**3GPP TSG-SA5 Meeting #145-e *S5-225276***

**e-meeting, 15 - 24 August 2022**

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| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **32.291** | **CR** | **0416** | **rev** | **-** | **Current version:** | **17.3.0** |  |
|  |
| *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:***  | Correcting missing CIoT indicators in yaml |
|  |  |
| ***Source to WG:*** | Ericsson LM |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | TEI17 |  | ***Date:*** | 2022-08-04 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-17 |
|  | *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:*** | There are three indicators added to the PDU Charging information table 6.1.6.2.2.8 but these are not available in the annex A.2 the yaml. |
|  |  |
| ***Summary of change:*** | Addition of cpCIoTOptimisationIndicator, 5GSControl PlaneOnlyIndicator and smallDataRateControlIndicator, as well as correcting the feature naming |
|  |  |
| ***Consequences if not approved:*** | The information cannot be transported and inconsistent feature naming may lead to interoperability issues. |
|  |  |
| ***Clauses affected:*** | 7.2 |
|  |  |
|  | **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:*** |  |

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| **First change** |

###### 6.1.6.2.2.8 Type PDUSessionInformation

Table 6.1.6.2.2.8-1: Definition of type PDUSessionInformation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| networkSlicingInfo | NetworkSlicingInfo  | OM | 0..1 | information of network slice serving the PDU session |  |
| pduSessionID | PduSessionId | M | 1 |  |  |
| pduType | PduSessionType | OM | 0..1 | type of the PDU session |  |
| sscMode | SscMode | OC | 0..1 | information of SSC Mode type. |  |
| hPlmnId | PlmnId | OC | 0..1 | PLMN identifier of the home network |  |
| servingNetworkFunctionID | ServingNetworkFunctionID | OC | 0..1 | This field holds serving Network Function identifier. |  |
| servingCNPlmnId | PlmnId | OC | 0..1 | Serving Core Network Operator PLMN ID selected by the UE in shared networks. |  |
| ratType | RatType | OC | 0..1 | the RAT Type of the PDU session |  |
| mAPDUNon3GPPRATType | RatType | OC | 0..1 | the RAT Type of non-3GPP access for the MA PDU session | ATSSS |
| dnnId | Dnn | M | 1 | a Data Network Name |  |
| dnnSelectionMode | DnnSelectionMode | OC | 0..1 | This field indicates how the DNN was selected. |  |
| chargingCharacteristics | string | OC | 0..1 | the Charging Characteristics for this PDU session.It carries the value in hexadecimal representationPattern: '^[0-9a-fA-F]{1,4}$' |  |
| chargingCharacteristicsSelectionMode | ChargingCharacteristicsSelectionMode | OC | 0..1 | information about how the "Charging Characteristics" was selected.  |  |
| startTime | DateTime | OC | 0..1 | the UTC time which represents the start of a PDU session at the SMF |  |
| stopTime | DateTime | OC | 0..1 | the UTC time which represents the stop of a PDU session at the SMF |  |
| 3gppPSDataOffStatus | 3GPPPSDataOffStatus | OC | 0..1 | This field holds the 3GPP Data off Status when UE’s 3GPP Data Off status is Activated or Deactivated. |  |
| sessionStopIndicator | boolean | OC | 0..1 | This field indicates to the CHF that the PDU session has been terminated. |  |
| pduAddress | PDUAddress | OC | 0..1 | Group of user ip address/prefix |  |
| diagnostics | Diagnostics | OC | 0..1 | provides a detailed cause value from SMF. |  |
| enhancedDiagnostics | EnhancedDiagnostics5G | OC | 0..N | provides a more detailed cause value from SMF. | EnhancedDiagnostics |
| authorizedQoSInformation | AuthorizedDefaultQos | OC | 0..1 | This field holds the authorized QoS applied to PDU session. |  |
| subscribedQoSInformation | SubscribedDefaultQos | OC | 0..1 | This field holds the subscribed Default QoS  |  |
| authorizedSessionAMBR | Ambr | OC | 0..1 | This field holds the authorized session-AMBR. |  |
| subscribedSessionAMBR | Ambr | OC | 0..1 | This field holds the subscribed session-AMBR. |  |
| mAPDUSessionInformation | MAPDUSessionInformation | OC | 0..1 | This field holds the MA PDU session information. | ATSSS |
| redundantTransmissionType | RedundantTransmissionType | OC | 0..1 | Indicates the redundant transmission type.If this field isn’t present, it should be seen as a non-redundant transmission. | URLLC |
| pDUSessionPairID | Uint32 | OC | 0..1 | This field identifies the two redundant PDU Sessions that belong together for dual connectivity based end to end redundant user plane paths type. | URLLC |
| cpCIoTOptimisationIndicator | boolean | OC | 0..1 | This field holds the indicator whether control plane optimization CIoT for 5GS is used during the PDU session, if this feature is enabled.The default value is false. | 5GSCIoT |
| 5GSControl PlaneOnlyIndicator | boolean | OC | 0..1 | This field holds the indicator whether the control plane only is used, i.e., the PDU data only transfers to control plane in case of control plane CIoT optimization. The default value is false. | 5GSCIoT |
| smallDataRateControlIndicator | boolean | OC | 0..1 | This field holds the indicator whether the small data rate control for 5GS CIoT is used during the PDU session. The default value is false. | 5GSCIoT |
| 5GLANTypeService | 5GLANTypeService | OC | 0..1 | 5G LAN Type service information, if present, the 5G LAN Type service is used. | 5GLAN |

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| **First change** |

### 6.1.8 Feature negotiation

The optional features in table 6.1.8-1 are defined for the Nchf\_ConvergedCharging API. They shall be negotiated using the extensibility mechanism defined in subclause 6.6 of 3GPP TS 29.500 [299].

Table 6.1.8-1: Supported Features

|  |  |  |
| --- | --- | --- |
| Feature number | Feature Name | Description |
| 1 | CHFCQM | CHF-controlled quota management i.e. support for temporary offline |
| 2 | AF\_Charging\_Identifier | Indicates the support of long character strings as charging identifiers. |
| 3 | 5GIEPC\_CH | 5GS interworking with EPC |
| 4 | ATSSS | This feature indicates support of Access Traffic Steering, Switching, Splitting (ATSSS). |
| 5 | ETSUN | This feature indicates support of Enhancing Topology of SMF and UPF in 5G Networks (ETSUN). |
| 6 | EnhancedDiagnostics | Support the enhanced diagnostics |
| 7 | AMF\_subs\_PRA | PRA(s) subscription by CHF in AMF |
| 8 | FilterRuleList | Support of multiple filter rules in the final unit indication |
| 9 | TEI17\_NIESGU | This feature indicates support of GERAN/UTRAN access |
| 10 | IMS | This feature indicates support of IMS. |
| 11 | QoSMonitoring | This feature indicates support of QoS Monitoring |
| 12 | Announcement | This feature indicates support of announcements. |
| 13 | 5GLAN | This feature indicates support of 5G LAN-type services. |
| 14 | URLLC | This feature indicates support of URLLC. |
| 15 | NotifyInfoResponse | This feature indicates support of response with information for a notification. |
| 16 | ES4xx | Extended Support of HTTP 400, 403, 404 allowing use of either ChargingDataResponse or ProblemDetails in the response. |
| 17 | ES3xx | Extended Support of HTTP 307 and 308 redirections, an NF that does not support this feature does only support HTTP redirection as specified for 3GPP Release 15 and 16. |
| 18 | EdgeComputing | This feature indicates support of edge computing domain charging. |
| 19 | 5GSCIoT | This featute indicates support of 5GS control plane CIoT optimization |
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| **First change** |

## A.2 Nchf\_ConvergedCharging API

openapi: 3.0.0

info:

 title: Nchf\_ConvergedCharging

 version: 3.1.0

 description: |

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

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externalDocs:

 description: >

 3GPP TS 32.291 V17.3.0: Telecommunication management; Charging management;

 5G system, charging service; Stage 3.

 url: 'http://www.3gpp.org/ftp/Specs/archive/32\_series/32.291/'

servers:

 - url: '{apiRoot}/nchf-convergedcharging/v3'

 variables:

 apiRoot:

 default: https://example.com

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

security:

 - {}

 - oAuth2ClientCredentials:

 - nchf-convergedcharging

paths:

 /chargingdata:

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: Created

 content:

 application/json:

 schema:

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

 '400':

 description: Bad request

 content:

 application/problem+json:

 schema:

 oneOf:

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

 - $ref: '#/components/schemas/ChargingDataResponse'

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '401':

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

 '403':

 description: Forbidden

 content:

 application/problem+json:

 schema:

 oneOf:

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

 - $ref: '#/components/schemas/ChargingDataResponse'

 '404':

 description: Not Found

 content:

 application/problem+json:

 schema:

 oneOf:

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

 - $ref: '#/components/schemas/ChargingDataResponse'

 '405':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/405'

 '408':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/408'

 '410':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/410'

 '411':

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

 '413':

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

 '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:

 chargingNotification:

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

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: OK.

 content:

 application/ json:

 schema:

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

 '204':

 description: 'No Content, Notification was succesfull'

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 description: Bad request

 content:

 application/problem+json:

 schema:

 oneOf:

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

 - $ref: '#/components/schemas/ChargingNotifyResponse'

 default:

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

 '/chargingdata/{ChargingDataRef}/update':

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 parameters:

 - name: ChargingDataRef

 in: path

 description: a unique identifier for a charging data resource in a PLMN

 required: true

 schema:

 type: string

 responses:

 '200':

 description: OK. Updated Charging Data resource is returned

 content:

 application/json:

 schema:

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

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 description: Bad request

 content:

 application/problem+json:

 schema:

 oneOf:

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

 - $ref: '#/components/schemas/ChargingDataResponse'

 '401':

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

 '403':

 description: Forbidden

 content:

 application/problem+json:

 schema:

 oneOf:

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

 - $ref: '#/components/schemas/ChargingDataResponse'

 '404':

 description: Not Found

 content:

 application/problem+json:

 schema:

 oneOf:

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

 - $ref: '#/components/schemas/ChargingDataResponse'

 '405':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/405'

 '408':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/408'

 '410':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/410'

 '411':

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

 '413':

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

 '500':

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

 '503':

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

 default:

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

 '/chargingdata/{ChargingDataRef}/release':

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 parameters:

 - name: ChargingDataRef

 in: path

 description: a unique identifier for a charging data resource in a PLMN

 required: true

 schema:

 type: string

 responses:

 '204':

 description: No Content.

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '401':

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

 '404':

 description: Not Found

 content:

 application/problem+json:

 schema:

 oneOf:

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

 - $ref: '#/components/schemas/ChargingDataResponse'

 '410':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/410'

 '411':

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

 '413':

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

 '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:

 nchf-convergedcharging: Access to the Nchf\_ConvergedCharging API

 schemas:

 ChargingDataRequest:

 type: object

 properties:

 subscriberIdentifier:

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

 tenantIdentifier:

 type: string

 chargingId:

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

 mnSConsumerIdentifier:

 type: string

 nfConsumerIdentification:

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

 invocationTimeStamp:

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

 invocationSequenceNumber:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 retransmissionIndicator:

 type: boolean

 oneTimeEvent:

 type: boolean

 oneTimeEventType:

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

 notifyUri:

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

 supportedFeatures:

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

 serviceSpecificationInfo:

 type: string

 multipleUnitUsage:

 type: array

 items:

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

 minItems: 0

 triggers:

 type: array

 items:

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

 minItems: 0

 pDUSessionChargingInformation:

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

 roamingQBCInformation:

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

 sMSChargingInformation:

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

 nEFChargingInformation:

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

 registrationChargingInformation:

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

 n2ConnectionChargingInformation:

 $ref: '#/components/schemas/N2ConnectionChargingInformation'

 locationReportingChargingInformation:

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

 nSPAChargingInformation:

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

 nSMChargingInformation:

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

 mMTelChargingInformation:

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

 iMSChargingInformation:

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

 edgeInfrastructureUsageChargingInformation':

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

 eASDeploymentChargingInformation:

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

 directEdgeEnablingServiceChargingInformation:

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

 exposedEdgeEnablingServiceChargingInformation:

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

 proSeChargingInformation:

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

 required:

 - nfConsumerIdentification

 - invocationTimeStamp

 - invocationSequenceNumber

 ChargingDataResponse:

 type: object

 properties:

 invocationTimeStamp:

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

 invocationSequenceNumber:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 invocationResult:

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

 sessionFailover:

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

 supportedFeatures:

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

 multipleUnitInformation:

 type: array

 items:

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

 minItems: 0

 triggers:

 type: array

 items:

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

 minItems: 0

 pDUSessionChargingInformation:

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

 roamingQBCInformation:

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

 locationReportingChargingInformation:

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

 required:

 - invocationTimeStamp

 - invocationSequenceNumber

 ChargingNotifyRequest:

 type: object

 properties:

 notificationType:

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

 reauthorizationDetails:

 type: array

 items:

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

 minItems: 0

 required:

 - notificationType

 ChargingNotifyResponse:

 type: object

 properties:

 invocationResult:

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

 NFIdentification:

 type: object

 properties:

 nFName:

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

 nFIPv4Address:

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

 nFIPv6Address:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Addr'

 nFPLMNID:

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

 nodeFunctionality:

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

 nFFqdn:

 type: string

 required:

 - nodeFunctionality

 MultipleUnitUsage:

 type: object

 properties:

 ratingGroup:

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

 requestedUnit:

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

 usedUnitContainer:

 type: array

 items:

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

 minItems: 0

 uPFID:

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

 multihomedPDUAddress:

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

 required:

 - ratingGroup

 InvocationResult:

 type: object

 properties:

 error:

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

 failureHandling:

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

 Trigger:

 type: object

 properties:

 triggerType:

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

 triggerCategory:

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

 timeLimit:

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

 volumeLimit:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 volumeLimit64:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 eventLimit:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 maxNumberOfccc:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 tariffTimeChange:

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

 required:

 - triggerType

 - triggerCategory

 MultipleUnitInformation:

 type: object

 properties:

 resultCode:

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

 ratingGroup:

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

 grantedUnit:

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

 triggers:

 type: array

 items:

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

 minItems: 0

 validityTime:

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

 quotaHoldingTime:

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

 finalUnitIndication:

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

 timeQuotaThreshold:

 type: integer

 volumeQuotaThreshold:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 unitQuotaThreshold:

 type: integer

 uPFID:

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

 announcementInformation:

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

 required:

 - ratingGroup

 RequestedUnit:

 type: object

 properties:

 time:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 totalVolume:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 uplinkVolume:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 downlinkVolume:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 serviceSpecificUnits:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 UsedUnitContainer:

 type: object

 properties:

 serviceId:

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

 quotaManagementIndicator:

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

 triggers:

 type: array

 items:

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

 minItems: 0

 triggerTimestamp:

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

 time:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 totalVolume:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 uplinkVolume:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 downlinkVolume:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 serviceSpecificUnits:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 eventTimeStamps:

 type: array

 items:

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

 minItems: 0

 localSequenceNumber:

 type: integer

 pDUContainerInformation:

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

 nSPAContainerInformation:

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

 pC5ContainerInformation:

 $ref: '#/components/schemas/PC5ContainerInformation'

 required:

 - localSequenceNumber

 GrantedUnit:

 type: object

 properties:

 tariffTimeChange:

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

 time:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 totalVolume:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 uplinkVolume:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 downlinkVolume:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 serviceSpecificUnits:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 FinalUnitIndication:

 type: object

 properties:

 finalUnitAction:

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

 restrictionFilterRule:

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

 restrictionFilterRuleList:

 type: array

 items:

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

 minItems: 1

 filterId:

 type: string

 filterIdList:

 type: array

 items:

 type: string

 minItems: 1

 redirectServer:

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

 required:

 - finalUnitAction

 RedirectServer:

 type: object

 properties:

 redirectAddressType:

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

 redirectServerAddress:

 type: string

 required:

 - redirectAddressType

 - redirectServerAddress

 ReauthorizationDetails:

 type: object

 properties:

 serviceId:

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

 ratingGroup:

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

 quotaManagementIndicator:

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

 PDUSessionChargingInformation:

 type: object

 properties:

 chargingId:

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

 homeProvidedChargingId:

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

 userInformation:

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

 userLocationinfo:

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

 mAPDUNon3GPPUserLocationInfo:

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

 non3GPPUserLocationTime:

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

 mAPDUNon3GPPUserLocationTime:

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

 presenceReportingAreaInformation:

 type: object

 additionalProperties:

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

 minProperties: 0

 uetimeZone:

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

 pduSessionInformation:

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

 unitCountInactivityTimer:

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

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

 UserInformation:

 type: object

 properties:

 servedGPSI:

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

 servedPEI:

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

 unauthenticatedFlag:

 type: boolean

 roamerInOut:

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

 PDUSessionInformation:

 type: object

 properties:

 networkSlicingInfo:

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

 pduSessionID:

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

 pduType:

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

 sscMode:

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

 hPlmnId:

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

 servingNetworkFunctionID:

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

 ratType:

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

 mAPDUNon3GPPRATType:

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

 dnnId:

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

 dnnSelectionMode:

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

 chargingCharacteristics:

 type: string

 pattern: '^[0-9a-fA-F]{1,4}$'

 chargingCharacteristicsSelectionMode:

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

 startTime:

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

 stopTime:

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

 3gppPSDataOffStatus:

 $ref: '#/components/schemas/3GPPPSDataOffStatus'

 sessionStopIndicator:

 type: boolean

 pduAddress:

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

 diagnostics:

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

 authorizedQoSInformation:

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

 subscribedQoSInformation:

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

 authorizedSessionAMBR:

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

 subscribedSessionAMBR:

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

 servingCNPlmnId:

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

 mAPDUSessionInformation:

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

 enhancedDiagnostics:

 $ref: '#/components/schemas/EnhancedDiagnostics5G'

 redundantTransmissionType:

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

 pDUSessionPairID:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 cpCIoTOptimisationIndicator:

 type: boolean

 5GSControlPlaneOnlyIndicator:

 type: boolean

 smallDataRateControlIndicator:

 type: boolean

 5GLANTypeService:

 $ref: '#/components/schemas/5GLANTypeService'

 required:

 - pduSessionID

 - dnnId

 PDUContainerInformation:

 type: object

 properties:

 timeofFirstUsage:

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

 timeofLastUsage:

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

 qoSInformation:

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

 qoSCharacteristics:

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

 afChargingIdentifier:

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

 afChargingIdString:

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

 userLocationInformation:

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

 uetimeZone:

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

 rATType:

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

 servingNodeID:

 type: array

 items:

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

 minItems: 0

 presenceReportingAreaInformation:

 type: object

 additionalProperties:

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

 minProperties: 0

 3gppPSDataOffStatus:

 $ref: '#/components/schemas/3GPPPSDataOffStatus'

 sponsorIdentity:

 type: string

 applicationserviceProviderIdentity:

 type: string

 chargingRuleBaseName:

 type: string

 mAPDUSteeringFunctionality:

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

 mAPDUSteeringMode:

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

 trafficForwardingWay:

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

 qosMonitoringReport:

 type: array

 items:

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

 minItems: 0

 NSPAContainerInformation:

 type: object

 properties:

 latency:

 type: integer

 throughput:

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

 maximumPacketLossRate:

 type: string

 serviceExperienceStatisticsData:

 $ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/ServiceExperienceInfo'

 theNumberOfPDUSessions:

 type: integer

 theNumberOfRegisteredSubscribers:

 type: integer

 loadLevel:

 $ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/NsiLoadLevelInfo'

 NSPAChargingInformation:

 type: object

 properties:

 singleNSSAI:

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

 required:

 - singleNSSAI

 NetworkSlicingInfo:

 type: object

 properties:

 sNSSAI:

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

 required:

 - sNSSAI

 PDUAddress:

 type: object

 properties:

 pduIPv4Address:

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

 pduIPv6AddresswithPrefix:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Addr'

 pduAddressprefixlength:

 type: integer

 iPv4dynamicAddressFlag:

 type: boolean

 iPv6dynamicPrefixFlag:

 type: boolean

 addIpv6AddrPrefixes:

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

 ServingNetworkFunctionID:

 type: object

 properties:

 servingNetworkFunctionInformation:

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

 aMFId:

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

 required:

 - servingNetworkFunctionInformation

 RoamingQBCInformation:

 type: object

 properties:

 multipleQFIcontainer:

 type: array

 items:

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

 minItems: 0

 uPFID:

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

 roamingChargingProfile:

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

 MultipleQFIcontainer:

 type: object

 properties:

 triggers:

 type: array

 items:

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

 minItems: 0

 triggerTimestamp:

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

 time:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 totalVolume:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 uplinkVolume:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 downlinkVolume:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 localSequenceNumber:

 type: integer

 qFIContainerInformation:

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

 required:

 - localSequenceNumber

 QFIContainerInformation:

 type: object

 properties:

 qFI:

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

 reportTime:

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

 timeofFirstUsage:

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

 timeofLastUsage:

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

 qoSInformation:

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

 qoSCharacteristics:

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

 userLocationInformation:

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

 uetimeZone:

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

 presenceReportingAreaInformation:

 type: object

 additionalProperties:

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

 minProperties: 0

 rATType:

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

 servingNetworkFunctionID:

 type: array

 items:

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

 minItems: 0

 3gppPSDataOffStatus:

 $ref: '#/components/schemas/3GPPPSDataOffStatus'

 3gppChargingId:

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

 diagnostics:

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

 enhancedDiagnostics:

 type: array

 items:

 type: string

 required:

 - reportTime

 RoamingChargingProfile:

 type: object

 properties:

 triggers:

 type: array

 items:

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

 minItems: 0

 partialRecordMethod:

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

 SMSChargingInformation:

 type: object

 properties:

 originatorInfo:

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

 recipientInfo:

 type: array

 items:

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

 minItems: 0

 userEquipmentInfo:

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

 roamerInOut:

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

 userLocationinfo:

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

 uetimeZone:

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

 rATType:

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

 sMSCAddress:

 type: string

 sMDataCodingScheme:

 type: integer

 sMMessageType:

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

 sMReplyPathRequested:

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

 sMUserDataHeader:

 type: string

 sMStatus:

 type: string

 pattern: '^[0-7]?[0-9a-fA-F]$'

 sMDischargeTime:

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

 numberofMessagesSent:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 sMServiceType:

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

 sMSequenceNumber:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 sMSresult:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 submissionTime:

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

 sMPriority:

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

 messageReference:

 type: string

 messageSize:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 messageClass:

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

 deliveryReportRequested:

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

 OriginatorInfo:

 type: object

 properties:

 originatorSUPI:

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

 originatorGPSI:

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

 originatorOtherAddress:

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

 originatorReceivedAddress:

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

 originatorSCCPAddress:

 type: string

 sMOriginatorInterface:

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

 sMOriginatorProtocolId:

 type: string

 RecipientInfo:

 type: object

 properties:

 recipientSUPI:

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

 recipientGPSI:

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

 recipientOtherAddress:

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

 recipientReceivedAddress:

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

 recipientSCCPAddress:

 type: string

 sMDestinationInterface:

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

 sMrecipientProtocolId:

 type: string

 SMAddressInfo:

 type: object

 properties:

 sMaddressType:

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

 sMaddressData:

 type: string

 sMaddressDomain:

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

 RecipientAddress:

 type: object

 properties:

 recipientAddressInfo:

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

 sMaddresseeType:

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

 MessageClass:

 type: object

 properties:

 classIdentifier:

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

 tokenText:

 type: string

 SMAddressDomain:

 type: object

 properties:

 domainName:

 type: string

 3GPPIMSIMCCMNC:

 type: string

 SMInterface:

 type: object

 properties:

 interfaceId:

 type: string

 interfaceText:

 type: string

 interfacePort:

 type: string

 interfaceType:

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

 RANSecondaryRATUsageReport:

 type: object

 properties:

 rANSecondaryRATType:

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

 qosFlowsUsageReports:

 type: array

 items:

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

 Diagnostics:

 type: integer

 IPFilterRule:

 type: string

 QosFlowsUsageReport:

 type: object

 properties:

 qFI:

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

 startTimestamp:

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

 endTimestamp:

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

 uplinkVolume:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 downlinkVolume:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 5GLANTypeService:

 type: object

 properties:

 internalGroupIdentifier:

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

 NEFChargingInformation:

 type: object

 properties:

 externalIndividualIdentifier:

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

 externalGroupIdentifier:

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

 groupIdentifier:

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

 aPIDirection:

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

 aPITargetNetworkFunction:

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

 aPIResultCode:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 aPIName:

 type: string

 aPIReference:

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

 aPIContent:

 type: string

 required:

 - aPIName

 RegistrationChargingInformation:

 type: object

 properties:

 registrationMessagetype:

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

 userInformation:

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

 userLocationinfo:

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

 pSCellInformation:

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

 uetimeZone:

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

 rATType:

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

 5GMMCapability:

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

 mICOModeIndication:

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

 smsIndication:

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

 taiList:

 type: array

 items:

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

 minItems: 0

 serviceAreaRestriction:

 type: array

 items:

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

 minItems: 0

 requestedNSSAI:

 type: array

 items:

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

 minItems: 0

 allowedNSSAI:

 type: array

 items:

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

 minItems: 0

 rejectedNSSAI:

 type: array

 items:

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

 minItems: 0

 nSSAIMapList:

 type: array

 items:

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

 minItems: 0

 amfUeNgapId:

 type: integer

 ranUeNgapId:

 type: integer

 ranNodeId:

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

 required:

 - registrationMessagetype

 PSCellInformation:

 type: object

 properties:

 nrcgi:

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

 ecgi:

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

 NSSAIMap:

 type: object

 properties:

 servingSnssai:

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

 homeSnssai:

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

 required:

 - servingSnssai

 - homeSnssai

 N2ConnectionChargingInformation:

 type: object

 properties:

 n2ConnectionMessageType:

 $ref: '#/components/schemas/N2ConnectionMessageType'

 userInformation:

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

 userLocationinfo:

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

 pSCellInformation:

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

 uetimeZone:

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

 rATType:

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

 amfUeNgapId:

 type: integer

 ranUeNgapId:

 type: integer

 ranNodeId:

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

 restrictedRatList:

 type: array

 items:

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

 minItems: 0

 forbiddenAreaList:

 type: array

 items:

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

 minItems: 0

 serviceAreaRestriction:

 type: array

 items:

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

 minItems: 0

 restrictedCnList:

 type: array

 items:

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

 minItems: 0

 allowedNSSAI:

 type: array

 items:

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

 minItems: 0

 rrcEstCause:

 type: string

 pattern: '^[0-9a-fA-F]+$'

 required:

 - n2ConnectionMessageType

 LocationReportingChargingInformation:

 type: object

 properties:

 locationReportingMessageType:

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

 userInformation:

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

 userLocationinfo:

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

 pSCellInformation:

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

 uetimeZone:

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

 rATType:

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

 presenceReportingAreaInformation:

 type: object

 additionalProperties:

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

 minProperties: 0

 required:

 - locationReportingMessageType

 N2ConnectionMessageType:

 type: integer

 LocationReportingMessageType:

 type: integer

 NSMChargingInformation:

 type: object

 properties:

 managementOperation:

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

 idNetworkSliceInstance:

 type: string

 listOfserviceProfileChargingInformation:

 type: array

 items:

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

 minItems: 0

 managementOperationStatus:

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

# To be introduced once the reference to 'generic.yaml is resolved

# managementOperationalState:

# $ref: 'genericNrm.yaml#/components/schemas/OperationalState'

# managementAdministrativeState:

# $ref: 'genericNrm.yaml#/components/schemas/AdministrativeState'

 required:

 - managementOperation

 ServiceProfileChargingInformation:

 type: object

 properties:

 serviceProfileIdentifier:

 type: string

 sNSSAIList:

 type: array

 items:

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

 minItems: 0

# To be introduced once the reference to 'nrNrm.yaml is resolved

# sST:

# $ref: 'nrNrm.yaml#/components/schemas/Sst'

 latency:

 type: integer

 availability:

 type: number

# To be introduced once the reference to sliceNrm.yaml is resolved

# resourceSharingLevel:

# $ref: 'sliceNrm.yaml#/components/schemas/SharingLevel'

 jitter:

 type: integer

 reliability:

 type: string

 maxNumberofUEs:

 type: integer

 coverageArea:

 type: string

# To be introduced once the reference to sliceNrm.yaml is resolved

# uEMobilityLevel:

# $ref: 'sliceNrm.yaml#/components/schemas/MobilityLevel'

# delayToleranceIndicator:

# $ref: 'sliceNrm.yaml#/components/schemas/Support'

 dLThptPerSlice:

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

 dLThptPerUE:

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

 uLThptPerSlice:

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

 uLThptPerUE:

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

 maxNumberofPDUsessions:

 type: integer

 kPIMonitoringList:

 type: string

 supportedAccessTechnology:

 type: integer

# To be introduced once the reference to sliceNrm.yaml is resolved

# v2XCommunicationModeIndicator:

# $ref: 'sliceNrm.yaml#/components/schemas/Support'

 addServiceProfileInfo:

 type: string

 Throughput:

 type: object

 properties:

 guaranteedThpt:

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

 maximumThpt:

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

 MAPDUSessionInformation:

 type: object

 properties:

 mAPDUSessionIndicator:

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

 aTSSSCapability:

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

 EnhancedDiagnostics5G:

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

 RanNasCauseList:

 type: array

 items:

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

 QosMonitoringReport:

 description: Contains reporting information on QoS monitoring.

 type: object

 properties:

 ulDelays:

 type: array

 items:

 type: integer

 minItems: 0

 dlDelays:

 type: array

 items:

 type: integer

 minItems: 0

 rtDelays:

 type: array

 items:

 type: integer

 minItems: 0

 AnnouncementInformation:

 type: object

 properties:

 announcementIdentifier:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 announcementReference:

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

 variableParts:

 type: array

 items:

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

 minItems: 0

 timeToPlay:

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

 quotaConsumptionIndicator:

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

 announcementPriority:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 playToParty:

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

 announcementPrivacyIndicator:

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

 Language:

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

 VariablePart:

 type: object

 properties:

 variablePartType:

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

 variablePartValue:

 type: array

 items:

 type: string

 minItems: 1

 variablePartOrder:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 required:

 - variablePartType

 - variablePartValue

 Language:

 type: string

 MMTelChargingInformation:

 type: object

 properties:

 supplementaryServices:

 type: array

 items:

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

 minItems: 1

 SupplementaryService:

 type: object

 properties:

 supplementaryServiceType:

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

 supplementaryServiceMode:

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

 numberOfDiversions:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 associatedPartyAddress:

 type: string

 conferenceId:

 type: string

 participantActionType:

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

 changeTime:

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

 numberOfParticipants:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 cUGInformation:

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

 IMSChargingInformation:

 type: object

 properties:

 eventType:

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

 iMSNodeFunctionality:

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

 roleOfNode:

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

 userInformation:

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

 userLocationInfo:

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

 ueTimeZone:

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

 3gppPSDataOffStatus:

 $ref: '#/components/schemas/3GPPPSDataOffStatus'

 isupCause:

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

 controlPlaneAddress:

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

 vlrNumber:

 $ref: '#/components/schemas/E164'

 mscAddress:

 $ref: '#/components/schemas/E164'

 userSessionID:

 type: string

 outgoingSessionID:

 type: string

 sessionPriority:

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

 callingPartyAddresses:

 type: array

 items:

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

 minItems: 1

 calledPartyAddress:

 type: string

 numberPortabilityRoutinginformation:

 type: string

 carrierSelectRoutingInformation:

 type: string

 alternateChargedPartyAddress:

 type: string

 requestedPartyAddress:

 type: array

 items:

 type: string

 minItems: 1

 calledAssertedIdentities:

 type: array

 items:

 type: string

 minItems: 1

 calledIdentityChanges:

 type: array

 items:

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

 minItems: 1

 associatedURI:

 type: array

 items:

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

 minItems: 1

 timeStamps:

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

 applicationServerInformation:

 type: array

 items:

 type: string

 minItems: 1

 interOperatorIdentifier:

 type: array

 items:

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

 minItems: 1

 imsChargingIdentifier:

 type: string

 relatedICID:

 type: string

 relatedICIDGenerationNode:

 type: string

 transitIOIList:

 type: array

 items:

 type: string

 minItems: 1

 earlyMediaDescription:

 type: array

 items:

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

 minItems: 1

 sdpSessionDescription:

 type: array

 items:

 type: string

 minItems: 1

 sdpMediaComponent:

 type: array

 items:

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

 minItems: 1

 servedPartyIPAddress:

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

 serverCapabilities:

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

 trunkGroupID:

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

 bearerService:

 type: string

 imsServiceId:

 type: string

 messageBodies:

 type: array

 items:

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

 minItems: 1

 accessNetworkInformation:

 type: array

 items:

 type: string

 minItems: 1

 additionalAccessNetworkInformation:

 type: string

 cellularNetworkInformation:

 type: string

 accessTransferInformation:

 type: array

 items:

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

 minItems: 1

 accessNetworkInfoChange:

 type: array

 items:

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

 minItems: 1

 imsCommunicationServiceID:

 type: string

 imsApplicationReferenceID:

 type: string

 causeCode:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 reasonHeader:

 type: array

 items:

 type: string

 minItems: 1

 initialIMSChargingIdentifier:

 type: string

 nniInformation:

 type: array

 items:

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

 minItems: 1

 fromAddress:

 type: string

 imsEmergencyIndication:

 type: boolean

 imsVisitedNetworkIdentifier:

 type: string

 sipRouteHeaderReceived:

 type: string

 sipRouteHeaderTransmitted:

 type: string

 tadIdentifier:

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

 feIdentifierList:

 type: string

 EdgeInfrastructureUsageChargingInformation:

 type: object

 properties:

 meanVirtualCPUUsage:

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

 meanVirtualMemoryUsage:

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

 meanVirtualDiskUsage:

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

 durationStartTime:

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

 durationEndTime:

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

 EASDeploymentChargingInformation:

 type: object

 properties:

# To be introduced once the reference to EdgeNrm.yaml is resolved

# eEASDeploymentRequirements:

# $ref: 'EdgeNrm.yaml#/components/schemas/EASRequirements'

 lCMStartTime:

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

 lCMEndTime:

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

 PC5ContainerInformation:

 type: object

 properties:

 coverageInfoList:

 type: array

 items:

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

 radioParameterSetInfoList:

 type: array

 items:

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

 transmitterInfoList:

 type: array

 items:

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

 minItems: 0

 timeOfFirst Transmission:

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

 timeOfFirst Reception:

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

 CoverageInfo:

 type: object

 properties:

 coverageStatus:

 type: boolean

 changeTime:

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

 locationInfo:

 type: array

 items:

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

 minItems: 0

 RadioParameterSetInfo:

 type: object

 properties:

 radioParameterSetValues:

 type: array

 items:

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

 minItems: 0

 changeTimestamp:

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

 TransmitterInfo:

 type: object

 properties:

 proseSourceIPAddress:

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

 proseSourceL2Id:

 type: string

 ProseChargingInformation:

 type: object

 properties:

 announcingPlmnID:

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

 announcingUeHplmnIdentifier:

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

 announcingUeVplmnIdentifier:

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

 monitoringUeHplmnIdentifier:

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

 monitoringUeVplmnIdentifier:

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

 discovererUeHplmnIdentifier:

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

 discovererUeVplmnIdentifier:

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

 discovereeUeHplmnIdentifier:

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

 discovereeUeVplmnIdentifier:

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

 monitoredPlmnIdentifier:

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

 proseApplicationID:

 type: string

 ApplicationId:

 type: string

 applicationSpecificDataList:

 type: array

 items:

 type: string

 minItems: 0

 proseFunctionality:

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

 proseEventType:

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

 directDiscoveryModel:

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

 validityPeriod:

 type: integer

 roleOfUE:

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

 proseRequestTimestamp:

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

 pC3ProtocolCause:

 type: integer

 monitoringUEIdentifier:

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

 requestedPLMNIdentifier:

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

 timeWindow:

 type: integer

 rangeClass:

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

 proximityAlertIndication:

 type: boolean

 proximityAlertTimestamp:

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

 proximityCancellationTimestamp:

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

 relayIPAddress:

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

 proseUEToNetworkRelayUEID :

 type: string

 proseDestinationLayer2ID:

 type: string

 pFIContainerInformation:

 type: array

 items:

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

 minItems: 0

 transmissionDataContainer:

 type: array

 items:

 $ref: '#/components/schemas/PC5DataContainer'

 minItems: 0

 receptionDataContainer:

 type: array

 items:

 $ref: '#/components/schemas/PC5DataContainer'

 minItems: 0

 required:

 - aPIName

 PFIContainerInformation:

 type: object

 properties:

 pFI:

 type: string

 reportTime:

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

 timeofFirstUsage:

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

 timeofLastUsage:

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

 qoSInformation:

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

 qoSCharacteristics:

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

 userLocationInformation:

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

 uetimeZone:

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

 presenceReportingAreaInformation:

 type: object

 additionalProperties:

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

 minProperties: 0

 PC5DataContainer:

 type: object

 properties:

 localSequenceNumber:

 type: string

 changeTime:

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

 coverageStatus:

 type: boolean

 userLocationInformation:

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

 dataVolume:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint64'

 changeCondition:

 type: string

 radioResourcesId:

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

 radioFrequency:

 type: string

 pC5RadioTechnology:

 type: string

 OctetString:

 type: string

 pattern: '^[0-9a-fA-F]+$'

 E164:

 type: string

 pattern: '^[0-9a-fA-F]+$'

 IMSAddress:

 type: object

 properties:

 ipv4Addr:

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

 ipv6Addr:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Addr'

 e164:

 $ref: '#/components/schemas/E164'

 anyOf:

 - required: [ ipv4Addr ]

 - required: [ ipv6Addr ]

 - required: [ e164 ]

 ServingNodeAddress:

 type: object

 properties:

 ipv4Addr:

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

 ipv6Addr:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Addr'

 anyOf:

 - required: [ ipv4Addr ]

 - required: [ ipv6Addr ]

 SIPEventType:

 type: object

 properties:

 sIPMethod:

 type: string

 eventHeader:

 type: string

 expiresHeader:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 ISUPCause:

 type: object

 properties:

 iSUPCauseLocation:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 iSUPCauseValue:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 iSUPCauseDiagnostics:

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

 CalledIdentityChange:

 type: object

 properties:

 calledIdentity:

 type: string

 changeTime:

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

 InterOperatorIdentifier:

 type: object

 properties:

 originatingIOI:

 type: string

 terminatingIOI:

 type: string

 EarlyMediaDescription:

 type: object

 properties:

 sDPTimeStamps:

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

 sDPMediaComponent:

 type: array

 items:

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

 minItems: 0

 sDPSessionDescription:

 type: array

 items:

 type: string

 minItems: 0

 SDPTimeStamps:

 type: object

 properties:

 sDPOfferTimestamp:

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

 sDPAnswerTimestamp:

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

 SDPMediaComponent:

 type: object

 properties:

 sDPMediaName:

 type: string

 SDPMediaDescription:

 type: array

 items:

 type: string

 minItems: 0

 localGWInsertedIndication:

 type: boolean

 ipRealmDefaultIndication:

 type: boolean

 transcoderInsertedIndication:

 type: boolean

 mediaInitiatorFlag:

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

 mediaInitiatorParty:

 type: string

 threeGPPChargingId:

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

 accessNetworkChargingIdentifierValue:

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

 sDPType:

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

 ServerCapabilities:

 type: object

 properties:

 mandatoryCapability:

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 minItems: 0

 optionalCapability :

 type: array

 items:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 minItems: 0

 serverName:

 type: array

 items:

 type: string

 minItems: 0

 TrunkGroupID:

 type: object

 properties:

 incomingTrunkGroupID:

 type: string

 outgoingTrunkGroupID:

 type: string

 MessageBody:

 type: object

 properties:

 contentType:

 type: string

 contentLength:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

 contentDisposition:

 type: string

 originator:

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

 required:

 - contentType

 - contentLength

 AccessTransferInformation:

 type: object

 properties:

 accessTransferType:

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

 accessNetworkInformation:

 type: array

 items:

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

 minItems: 0

 cellularNetworkInformation:

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

 interUETransfer:

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

 userEquipmentInfo:

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

 instanceId:

 type: string

 relatedIMSChargingIdentifier:

 type: string

 relatedIMSChargingIdentifierNode:

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

 changeTime:

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

 AccessNetworkInfoChange:

 type: object

 properties:

 accessNetworkInformation:

 type: array

 items:

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

 minItems: 0

 cellularNetworkInformation:

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

 changeTime:

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

 NNIInformation:

 type: object

 properties:

 sessionDirection:

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

 nNIType:

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

 relationshipMode:

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

 neighbourNodeAddress:

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

 NotificationType:

 anyOf:

 - type: string

 enum:

 - REAUTHORIZATION

 - ABORT\_CHARGING

 - type: string

 NodeFunctionality:

 anyOf:

 - type: string

 enum:

 - AMF

 - SMF

 - SMS

 - PGW\_C\_SMF

 - NEFF # Included for backwards compatibility, shall not be used

 - SGW

 - I\_SMF

 - ePDG

 - CEF

 - NEF

 - MnS\_Producer

 - SGSN

 - type: string

 ChargingCharacteristicsSelectionMode:

 anyOf:

 - type: string

 enum:

 - HOME\_DEFAULT

 - ROAMING\_DEFAULT

 - VISITING\_DEFAULT

 - type: string

 TriggerType:

 anyOf:

 - type: string

 enum:

 - QUOTA\_THRESHOLD

 - QHT

 - FINAL

 - QUOTA\_EXHAUSTED

 - VALIDITY\_TIME

 - OTHER\_QUOTA\_TYPE

 - FORCED\_REAUTHORISATION

 - UNUSED\_QUOTA\_TIMER # Included for backwards compatibility, shall not be used

 - UNIT\_COUNT\_INACTIVITY\_TIMER

 - ABNORMAL\_RELEASE

 - QOS\_CHANGE

 - VOLUME\_LIMIT

 - TIME\_LIMIT

 - EVENT\_LIMIT

 - PLMN\_CHANGE

 - USER\_LOCATION\_CHANGE

 - RAT\_CHANGE

 - SESSION\_AMBR\_CHANGE

 - UE\_TIMEZONE\_CHANGE

 - TARIFF\_TIME\_CHANGE

 - MAX\_NUMBER\_OF\_CHANGES\_IN\_CHARGING\_CONDITIONS

 - MANAGEMENT\_INTERVENTION

 - CHANGE\_OF\_UE\_PRESENCE\_IN\_PRESENCE\_REPORTING\_AREA

 - CHANGE\_OF\_3GPP\_PS\_DATA\_OFF\_STATUS

 - SERVING\_NODE\_CHANGE

 - REMOVAL\_OF\_UPF

 - ADDITION\_OF\_UPF

 - INSERTION\_OF\_ISMF

 - REMOVAL\_OF\_ISMF

 - CHANGE\_OF\_ISMF

 - START\_OF\_SERVICE\_DATA\_FLOW

 - ECGI\_CHANGE

 - TAI\_CHANGE

 - HANDOVER\_CANCEL

 - HANDOVER\_START

 - HANDOVER\_COMPLETE

 - GFBR\_GUARANTEED\_STATUS\_CHANGE

 - ADDITION\_OF\_ACCESS

 - REMOVAL\_OF\_ACCESS

 - START\_OF\_SDF\_ADDITIONAL\_ACCESS

 - REDUNDANT\_TRANSMISSION\_CHANGE

 - CGI\_SAI\_CHANGE

 - RAI\_CHANGE

 - type: string

 FinalUnitAction:

 anyOf:

 - type: string

 enum:

 - TERMINATE

 - REDIRECT

 - RESTRICT\_ACCESS

 - type: string

 RedirectAddressType:

 anyOf:

 - type: string

 enum:

 - IPV4

 - IPV6

 - URL

 - URI

 - type: string

 TriggerCategory:

 anyOf:

 - type: string

 enum:

 - IMMEDIATE\_REPORT

 - DEFERRED\_REPORT

 - type: string

 QuotaManagementIndicator:

 anyOf:

 - type: string

 enum:

 - ONLINE\_CHARGING

 - OFFLINE\_CHARGING

 - QUOTA\_MANAGEMENT\_SUSPENDED

 - type: string

 FailureHandling:

 anyOf:

 - type: string

 enum:

 - TERMINATE

 - CONTINUE

 - RETRY\_AND\_TERMINATE

 - type: string

 SessionFailover:

 anyOf:

 - type: string

 enum:

 - FAILOVER\_NOT\_SUPPORTED

 - FAILOVER\_SUPPORTED

 - type: string

 3GPPPSDataOffStatus:

 anyOf:

 - type: string

 enum:

 - ACTIVE

 - INACTIVE

 - type: string

 ResultCode:

 anyOf:

 - type: string

 enum:

 - SUCCESS

 - END\_USER\_SERVICE\_DENIED

 - QUOTA\_MANAGEMENT\_NOT\_APPLICABLE

 - QUOTA\_LIMIT\_REACHED

 - END\_USER\_SERVICE\_REJECTED

 - USER\_UNKNOWN

 - RATING\_FAILED

 - QUOTA\_MANAGEMENT

 - type: string

 PartialRecordMethod:

 anyOf:

 - type: string

 enum:

 - DEFAULT

 - INDIVIDUAL

 - type: string

 RoamerInOut:

 anyOf:

 - type: string

 enum:

 - IN\_BOUND

 - OUT\_BOUND

 - type: string

 SMMessageType:

 anyOf:

 - type: string

 enum:

 - SUBMISSION

 - DELIVERY\_REPORT

 - SM\_SERVICE\_REQUEST

 - DELIVERY

 - type: string

 SMPriority:

 anyOf:

 - type: string

 enum:

 - LOW

 - NORMAL

 - HIGH

 - type: string

 DeliveryReportRequested:

 anyOf:

 - type: string

 enum:

 - YES

 - NO

 - type: string

 InterfaceType:

 anyOf:

 - type: string

 enum:

 - UNKNOWN

 - MOBILE\_ORIGINATING

 - MOBILE\_TERMINATING

 - APPLICATION\_ORIGINATING

 - APPLICATION\_TERMINATING

 - type: string

 ClassIdentifier:

 anyOf:

 - type: string

 enum:

 - PERSONAL

 - ADVERTISEMENT

 - INFORMATIONAL

 - AUTO

 - type: string

 SMAddressType:

 anyOf:

 - type: string

 enum:

 - EMAIL\_ADDRESS

 - MSISDN

 - IPV4\_ADDRESS

 - IPV6\_ADDRESS

 - NUMERIC\_SHORTCODE

 - ALPHANUMERIC\_SHORTCODE

 - OTHER

 - IMSI

 - type: string

 SMAddresseeType:

 anyOf:

 - type: string

 enum:

 - TO

 - CC

 - BCC

 - type: string

 SMServiceType:

 anyOf:

 - type: string

 enum:

 - VAS4SMS\_SHORT\_MESSAGE\_CONTENT\_PROCESSING

 - VAS4SMS\_SHORT\_MESSAGE\_FORWARDING

 - VAS4SMS\_SHORT\_MESSAGE\_FORWARDING\_MULTIPLE\_SUBSCRIPTIONS

 - VAS4SMS\_SHORT\_MESSAGE\_FILTERING

 - VAS4SMS\_SHORT\_MESSAGE\_RECEIPT

 - VAS4SMS\_SHORT\_MESSAGE\_NETWORK\_STORAGE

 - VAS4SMS\_SHORT\_MESSAGE\_TO\_MULTIPLE\_DESTINATIONS

 - VAS4SMS\_SHORT\_MESSAGE\_VIRTUAL\_PRIVATE\_NETWORK(VPN)

 - VAS4SMS\_SHORT\_MESSAGE\_AUTO\_REPLY

 - VAS4SMS\_SHORT\_MESSAGE\_PERSONAL\_SIGNATURE

 - VAS4SMS\_SHORT\_MESSAGE\_DEFERRED\_DELIVERY

 - type: string

 ReplyPathRequested:

 anyOf:

 - type: string

 enum:

 - NO\_REPLY\_PATH\_SET

 - REPLY\_PATH\_SET

 - type: string

 oneTimeEventType:

 anyOf:

 - type: string

 enum:

 - IEC

 - PEC

 - type: string

 dnnSelectionMode:

 anyOf:

 - type: string

 enum:

 - VERIFIED

 - UE\_DNN\_NOT\_VERIFIED

 - NW\_DNN\_NOT\_VERIFIED

 - type: string

 APIDirection:

 anyOf:

 - type: string

 enum:

 - INVOCATION

 - NOTIFICATION

 - type: string

 RegistrationMessageType:

 anyOf:

 - type: string

 enum:

 - INITIAL

 - MOBILITY

 - PERIODIC

 - EMERGENCY

 - DEREGISTRATION

 - type: string

 MICOModeIndication:

 anyOf:

 - type: string

 enum:

 - MICO\_MODE

 - NO\_MICO\_MODE

 - type: string

 SmsIndication:

 anyOf:

 - type: string

 enum:

 - SMS\_SUPPORTED

 - SMS\_NOT\_SUPPORTED

 - type: string

 ManagementOperation:

 anyOf:

 - type: string

 enum:

 - CreateMOI

 - ModifyMOIAttributes

 - DeleteMOI

 - type: string

 ManagementOperationStatus:

 anyOf:

 - type: string

 enum:

 - OPERATION\_SUCCEEDED

 - OPERATION\_FAILED

 - type: string

 RedundantTransmissionType:

 anyOf:

 - type: string

 enum:

 - NON\_TRANSMISSION

 - END\_TO\_END\_USER\_PLANE\_PATHS

 - N3/N9

 - TRANSPORT\_LAYER

 - type: string

 VariablePartType:

 anyOf:

 - type: string

 enum:

 - INTEGER

 - NUMBER

 - TIME

 - DATE

 - CURRENCY

 - type: string

 QuotaConsumptionIndicator:

 anyOf:

 - type: string

 enum:

 - QUOTA\_NOT\_USED

 - QUOTA\_IS\_USED

 - type: string

 PlayToParty:

 anyOf:

 - type: string

 enum:

 - SERVED

 - REMOTE

 - type: string

 AnnouncementPrivacyIndicator:

 anyOf:

 - type: string

 enum:

 - NOT\_PRIVATE

 - PRIVATE

 - type: string

 SupplementaryServiceType:

 anyOf:

 - type: string

 enum:

 - OIP

 - OIR

 - TIP

 - TIR

 - HOLD

 - CB

 - CDIV

 - CW

 - MWI

 - CONF

 - FA

 - CCBS

 - CCNR

 - MCID

 - CAT

 - CUG

 - PNM

 - CRS

 - ECT

 - type: string

 SupplementaryServiceMode:

 anyOf:

 - type: string

 enum:

 - CFU

 - CFB

 - CFNR

 - CFNL

 - CD

 - CFNRC

 - ICB

 - OCB

 - ACR

 - BLIND\_TRANFER

 - CONSULTATIVE\_TRANFER

 - type: string

 ParticipantActionType:

 anyOf:

 - type: string

 enum:

 - CREATE

 - JOIN

 - INVITE\_INTO

 - QUIT

 - type: string

 TrafficForwardingWay:

 anyOf:

 - type: string

 enum:

 - N6

 - N19

 - LOCAL\_SWITCH

 - type: string

 IMSNodeFunctionality:

 anyOf:

 - type: string

 enum:

 - S\_CSCF

 - P\_CSCF

 - I\_CSCF

 - MRFC

 - MGCF

 - BGCF

 - AS

 - IBCF

 - S-GW

 - P-GW

 - HSGW

 - E-CSCF

 - MME

 - TRF

 - TF

 - ATCF

 - PROXY

 - EPDG

 - TDF

 - TWAG

 - SCEF

 - IWK\_SCEF

 - type: string

 RoleOfIMSNode:

 anyOf:

 - type: string

 enum:

 - ORIGINATING

 - TERMINATING

 - FORWARDING

 - type: string

 IMSSessionPriority:

 anyOf:

 - type: string

 enum:

 - PRIORITY\_0

 - PRIORITY\_1

 - PRIORITY\_2

 - PRIORITY\_3

 - PRIORITY\_4

 - type: string

 MediaInitiatorFlag:

 anyOf:

 - type: string

 enum:

 - CALLED\_PARTY

 - CALLING\_PARTY

 - UNKNOWN

 - type: string

 SDPType:

 anyOf:

 - type: string

 enum:

 - OFFER

 - ANSWER

 - type: string

 OriginatorPartyType:

 anyOf:

 - type: string

 enum:

 - CALLING

 - CALLED

 - type: string

 AccessTransferType:

 anyOf:

 - type: string

 enum:

 - PS\_TO\_CS

 - CS\_TO\_PS

 - PS\_TO\_PS

 - CS\_TO\_CS

 - type: string

 UETransferType:

 anyOf:

 - type: string

 enum:

 - INTRA\_UE

 - INTER\_UE

 - type: string

 NNISessionDirection:

 anyOf:

 - type: string

 enum:

 - INBOUND

 - OUTBOUND

 - type: string

 NNIType:

 anyOf:

 - type: string

 enum:

 - NON\_ROAMING

 - ROAMING\_NO\_LOOPBACK

 - ROAMING\_LOOPBACK

 - type: string

 NNIRelationshipMode:

 anyOf:

 - type: string

 enum:

 - TRUSTED

 - NON\_TRUSTED

 - type: string

 TADIdentifier:

 anyOf:

 - type: string

 enum:

 - CS

 - PS

 - type: string

 ProseFunctionality:

 anyOf:

 - type: string

 enum:

 - DIRECT\_DISCOVERY

 - DIRECT\_COMMUNICATION

 - type: string

 ProseEventType:

 anyOf:

 - type: string

 enum:

 - ANNOUNCING

 - MONITORING

 - MATCH\_REPORT

 - type: string

 DirectDiscoveryModel:

 anyOf:

 - type: string

 enum:

 - MODEL\_A

 - MODEL\_B

 - type: string

 RoleOfUE:

 anyOf:

 - type: string

 enum:

 - ANNOUNCING\_UE

 - MONITORING\_UE

 - REQUESTOR\_UE

 - REQUESTED\_UE

 - type: string

 RangeClass:

 anyOf:

 - type: string

 enum:

 - RESERVED

 - 50\_METER

 - 100\_METER

 - 200\_METER

 - 500\_METER

 - 1000\_METER

 - UNUSED

 - type: string

 RadioResourcesId:

 anyOf:

 - type: string

 enum:

 - OPERATOR\_PROVIDED

 - CONFIGURED

 - type: string

|  |
| --- |
| **End of changes** |