**3GPP TSG-CT WG3 Meeting #114eC3-211540**

**E-Meeting, 24th February– 5th March 2021**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** | **5** | **rev** |  | **Current version:** |  |  |
|  | | | | | | | | |
| *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:*** | Update of OpenAPI version and TS version in externalDocs field | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** | C3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | CRs modifying the Npcf\_EventExposure API have been agreed and the version number of the corresponding OpenAPI file thus needs to be incremented following the rules in TS 29.501, subclause 4.3.1.  The following agreed CRs update the OpenAPI file for Npcf\_EventExposure for the present release:   * CR# 0043 impacts the OpenAPI file with a backwards compatible correction.   As the present release is not frozen, the API version needs to be upated from 1.2.0-alpha.1 to 1.2.0.alpha-2, and the TS version in the externalDocs field from 17.1.0 to 17.2.0. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Update of the API version number and TS version in externalDocs field for Npcf\_EventExposure API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Incorrect API version number and TS version in externalDocs field. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | A.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**…**

**Proposed changes:**

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

# A.2 Npcf\_EventExposure API

openapi: 3.0.0

info:

version: 1.2.0.alpha-2

title: Npcf\_EventExposure

description: |

PCF Event Exposure Service.

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externalDocs:

description: 3GPP TS 29.523 V17.2.0; 5G System; Policy Control Event Exposure Service; Stage 3.

url: http://www.3gpp.org/ftp/Specs/archive/29\_series/29.523/

servers:

- url: '{apiRoot}/npcf-eventexposure/v1'

variables:

apiRoot:

default: https://example.com

description: apiRoot as defined in subclause 4.4 of 3GPP TS 29.501

security:

- {}

- oAuth2ClientCredentials:

- npcf-eventexposure

paths:

/subscriptions:

post:

summary: Creates a new Individual Policy Control Events Subscription resource

operationId: PostPcEventExposureSubsc

tags:

- Policy Control Events Subscription (Collection)

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Success

content:

application/json:

schema:

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

headers:

Location:

description: 'Contains the URI of the created individual policy control events subscription resource, according to the structure: {apiRoot}/npcf-eventexposure/v1/subscriptions/{subscriptionId}'

required: true

schema:

type: string

'400':

$ref: 'TS29571\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29571\_CommonData.yaml#/components/responses/401'

'403':

$ref: 'TS29571\_CommonData.yaml#/components/responses/403'

'404':

$ref: 'TS29571\_CommonData.yaml#/components/responses/404'

'411':

$ref: 'TS29571\_CommonData.yaml#/components/responses/411'

'413':

$ref: 'TS29571\_CommonData.yaml#/components/responses/413'

'415':

$ref: 'TS29571\_CommonData.yaml#/components/responses/415'

'429':

$ref: 'TS29571\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29571\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29571\_CommonData.yaml#/components/responses/503'

default:

$ref: 'TS29571\_CommonData.yaml#/components/responses/default'

callbacks:

PcEventNotification:

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

post:

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'204':

description: No Content, Notification was succesfull

'307':

description: Temporary Redirect

content:

application/problem+json:

schema:

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

headers:

Location:

required: true

description: 'A URI pointing to the endpoint of an alternative NF consumer (service) instance towards which the notification should be redirected.'

schema:

type: string

3gpp-Sbi-Target-Nf-Id:

description: 'Identifier of the target NF (service) instance ID towards which the notification request is redirected'

schema:

type: string

'308':

description: Permanent Redirect

content:

application/problem+json:

schema:

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

headers:

Location:

required: true

description: ' A URI pointing to the endpoint of an alternative NF consumer (service) instance towards which the notification should be redirected.'

schema:

type: string

3gpp-Sbi-Target-Nf-Id:

description: 'Identifier of the target NF (service) instance ID towards which the notification request is redirected'

schema:

type: string

'400':

$ref: 'TS29571\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29571\_CommonData.yaml#/components/responses/401'

'403':

$ref: 'TS29571\_CommonData.yaml#/components/responses/403'

'404':

$ref: 'TS29571\_CommonData.yaml#/components/responses/404'

'411':

$ref: 'TS29571\_CommonData.yaml#/components/responses/411'

'413':

$ref: 'TS29571\_CommonData.yaml#/components/responses/413'

'415':

$ref: 'TS29571\_CommonData.yaml#/components/responses/415'

'429':

$ref: 'TS29571\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29571\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29571\_CommonData.yaml#/components/responses/503'

default:

$ref: 'TS29571\_CommonData.yaml#/components/responses/default'

/subscriptions/{subscriptionId}:

get:

summary: "Reads an existing Individual Policy Control Events Subscription"

operationId: GetPcEventExposureSubsc

tags:

- Individual Policy Control Events Subscription (Document)

parameters:

- name: subscriptionId

in: path

description: Policy Control Event Subscription ID

required: true

schema:

type: string

responses:

'200':

description: OK. Resource representation is returned

content:

application/json:

schema:

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

'307':

description: Temporary Redirect

content:

application/problem+json:

schema:

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

headers:

Location:

description: 'An alternative URI of the resource located on an alternative PCF (service) instance.'

required: true

schema:

type: string

3gpp-Sbi-Target-Nf-Id:

description: 'Identifier of the target NF (service) instance ID towards which the request is redirected'

schema:

type: string

'308':

description: Permanent Redirect

content:

application/problem+json:

schema:

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

headers:

Location:

description: 'An alternative URI of the resource located on an alternative PCF (service) instance.'

required: true

schema:

type: string

3gpp-Sbi-Target-Nf-Id:

description: 'Identifier of the target NF (service) instance ID towards which the request is redirected'

schema:

type: string

'400':

$ref: 'TS29571\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29571\_CommonData.yaml#/components/responses/401'

'403':

$ref: 'TS29571\_CommonData.yaml#/components/responses/403'

'404':

$ref: 'TS29571\_CommonData.yaml#/components/responses/404'

'406':

$ref: 'TS29571\_CommonData.yaml#/components/responses/406'

'429':

$ref: 'TS29571\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29571\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29571\_CommonData.yaml#/components/responses/503'

default:

$ref: 'TS29571\_CommonData.yaml#/components/responses/default'

put:

summary: "Modifies an existing Individual Policy Control Events Subscription "

operationId: PutPcEventExposureSubsc

tags:

- Individual Policy Control Events Subscription (Document)

requestBody:

required: true

content:

application/json:

schema:

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

parameters:

- name: subscriptionId

in: path

description: Policy Control Event Subscription ID

required: true

schema:

type: string

responses:

'200':

description: OK. Resource was succesfully modified and representation is returned

content:

application/json:

schema:

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

'204':

description: No Content. Resource was succesfully modified

'307':

description: Temporary Redirect

content:

application/problem+json:

schema:

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

headers:

Location:

description: 'An alternative URI of the resource located on an alternative PCF (service) instance.'

required: true

schema:

type: string

3gpp-Sbi-Target-Nf-Id:

description: 'Identifier of the target NF (service) instance ID towards which the request is redirected'

schema:

type: string

'308':

description: Permanent Redirect

content:

application/problem+json:

schema:

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

headers:

Location:

description: 'An alternative URI of the resource located on an alternative PCF (service) instance.'

required: true

schema:

type: string

3gpp-Sbi-Target-Nf-Id:

description: 'Identifier of the target NF (service) instance ID towards which the request is redirected'

schema:

type: string

'400':

$ref: 'TS29571\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29571\_CommonData.yaml#/components/responses/401'

'403':

$ref: 'TS29571\_CommonData.yaml#/components/responses/403'

'404':

$ref: 'TS29571\_CommonData.yaml#/components/responses/404'

'411':

$ref: 'TS29571\_CommonData.yaml#/components/responses/411'

'413':

$ref: 'TS29571\_CommonData.yaml#/components/responses/413'

'415':

$ref: 'TS29571\_CommonData.yaml#/components/responses/415'

'429':

$ref: 'TS29571\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29571\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29571\_CommonData.yaml#/components/responses/503'

default:

$ref: 'TS29571\_CommonData.yaml#/components/responses/default'

delete:

summary: "Cancels an existing Individual Policy Control Events Subscription "

operationId: DeletePcEventExposureSubsc

tags:

- Individual Policy Control Events Subscription (Document)

parameters:

- name: subscriptionId

in: path

description: Policy Control Event Subscription ID

required: true

schema:

type: string

responses:

'204':

description: No Content. Resource was succesfully deleted

'307':

description: Temporary Redirect

content:

application/problem+json:

schema:

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

headers:

Location:

description: 'An alternative URI of the resource located on an alternative PCF (service) instance.'

required: true

schema:

type: string

3gpp-Sbi-Target-Nf-Id:

description: 'Identifier of the target NF (service) instance ID towards which the request is redirected'

schema:

type: string

'308':

description: Permanent Redirect

content:

application/problem+json:

schema:

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

headers:

Location:

description: 'An alternative URI of the resource located on an alternative PCF (service) instance.'

required: true

schema:

type: string

3gpp-Sbi-Target-Nf-Id:

description: 'Identifier of the target NF (service) instance ID towards which the request is redirected'

schema:

type: string

'400':

$ref: 'TS29571\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29571\_CommonData.yaml#/components/responses/401'

'403':

$ref: 'TS29571\_CommonData.yaml#/components/responses/403'

'404':

$ref: 'TS29571\_CommonData.yaml#/components/responses/404'

'429':

$ref: 'TS29571\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29571\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29571\_CommonData.yaml#/components/responses/503'

default:

$ref: 'TS29571\_CommonData.yaml#/components/responses/default'

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{nrfApiRoot}/oauth2/token'

scopes:

npcf-eventexposure: Access to the Npcf\_EventExposure API.

schemas:

PcEventExposureNotif:

type: object

properties:

notifId:

type: string

eventNotifs:

type: array

items:

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

minItems: 1

required:

- notifId

- eventNotifs

PcEventExposureSubsc:

type: object

properties:

eventSubs:

type: array

items:

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

minItems: 1

eventsRepInfo:

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

groupId:

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

filterDnns:

type: array

items:

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

minItems: 1

filterSnssais:

type: array

items:

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

minItems: 1

snssaiDnns:

type: array

items:

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

minItems: 1

filterServices:

type: array

items:

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

minItems: 1

notifUri:

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

notifId:

type: string

suppFeat:

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

required:

- eventSubs

- notifId

- notifUri

ReportingInformation:

type: object

properties:

immRep:

type: boolean

notifMethod:

$ref: 'TS29508\_Nsmf\_EventExposure.yaml#/components/schemas/NotificationMethod'

maxReportNbr:

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

monDur:

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

repPeriod:

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

sampRatio:

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

grpRepTime:

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

ServiceIdentification:

type: object

properties:

servEthFlows:

type: array

items:

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

minItems: 1

servIpFlows:

type: array

items:

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

minItems: 1

afAppId:

$ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/AfAppId'

# All conditions in allOf must be met

allOf:

# First condition is that servEthFlows and servIpFlows are mutually exclusive

- not:

required: [servEthFlows, servIpFlows]

# Second condition is that at least one the servEthFlows, servIpFlows and afAppId shall be present

- anyOf:

- required: [servEthFlows]

- required: [servIpFlows]

- required: [afAppId]

EthernetFlowInfo:

type: object

properties:

ethFlows:

type: array

items:

$ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/EthFlowDescription'

minItems: 1

maxItems: 2

flowNumber:

type: integer

required:

- flowNumber

IpFlowInfo:

type: object

properties:

ipFlows:

type: array

items:

$ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/FlowDescription'

minItems: 1

maxItems: 2

flowNumber:

type: integer

required:

- flowNumber

PcEventNotification:

type: object

properties:

event:

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

accType:

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

addAccessInfo:

$ref: 'TS29512\_Npcf\_SMPolicyControl.yaml#/components/schemas/AdditionalAccessInfo'

relAccessInfo:

$ref: 'TS29512\_Npcf\_SMPolicyControl.yaml#/components/schemas/AdditionalAccessInfo'

anGwAddr:

$ref: 'TS29514\_Npcf\_PolicyAuthorization.yaml#/components/schemas/AnGwAddress'

ratType:

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

plmnId:

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

supi:

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

gpsi:

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

timeStamp:

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

pduSessionInfo:

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

repServices:

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

required:

- event

- timeStamp

PduSessionInformation:

type: object

properties:

snssai:

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

dnn:

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

ueIpv4:

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

ueIpv6:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Prefix'

ipDomain:

type: string

ueMac:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48'

required:

- snssai

- dnn

oneOf:

- required: [ueMac]

- anyOf:

- required: [ueIpv4]

- required: [ueIpv6]

SnssaiDnnCombination:

type: object

properties:

snssai:

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

dnns:

type: array

items:

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

minItems: 1

# Simple data types and Enumerations

PcEvent:

anyOf:

- type: string

enum:

- AC\_TY\_CH

- PLMN\_CH

- type: string

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