**3GPP TSG-CT WG3 Meeting #142 *C3-253276***

**Gothenburg, SE, 25 - 29 August 2025**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.222** | **CR** | **0426** | **rev** | - | **Current version:** | **19.3.0** |  |
|  | | | | | | | | |
| *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:*** | CAPIF\_Open\_Discover\_Service\_API – OpenAPI | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung, Huawei? | | | | | | | | | |
| ***Source to TSG:*** | C3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | CAPIF\_Ph3 | | | | |  | ***Date:*** | | | 18-08-2025 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | As per TS 23.222, SA6 agreed on CAPIF Open Discover Service API as part of CAPIF\_Ph3 work. CT3 agreed for CAPIF Open Discover API definition in CT3#141 meeting (C3-252429). This CR proposes the OpenAPI implementation for the Open Discover API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | OpenAPI implementation of CAPIF\_Open\_Discover\_Service\_API has been added. Some correction related to API has also been made. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The stage-3 aspects of CAPIF\_Open\_Discover\_Service\_API are unspecified. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 8.11.2.2.3, 8.11.5.2.3, A.X | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 changes to the following OpenAPI.  - TS29222\_CAPIF\_Open\_Discover\_Service\_API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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

# A.X CAPIF\_Open\_Discover\_Service\_API

openapi: 3.0.0

info:

title: CAPIF\_Open\_Discovery\_Service\_API

version: 1.0.0

description: |

API for Routing information.

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externalDocs:

description: 3GPP TS 29.222 V19.4.0 Common API Framework for 3GPP Northbound APIs

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

servers:

- url: '{apiRoot}/open-api-disc/v1'

variables:

apiRoot:

default: https://example.com

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

paths:

/service-apis:

get:

description: >

Enables Open discovery of the currently registered at the CCF and satisfying

a number of filter criteria.

parameters:

- name: api-names

in: query

description: >

Contains the name(s) of the target Service API(s).

style: form

explode: false

schema:

type: array

items:

type: string

minItems: 1

- name: api-versions

in: query

description: >

Contains the major version(s) (e.g., v1) of the target Service API(s).

schema:

type: object

additionalProperties:

type: array

items:

type: string

minItems: 1

minProperties: 1

- name: comm-type

in: query

description: >

Contains the communication type supported by the target Service API(s).

schema:

$ref: 'TS29222\_CAPIF\_Publish\_Service\_API.yaml#/components/schemas/CommunicationType'

- name: protocols

in: query

description: >

Contains the protocol(s) supported by the target Service API(s).

style: form

explode: false

schema:

type: array

items:

$ref: 'TS29222\_CAPIF\_Publish\_Service\_API.yaml#/components/schemas/Protocol'

minItems: 1

- name: data-format

in: query

description: >

Contains data format(s) supported by the target Service API(s).

schema:

$ref: 'TS29222\_CAPIF\_Publish\_Service\_API.yaml#/components/schemas/DataFormat'

- name: api-cats

in: query

description: >

Contains the category(ies) of the target Service API(s).

style: form

explode: false

schema:

type: array

items:

type: string

minItems: 1

- name: preferred-aef-loc

in: query

description: >

Contains the preferred location information for AEF(s) exposing the target

Service API(s).

This query parameter is ignored by the CCF if there are no matching records at the CCF.

content:

application/json:

schema:

$ref: 'TS29222\_CAPIF\_Publish\_Service\_API.yaml#/components/schemas/AefLocation'

- name: api-prov-names

in: query

description: >

Contains the name(s) of the provider(s) of the target Service API(s).

style: form

explode: false

schema:

type: array

items:

type: string

minItems: 1

- name: api-supported-features

in: query

description: >

Contains the features supported by the discovered service API indicated by

api-name parameter. This may only be present if api-name query parameter is

present.

schema:

type: object

additionalProperties:

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

minProperties: 1

- name: api-ids

in: query

description: >

Contains the identifier(s) of the targeted service APIs.

required: false

style: form

explode: false

schema:

type: array

items:

type: string

minItems: 1

- name: service-kpis

in: query

description: >

Contains iInformation about service characteristics provided by the targeted

service API(s).

schema:

$ref: 'TS29222\_CAPIF\_Publish\_Service\_API.yaml#/components/schemas/ServiceKpis'

- name: res-ops

in: query

description: >

Contains the list of supported API resource(s) and service operation(s).

style: form

explode: false

schema:

type: array

items:

$ref: 'TS29222\_CAPIF\_Discover\_Service\_API.yaml#/components/schemas/ResOperInfo'

minItems: 1

- name: supported-features

in: query

description: >

Contains a list of supported features among the ones defined in clause 8.1.6. This

attributed shall be present only when feature negotiation needs to take place.

schema:

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

responses:

'200':

description: >

The response body contains the result of the search over the list of the registered

APIs.

content:

application/json:

schema:

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

'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'

'414':

$ref: 'TS29122\_CommonData.yaml#/components/responses/414'

'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:

OpenDiscoveryResp:

type: object

description: >

Represents the Open Service API Discovery response..

properties:

discApis:

type: array

items:

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

minItems: 0

suppFeat:

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

required:

- discApis

OpenAPIDetails:

type: object

description: >

Represents the Service API details provided within an Open Service API Discovery

response.

properties:

apiName:

type: string

apiId:

type: string

apiStatus:

$ref: 'TS29222\_CAPIF\_Publish\_Service\_API.yaml#/components/schemas/ApiStatus'

description:

type: string

serviceAPICategory:

type: string

apiSuppFeats:

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

apiProvName:

type: string

aefProfiles:

type: array

items:

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

minItems: 1

required:

- apiName

OpenAefProfile:

type: object

description: Represents the AEF Profile details provided within an Open Service API Discovery response..

properties:

aefId:

type: string

versions:

type: array

items:

$ref: 'TS29222\_CAPIF\_Publish\_Service\_API.yaml#/components/schemas/Version'

minItems: 1

protocol:

$ref: 'TS29222\_CAPIF\_Publish\_Service\_API.yaml#/components/schemas/Protocol'

dataFormat:

$ref: 'TS29222\_CAPIF\_Publish\_Service\_API.yaml#/components/schemas/DataFormat'

aefLocation:

$ref: 'TS29222\_CAPIF\_Publish\_Service\_API.yaml#/components/schemas/AefLocation'

serviceKpis:

$ref: 'TS29222\_CAPIF\_Publish\_Service\_API.yaml#/components/schemas/ServiceKpis'

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