**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** |  |
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| *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 |
| ***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 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-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. |
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| ***Summary of change:*** | OpenAPI implementation of CAPIF\_Open\_Discover\_Service\_API has been added. Some correction related to API has also been made. |
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| ***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\_Discover\_Service\_API

 description: |

 API for Routing information.

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 version: "1.0.0"

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}/service-apis/v1'

 variables:

 apiRoot:

 default: https://example.com

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

paths:

 /allServiceAPIs:

 get:

 description: >

 Discover a list of APIs currently registered at the CCF and satisfying

 a number of filter criteria.

 parameters:

 - name: api-names

 in: query

 description: >

 Contains the API name set to the value of the "<apiName>" placeholder of

 the API URI as defined in clause 5.2.4 of 3GPP TS 29.122 [14].

 schema:

 type: array

 items:

 type: string

 minItems: 1

 - name: api-versions

 in: query

 description: >

 Contains the API major version conveyed in the URI (e.g. v1).

 schema:

 type: array

 items:

 type: string

 minItems: 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).

 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 service API category to which the service API belongs.

 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).

 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).

 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:

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

 - 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).

 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 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:

 DiscoveryResp:

 type: object

 description: >

 Contains a list of APIs currently registered at the CCF and satisfying a number of

 filter criteria provided by the service consumer.

 properties:

 serviceAPIDescriptions:

 type: array

 items:

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

 minItems: 1

 description: >

 Description of the service API as published by the service.

 suppFeat:

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

 # Data Type for representations

 APIDetails:

 type: object

 description: >

 Represents the description of a service API as published by the APF.

 properties:

 apiName:

 type: string

 description: >

 Contains the API name set to the value of the "<apiName>" placeholder of the

 API URI as defined in clause 5.2.4 of 3GPP TS 29.122 [14].

 apiId:

 type: string

 description: >

 Contains the API identifier assigned by the CAPIF core function to the

 published service API.

 apiStatus:

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

 description:

 type: string

 description: >

 Contains the text description of the API.

 serviceAPICategory:

 type: string

 description: >

 Contains the service API category to which the service API belongs to.

 apiSuppFeats:

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

 apiProvName:

 type: string

 description: >

 Contains the API provider name.

 aefProfiles:

 type: array

 items:

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

 minItems: 1

 required:

 - apiName

 OpenAefProfile:

 type: object

 description: Represents the AEF profile data.

 properties:

 aefId:

 type: string

 description: Identifier of the API exposing function

 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'

 service-kpis:

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

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