**3GPP TSG- Meeting # C3-225718**

**, , 14th – 18th November 2022**

|  |
| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **29.122** | **CR** | **0625** | **rev** | **-** | **Current version:** | **17.7.0** |  |
|  |
| *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:***  | Update of info and externalDocs fields |
|  |  |
| ***Source to WG:*** | Huawei |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | TEI18 |  | ***Date:*** | 2022-11-18 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-18 |
|  | *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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | During this plenary cycle (2022-Q4), there have been the first Rel-18 backwards compatible changes to the SCEF APIs defined in TS 29.122. The API version of these APIs needs hence to be updated as per the guidelines defined in clause 4.3.1 of TS 29.501.The following agreed CRs update the OpenAPI file of the **CommonData API** for the present release:* TS 29.122 CR#0622 introduces backwards compatible corrections

The API version needs to be updated from 1.2.1 to 1.3.0-alpha.1There were no Rel-18 CRs to the other SCEF APIs. Therefore, the corresponding API version does not need to be updated.The "externalDocs" object description field is also be updated to "v17.**8**.0" for the above impacted APIs. |
|  |  |
| ***Summary of change:*** | The CR proposes the following changes:* Update the API version of the MBS PCF APIs defined in TS 29.122 from "1.2.1" to "1.3.0-alpha.1" as detailed above.
* Update the TS version number in the "externalDocs" object description field to "v17.**8**.0".
 |
|  |  |
| ***Consequences if not approved:*** | * The OpenAPI version and the "externalDocs" object description field are not updated in the OpenAPI files impacted by the agreed CRs during Q4-2022 plenary cycle in CT3.
 |
|  |  |
| ***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:*** |  |

\* \* \* \* Start of changes \* \* \* \*

# A.2 Data Types applicable to several APIs

For the purpose of referencing entities in the Open API file defined in this Annex, it shall be assumed that this Open API file is contained in a physical file named "TS29122\_CommonData.yaml".

NOTE: For the purpose of referencing the error status codes in the Open API file defined in this Annex, this Open API file contains all the mandatory status codes as defined in table 5.2.6-1, all the API specific error status codes defined for T8 APIs, in addition, some error status codes not used in the current release of this specification but for the purpose of referencing by other specifications.

openapi: 3.0.0

info:

 title: TS 29.122 Common Data Types

 version: 1.3.0-alpha.1

 description: |

 Data types applicable to several APIs.

 © 2022, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).

 All rights reserved.

externalDocs:

 description: 3GPP TS 29.122 V18.0.0 T8 reference point for Northbound APIs

 url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.122/'

paths: {}

components:

 schemas:

 SponsorInformation:

 description: Represents a sponsor information.

 type: object

 properties:

 sponsorId:

 type: string

 description: It indicates Sponsor ID.

 aspId:

 type: string

 description: It indicates Application Service Provider ID.

 required:

 - sponsorId

 - aspId

 UsageThreshold:

 description: Represents a usage threshold.

 type: object

 properties:

 duration:

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

 totalVolume:

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

 downlinkVolume:

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

 uplinkVolume:

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

 UsageThresholdRm:

 description: Represents the same as the UsageThreshold data type but with the nullable:true property.

 type: object

 properties:

 duration:

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

 totalVolume:

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

 downlinkVolume:

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

 uplinkVolume:

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

 nullable: true

 TimeWindow:

 description: Represents a time window identified by a start time and a stop time.

 type: object

 properties:

 startTime:

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

 stopTime:

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

 required:

 - startTime

 - stopTime

 Acknowledgement:

 description: Represents a successful acknowledgement of a notification.

 type: object

 properties:

 details:

 type: string

 description: A human-readable explanation specific to this successful acknowledgement

 required:

 - details

 NotificationData:

 description: Represents the information to be conveyed in a bearer level event(s) notification.

 type: object

 properties:

 transaction:

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

 eventReports:

 type: array

 items:

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

 minItems: 1

 description: Contains the reported event and applicable information

 required:

 - transaction

 - eventReports

 EventReport:

 description: Represents an event report.

 type: object

 properties:

 event:

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

 accumulatedUsage:

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

 flowIds:

 type: array

 items:

 type: integer

 minItems: 1

 description: Identifies the IP flows that were sent during event subscription

 required:

 - event

 AccumulatedUsage:

 description: Represents an accumulated usage.

 type: object

 properties:

 duration:

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

 totalVolume:

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

 downlinkVolume:

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

 uplinkVolume:

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

 FlowInfo:

 description: Represents IP flow information.

 type: object

 properties:

 flowId:

 type: integer

 description: Indicates the IP flow identifier.

 flowDescriptions:

 type: array

 items:

 type: string

 description: >

 Indicates the packet filters of the IP flow. Refer to clause 5.3.8 of 3GPP TS 29.214 for

 encoding. It shall contain UL and/or DL IP flow description.

 minItems: 1

 maxItems: 2

 required:

 - flowId

 TestNotification:

 description: Represents a notification that can be sent to test whether a chosen notification mechanism works.

 type: object

 properties:

 subscription:

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

 required:

 - subscription

 WebsockNotifConfig:

 description: Represents the configuration information for the delivery of notifications over Websockets.

 type: object

 properties:

 websocketUri:

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

 requestWebsocketUri:

 type: boolean

 description: Set by the SCS/AS to indicate that the Websocket delivery is requested.

 LocationArea:

 description: Represents a user location area.

 type: object

 properties:

 cellIds:

 type: array

 items:

 type: string

 minItems: 1

 description: Indicates a list of Cell Global Identities of the user which identifies the cell the UE is registered.

 enodeBIds:

 type: array

 items:

 type: string

 minItems: 1

 description: Indicates a list of eNodeB identities in which the UE is currently located.

 routingAreaIds:

 type: array

 items:

 type: string

 minItems: 1

 description: Identifies a list of Routing Area Identities of the user where the UE is located.

 trackingAreaIds:

 type: array

 items:

 type: string

 minItems: 1

 description: Identifies a list of Tracking Area Identities of the user where the UE is located.

 geographicAreas:

 type: array

 items:

 $ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/GeographicArea'

 minItems: 1

 description: Identifies a list of geographic area of the user where the UE is located.

 civicAddresses:

 type: array

 items:

 $ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/CivicAddress'

 minItems: 1

 description: Identifies a list of civic addresses of the user where the UE is located.

 LocationArea5G:

 description: Represents a user location area when the UE is attached to 5G.

 type: object

 properties:

 geographicAreas:

 type: array

 items:

 $ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/GeographicArea'

 minItems: 0

 description: Identifies a list of geographic area of the user where the UE is located.

 civicAddresses:

 type: array

 items:

 $ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/CivicAddress'

 minItems: 0

 description: Identifies a list of civic addresses of the user where the UE is located.

 nwAreaInfo:

 $ref: 'TS29554\_Npcf\_BDTPolicyControl.yaml#/components/schemas/NetworkAreaInfo'

 ProblemDetails:

 description: Represents additional information and details on an error response.

 type: object

 properties:

 type:

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

 title:

 type: string

 description: A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem.

 status:

 type: integer

 description: The HTTP status code for this occurrence of the problem.

 detail:

 type: string

 description: A human-readable explanation specific to this occurrence of the problem.

 instance:

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

 cause:

 type: string

 description: A machine-readable application error cause specific to this occurrence of the problem. This IE should be present and provide application-related error information, if available.

 invalidParams:

 type: array

 items:

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

 minItems: 1

 description: Description of invalid parameters, for a request rejected due to invalid parameters.

 supportedFeatures:

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

 InvalidParam:

 description: Represents the description of invalid parameters, for a request rejected due to invalid parameters.

 type: object

 properties:

 param:

 type: string

 description: Attribute's name encoded as a JSON Pointer, or header's name.

 reason:

 type: string

 description: A human-readable reason, e.g. "must be a positive integer".

 required:

 - param

 PlmnId:

 description: Represents the identifier of a PLMN.

 type: object

 properties:

 mcc:

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

 mnc:

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

 required:

 - mcc

 - mnc

 ConfigResult:

 description: Represents one configuration processing result for a group's members.

 type: object

 properties:

 externalIds:

 type: array

 items:

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

 minItems: 1

 description: Each element indicates an external identifier of the UE.

 msisdns:

 type: array

 items:

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

 minItems: 1

 description: Each element identifies the MS internal PSTN/ISDN number allocated for the UE.

 resultReason:

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

 required:

 - resultReason

 oneOf:

 - required: [externalIds]

 - required: [msisdns]

 Bandwidth:

 type: integer

 minimum: 0

 description: integer indicating a bandwidth in bits per second.

 BdtReferenceId:

 type: string

 description: string identifying a BDT Reference ID as defined in clause 5.3.3 of 3GPP TS 29.154.

 BdtReferenceIdRm:

 type: string

 description: This data type is defined in the same way as the BdtReferenceId data type, but with the nullable property set to true.

 nullable: true

 Binary:

 type: string

 description: string with format "binary" as defined in OpenAPI Specification.

 Bytes:

 type: string

 description: String with format "byte" as defined in OpenAPI Specification, i.e, base64-encoded characters.

 DayOfWeek:

 type: integer

 minimum: 1

 maximum: 7

 description: integer between and including 1 and 7 denoting a weekday. 1 shall indicate Monday, and the subsequent weekdays shall be indicated with the next higher numbers. 7 shall indicate Sunday.

 DateTime:

 format: date-time

 type: string

 description: string with format "date-time" as defined in OpenAPI.

 DateTimeRm:

 format: date-time

 type: string

 description: string with format "date-time" as defined in OpenAPI with "nullable=true" property.

 nullable: true

 DateTimeRo:

 format: date-time

 type: string

 description: string with format "date-time" as defined in OpenAPI with "readOnly=true" property.

 readOnly: true

 DurationSec:

 type: integer

 minimum: 0

 description: Unsigned integer identifying a period of time in units of seconds.

 DurationSecRm:

 type: integer

 minimum: 0

 description: Unsigned integer identifying a period of time in units of seconds with "nullable=true" property.

 nullable: true

 DurationSecRo:

 type: integer

 minimum: 0

 description: Unsigned integer identifying a period of time in units of seconds with "readOnly=true" property.

 readOnly: true

 DurationMin:

 type: integer

 format: int32

 minimum: 0

 description: Unsigned integer identifying a period of time in units of minutes.

 ExternalId:

 type: string

 description: string containing a local identifier followed by "@" and a domain identifier. Both the local identifier and the domain identifier shall be encoded as strings that do not contain any "@" characters. See Clause 4.6.2 of 3GPP TS 23.682 for more information.

 ExternalGroupId:

 type: string

 description: string containing a local identifier followed by "@" and a domain identifier. Both the local identifier and the domain identifier shall be encoded as strings that do not contain any "@" characters. See Clauses 4.6.2 and 4.6.3 of 3GPP TS 23.682 for more information.

 Ipv4Addr:

 type: string

 description: string identifying a Ipv4 address formatted in the "dotted decimal" notation as defined in IETF RFC 1166.

 Ipv6Addr:

 type: string

 description: string identifying a Ipv6 address formatted according to clause 4 in IETF RFC 5952. The mixed Ipv4 Ipv6 notation according to clause 5 of IETF RFC 5952 shall not be used.

 Ipv4AddrRo:

 type: string

 description: string identifying a Ipv4 address formatted in the "dotted decimal" notation as defined in IETF RFC 1166, with "readOnly=true" property.

 readOnly: true

 Ipv6AddrRo:

 type: string

 description: string identifying a Ipv6 address formatted according to clause 4 in IETF RFC 5952, with "readOnly=true" property. The mixed Ipv4 Ipv6 notation according to clause 5 of IETF RFC 5952 shall not be used.

 readOnly: true

 Link:

 type: string

 description: string formatted according to IETF RFC 3986 identifying a referenced resource.

 LinkRm:

 type: string

 description: >

 String formatted according to IETF RFC 3986 identifying a referenced resource,

 but with the nullable property set to true.

 nullable: true

 Mcc:

 type: string

 description: String encoding a Mobile Country Code part of the PLMN, comprising 3 digits, as defined in 3GPP TS 38.413.

 Mnc:

 type: string

 description: String encoding a Mobile Network Code part of the PLMN, comprising 2 or 3 digits, as defined in 3GPP TS 38.413.

 Msisdn:

 type: string

 description: string formatted according to clause 3.3 of 3GPP TS 23.003 that describes an MSISDN.

 Port:

 type: integer

 description: Unsigned integer with valid values between 0 and 65535.

 minimum: 0

 maximum: 65535

 PortRo:

 type: integer

 description: Unsigned integer with valid values between 0 and 65535, with "readOnly=true" property.

 minimum: 0

 maximum: 65535

 readOnly: true

 ResourceId:

 type: string

 description: string chosen by the SCEF to serve as identifier in a resource URI.

 ScsAsId:

 type: string

 description: string that identifies an SCS/AS.

 TimeOfDay:

 type: string

 description: String with format partial-time or full-time as defined in clause 5.6 of IETF RFC 3339. Examples, 20:15:00, 20:15:00-08:00 (for 8 hours behind UTC).

 Uri:

 type: string

 description: string providing an URI formatted according to IETF RFC 3986.

 Volume:

 type: integer

 format: int64

 minimum: 0

 description: Unsigned integer identifying a volume in units of bytes.

 VolumeRm:

 type: integer

 format: int64

 minimum: 0

 description: Unsigned integer identifying a volume in units of bytes with "nullable=true" property.

 nullable: true

 EthFlowInfo:

 description: Represents Ethernet flow information.

 type: object

 properties:

 flowId:

 type: integer

 description: Indicates the Ethernet flow identifier.

 ethFlowDescriptions:

 type: array

 items:

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

 description: >

 Indicates the packet filters of the Ethernet flow. It shall contain UL and/or DL

 Ethernet flow description.

 minItems: 1

 maxItems: 2

 required:

 - flowId

 Event:

 anyOf:

 - type: string

 enum:

 - SESSION\_TERMINATION

 - LOSS\_OF\_BEARER

 - RECOVERY\_OF\_BEARER

 - RELEASE\_OF\_BEARER

 - USAGE\_REPORT

 - FAILED\_RESOURCES\_ALLOCATION

 - SUCCESSFUL\_RESOURCES\_ALLOCATION

 - type: string

 description: >

 This string provides forward-compatibility 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

 - SESSION\_TERMINATION: Indicates that Rx session is terminated.

 - LOSS\_OF\_BEARER : Indicates a loss of a bearer.

 - RECOVERY\_OF\_BEARER: Indicates a recovery of a bearer.

 - RELEASE\_OF\_BEARER: Indicates a release of a bearer.

 - USAGE\_REPORT: Indicates the usage report event.

 - FAILED\_RESOURCES\_ALLOCATION: Indicates the resource allocation is failed.

 - SUCCESSFUL\_RESOURCES\_ALLOCATION: Indicates the resource allocation is successful.

 ResultReason:

 anyOf:

 - type: string

 enum:

 - ROAMING\_NOT\_ALLOWED

 - OTHER\_REASON

 - type: string

 description: >

 This string provides a failure reason.

 description: >

 Possible values are

 - ROAMING\_NOT\_ALLOWED: Identifies the configuration parameters are not allowed by roaming agreement.

 - OTHER\_REASON: Identifies the configuration parameters are not configured due to other reason.

#

# HTTP responses

#

 responses:

 '307':

 description: Temporary Redirect

 headers:

 Location:

 description: 'An alternative URI of the resource.'

 required: true

 schema:

 type: string

 '308':

 description: Permanent Redirect

 headers:

 Location:

 description: 'An alternative URI of the resource.'

 required: true

 schema:

 type: string

 '400':

 description: Bad request

 content:

 application/problem+json:

 schema:

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

 '401':

 description: Unauthorized

 content:

 application/problem+json:

 schema:

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

 '403':

 description: Forbidden

 content:

 application/problem+json:

 schema:

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

 '404':

 description: Not Found

 content:

 application/problem+json:

 schema:

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

 '406':

 description: Not Acceptable

 content:

 application/problem+json:

 schema:

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

 '409':

 description: Conflict

 content:

 application/problem+json:

 schema:

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

 '411':

 description: Length Required

 content:

 application/problem+json:

 schema:

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

 '412':

 description: Precondition Failed

 content:

 application/problem+json:

 schema:

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

 '413':

 description: Payload Too Large

 content:

 application/problem+json:

 schema:

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

 '414':

 description: URI Too Long

 content:

 application/problem+json:

 schema:

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

 '415':

 description: Unsupported Media Type

 content:

 application/problem+json:

 schema:

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

 '429':

 description: Too Many Requests

 content:

 application/problem+json:

 schema:

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

 '500':

 description: Internal Server Error

 content:

 application/problem+json:

 schema:

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

 '503':

 description: Service Unavailable

 content:

 application/problem+json:

 schema:

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

 default:

 description: Generic Error

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