**3GPP TSG-CT WG3 Meeting #108eC3-201273**

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

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.222** | **CR** | **0125** | **rev** | **1** | **Current version:** | **16.1.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | API Provider Management – Open API | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** | C3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eCAPIF | | | | |  | ***Date:*** | | | 2020-02-17 |
|  |  | | | |  | |  | | |  |
| ***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 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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Open API specification of CAPIF\_API\_ Provider\_Management\_API is not specified. The API definition is specified in TS 29.222 v16.0.0.  Also, name of the Table 5.11.2.1-1 needs to be corrected. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Open API specification of CAPIF\_API\_ Provider\_Management\_API  Editorial correction - Name correction of Table 5.11.2.1-1 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Open API specification of CAPIF\_API\_ Provider\_Management\_API is unspecified. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.11.2.1, A.X (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:*** | | The contribution proposes new Open API (CAPIF\_API\_Provider\_Management\_API), which is a backward compatible change. This contribution has the coressponding yaml file attached. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

1st change

#### 5.11.2.1 Introduction

The service operations defined for the CAPIF API Provider Management API are shown in table 5.11.2.1-1.

Table 5.11.2.1-1: Operations of the CAPIF\_API\_Provider\_Management\_API

| **Service operation name** | **Description** | **Initiated by** |
| --- | --- | --- |
| Register\_API\_Provider | This service operation is used by an API management function to register API provider domain functions as a recognized API provider domain of the CAPIF domain. | API Management Function |
| Update\_API\_Provider | This service operation is used by an API management function to update the API provider domain functions details in the CAPIF domain. | API Management Function |
| Deregister\_API\_Provider | This service operation is used by an API management function to deregister API provider domain functions as a recognized API provider domain of the CAPIF domain. | API Management Function |

2nd change

## A.X CAPIF\_API\_Provider\_Management\_API

openapi: 3.0.0

info:

title: CAPIF\_API\_Provider\_Management\_API

description: |

API for API provider domain functions management.

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version: "1.0.0.alpha-1"

externalDocs:

description: 3GPP TS 29.222 V16.1.0 Common API Framework for 3GPP Northbound APIs

url: http://www.3gpp.org/ftp/Specs/archive/29\_series/29.222/

servers:

- url: '{apiRoot}/api-provider-management/v1'

variables:

apiRoot:

default: https://example.com

description: apiRoot as defined in subclause 7.5 of 3GPP TS 29.222

paths:

/registrations:

post:

description: Registers a new API Provider domainwith API provider domain functions profiles.

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'201':

description: API provider domain registered successfully

content:

application/json:

schema:

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

headers:

Location:

description: 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/api-provider-management/v1/registrations/{registrationId}'

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'

/registrations/{registrationId}:

delete:

description: Deregisters API provider domain by deleting API provider domain and functions.

parameters:

- name: registrationId

in: path

description: String identifying an registered API provider domain resource

required: true

schema:

type: string

responses:

'204':

description: The API provider domain matching registrationId is deleted.

'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'

put:

description: Updates an API provider domain's registration details.

parameters:

- name: registrationId

in: path

description: String identifying an registered API provider domain resource

required: true

schema:

type: string

requestBody:

description: representation of the API provider domain registration details to be updated in CAPIF core function

required: true

content:

application/json:

schema:

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

responses:

'200':

description: API provider domain registration details updated successfully

content:

application/json:

schema:

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

'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'

components:

schemas:

APIProviderEnrolmentDetails:

type: object

properties:

apiProviderDomainId:

type: string

description: API provider domain ID assigned by the CAPIF core function to the API management function while registering the API provider domain. Shall not be present in the HTTP POST request from the API Management function to the CAPIF core function, to on-board itself. Shall be present in all other HTTP requests and responses.

readOnly: true

registrationSecret:

type: string

description: Security information necessary for the CAPIF core function to validate the registration of the API provider domain. Shall be present in HTTP POST request from API management function to CAPIF core function for API provider domain registration.

apiProviderFunctionsList:

type: array

items:

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

minItems: 1

description: A list of individual API provider domain functions details. When included by the API management function in the HTTP request message, it lists the API provider domain functions that the API management function intends to register/update in registration or update registration procedure. When included by the CAPIF core function in the HTTP response message, it lists the API domain functions details that are registered or updated successfully.

apiProviderDomainInformation:

type: string

description: Generic information related to the API provider domain such as details of the API provider applications.

supportedFeatures:

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

failureReason:

type: string

description: Registration or update specific failure information of failed API provider domain function registrations.Shall be present in the HTTP response body if atleast one of the API provider domain function registration or update registration fails.

required:

- registrationSecret

APIProviderFunctionDetails:

type: object

properties:

apiProviderFuncId:

type: string

description: API provider domain functionID assigned by the CAPIF core function to the API provider domain function while registering/updating the API provider domain. Shall not be present in the HTTP POST request from the API management function to the CAPIF core function, to register itself. Shall be present in all other HTTP requests and responses.

registrationInformation:

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

apiProviderFuncRole:

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

apiProviderFunctionInformation:

type: string

description: Generic information related to the API provider domain function such as details of the API provider applications.

required:

- registrationInformation

- apiProviderFuncRole

RegistrationInformation:

type: object

properties:

apiProviderPublicKey:

type: string

description: Public Key of API Provider domain function.

apiProviderCertificate:

type: string

description: API provider domain function's client certificate

required:

- apiProviderPublicKey

ApiProviderFuncRole:

anyOf:

- type: string

enum:

- AEF

- APF

- AMF

- type: string

description: >

This string provides forward-compatiblity with future extensions to the enumeration but is not used to encode content defined in the present version of this API.

description: >

Possible values are

- AEF: API provider function is API Exposing Function.

- APF: API provider function is API Publishing Function.

- AMF: API Provider function is API Management Function.

End of changes