**3GPP TSG-SA5 Meeting #155 *S5-243053***

**Jeju, South Korea, 27 - 31 May 2024**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **32.291** | **CR** | **0570** | **rev** | **1** | **Current version:** | **18.5.0** |  |
|  | | | | | | | | |
| *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:*** | Rel-18 CR 32.291 Correction of target PLMN not reachable 504 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson LM | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | CHRACHF | | | | |  | ***Date:*** | | | 2024-05-17 |
|  |  | | | |  | |  | | |  |
| ***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 can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | If one CHF cannot reach the next CHF or the NRF to select the next CHF it needs to be able to report this to the NF consumer (CTF). | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Adding HTTP status code 504 to be able to report NRF and CHF not reachable. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The CHF would not be able to report CHF or NRF not reachable which may cause interoperability issues. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.1.3.2.3.1, 6.1.3.3.4.3.2, 6.1.5.2.3.1, 6.1.7.3, and 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:*** | | Revsison of S5-242797 | | | | | | | | |

|  |
| --- |
| **First change** |

6.1.3.2.3.1 POST

This method shall support the URI query parameters specified in table 6.1.3.2.3.1-1.

**Table 6.1.3.2.3.1-1: URI query parameters supported by the POST method on this resource**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Data type** | **P** | **Cardinality** | **Description** |
| n/a |  |  |  |  |

This method shall support the request data structures specified in table 6.1.3.2.3.1-2 and the response data structures and response codes specified in table 6.1.3.2.3.1-3.

**Table 6.1.3.2.3.1-2: Data structures supported by the POST Request Body on this resource**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **P** | **Cardinality** | **Description** |
| ChargingDataRequest | M | 1 | Parameters to create a new Charging Data resource. |

**Table 6.1.3.2.3.1-3: Data structures supported by the POST Response Body on this resource**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data type** | **P** | **Cardinality** | **Response**  **codes** | **Description** |
| ChargingDataResponse | M | 1 | 201 Created | The creation of a Charging Data resource is confirmed, and a representation of that resource is returned.  The Charging Data resource which is created and returned successfully. The representation of created resource is identified via Location header field in the 201 response. |
| n/a |  |  | 307 Temporary Redirect | Dependent on support of ES3XX (NOTE 2) |
| n/a |  |  | 308 Permanent Redirect | Dependent on support of ES3XX  (NOTE 2) |
| ProblemDetails | O | 0..1 | 400 Bad Request | Dependent on support of ES4XX  (NOTE 2) |
| ChargingDataResponse | O | 0..1 | 400 Bad Request | Dependent on support of ES4XX  (NOTE 2) |
| n/a |  |  | 401 Unauthorized | (NOTE 2) |
| ProblemDetails | O | 0..1 | 403 Forbidden | Dependent on support of ES4XX  (NOTE 2) |
| ChargingDataResponse | O | 0..1 | 403 Forbidden | Dependent on support of ES4XX  (NOTE 2) |
| ProblemDetails | O | 0..1 | 404 Not Found | Dependent on support of ES4XX  (NOTE 2) |
| ChargingDataResponse | O | 0..1 | 404 Not Found | Dependent on support of ES4XX  (NOTE 2) |
| n/a |  |  | 405 Method Not Allowed | (NOTE 2) |
| n/a |  |  | 408 Request Timeout | (NOTE 2) |
| n/a |  |  | 410 Gone | (NOTE 2) |
| n/a |  |  | 411 Length Required | (NOTE 2) |
| n/a |  |  | 413 Payload Too Large | (NOTE 2) |
| n/a |  |  | 500 Internal Server Error | (NOTE 2) |
| n/a |  |  | 503 Service Unavailable | (NOTE 2) |
| n/a |  |  | 504 Gateway Timeout | Dependent on support of INTER\_CHF  (NOTE 2) |
| NOTE 1: In addition, the HTTP status codes which are specified as mandatory in table 5.2.7.1-1 of 3GPP TS 29.500 [299] for the POST method also apply.  NOTE 2: Failure cases are described in clause 6.1.7. | | | | |

**Table 6.1.3.2.3.1-4: Headers supported by the 201 Response Code on this resource**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Data type** | **P** | **Cardinality** | **Description** |
| Location | string | M | 1 | Contains the URI of the newly created resource, according to the structure: {apiRoot}/nchf-convergedcharging/[apiversion}/chargingdata/{chargingDataRef} |

**Table 6.1.3.2.3.1-5: Headers supported by the 307 Response Code on this resource**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Data type** | **P** | **Cardinality** | **Description** |
| Location | String | M | 1 | An alternative URI of the resource located in an alternative CHF (service) instance. |
| 3gpp-Sbi-Target-Nf-Id | String | O | 0..1 | Identifier of the target NF (service) instance towards which the request is redirected |

**Table 6.1.3.2.3.1-6: Headers supported by the 308 Response Code on this resource**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Data type** | **P** | **Cardinality** | **Description** |
| Location | string | M | 1 | An alternative URI of the resource located in an alternative CHF (service) instance. |
| 3gpp-Sbi-Target-Nf-Id | string | O | 0..1 | Identifier of the target NF (service) instance towards which the request is redirected |

|  |
| --- |
| **Second change** |

6.1.3.3.4.3.2 Operation Definition

This operation shall support the request data structures specified in table 6.1.3.3.4.3.2-1 and the response data structures and response codes specified in table 6.1.3.3.4.3.2-2.

**Table 6.1.3.3.4.3.2-1: Data structures supported by the POST Request Body on this resource**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **P** | **Cardinality** | **Description** |
| ChargingDataRequest | M | 1 | Parameters to modify and then release the Charging Data resource matching the ChargingDataRef according to the representation in the ChargingData.  The request URI is the representation in the Location header field in the 201 response of resource creation. |

**Table 6.1.3.3.4.3.2-2: Data structures supported by the POST Response Body on this resource**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Data type** | **P** | **Cardinality** | | **Response**  **codes** | | **Description** | |
| n/a |  |  | | 204 No Content | | Successful case: The Charging Data resource matching the ChargingDataRef is modified and then released. | |
| n/a |  |  | | 401 Unauthorized | | (NOTE 2) | |
| n/a |  |  | | 307 Temporary Redirect | | Dependent on support of ES3XX  (NOTE 2) | |
| n/a |  |  | | 308 Permanent Redirect | | Dependent on support of ES3XX  (NOTE 2) | |
| ProblemDetails | O | 0..1 | | 404 Not Found | | Dependent on support of ES4XX  (NOTE 2) | |
| ChargingDataResponse | O | 0..1 | | 404 Not Found | | Dependent on support of ES4XX  (NOTE 2) | |
| n/a |  |  | | 410 Gone | | (NOTE 2) | |
| n/a |  |  | | 411 Length Required | | (NOTE 2) | |
| n/a |  |  | | 413 Payload Too Large | | (NOTE 2) | |
| n/a |  |  | | 500 Internal Server Error | | (NOTE 2) | |
| n/a |  |  | | 503 Service Unavailable | | (NOTE 2) | |
| n/a |  | |  | | 504 Gateway Timeout | | Dependent on support of INTER\_CHF  (NOTE 2) |
| NOTE 1: The mandatory HTTP error status codes for the POST method listed in table 5.2.7.1-1 of TS 29.500 [4] also apply.  NOTE 2: Failure cases are described in clause 6.1.7. | | | | | | | |

**Table 6.1.3.3.4.3.2-3: Headers supported by the 307 Response Code on this resource**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Data type** | **P** | **Cardinality** | **Description** |
| Location | string | M | 1 | An alternative URI of the resource located in an alternative CHF (service) instance. |
| 3gpp-Sbi-Target-Nf-Id | string | O | 0..1 | Identifier of the target NF (service) instance towards which the request is redirected |

**Table 6.1.3.3.4.3.2-4: Headers supported by the 308 Response Code on this resource**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Data type** | **P** | **Cardinality** | **Description** |
| Location | string | M | 1 | An alternative URI of the resource located in an alternative CHF (service) instance. |
| 3gpp-Sbi-Target-Nf-Id | string | O | 0..1 | Identifier of the target NF (service) instance towards which the request is redirected |

|  |
| --- |
| **Third change** |

6.1.5.2.3.1 POST

This method shall support the request data structures specified in table 6.1.5.2.3.1-1 and the response data structures and response codes specified in table 6.1.5.2.3.1-2.

**Table 6.1.5.2.3.1-1: Data structures supported by the POST Request Body on this resource**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **P** | **Cardinality** | **Description** |
| ChargingNotifyRequest | M | 1 | Provides Information about active Charging events. ChargingNotifyRequest data type is defined in subclause 6.1.6. |

**Table 6.1.5.2.3.1-2: Data structures supported by the POST Response Body on this resource**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data type** | **P** | **Cardinality** | **Response codes** | **Description** |
| ChargingNotifyResponse | O | 0..1 | 200 | The receipt of the notification acknowledged, with information.  Dependent on support of NotifyInfoResponse |
| n/a |  |  | 204 No Content | The receipt of the notification is acknowledged, without information. |
| n/a |  |  | 307 Temporary Redirect | Dependent on support of ES3XX  (NOTE 2) |
| n/a |  |  | 308 Permanent Redirect | Dependent on support of ES3XX  (NOTE 2) |
| ProblemDetails | O | 0..1 | 400 Bad Request | Dependent on support of NotifyInfoResponse  (NOTE 2) |
| ChargingNotifyResponse | O | 0..1 | 400 Bad Request | Dependent on support of NotifyInfoResponse  (NOTE 2) |
| n/a |  |  | 504 Gateway Timeout | Dependent on support of INTER\_CHF  (NOTE 2) |
| NOTE 1: In addition, the HTTP status codes which are specified as mandatory in table 5.2.7.1-1 of 3GPP TS 29.500 [299] for the POST method also apply.  NOTE 2: Failure cases are described in clause 6.1.7. | | | | |

**Table 6.1.5.2.3.1-3: Headers supported by the 307 Response Code on this resource**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Data type** | **P** | **Cardinality** | **Description** |
| Location | string | M | 1 | An alternative URI of the resource located in an alternative NF (service) instance. |
| 3gpp-Sbi-Target-Nf-Id | string | O | 0..1 | Identifier of the target NF (service) instance towards which the request is redirected |

**Table 6.1.5.2.3.1-4: Headers supported by the 308 Response Code on this resource**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Data type** | **P** | **Cardinality** | **Description** |
| Location | string | M | 1 | An alternative URI of the resource located in an alternative NF (service) instance. |
| 3gpp-Sbi-Target-Nf-Id | string | O | 0..1 | Identifier of the target NF (service) instance towards which the request is redirected |

|  |
| --- |
| **Third change** |

6.1.7.3 Application errors

The application errors defined for the Nchf\_ConvergedCharging API are listed in table 6.1.7.3-1. The CHF shall include in the HTTP status code a "ProblemDetails" data structure with the "cause" attribute indicating the application error as listed in table 6.1.7.3-1. The common application errors defined in the table 5.2.7.2-1 in 3GPP TS 29.500 [7] may also be used for the Nchf\_ConvergedCharging service.

**Table 6.1.7.3-1: Application errors**

|  |  |  |
| --- | --- | --- |
| **Application Error** | **HTTP status code** | **Description** |
| CHARGING\_FAILED | 400 Bad Request | The HTTP request is rejected because the set of session or subscriber information needed by the CHF for charging or CDR creation is incomplete or erroneous or not available e.g., rating group, subscriber information. |
| RE\_AUTHORIZATION\_FAILED | 400 Bad Request | The HTTP request is rejected because the set of information needed by the CTF to report the usage is incomplete or erroneous or not available. |
| CHARGING\_NOT\_APPLICABLE | 403 Forbidden | The HTTP request is rejected by the CHF since it has been determined that the service can be allowed to the end user without any charging or CDR creation. |
| USER\_UNKNOWN | 404 Not Found | The HTTP request is rejected because the end user specified in the request cannot be served by the CHF. |
| END\_USER REQUEST\_DENIED | 403 Forbidden | The HTTP request denied by the CHF due to restrictions or limitations related to the end-user. |
| QUOTA\_LIMIT\_REACHED | 403 Forbidden | The HTTP request denied by the CHF because the end user's account could not cover the requested service. If the request contained used units they are deducted, if applicable. |
| END\_USER\_REQUEST\_REJECTED | 403 Forbidden | The HTTP request rejected by the CHF due to end-user restrictions or limitations. |
| NRF\_NOT\_REACHABLE | 504 Gateway Timeout | The HTTP request is not served due to the NRF being unreachable. |
| TARGET\_PLMN\_NOT\_REACHABLE | 504 Gateway Timeout | The HTTP request is not served due to the target PLMN being unreachable (e.g., issues with reaching H-CHF). |

|  |
| --- |
| **Fourth change** |

A.2 Nchf\_ConvergedCharging API

openapi: 3.0.0

info:

title: Nchf\_ConvergedCharging

version: 3.2.0-alpha.5

description: |

ConvergedCharging Service © 2023, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).

All rights reserved.

externalDocs:

description: >

3GPP TS 32.291 V18.5.0: 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'

'504':

$ref: 'TS29571\_CommonData.yaml#/components/responses/504'

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

'504':

$ref: 'TS29571\_CommonData.yaml#/components/responses/504'

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'

'504':

$ref: 'TS29571\_CommonData.yaml#/components/responses/504'

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'

'504':

$ref: 'TS29571\_CommonData.yaml#/components/responses/504'

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

easid:

type: string

ednid:

type: string

eASProviderIdentifier:

type: string

aMFId:

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

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'

mMSChargingInformation:

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

mBSSessionChargingInformation:

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

tSNChargingInformation:

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

interCHFInformation:

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

nSACFChargingInformation:

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

nSSAAChargingInformation:

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

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'

mBSSessionChargingInformation:

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

interCHFInformation:

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

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'

allocateUnit:

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

usedUnitContainer:

type: array

items:

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

minItems: 0

allocatedUnit:

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

uPFID:

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

multihomedPDUAddress:

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

mBUPFID:

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

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:

- triggerCategory

MultipleUnitInformation:

type: object

properties:

resultCode:

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

ratingGroup:

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

grantedUnit:

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

allocatedUnit:

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

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'

mBUPFID:

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

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'

mBSContainerInformation:

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

required:

- localSequenceNumber

AllocateUnit:

type: object

properties:

allocateUnitIndicator:

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

nSACContainerInformation:

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

AllocatedUnit:

type: object

properties:

quotaManagementIndicator:

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

triggers:

type: array

items:

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

minItems: 0

triggerTimestamp:

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

localSequenceNumber:

type: integer

nSACContainerInformation:

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

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'

sMFchargingId:

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

homeProvidedChargingId:

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

sMFHomeProvidedChargingId:

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

userInformation:

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

userLocationinfo:

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

iMSSessionInformation:

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

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'

sNPNInformation:

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

5GMulticastService:

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

5GSBridgeInformation:

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

satelliteAccessIndicator:

type: boolean

satelliteBackhaulInformation:

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

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

mBSSessionID:

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

mBSDeliveryMethod:

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

NSPAContainerInformation:

type: object

properties:

uplinkLatency:

type: integer

downlinkLatency:

type: integer

uplinkThroughput:

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

downlinkThroughput:

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

maximumPacketLossRateUL:

type: integer

maximumPacketLossRateDL:

type: integer

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'

hPlmnSNSSAI:

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

alternativeSNSSAI:

$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'

addIpv6AddrPrefixList:

type: array

items:

$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: # Included for backwards compatibility and

# can be included based on operators requirement

$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'

5GSBridgeInformation:

type: object

properties:

bridgeId:

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

nWTTPortNumber:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint16'

dSTTPortNumber:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint16'

required:

- bridgeId

NEFChargingInformation:

type: object

properties:

externalIndividualIdentifier:

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

externalIndividualIdList:

type: array

items:

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

minItems: 1

internalIndividualIdentifier:

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

internalIndividualIdList:

type: array

items:

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

minItems: 1

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'

aPIOperation:

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

aPIContent:

type: string

required:

- aPIName

SNPNInformation:

type: object

properties:

sNPNID:

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

accessType:

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

n3IwfFqdn:

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

required:

- sNPNID

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

alternativeNSSAIMap:

type: array

items:

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

minItems: 0

amfUeNgapId:

type: integer

ranUeNgapId:

type: integer

ranNodeId:

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

sNPNID:

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

cAGIDList:

type: array

items:

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

minItems: 0

satelliteAccessIndicator:

type: boolean

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

AlternativeNSSAIMap:

type: object

properties:

snssai:

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

alternativeSnssai:

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

required:

- snssai

- alternativeSnssai

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

nSSAIMapList:

type: array

items:

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

minItems: 0

rrcEstCause:

type: string

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

satelliteAccessIndicator:

type: boolean

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

satelliteAccessIndicator:

type: boolean

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'

managementOperationalState:

$ref: 'TS28623\_ComDefs.yaml#/components/schemas/OperationalState'

managementAdministrativeState:

$ref: 'TS28623\_ComDefs.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

sST:

$ref: 'TS28541\_NrNrm.yaml#/components/schemas/Sst'

latency:

type: integer

availability:

type: number

resourceSharingLevel:

$ref: 'TS28541\_SliceNrm.yaml#/components/schemas/SharingLevel'

jitter:

type: integer

reliability:

type: string

maxNumberofUEs:

type: integer

coverageArea:

type: string

uEMobilityLevel:

$ref: 'TS28541\_SliceNrm.yaml#/components/schemas/MobilityLevel'

delayToleranceIndicator:

$ref: 'TS28541\_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

v2XCommunicationModeIndicator:

$ref: 'TS28541\_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'

measuredInBytes:

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

measuredOutBytes:

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

durationStartTime:

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

durationEndTime:

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

EASDeploymentChargingInformation:

type: object

properties:

eEASDeploymentRequirements:

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

lCMEventType:

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

lCMStartTime:

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

lCMEndTime:

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

satelliteBackhaulInformation:

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

MMSChargingInformation:

type: object

properties:

mmOriginatorInfo:

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

mmRecipientInfoList:

type: array

items:

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

minItems: 0

userLocationinfo:

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

uetimeZone:

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

rATType:

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

correlationInformation:

type: string

submissionTime:

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

mmContentType:

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

mmPriority:

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

messageID:

type: string

messageType:

type: string

messageSize:

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

messageClass:

type: string

deliveryReportRequested:

type: boolean

readReplyReportRequested:

type: boolean

applicID:

type: string

replyApplicID:

type: string

auxApplicInfo:

type: string

contentClass:

type: string

dRMContent:

type: boolean

adaptations:

type: boolean

vasID:

type: string

vaspID:

type: string

MMOriginatorInfo:

type: object

properties:

originatorSUPI:

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

originatorGPSI:

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

originatorOtherAddress:

type: array

items:

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

minItems: 0

MMRecipientInfo:

type: object

properties:

recipientSUPI:

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

recipientGPSI:

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

recipientOtherAddress:

type: array

items:

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

TSNChargingInformation:

type: object

properties:

dNN:

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

sNSSAI:

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

internalGroupIdentifier:

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

externalIndividualIdList:

type: array

items:

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

minItems: 0

5GSBridgeInformation:

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

tSNQoSInformation:

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

tSCAssistanceInformation:

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

timeSynchronizationInformation:

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

TSNQoSInformation:

type: object

properties:

priority:

type: integer

bridgeDelay:

type: array

items:

type: integer

minItems: 0

TSCAssistanceInformation:

type: object

properties:

flowDirection:

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

periodicity:

type: integer

TimeSynchronizationInformation:

type: object

properties:

distributionMethod:

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

tSNtimeDomainNumber:

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

temporalValidityInformation:

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

spatialValidityInformation:

type: array

items:

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

minItems: 0

timeSynchronizationErrorBudget:

type: integer

synchronizationState:

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

clockQuality:

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

parentTimeSource:

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

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

InterCHFInformation:

type: object

properties:

remoteCHFResource:

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

originalNFConsumerId:

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

NSACFChargingInformation:

type: object

properties:

nSACChargingIndicator:

type: boolean

NSACContainerInformation:

type: object

properties:

numberOfUEs:

type: integer

numberOfPDUs:

type: integer

NSSAAChargingInformation:

type: object

properties:

nSSAAMessageType:

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

userIdentification:

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

aAAPAddress:

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

aAASAddress:

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

eAPIDResponse:

type: string

eAPauthstatus:

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

aMFId:

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

required:

- nSSAAMessageType

- userIdentification

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/RadioResourcesIndicator'

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'

enhancedDiagnostics:

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

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'

EASRequirements:

type: object

properties:

requiredEASservingLocation:

$ref: 'TS28538\_EdgeNrm.yaml#/components/schemas/ServingLocation'

softwareImageInfo:

$ref: 'TS28538\_EdgeNrm.yaml#/components/schemas/SoftwareImageInfo'

affinityAntiAffinity:

$ref: 'TS28538\_EdgeNrm.yaml#/components/schemas/AffinityAntiAffinity'

serviceContinuity:

type: boolean

virtualResource:

$ref: 'TS28538\_EdgeNrm.yaml#/components/schemas/VirtualResource'

MMContentType:

type: object

properties:

typeNumber:

type: string

addtypeInfo:

type: string

contentSize:

type: integer

mmAddContentInfo:

type: array

items:

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

minItems: 0

MMAddContentInfo:

type: object

properties:

typeNumber:

type: string

addtypeInfo:

type: string

contentSize:

type: integer

APIOperation:

type: object

properties:

name:

type: string

description:

type: string

5GMulticastService:

type: object

properties:

mBSSessionIdList:

type: array

items:

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

minItems: 1

MBSSessionChargingInformation:

type: object

properties:

mBSSessionID:

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

mBSServiceType:

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

serviceArea:

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

mBSStartTime:

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

mBSEndTime:

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

servingNetworkFunctionID:

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

required:

- mBSSessionID

- mBSServiceType

ServiceArea:

type: object

properties:

mBSServiceArea:

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

uPFIDs:

type: array

items:

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

minItems: 0

ranNodeIDs:

type: array

items:

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

minItems: 0

MBSContainerInformation:

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'

establishedConnectionInfo:

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

EstablishedConnectionInfo:

type: object

properties:

uPFIDs:

type: array

items:

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

minItems: 0

ranNodeIDs:

type: array

items:

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

minItems: 0

SatelliteBackhaulInformation:

type: object

properties:

satelliteBackhaulCategory:

type: array

items:

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

minItems: 0

gEOSatelliteID:

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

NotificationType:

anyOf:

- type: string

enum:

- REAUTHORIZATION

- ABORT\_CHARGING

- type: string

NodeFunctionality:

anyOf:

- type: string

enum:

- AMF

- SMF

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

- SMSF

- PGW\_C\_SMF

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

- SGW

- I\_SMF

- ePDG

- CEF

- NEF

- MnS\_Producer

- SGSN

- V\_SMF

- 5G\_DDNMF

- IMS\_Node

- MMS\_Node

- EES

- PCF

- UDM

- UPF

- TSN\_AF

- TSCTSF

- MB\_SMF

- type: string

ChargingCharacteristicsSelectionMode:

anyOf:

- type: string

enum:

- HOME\_DEFAULT

- ROAMING\_DEFAULT

- VISITING\_DEFAULT

- type: string

TriggerType:

anyOf:

- type: string

enum:

# SMF TriggerType

- 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

- JOIN\_MULTICAST

- MBS\_DELIVERY\_METHOD\_CHANGE

- LEAVE\_MULTICAST

- VSMF\_CHANGE

- SNSSAI\_REPLACEMENT

# IMS TriggerType

- SIP\_INVITE

- SIP\_RE-INVITE\_OR\_UPDATE

- SIP\_2XX\_ACKNOWLEDGING

- SIP\_1XX\_PROVISIONAL\_RESPONSE

- SIP\_4XX\_5XX\_OR\_6XX\_RESPONSE

- ANY\_OTHER\_SIP\_MESSAGE - SIP\_BYE\_MESSAGE

- SIP\_2XX\_ACKNOWLEDGING\_A\_SIP\_BYE

- ABORTING\_A\_SIP\_SESSION\_SET-UP

- SIP\_3XX\_FINAL\_OR\_REDIRECTION\_RESPONSE

- SIP\_4XX\_5XX\_OR\_6XX\_FINAL\_RESPONSE

# MB-SMF TriggerType

- ADDITION\_OF\_NG\_RAN

- REMOVAL\_OF\_NG\_RAN

- NSAC\_THRESHOLD\_INITIAL

- NSAC\_THRESHOLD\_UPWARDS\_REACHED

- NSAC\_THRESHOLD\_UPWARDS\_CROSSED

- NSAC\_THRESHOLD\_DOWNWARDS\_CROSSED

- NSAC\_QUOTA\_THRESHOLD

- NSAC\_QUOTA\_EXHAUSTED

- NSAC\_VALIDITY\_TIME

- NSAC\_QHT

- NSAC\_THRESHOLD\_TERMINATION

- NS\_TERMINATION

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 #Included for backwards compatibility, shall not be used

- 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 #Included for backwards compatibility, shall not be used

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

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

- CREATE\_MOI

- MODIFY\_MOI\_ATTR

- DELETE\_MOI

- NOTIFY\_MOI\_CREATION

- NOTIFY\_MOI\_ATTR\_CHANGE

- NOTIFY\_MOI\_DELETION

- 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:

# The applicable IMS Nodes are MRFC, IMS-GWF (connected to S-CSCF using ISC) and SIP AS.

- 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

- IMS\_GWF

- 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

RadioResourcesIndicator:

anyOf:

- type: string

enum:

- OPERATOR\_PROVIDED

- CONFIGURED

- type: string

MbsDeliveryMethod:

anyOf:

- type: string

enum:

- SHARED

- INDIVIDUAL

- type: string

TSCFlowDirection:

anyOf:

- type: string

enum:

- UPLINK

- DOWNLINK

- type: string

TimeDistributionMethod:

anyOf:

- type: string

enum:

- GPTP

- ASTI

- type: string

AllocateUnitIndicator:

anyOf:

- type: string

enum:

- CHF\_DETERMINED

- CTF\_DETERMINED

- type: string

NSSAAMessageType:

anyOf:

- type: string

enum:

- Authenticate

- Re-Authentication-Notification

- Revocation Notification

- type: string

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