



Nsmf_PDUSession

The Nsmf_PDUSession service operates on the PDU Sessions. The service operations exposed by this service allows other NFs to establish, modify and release the PDU Sessions. The following are the key functionalities of this NF service:

- Creation, modification and deletion of SM contexts for PDU Sessions upon receiving N1 message notification from AMF carrying the NAS SM messages. An SM context represents an association between the NF Service Consumer (for example, AMF) and the SMF for a PDU session;
- Retrieval of SM contexts of PDU sessions, for example, to move PDU sessions towards the EPC using the N26 interface;
- Creation, modification and deletion of PDU sessions between the V-SMF and H-SMF, in HR roaming scenarios;
- Association of policy and charging rules with PDU Sessions and binding the policy and charging rules to flows;
- Interacting with the UPF over N4 for creating, modifying and releasing user plane sessions;
- Process user plane events from the UPF and apply the corresponding policy and charging rules.

Reference: 3GPP TS 29.502 version 15.0.0 Release 15

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OpenAPI

OpenAPI Version: 3.0.0

Info

Version: '1.0.0'
Title: 'Nsmf_PDUSession'
Description: 'SMF PDU Session Service'

Servers

URL: '{apiRoot}/nsmf-pdusession/v1'
Variables:
API Root:
Default: https://example.com
Description: apiRoot as defined in subclause 4.4 of 3GPP TS 29.501. The sm-contexts and pdu-sessions resources can be distributed on different processing instances or hosts. Thus the authority and/or deployment-specific string of the apiRoot of the created individual sm context and pdu-session resources' URIs may differ from the authority and/or deployment-specific string of the apiRoot of the sm-contexts and pdu-sessions collections' URIs.

Security

```
- {}
- oAuth2Clientcredentials:
  - nsmf-pdusession
```

Paths

/sm-contexts

Method: Post
Summary: Create SM Context
Tags:
 - SM contexts collection
Operation ID: PostSmContexts
Request Body:
Description: representation of the SM context to be created in the SMF
Required/Optional: true
Content:
Multipart/Related:
Schema:
Type: object
Properties: # Request parts

```

    JSON Data:
      Reference: '#/components/schemas/SmContextCreateData'
    binaryDataN1SmMessage:
      Type: string
      Format: binary
  Encoding:
    JSON Data:
      Content Type: application/json
    binaryDataN1SmMessage:
      Content Type: application/vnd.3gpp.5gnas
    Headers:
      Content ID:
        Schema:
          Type: string
  Callbacks:
    smContextStatusNotification:
      '{$request.body#/smContextStatusUri}':
        Method: Post
        Request Body: # contents of the callback message
        Required/Optional: true
        Content:
          Application/JSON:
            Schema:
              Reference: '#/components/schemas/SmContextStatusNotification'

  Responses:
    '204':
      Description: successful notification
    '307':
      Description: temporary redirect
    '400':
      Reference: 'TS29571_CommonData.yaml#/components/responses/400'
    '403':
      Reference: 'TS29571_CommonData.yaml#/components/responses/403'
    '404':
      Reference: 'TS29571_CommonData.yaml#/components/responses/404'
    '411':
      Reference: 'TS29571_CommonData.yaml#/components/responses/411'
    '413':
      Reference: 'TS29571_CommonData.yaml#/components/responses/413'
    '415':
      Reference: 'TS29571_CommonData.yaml#/components/responses/415'
    '429':
      Reference: 'TS29571_CommonData.yaml#/components/responses/429'
    '500':
      Reference: 'TS29571_CommonData.yaml#/components/responses/500'
    '503':
      Reference: 'TS29571_CommonData.yaml#/components/responses/503'

  Responses:
    '201':
      Description: successful creation of an SM context

```

```

Content:
  Application/JSON: # message without binary body part
  Schema:
    Reference: '#/components/schemas/SmContextCreatedData'
  Multipart/Related: # message with binary body part(s)
  Schema:
    Type: object
    Properties: # Request parts
    JSON Data:
      Reference: '#/components/schemas/SmContextCreatedData'
    binaryDataN2SmInformation:
      Type: string
      Format: binary
  Encoding:
    JSON Data:
      Content Type: application/json
    binaryDataN2SmInformation:
      Content Type: application/vnd.3gpp.ngap
  Headers:
    Content ID:
      Schema:
        Type: string
  Headers:
    Location:
      description: 'Contains the URI of the newly created resource,
according to the structure: {apiRoot}/nsmf-pdusession/v1/sm-contexts/{smContextRef}'

    Required/Optional: true
    Schema:
      Type: string
'307':
  Description: temporary redirect
'308':
  Description: permanent redirect
'400':
  Description: unsuccessful creation of an SM context - bad request
Content:
  Application/JSON: # message without binary body part
  Schema:
    Reference: '#/components/schemas/SmContextCreateError'
  Multipart/Related: # message with binary body part(s)
  Schema:
    Type: object
    Properties: # Request parts
    JSON Data:
      Reference: '#/components/schemas/SmContextCreateError'
    binaryDataN1SmMessage:
      Type: string
      Format: binary
  Encoding:
    JSON Data:
      Content Type: application/json

```

```
    binaryDataN1SmMessage:
      Content Type: application/vnd.3gpp.5gnas
      Headers:
        Content ID:
        Schema:
        Type: string
'403':
  Description: unsuccessful creation of an SM context - forbidden
  Content:
    Application/JSON: # message without binary body part
    Schema:
      Reference: '#/components/schemas/SmContextCreateError'
    Multipart/Related: # message with binary body part(s)
    Schema:
      Type: object
      Properties: # Request parts
      JSON Data:
        Reference: '#/components/schemas/SmContextCreateError'
      binaryDataN1SmMessage:
        Type: string
        Format: binary
    Encoding:
      JSON Data:
        Content Type: application/json
      binaryDataN1SmMessage:
        Content Type: application/vnd.3gpp.5gnas
        Headers:
          Content ID:
          Schema:
          Type: string
'404':
  Description: unsuccessful creation of an SM context - not found
  Content:
    Application/JSON: # message without binary body part
    Schema:
      Reference: '#/components/schemas/SmContextCreateError'
    Multipart/Related: # message with binary body part(s)
    Schema:
      Type: object
      Properties: # Request parts
      JSON Data:
        Reference: '#/components/schemas/SmContextCreateError'
      binaryDataN1SmMessage:
        Type: string
        Format: binary
    Encoding:
      JSON Data:
        Content Type: application/json
      binaryDataN1SmMessage:
        Content Type: application/vnd.3gpp.5gnas
        Headers:
```

```

        Content ID:
        Schema:
        Type: string
'411':
    Reference: 'TS29571_CommonData.yaml#/components/responses/411'
'413':
    Reference: 'TS29571_CommonData.yaml#/components/responses/413'
'415':
    Reference: 'TS29571_CommonData.yaml#/components/responses/415'
'429':
    Reference: 'TS29571_CommonData.yaml#/components/responses/429'
'500':
    Description: unsuccessful creation of an SM context - internal server error
    Content:
        Application/JSON: # message without binary body part
        Schema:
            Reference: '#/components/schemas/SmContextCreateError'
        Multipart/Related: # message with binary body part(s)
        Schema:
            Type: object
            Properties: # Request parts
            JSON Data:
                Reference: '#/components/schemas/SmContextCreateError'
            binaryDataN1SmMessage:
                Type: string
                Format: binary
        Encoding:
            JSON Data:
                Content Type: application/json
            binaryDataN1SmMessage:
                Content Type: application/vnd.3gpp.5gnas
            Headers:
                Content ID:
                Schema:
                Type: string
'503':
    Description: unsuccessful creation of an SM context - service unavailable
    Content:
        Application/JSON: # message without binary body part
        Schema:
            Reference: '#/components/schemas/SmContextCreateError'
        Multipart/Related: # message with binary body part(s)
        Schema:
            Type: object
            Properties: # Request parts
            JSON Data:
                Reference: '#/components/schemas/SmContextCreateError'
            binaryDataN1SmMessage:
                Type: string
                Format: binary
        Encoding:

```

```

    JSON Data:
      Content Type: application/json
    binaryDataN1SmMessage:
      Content Type: application/vnd.3gpp.5gnas
    Headers:
      Content ID:
      Schema:
      Type: string
  '504':
    Description: unsuccessful creation of an SM context - gateway timeout
    Content:
      Application/JSON: # message without binary body part
      Schema:
        Reference: '#/components/schemas/SmContextCreateError'
      Multipart/Related: # message with binary body part(s)
      Schema:
        Type: object
        Properties: # Request parts
        JSON Data:
          Reference: '#/components/schemas/SmContextCreateError'
        binaryDataN1SmMessage:
          Type: string
          Format: binary
      Encoding:
        JSON Data:
          Content Type: application/json
        binaryDataN1SmMessage:
          Content Type: application/vnd.3gpp.5gnas
        Headers:
          Content ID:
          Schema:
          Type: string
    Default:
      Reference: 'TS29571_CommonData.yaml#/components/responses/default'

```

/sm-contexts/{smContextRef}/retrieve

```

Method: Post
Summary: Retrieve SM Context

Tags:
- Individual SM context
Operation ID: RetrieveSmContext

Parameters:
- Name: smContextRef
  In: path
  Description: SM context reference
  Required/Optional: true
  Schema:
    Type: string

```

Request Body:**Description:** parameters used to retrieve the SM context**Required/Optional:** false**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/SmContextRetrieveData'**Responses:****'200':****Description:** successful retrieval of an SM context**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/SmContextRetrievedData'**'400':****Reference:** 'TS29571_CommonData.yaml#/components/responses/400'**'403':****Reference:** 'TS29571_CommonData.yaml#/components/responses/403'**'404':****Reference:** 'TS29571_CommonData.yaml#/components/responses/404'**'411':****Reference:** 'TS29571_CommonData.yaml#/components/responses/411'**'413':****Reference:** 'TS29571_CommonData.yaml#/components/responses/413'**'415':****Reference:** 'TS29571_CommonData.yaml#/components/responses/415'**'429':****Reference:** 'TS29571_CommonData.yaml#/components/responses/429'**'500':****Reference:** 'TS29571_CommonData.yaml#/components/responses/500'**'503':****Reference:** 'TS29571_CommonData.yaml#/components/responses/503'**Default:****Reference:** 'TS29571_CommonData.yaml#/components/responses/default'

/sm-contexts/{smContextRef}/modify

Method: Post**Summary:** Update SM Context**Tags:**

- Individual SM context

Operation ID: UpdateSmContext**Parameters:**- **Name:** smContextRef**In:** path**Description:** SM context reference**Required/Optional:** true**Schema:**

Type: string

Request Body:

Description: representation of the updates to apply to the SM context

Required/Optional: true

Content:

Application/JSON: # message without binary body part

Schema:

Reference: '#/components/schemas/SmContextUpdateData'

Multipart/Related: # message with binary body part(s)

Schema:

Type: object

Properties: # Request parts

JSON Data:

Reference: '#/components/schemas/SmContextUpdateData'

binaryDataN1SmMessage:

Type: string

Format: binary

binaryDataN2SmInformation:

Type: string

Format: binary

Encoding:

JSON Data:

Content Type: application/json

binaryDataN1SmMessage:

Content Type: application/vnd.3gpp.5gnas

Headers:

Content ID:

Schema:

Type: string

binaryDataN2SmInformation:

Content Type: application/vnd.3gpp.ngap

Headers:

Content ID:

Schema:

Type: string

Responses:

'200':

Description: successful update of an SM context with content in the response

Content:

Application/JSON: # message without binary body part

Schema:

Reference: '#/components/schemas/SmContextUpdatedData'

Multipart/Related: # message with binary body part(s)

Schema:

Type: object

Properties: # Request parts

JSON Data:

Reference: '#/components/schemas/SmContextUpdatedData'

binaryDataN1SmMessage:

Type: string

Format: binary

```

        binaryDataN2SmInformation:
          Type: string
          Format: binary
      Encoding:
      JSON Data:
        Content Type: application/json
      binaryDataN1SmMessage:
        Content Type: application/vnd.3gpp.5gnas
      Headers:
        Content ID:
        Schema:
          Type: string
      binaryDataN2SmInformation:
        Content Type: application/vnd.3gpp.ngap
      Headers:
        Content ID:
        Schema:
          Type: string
'204':
  Description: successful update of an SM context without content in the response
'400':
  Description: unsuccessful update of an SM context - bad request
  Content:
    Application/JSON: # message without binary body part
    Schema:
      Reference: '#/components/schemas/SmContextUpdateError'
    Multipart/Related: # message with binary body part(s)
    Schema:
      Type: object
      Properties: # Request parts
      JSON Data:
        Reference: '#/components/schemas/SmContextUpdateError'
      binaryDataN1SmMessage:
        Type: string
        Format: binary
      binaryDataN2SmInformation:
        Type: string
        Format: binary
    Encoding:
    JSON Data:
      Content Type: application/json
    binaryDataN1SmMessage:
      Content Type: application/vnd.3gpp.5gnas
    Headers:
      Content ID:
      Schema:
        Type: string
    binaryDataN2SmInformation:
      Content Type: application/vnd.3gpp.ngap
    Headers:
      Content ID:

```

```

        Schema:
            Type: string
'403':
    Description: unsuccessful update of an SM context - forbidden
    Content:
        Application/JSON: # message without binary body part
        Schema:
            Reference: '#/components/schemas/SmContextUpdateError'
        Multipart/Related: # message with binary body part(s)
        Schema:
            Type: object
            Properties: # Request parts
            JSON Data:
                Reference: '#/components/schemas/SmContextUpdateError'
            binaryDataN1SmMessage:
                Type: string
                Format: binary
            binaryDataN2SmInformation:
                Type: string
                Format: binary
        Encoding:
            JSON Data:
                Content Type: application/json
            binaryDataN1SmMessage:
                Content Type: application/vnd.3gpp.5gnas
            Headers:
                Content ID:
                Schema:
                    Type: string
            binaryDataN2SmInformation:
                Content Type: application/vnd.3gpp.ngap
            Headers:
                Content ID:
                Schema:
                    Type: string
'404':
    Description: unsuccessful update of an SM context - not found
    Content:
        Application/JSON: # message without binary body part
        Schema:
            Reference: '#/components/schemas/SmContextUpdateError'
        Multipart/Related: # message with binary body part(s)
        Schema:
            Type: object
            Properties: # Request parts
            JSON Data:
                Reference: '#/components/schemas/SmContextUpdateError'
            binaryDataN1SmMessage:
                Type: string
                Format: binary
            binaryDataN2SmInformation:
```

```

        Type: string
        Format: binary
    Encoding:
    JSON Data:
        Content Type: application/json
    binaryDataN1SmMessage:
        Content Type: application/vnd.3gpp.5gnas
    Headers:
        Content ID:
        Schema:
            Type: string
    binaryDataN2SmInformation:
        Content Type: application/vnd.3gpp.ngap
    Headers:
        Content ID:
        Schema:
            Type: string
'411':
    Reference: 'TS29571_CommonData.yaml#/components/responses/411'
'413':
    Reference: 'TS29571_CommonData.yaml#/components/responses/413'
'415':
    Reference: 'TS29571_CommonData.yaml#/components/responses/415'
'429':
    Reference: 'TS29571_CommonData.yaml#/components/responses/429'
'500':
    Description: unsuccessful update of an SM context - Internal server error
    Content:
        Application/JSON: # message without binary body part
        Schema:
            Reference: '#/components/schemas/SmContextUpdateError'
        Multipart/Related: # message with binary body part(s)
        Schema:
            Type: object
            Properties: # Request parts
            JSON Data:
                Reference: '#/components/schemas/SmContextUpdateError'
            binaryDataN1SmMessage:
                Type: string
                Format: binary
            binaryDataN2SmInformation:
                Type: string
                Format: binary
    Encoding:
    JSON Data:
        Content Type: application/json
    binaryDataN1SmMessage:
        Content Type: application/vnd.3gpp.5gnas
    Headers:
        Content ID:
        Schema:

```

```

        Type: string
    binaryDataN2SmInformation:
        Content Type: application/vnd.3gpp.ngap
        Headers:
            Content ID:
            Schema:
            Type: string
'503':
    Description: unsuccessful update of an SM context - Service Unavailable
    Content:
        Application/JSON: # message without binary body part
        Schema:
            Reference: '#/components/schemas/SmContextUpdateError'
        Multipart/Related: # message with binary body part(s)
        Schema:
            Type: object
            Properties: # Request parts
            JSON Data:
                Reference: '#/components/schemas/SmContextUpdateError'
            binaryDataN1SmMessage:
                Type: string
                Format: binary
            binaryDataN2SmInformation:
                Type: string
                Format: binary
        Encoding:
            JSON Data:
                Content Type: application/json
            binaryDataN1SmMessage:
                Content Type: application/vnd.3gpp.5gnas
            Headers:
                Content ID:
                Schema:
                Type: string
            binaryDataN2SmInformation:
                Content Type: application/vnd.3gpp.ngap
            Headers:
                Content ID:
                Schema:
                Type: string
    Default:
        Reference: 'TS29571_CommonData.yaml#/components/responses/default'

```

/sm-contexts/{smContextRef}/release

```

Method: Post
Summary: Release SM Context

Tags:
- Individual SM context

```

Operation ID: ReleaseSmContext

Parameters:

- **Name:** smContextRef
 - In:** path
 - Description:** SM context reference
 - Required/Optional:** true
 - Schema:**
 - Type:** string

Request Body:

Description: representation of the data to be sent to the SMF when releasing the SM context

Required/Optional: false

Content:

Application/JSON: # message without binary body part

Schema:

Reference: '#/components/schemas/SmContextReleaseData'

Multipart/Related: # message with binary body part(s)

Schema:

Type: object

Properties: # Request parts

JSON Data:

Reference: '#/components/schemas/SmContextReleaseData'

binaryDataN2SmInformation:

Type: string

Format: binary

Encoding:

JSON Data:

Content Type: application/json

binaryDataN2SmInformation:

Content Type: application/vnd.3gpp.ngap

Headers:

Content ID:

Schema:

Type: string

Responses:

'204':

Description: successful release of an SM context without content in the response

'400':

Reference: 'TS29571_CommonData.yaml#/components/responses/400'

'403':

Reference: 'TS29571_CommonData.yaml#/components/responses/403'

'404':

Reference: 'TS29571_CommonData.yaml#/components/responses/404'

'411':

Reference: 'TS29571_CommonData.yaml#/components/responses/411'

'413':

Reference: 'TS29571_CommonData.yaml#/components/responses/413'

'415':

Reference: 'TS29571_CommonData.yaml#/components/responses/415'

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'429':
  Reference: 'TS29571_CommonData.yaml#/components/responses/429'
'500':
  Reference: 'TS29571_CommonData.yaml#/components/responses/500'
'503':
  Reference: 'TS29571_CommonData.yaml#/components/responses/503'
Default:
  Reference: 'TS29571_CommonData.yaml#/components/responses/default'

```

Components

```

securitySchemes:
  oAuth2ClientCredentials:
    Type: oauth2
    Flows:
      clientCredentials:
        tokenUrl: '{nrfApiRoot}/oauth2/token'
        scopes:
          nsmf-pdusession: Access to the nsmf-pdusession API

schemas:
# STRUCTURED DATA TYPES
SmContextCreateData:
  Type: object
  Properties:
    supi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
    unauthenticatedSupi:
      Type: boolean
      Default: false
    pei:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
    gpsi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
    pduSessionId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
    dnn:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
    sNssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    hplmnSnssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    servingNfId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    guami:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
    serviceName:
      Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/ServiceName'
    servingNetwork:

```

```

    Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
requestType:
    Reference: '#/components/schemas/RequestType'
n1SmMsg:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
anType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
ratType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
presenceInLadn:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PresenceState'
ueLocation:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
ueTimeZone:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
addUeLocation:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
smContextStatusUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
hSmfUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
additionalHsmfUri:
    Type: array
    Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    minItems: 1
oldPduSessionId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
pduSessionsActivateList:
    Type: array
    Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
    minItems: 1
ueEpsPdnConnection:
    Reference: '#/components/schemas/EpsPdnCnxContainer'
hoState:
    Reference: '#/components/schemas/HoState'
pcfId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
nrfUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
selMode:
    Reference: '#/components/schemas/DnnSelectionMode'
backupAmfInfo:
    Type: array
    Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/BackupAmfInfo'
    minItems: 1
traceData:

```

```

    Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
udmGroupId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfGroupId'
routingIndicator:
    Type: string
epsInterworkingInd:
    Reference: '#/components/schemas/EpsInterworkingIndication'
indirectForwardingFlag:
    Type: boolean
Required:
  - servingNfId
  - servingNetwork
  - anType
  - smContextStatusUri
SmContextCreatedData:
Type: object
Properties:
  hSmfUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  pduSessionId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
  sNssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  upCnxState:
    Reference: '#/components/schemas/UpCnxState'
  n2SmInfo:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  n2SmInfoType:
    Reference: '#/components/schemas/N2SmInfoType'
  allocatedEbiList:
    Type: array
    Items:
      Reference: '#/components/schemas/EbiArpMapping'
    minItems: 1
  hoState:
    Reference: '#/components/schemas/HoState'
  smfServiceInstanceId:
    Type: string
  recoveryTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
SmContextUpdateData:
Type: object
Properties:
  pei:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
  gpsi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
  servingNfId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
  guami:

```

```

    Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
servingNetwork:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
backupAmfInfo:
    Type: array
    Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/BackupAmfInfo'
    minItems: 1
    nullable: true
anType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
ratType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
presenceInLadn:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PresenceState'
ueLocation:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
ueTimeZone:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
addUeLocation:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
upCnxState:
    Reference: '#/components/schemas/UpCnxState'
hoState:
    Reference: '#/components/schemas/HoState'
toBeSwitched:
    Type: boolean
    Default: false
failedToBeSwitched:
    Type: boolean
n1SmMsg:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
n2SmInfo:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
n2SmInfoType:
    Reference: '#/components/schemas/N2SmInfoType'
targetServingNfId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
smContextStatusUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
dataForwarding:
    Type: boolean
    Default: false
epsBearerSetup:
    Type: array
    Items:
        Reference: '#/components/schemas/EpsBearerContainer'
    minItems: 0
revokeEbiList:
    Type: array
    Items:

```

```

    Reference: '#/components/schemas/EpsBearerId'
    minItems: 1
  release:
    Type: boolean
    Default: false
  cause:
    Reference: '#/components/schemas/Cause'
  ngApCause:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'
  5gMmCauseValue:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/5GMMCause'
  sNssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SNssai'
  traceData:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
  epsInterworkingInd:
    Reference: '#/components/schemas/EpsInterworkingIndication'
  anTypeCanBeChanged:
    Type: boolean
    Default: false
SmContextUpdatedData:
  Type: object
  Properties:
    upCnxState:
      Reference: '#/components/schemas/UpCnxState'
    hoState:
      Reference: '#/components/schemas/HoState'
    releaseEbiList:
      Type: array
      Items:
        Reference: '#/components/schemas/EpsBearerId'
      minItems: 1
    allocatedEbiList:
      Type: array
      Items:
        Reference: '#/components/schemas/EbiArpMapping'
      minItems: 1
    modifiedEbiList:
      Type: array
      Items:
        Reference: '#/components/schemas/EbiArpMapping'
      minItems: 1
    n1SmMsg:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
    n2SmInfo:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
    n2SmInfoType:
      Reference: '#/components/schemas/N2SmInfoType'
  epsBearerSetup:
    Type: array
    Items:

```

```

        Reference: '#/components/schemas/EpsBearerContainer'
      minItems: 1
    dataForwarding:
      Type: boolean
  SmContextReleaseData:
    Type: object
    Properties:
      cause:
        Reference: '#/components/schemas/Cause'
      ngApCause:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'
      5gMmCauseValue:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/5GMmCause'
      ueLocation:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
      ueTimeZone:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
      addUeLocation:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
      vsmfReleaseOnly:
        Type: boolean
        Default: false
  SmContextStatusNotification:
    Type: object
    Properties:
      statusInfo :
        Reference: '#/components/schemas/StatusInfo'
    Required:
      - statusInfo
  PduSessionCreateData:
    Type: object
    Properties:
      supi:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
      unauthenticatedSupi:
        Type: boolean
        Default: false
      pei:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
      pduSessionId:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
      dnn:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
      sNssai:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
      vsmfId:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
      servingNetwork:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
      requestType:
        Reference: '#/components/schemas/RequestType'
      epsBearerId:

```

```

    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerId'
    minItems: 1
  pgwS8cFteid:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
  vsmfPduSessionUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  vcnTunnelInfo:
    Reference: '#/components/schemas/TunnelInfo'
  anType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
  ratType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
  ueLocation:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
  ueTimeZone:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
  addUeLocation:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
  gpsi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
  n1SmInfoFromUe:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  unknownN1SmInfo:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  hPcfId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
  hoPreparationIndication:
    Type: boolean
  selMode:
    Reference: '#/components/schemas/DnnSelectionMode'
  alwaysOnRequested:
    Type: boolean
    Default: false
  udmGroupId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfGroupId'
  routingIndicator:
    Type: string
  epsInterworkingInd:
    Reference: '#/components/schemas/EpsInterworkingIndication'
  vSmfServiceInstanceId:
    Type: string
  recoveryTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  roamingChargingProfile:
    Reference:
      'TS32291_Nchf_ConvergedCharging.yaml#/components/schemas/RoamingChargingProfile'
  chargingId:
    Type: string

```

```

oldPduSessionId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
Required:
  - dnn
  - vsmfId
  - servingNetwork
  - vsmfPduSessionUri
  - vcnTunnelInfo
  - anType
PduSessionCreatedData:
  Type: object
  Properties:
    pduSessionType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionType'
    sscMode:
      Type: string
      Pattern: '^[0-7]$\''
    hcnTunnelInfo:
      Reference: '#/components/schemas/TunnelInfo'
    sessionAmbr:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ambr'
    qosFlowsSetupList:
      Type: array
      Items:
        Reference: '#/components/schemas/QosFlowSetupItem'
      minItems: 1
    hSmfInstanceId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    pduSessionId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
    sNssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    enablePauseCharging:
      Type: boolean
      Default: false
    ueIpv4Address:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
    ueIpv6Prefix:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Prefix'
    n1SmInfoToUe:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
    epsPdnCnxInfo:
      Reference: '#/components/schemas/EpsPdnCnxInfo'
    epsBearerInfo:
      Type: array
      Items:
        Reference: '#/components/schemas/EpsBearerInfo'
      minItems: 1
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    maxIntegrityProtectedDataRate:
      Reference: '#/components/schemas/MaxIntegrityProtectedDataRate'
    alwaysOnGranted:

```

```

    Type: boolean
    Default: false
  upSecurity:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UpSecurity'
  roamingChargingProfile:
    Reference:
'TS32291_Nchf_ConvergedCharging.yaml#/components/schemas/RoamingChargingProfile'
  hSmfServiceInstanceId:
    Type: string
  recoveryTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
Required:
- pduSessionType
- sscMode
- hcnTunnelInfo
- sessionAmbr
- qosFlowsSetupList
- hSmfInstanceId
HsmfUpdateData:
  Type: object
  Properties:
    requestIndication:
      Reference: '#/components/schemas/RequestIndication'
    pei:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
    vcnTunnelInfo:
      Reference: '#/components/schemas/TunnelInfo'
    servingNetwork:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
    anType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
    ratType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
    ueLocation:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
    ueTimeZone:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
    addUeLocation:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
    pauseCharging:
      Type: boolean
    pti:
      Reference: '#/components/schemas/ProcedureTransactionId'
    n1SmInfoFromUe:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
    unknownN1SmInfo:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
    qosFlowsRelNotifyList:
      Type: array
      Items:
        Reference: '#/components/schemas/QosFlowItem'
      minItems: 1
    qosFlowsNotifyList:

```

```

    Type: array
    Items:
      Reference: '#/components/schemas/QosFlowNotifyItem'
    minItems: 1
  NotifyList:
    Type: array
    Items:
      Reference: '#/components/schemas/PduSessionNotifyItem'
    minItems: 1
  epsBearerId:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerId'
    minItems: 0
  hoPreparationIndication:
    Type: boolean
  revokeEbiList:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerId'
    minItems: 1
  cause:
    Reference: '#/components/schemas/Cause'
  ngApCause:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'
  5gMmCauseValue:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/5GMmCause'
  alwaysOnRequested:
    Type: boolean
    Default: false
  epsInterworkingInd:
    Reference: '#/components/schemas/EpsInterworkingIndication'
  secondaryRatUsageReport:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SecondaryRatUsageReport'
    minItems: 1
  Required:
    - requestIndication
  HsmfUpdatedData:
    Type: object
    Properties:
      n1SmInfoToUe:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  ReleaseData:
    Type: object
    Properties:
      cause:
        Reference: '#/components/schemas/Cause'
      ngApCause:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'

```

```

5gMmCauseValue:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/5GmCause'
ueLocation:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
ueTimeZone:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
addUeLocation:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
secondaryRatUsageReport:
  Type: array
  Items:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SecondaryRatUsageReport'

  minItems: 1
ReleasedData:
  Type: object
VsmfUpdateData:
  Type: object
Properties:
  requestIndication:
    Reference: '#/components/schemas/RequestIndication'
  sessionAmbr:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Ambr'
  qosFlowsAddModRequestList:
    Type: array
    Items:
      Reference: '#/components/schemas/QosFlowAddModifyRequestItem'
    minItems: 1
  qosFlowsRelRequestList:
    Type: array
    Items:
      Reference: '#/components/schemas/QosFlowReleaseRequestItem'
    minItems: 1
  epsBearerInfo:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerInfo'
    minItems: 1
  assignEbiList:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerId'
    minItems: 1
  revokeEbiList:
    Type: array
    Items:
      Reference: '#/components/schemas/EpsBearerId'
    minItems: 1
  modifiedEbiList:
    Type: array
    Items:
      Reference: '#/components/schemas/EbiArpMapping'

```

```

    minItems: 1
  pti:
    Reference: '#/components/schemas/ProcedureTransactionId'
  n1SmInfoToUe:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  alwaysOnGranted:
    Type: boolean
    Default: false
  cause:
    Reference: '#/components/schemas/Cause'
  n1smCause:
    Type: string
  backOffTimer:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DurationSec'
  Required:
    - requestIndication
  VsmfUpdatedData:
    Type: object
  Properties:
    qosFlowsAddModList:
      Type: array
      Items:
        Reference: '#/components/schemas/QosFlowItem'
      minItems: 1
    qosFlowsRelList:
      Type: array
      Items:
        Reference: '#/components/schemas/QosFlowItem'
      minItems: 1
    qosFlowsFailedtoAddModList:
      Type: array
      Items:
        Reference: '#/components/schemas/QosFlowItem'
      minItems: 1
    qosFlowsFailedtoRelList:
      Type: array
      Items:
        Reference: '#/components/schemas/QosFlowItem'
      minItems: 1
    n1SmInfoFromUe:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
    unknownN1SmInfo:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
    ueLocation:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
    ueTimeZone:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
    addUeLocation:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
    assignedEbiList:
      Type: array
      Items:

```

```

        Reference: '#/components/schemas/EbiArpMapping'
      minItems: 1
    failedToAssignEbiList:
      Type: array
      Items:
        Reference: '#/components/schemas/EpsBearerId'
      minItems: 1
    releasedEbiList:
      Type: array
      Items:
        Reference: '#/components/schemas/EpsBearerId'
      minItems: 1
    secondaryRatUsageReport:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/SecondaryRatUsageReport'
      minItems: 1
  StatusNotification:
    Type: object
    Properties:
      statusInfo :
        Reference: '#/components/schemas/StatusInfo'
    Required:
      - statusInfo
  QosFlowItem:
    Type: object
    Properties:
      qfi:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Qfi'
      cause:
        Reference: '#/components/schemas/Cause'
    Required:
      - qfi
  QosFlowSetupItem:
    Type: object
    Properties:
      qfi:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Qfi'
      qosRules:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
      ebi:
        Reference: '#/components/schemas/EpsBearerId'
      qosFlowDescription:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
      qosFlowProfile:
        Reference: '#/components/schemas/QosFlowProfile'
    Required:
      - qfi
      - qosRules
  QosFlowAddModifyRequestItem:
    Type: object
    Properties:

```

```

    qfi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Qfi'
    ebi:
      Reference: '#/components/schemas/EpsBearerId'
    qosRules:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
    qosFlowDescription:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
    qosFlowProfile:
      Reference: '#/components/schemas/QosFlowProfile'
  Required:
    - qfi
QosFlowReleaseRequestItem:
  Type: object
  Properties:
    qfi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Qfi'
    qosRules:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
    qosFlowDescription:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
  Required:
    - qfi
QosFlowProfile:
  Type: object
  Properties:
    5qi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/5Qi'
    nonDynamic5Qi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NonDynamic5Qi'
    dynamic5Qi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Dynamic5Qi'
    arp:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Arp'
    gbrQosFlowInfo:
      Reference: '#/components/schemas/GbrQosFlowInformation'
    rqa:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ReflectiveQoSAttribute'
    additionalQosFlowInfo:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AdditionalQosFlowInfo'
  Required:
    - 5qi
GbrQosFlowInformation:
  Type: object
  Properties:
    maxFbrDl:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/BitRate'
    maxFbrUl:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/BitRate'
    quaFbrDl:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/BitRate'
    quaFbrUl:

```

```

    Reference: 'TS29571_CommonData.yaml#/components/schemas/BitRate'
notifControl:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NotificationControl'
maxPacketLossRateDl:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PacketLossRate'
maxPacketLossRateUl:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PacketLossRate'
Required:
  - maxFbrDl
  - maxFbrUl
  - guaFbrDl
  - guaFbrUl
QosFlowNotifyItem:
  Type: object
  Properties:
    qfi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Qfi'
    notificationCause:
      Reference: '#/components/schemas/NotificationCause'
  Required:
  - qfi
  - notificationCause
SmContextRetrieveData:
  Type: object
  Properties:
    targetMmeCap:
      Reference: '#/components/schemas/MmeCapabilities'
SmContextRetrievedData:
  Type: object
  Properties:
    ueEpsPdnConnection:
      Reference: '#/components/schemas/EpsPdnCnxContainer'
  Required:
  - ueEpsPdnConnection
MmeCapabilities:
  Type: object
  Properties:
    nonIpSupported:
      Type: boolean
      Default: false
TunnelInfo:
  Type: object
  Properties:
    ipv4Addr:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
    ipv6Addr:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'
    gtpTeid:
      Reference: '#/components/schemas/Teid'
  Required:
  - gtpTeid
StatusInfo:
  Type: object

```

```

Properties:
  resourceStatus:
    Reference: '#/components/schemas/ResourceStatus'
  cause:
    Reference: '#/components/schemas/Cause'
Required:
  - resourceStatus
EpsPdnCnxInfo:
  Type: object
  Properties:
    pgwS8cFteid:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
    pgwNodeName:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
  Required:
  - pgwS8cFteid
EpsBearerInfo:
  Type: object
  Properties:
    ebi:
      Reference: '#/components/schemas/EpsBearerId'
    pgwS8uFteid:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
    bearerLevelQoS:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
  Required:
  - ebi
  - pgwS8uFteid
  - bearerLevelQoS
PduSessionNotifyItem:
  Type: object
  Properties:
    notificationCause:
      Reference: '#/components/schemas/NotificationCause'
  Required:
  - notificationCause
EbiArpMapping:
  Type: object
  Properties:
    epsBearerId:
      Reference: '#/components/schemas/EpsBearerId'
    arp:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Arp'
  Required:
  - epsBearerId
  - arp
SmContextCreateError:
  Type: object
  Properties:
    error:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    n1SmMsg:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'

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```

    recoveryTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  Required:
    - error
SmContextUpdateError:
  Type: object
  Properties:
    error:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    n1SmMsg:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
    n2SmInfo:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
    n2SmInfoType:
      Reference: '#/components/schemas/N2SmInfoType'
    upCnxState:
      Reference: '#/components/schemas/UpCnxState'
    recoveryTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  Required:
    - error
PduSessionCreateError:
  Type: object
  Properties:
    error:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    n1smCause:
      Type: string
      Pattern: '^[A-F0-9]{2}$'
    n1SmInfoToUe:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
    backOffTimer:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DurationSec'
    recoveryTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  Required:
    - error
HsmfUpdateError:
  Type: object
  Properties:
    error:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    pti:
      Reference: '#/components/schemas/ProcedureTransactionId'
    n1smCause:
      Type: string
      Pattern: '^[A-F0-9]{2}$'
    n1SmInfoToUe:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
    backOffTimer:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DurationSec'
    recoveryTime:

```

```

    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  Required:
    - error
  VsmfUpdateError:
    Type: object
    Properties:
      error:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
      pti:
        Reference: '#/components/schemas/ProcedureTransactionId'
      n1smCause:
        Type: string
        Pattern: '^[A-F0-9]{2}$'
      n1smInfoFromUe:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
      unknownN1smInfo:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
      failedToAssignEbiList:
        Type: array
        Items:
          Reference: '#/components/schemas/EpsBearerId'
        minItems: 1
      ngApCause:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'
      5gMmCauseValue:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/5GMmCause'
      recoveryTime:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  Required:
    - error
# SIMPLE DATA TYPES
  ProcedureTransactionId:
    Type: integer
    Minimum: 0
    Maximum: 255
  EpsBearerId:
    Type: integer
    Minimum: 0
    Maximum: 15
  EpsPdnCnxContainer:
    Type: string
  EpsBearerContainer:
    Type: string
  Teid:
    Type: string
    Pattern: '^[A-F0-9]{8}$'
# ENUMERATIONS
  UpCnxState:
    anyOf:
      - type: string
    enum:
      - ACTIVATED
      - DEACTIVATED

```

```

    - ACTIVATING
- type: string
Description:
    This string provides forward-compatibility with future
    extensions to the enumeration but is not used to encode
    content defined in the present version of this API.
Description:
    Possible values are
    - ACTIVATED
    - DEACTIVATED
    - ACTIVATING
HoState:
anyOf:
- type: string
enum:
    - NONE
    - PREPARING
    - PREPARED
    - COMPLETED
    - CANCELLED
- type: string
Description:
    This string provides forward-compatibility with future
    extensions to the enumeration but is not used to encode
    content defined in the present version of this API.
Description:
    Possible values are
    - NONE
    - PREPARING
    - PREPARED
    - COMPLETED
    - CANCELLED
RequestType:
anyOf:
- type: string
enum:
    - INITIAL_REQUEST
    - EXISTING_PDU_SESSION
    - INITIAL_EMERGENCY_REQUEST
    - EXISTING_EMERGENCY_PDU_SESSION
- type: string
Description:
    This string provides forward-compatibility with future
    extensions to the enumeration but is not used to encode
    content defined in the present version of this API.
Description:
    Possible values are
    - INITIAL_REQUEST
    - EXISTING_PDU_SESSION
    - INITIAL_EMERGENCY_REQUEST
    - EXISTING_EMERGENCY_PDU_SESSION
RequestIndication:
anyOf:
- type: string
enum:
    - UE_REQ_PDU_SES_MOD
    - UE_REQ_PDU_SES_REL
    - PDU_SES_MOB
    - NW_REQ_PDU_SES_AUTH
    - NW_REQ_PDU_SES_MOD
    - NW_REQ_PDU_SES_REL

```

- EBI_ASSIGNMENT_REQ
- type: string
- Description:**
This string provides forward-compatibility with future extensions to the enumeration but is not used to encode content defined in the present version of this API.

Description:
Possible values are

- UE_REQ_PDU_SES_MOD
- UE_REQ_PDU_SES_REL
- PDU_SES_MOB
- NW_REQ_PDU_SES_AUTH
- NW_REQ_PDU_SES_MOD
- NW_REQ_PDU_SES_REL
- EBI_ASSIGNMENT_REQ

NotificationCause:

anyOf:

- type: string
- enum:**
 - QOS_FULFILLED
 - QOS_NOT_FULFILLED
 - UP_SEC_FULFILLED
 - UP_SEC_NOT_FULFILLED
- type: string

Description:
This string provides forward-compatibility with future extensions to the enumeration but is not used to encode content defined in the present version of this API.

Description:
Possible values are

- QOS_FULFILLED
- QOS_NOT_FULFILLED
- UP_SEC_FULFILLED
- UP_SEC_NOT_FULFILLED

Cause:

anyOf:

- type: string
- enum:**
 - REL_DUE_TO_HO
 - EPS_FALLBACK
 - REL_DUE_TO_UP_SEC
 - DNN_CONGESTION
 - S-NSSAI_CONGESTION
 - REL_DUE_TO_REACTIVATION
 - 5G_AN_NOT_RESPONDING
 - REL_DUE_TO_SLICE_NOT_AVAILABLE
 - REL_DUE_TO_DUPLICATE_SESSION_ID
 - PDU_SESSION_STATUS_MISMATCH
 - HO_FAILURE
- type: string

Description:
This string provides forward-compatibility with future extensions to the enumeration but is not used to encode content defined in the present version of this API.

Description:
Possible values are

- REL_DUE_TO_HO
- EPS_FALLBACK
- REL_DUE_TO_UP_SEC
- DNN_CONGESTION
- S-NSSAI_CONGESTION

- REL_DUE_TO_REACTIVATION
- 5G_AN_NOT_RESPONDING
- REL_DUE_TO_SLICE_NOT_AVAILABLE
- REL_DUE_TO_DUPLICATE_SESSION_ID
- PDU_SESSION_STATUS_MISMATCH
- HO_FAILURE

ResourceStatus:**anyOf:**

- type: string

enum:

- RELEASED

- type: string

Description:

This string provides forward-compatibility with future extensions to the enumeration but is not used to encode content defined in the present version of this API.

Description:

Possible values are

- RELEASED

DnnSelectionMode:**anyOf:**

- type: string

enum:

- VERIFIED
- UE_DNN_NOT_VERIFIED
- NW_DNN_NOT_VERIFIED

- type: string

Description:

This string provides forward-compatibility with future extensions to the enumeration but is not used to encode content defined in the present version of this API.

Description:

Possible values are

- VERIFIED
- UE_DNN_NOT_VERIFIED
- NW_DNN_NOT_VERIFIED

EpsInterworkingIndication:**anyOf:**

- type: string

enum:

- NONE
- WITH_N26
- WITHOUT_N26

- type: string

Description:

This string provides forward-compatibility with future extensions to the enumeration but is not used to encode content defined in the present version of this API.

Description:

Possible values are

- NONE
- WITH_N26
- WITHOUT_N26

N2SmInfoType:**anyOf:**

- type: string

enum:

- PDU_RES_SETUP_REQ
- PDU_RES_SETUP_RSP
- PDU_RES_SETUP_FAIL

- PDU_RES_REL_CMD
- PDU_RES_REL_RSP
- PDU_RES_MOD_REQ
- PDU_RES_MOD_RSP
- PDU_RES_MOD_FAIL
- PDU_RES_NTY
- PDU_RES_NTY_REL
- PDU_RES_MOD_IND
- PDU_RES_MOD_CFM
- PATH_SWITCH_REQ
- PATH_SWITCH_SETUP_FAIL
- PATH_SWITCH_REQ_ACK
- PATH_SWITCH_REQ_FAIL
- HANDOVER_REQUIRED
- HANDOVER_CMD
- HANDOVER_PREP_FAIL
- HANDOVER_REQ_ACK
- HANDOVER_RES_ALLOC_FAIL

- type: string

Description:

This string provides forward-compatibility with future extensions to the enumeration but is not used to encode content defined in the present version of this API.

Description:

Possible values are

- PDU_RES_SETUP_REQ
- PDU_RES_SETUP_RSP
- PDU_RES_SETUP_FAIL
- PDU_RES_REL_CMD
- PDU_RES_REL_RSP
- PDU_RES_MOD_REQ
- PDU_RES_MOD_RSP
- PDU_RES_MOD_FAIL
- PDU_RES_NTY
- PDU_RES_NTY_REL
- PDU_RES_MOD_IND
- PDU_RES_MOD_CFM
- PATH_SWITCH_REQ
- PATH_SWITCH_SETUP_FAIL
- PATH_SWITCH_REQ_ACK
- PATH_SWITCH_REQ_FAIL
- HANDOVER_REQUIRED
- HANDOVER_CMD
- HANDOVER_PREP_FAIL
- HANDOVER_REQ_ACK
- HANDOVER_RES_ALLOC_FAIL

MaxIntegrityProtectedDataRate:**anyOf:**

- type: string

enum:

- 64_KBPS
- MAX_UE_RATE

- type: string

Description:

This string provides forward-compatibility with future extensions to the enumeration but is not used to encode content defined in the present version of this API.

Description:

Possible values are

- 64_KBPS
- MAX_UE_RATE

HTTP responses

```

responses:
  'PduSessionCreateError':
    Description: unsuccessful creation of a PDU session
    content:
      application/json: # message without binary body part
      schema:
        Reference: '#/components/schemas/PduSessionCreateError'
      multipart/related: # message with binary body part(s)
      schema:
        Type: object
        Properties: # Request parts
        jsonData:
          Reference: '#/components/schemas/PduSessionCreateError'
        binaryDataN1SmInfoToUe:
          Type: string
          format: binary
      encoding:
        jsonData:
          contentType: application/json
        binaryDataN1SmInfoToUe:
          contentType: application/vnd.3gpp.5gnas
        headers:
          Content-Id:
            schema:
              Type: string
  'HsmfUpdateError':
    Description: unsuccessful update of a PDU session
    content:
      application/json: # message without binary body part
      schema:
        Reference: '#/components/schemas/HsmfUpdateError'
      multipart/related: # message with binary body part(s)
      schema:
        Type: object
        Properties: # Request parts
        jsonData:
          Reference: '#/components/schemas/HsmfUpdateError'
        binaryDataN1SmInfoToUe:
          Type: string
          format: binary
      encoding:
        jsonData:
          contentType: application/json
        binaryDataN1SmInfoToUe:
          contentType: application/vnd.3gpp.5gnas
        headers:
          Content-Id:
            schema:
              Type: string
  'VsmfUpdateError':
    Description: unsuccessful update of a PDU session

```

```
content:
  application/json: # message without binary body part
    schema:
      Reference: '#/components/schemas/VsmfUpdateError'
  multipart/related: # message with binary body part(s)
    schema:
      Type: object
      Properties: # Request parts
        jsonData:
          Reference: '#/components/schemas/VsmfUpdateError'
        binaryDataN1SmInfoFromUe:
          Type: string
          format: binary
        binaryDataUnknownN1SmInfo:
          Type: string
          format: binary
    encoding:
      jsonData:
        contentType: application/json
      binaryDataN1SmInfoFromUe:
        contentType: application/vnd.3gpp.5gnas
      headers:
        Content-Id:
          schema:
            Type: string
      binaryDataUnknownN1SmInfo:
        contentType: application/vnd.3gpp.5gnas
      headers:
        Content-Id:
          schema:
            Type: string
```