 1 | 200 OK | The information for the source in the request URI are returned. |
| NOTE: The mandatory HTTP error status codes for the GET method listed in table 5.2.6-1 of 3GPP TS 29.122 [4] also apply. |

###### 5.y.1.3.3.3 PUT

The PUT method modifies an existing resource to update an existing individual LPI Parameters Provisioning resource. The AF shall initiate the HTTP PUT request message and the NEF shall respond to the message.

This method shall support the request data structures specified in table 5.y.1.3.3.3-1 and the response data structures and response codes specified in table 5.y.1.3.3.3-2.

Table 5.y.1.3.3.3-1: Data structures supported by the PUTRequest Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| LpiParametersProvision | M | 1 | Modify an existing individual LPI Parameters Provisioning resource to provision parameters. |

Table 5.y.1.3.3.3-2: Data structures supported by thePUT Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response codes | Description |
| LpiParametersProvision | M | 1 | 200 OK | The resource was updated successfully. |
| n/a |  |  | 204 No Content | The resource was updated successfully and no additional content is sent in the response message. |
| NOTE: The mandatory HTTP error status codes for the PUT method listed in table 5.2.6-1 of 3GPP TS 29.122 [4] also apply. |

###### 5.y.1.3.3.4 DELETE

The DELETE method deletes an existing individual LPI Parameters Provisioning resource for a given AF. The AF shall initiate the HTTP DELETE request message and the NEF shall respond to the message.

This method shall support the URI query parameters specified in table 5.y.1.3.3.4-1.

Table 5.y.1.3.3.4-1: URI query parameters supported by theDELETE method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
| N/A |  |  |  |  |

This method shall support the request data structures specified in table 5.y.1.3.3.4-2 and the response data structures and response codes specified in table 5.y.1.3.3.4-3.

Table 5.y.1.3.3.4-2: Data structures supported by the DELETERequest Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| N/A |  |  |  |

Table 5.y.1.3.3.4-3: Data structures supported by theDELETE Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response codes | Description |
| N/A |  |  | 204 No Content | The resource was removed successfully. |
| NOTE: The mandatory HTTP error status codes for the DELETE method listed in table 5.2.6-1 of 3GPP TS 29.122 [4] also apply. |

### 5.y.2 Data Model

#### 5.y.2.1 General

This subclause specifies the application data model supported by the LpiParameterProvision API.

#### 5.y.2.2 Reused data types

The data types reused by the LpiParameterProvision API from other specifications are listed in table 5.y.2.2-1.

Table 5.y.2.2-1: Re-used Data Types

|  |  |  |
| --- | --- | --- |
| Data type | Reference | Comments |
| ExternalGroupId | 3GPP TS 29.122 [4] | External Group Identifier for a user group. |
| Gpsi | 3GPP TS 29.571 [8] | Identifies a GPSI. |
| Link | 3GPP TS 29.122 [4] | Identifies a referenced resource. |
| Lpi | 3GPP TS 29.503 [17] | Identifies the Location Privacy Indication information. |
| SupportedFeatures | 3GPP TS 29.571 [8] | Used to negotiate the applicability of the optional features defined in table 5.y.3-1. |

#### 5.y.2.3 Structured data types

##### 5.y.2.3.1 Introduction

This clause defines the structured data types to be used in resource representations.

##### 5.y.2.3.2 Type: LpiParametersProvision

Table 5.y.2.3.2-1: Definition of type LpiParametersProvision

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| self | Link | C | 0..1 | Identifies the individual parameters provisioning resource.This attribute shall be supplied by the NEF in HTTP responses that include an object of LpiParametersProvision type. |  |
| exterGroupId | ExternalGroupId | O | 0..1 | Identifies a group of UEs.(NOTE) |  |
| gpsi | Gpsi | O | 0..1 | Identifies an UE with GPSI.(NOTE) |  |
| lpi | Lpi | M | 1 | Location Privacy Indication parameters |  |
| suppFeat | SupportedFeatures | M | 1 | Indicates the negotiated supported features. |  |
| NOTE: Only one of the "gpsi" or "exterGroupId" attribute shall be provided. |

#### 5.y.2.4 Simple data types and enumerations

##### 5.y.2.4.1 Introduction

This subclause defines simple data types and enumerations that can be referenced from data structures defined in the previous subclauses.

##### 5.y.2.4.2 Simple data types

The simple data types defined in table 5.y.2.4.2-1 shall be supported.

Table 5.y.2.4.2-1: Simple data types

|  |  |  |  |
| --- | --- | --- | --- |
| Type Name | Type Definition | Description | Applicability |
|  |  |  |  |

### 5.y.3 Used Features

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

Table 5.y.3-1: Features used by LpiParameterProvision API

|  |  |  |
| --- | --- | --- |
| Feature number | Feature Name | Description |
|  |  |  |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

# A.z LpiParameterProvision API

openapi: 3.0.0

info:

 title: 3gpp-lpi-pp

 version: 1.0.0.alpha-1

 description: |

 API for Location Privacy Indication Parameters Provisioning.

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externalDocs:

 description: 3GPP TS 29.522 V16.3.0; 5G System; Network Exposure Function Northbound APIs.

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

security:

 - {}

 - oAuth2ClientCredentials: []

servers:

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

 variables:

 apiRoot:

 default: https://example.com

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

paths:

 /{afId}/provisionedLpis:

 get:

 summary: read all of the active LPI Parameters Provisioning resources for the AF

 tags:

 - Resource collection level GET Operation

 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 resources for the AF)

 content:

 application/json:

 schema:

 type: array

 items:

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

 minItems: 1

 '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 LPI Parameters Provisioning resource

 tags:

 - Resource collection level POST Operation

 parameters:

 - name: afId

 in: path

 description: Identifier of the AF

 required: true

 schema:

 type: string

 requestBody:

 description: new resource creation

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: Created (Successful creation)

 content:

 application/json:

 schema:

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

 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'

 /{afId}/provisionedLpis/{provisionedLpiId}:

 get:

 summary: read an active LPI Parameters Provisioning resource for the AF and the provisioned LPI Id

 tags:

 - Individual resource level GET Operation

 parameters:

 - name: afId

 in: path

 description: Identifier of the AF

 required: true

 schema:

 type: string

 - name: provisionedLpiId

 in: path

 description: Identifier of the provisioned LPI parameter resource

 required: true

 schema:

 type: string

 responses:

 '200':

 description: OK (Successful get the active resource)

 content:

 application/json:

 schema:

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

 '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: Updates/replaces an existing LPI Parameters Provisioning resource

 tags:

 - Individual resource level PUT Operation

 parameters:

 - name: afId

 in: path

 description: Identifier of the AF

 required: true

 schema:

 type: string

 - name: provisionedLpiId

 in: path

 description: Identifier of the provisioned LPI parameter resource

 required: true

 schema:

 type: string

 requestBody:

 description: Parameters to update/replace the existing resource

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: OK (Successful update of the existing resource)

 content:

 application/json:

 schema:

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

 '204':

 description: Successful case. The resource has been successfully updated and no additional content is sent in the response message.

 '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 LPI Parameters Provisioning resource

 tags:

 - Individual resource level DELETE Operation

 parameters:

 - name: afId

 in: path

 description: Identifier of the AF

 required: true

 schema:

 type: string

 - name: provisionedLpiId

 in: path

 description: Identifier of the provisioned LPI parameter resource

 required: true

 schema:

 type: string

 responses:

 '204':

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

 '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:

 LpiParametersProvision:

 type: object

 properties:

 self:

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

 exterGroupId:

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

 gpsi:

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

 lpi:

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

 suppFeat:

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

 required:

 - lpi

 - suppFeat

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*End of changes\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*