

Namf_Communication

This service enables an NF to communicate with the UE through N1 NAS messages or with the AN (both UE and non UE specific). The service operations defined below allow the NF to communicate with the UE and the AN. The following are the key functionalities of this NF service.

- Provide service operations for transporting N1 messages to the UE;
- Allow NFs to subscribe and unsubscribe for notifications of specific N1 messages from the UE;
- Allow NFs to subscribe and unsubscribe for notifications about specific information from AN;
- Provide service operations for initiating N2 messages towards the AN;
- Security Context Management; and
- UE information management and transfer (including its security context).

Reference: 3GPP TS 29.518 [14]

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OpenAPI

OpenAPI Version: 3.0.0

Info

Version: 1.0.0
Title: Namf_Communication
Description: AMF Communication Service

Servers

```
URL: '{apiRoot}/namf-comm/v1'
Variables:
  API Root:
    Default: https://example.com
    Description: apiRoot as defined in subclause subclause 4.4 of 3GPP TS 29.501
```

Security

```
- {}
- oAuth2Clientcredentials:
    - namf-comm
```

Paths

/ue-contexts/{ueContextId}

```
  put:
    Summary: Namf_Communication CreateUEContext service Operation

    Tags:
      - Individual ueContext (Document)
    Operation ID: CreateUEContext

    Parameters:
      - Name: ueContextId
        In: path
        Description: UE Context Identifier
        Required/Optional: true
        Schema:
          Type: string
          pattern:
'^(5g-guti-[0-9]{5,6}[0-9a-fA-F]{14}|imsi-[0-9]{5,15}|nai-.+|imei-[0-9]{15}|imeisv-[0-9]{16}|.+)$'

    Request Body:
      Content:
        Multipart/Related: # message with binary body part(s)
          Schema:
            Type: object
            Properties: # Request parts
              JSON Data:
                Reference: '#/components/schemas/UeContextCreateData'
              binaryDataN1Message:
                Type: string
```

```
                Format: binary
              binaryDataN2Information:
                Type: string
                Format: binary
              binaryDataN2InformationExt1:
                Type: string
                Format: binary
            Encoding:
              JSON Data:
                Content Type: application/json
              binaryDataN1Message:
                Content Type: application/vnd.3gpp.5gnas
                Headers:
                  Content ID:
                    Schema:
                      Type: string
              binaryDataN2Information:
                Content Type: application/vnd.3gpp.ngap
                Headers:
                  Content ID:
                    Schema:
                      Type: string
              binaryDataN2InformationExt1:
                Content Type: application/vnd.3gpp.ngap
                Headers:
                  Content ID:
                    Schema:
                      Type: string
        Required/Optional: true

    Responses:
      '201':
        Description: UE context successfully created.
        Headers:
          Location:
            description: 'Contains the URI of the newly created resource,
according to the structure': {apiRoot}/namf-comm/v1/ue-contexts/{ueContextId}'
            Required/Optional: true
            Schema:
              Type: string
        Content:
          Application/JSON:
            Schema:
              Reference: '#/components/schemas/UeContextCreatedData'
          Multipart/Related: # message with binary body part(s)
            Schema:
              Type: object
              Properties: # Request parts
                JSON Data:
                  Reference: '#/components/schemas/UeContextCreatedData'
                binaryDataN1Message:
                  Type: string
```

```
          Format: binary
        binaryDataN2Information:
          Type: string
          Format: binary
      Encoding:
        JSON Data:
          Content Type: application/json
        binaryDataN1Message:
          Content Type: application/vnd.3gpp.5gnas
          Headers:
            Content ID:
              Schema:
                Type: string
        binaryDataN2Information:
          Content Type: application/vnd.3gpp.ngap
          Headers:
            Content ID:
              Schema:
                Type: string
'400':
  Description: Bad Request
  Content:
    Application/JSON:
      Schema:
        Reference: '#/components/schemas/UeContextCreateError'
'403':
  Description: Forbidden
  Content:
    Application/JSON:
      Schema:
        Reference: '#/components/schemas/UeContextCreateError'
'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: Internal Server Error
  Content:
    Application/JSON:
      Schema:
        Reference: '#/components/schemas/UeContextCreateError'
'503':
  Reference: 'TS29571_CommonData.yaml#/components/responses/503'
Default:
  Description: Unexpected error
```

/ue-contexts/{ueContextId}/release

```
  Method: Post
    Summary: Namf_Communication ReleaseUEContext service Operation

    Tags:
      - Individual ueContext (Document)
    Operation ID: ReleaseUEContext

    Parameters:
      - Name: ueContextId
        In: path
        Description: UE Context Identifier
        Required/Optional: true
        Schema:
          Type: string
          pattern:
'^(5g-guti-[0-9]{5,6}[0-9a-fA-F]{14}|imsi-[0-9]{5,15}|nai-.+|imei-[0-9]{15}|imeisv-[0-9]{16}|.+)$'

    Request Body:
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/UEContextRelease'
      Required/Optional: true

    Responses:
      '204':
        Description: UE Context successfully released
      '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:
        Description: Unexpected error
```

/ue-contexts/{ueContextId}/assign-ebi

```
Method: Post
  Summary: Namf_Communication EBI Assignment service Operation

  Tags:
    - Individual ueContext (Document)
  Operation ID: EBIAssignment

  Parameters:
    - Name: ueContextId
      In: path
      Description: UE Context Identifier
      Required/Optional: true
      Schema:
        Type: string
        pattern:
'^(5g-guti-[0-9]{5,6}[0-9a-fA-F]{14}|imsi-[0-9]{5,15}|nai-.+|imei-[0-9]{15}|imeisv-[0-9]{16}|.+)$'

  Request Body:
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/AssignEbiData'
    Required/Optional: true

  Responses:
    '200':
      Description: EBI Assignment successfully performed.
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/AssignedEbiData'
    '400':
      Description: Bad Request
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/AssignEbiError'
    '403':
      Description: Forbidden
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/AssignEbiError'
    '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: Internal Server Error
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/AssignEbiError'
    '503':
      Reference: 'TS29571_CommonData.yaml#/components/responses/503'
    Default:
      Description: Unexpected error
```

/ue-contexts/{ueContextId}/transfer

```
  Method: Post
    Summary: Namf_Communication UEContextTransfer service Operation

    Tags:
      - Individual ueContext (Document)
    Operation ID: UEContextTransfer

    Parameters:
      - Name: ueContextId
        In: path
        Description: UE Context Identifier
        Required/Optional: true
        Schema:
          Type: string
          pattern:
'^(5g-guti-[0-9]{5,6}[0-9a-fA-F]{14}|imsi-[0-9]{5,15}|nai-.+|imei-[0-9]{15}|imeisv-[0-9]{16}|.+)$'

    Request Body:
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/UeContextTransferReqData'
        Multipart/Related: # message with binary body part(s)
          Schema:
            Type: object
            Properties: # Request parts
              JSON Data:
                Reference: '#/components/schemas/UeContextTransferReqData'
              binaryDataN1Message:
                Type: string
                Format: binary
          Encoding:
            JSON Data:
              Content Type: application/json
            binaryDataN1Message:
              Content Type: application/vnd.3gpp.5gnas
              Headers:
```

```
          Content ID:
            Schema:
              Type: string
  Required/Optional: true

Responses:
  '200':
    Description: UE context transfer successfully initiated.
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/UeContextTransferRspData'
      Multipart/Related: # message with binary body part(s)
        Schema:
          Type: object
          Properties: # Request parts
            JSON Data:
              Reference: '#/components/schemas/UeContextTransferRspData'
            binaryDataN2Information:
              Type: string
              Format: binary
        Encoding:
          JSON Data:
            Content Type: application/json
          binaryDataN2Information:
            Content Type: application/vnd.3gpp.ngap
            Headers:
              Content ID:
                Schema:
                  Type: string
  '400':
    Reference: 'TS29571_CommonData.yaml#/components/responses/400'
  '403':
    Reference: 'TS29571_CommonData.yaml#/components/responses/403'
  '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:
    Description: Unexpected error
```

/ue-contexts/{ueContextId}/transfer-update

```
Method: Post
  Summary: Namf_Communication RegistrationStatusUpdate service Operation

  Tags:
    - Individual ueContext (Document)
  Operation ID: RegistrationStatusUpdate

  Parameters:
    - Name: ueContextId
      In: path
      Description: UE Context Identifier
      Required/Optional: true
      Schema:
        Type: string
        pattern:
'^(5g-guti-[0-9]{5,6}[0-9a-fA-F]{14}|imsi-[0-9]{5,15}|nai-.+|imei-[0-9]{15}|imeisv-[0-9]{16}|.+)$'

  Request Body:
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/UeRegStatusUpdateReqData'
    Required/Optional: true

  Responses:
    '200':
      Description: UE context transfer status successfully updated.
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/UeRegStatusUpdateRspData'
    '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'
```

/ue-contexts/{ueContextId}/n1-n2-messages

```
    Method: Post
      Summary: Namf_Communication N1N2 Message Transfer (UE Specific) service Operation

      Tags:
        - n1N2Message collection (Document)
      Operation ID: N1N2MessageTransfer

      Parameters:
        - Name: ueContextId
          In: path
          Description: UE Context Identifier
          Required/Optional: true
          Schema:
            Type: string
            pattern:
'^(imsi-[0-9]{5,15}|nai-.+|imei-[0-9]{15}|imeisv-[0-9]{16}|cid-.{1,255}|.+)$'
      Request Body:
        Content:
          Application/JSON:
            Schema:
              Reference: '#/components/schemas/N1N2MessageTransferReqData'
          Multipart/Related: # message with binary body part(s)
            Schema:
              Type: object
              Properties: # Request parts
                JSON Data:
                  Reference: '#/components/schemas/N1N2MessageTransferReqData'
                binaryDataN1Message:
                  Type: string
                  Format: binary
                binaryDataN2Information:
                  Type: string
                  Format: binary
              Encoding:
                JSON Data:
                  Content Type: application/json
                binaryDataN1Message:
                  Content Type: application/vnd.3gpp.5gnas
                  Headers:
                    Content ID:
                      Schema:
                        Type: string
                binaryDataN2Information:
                  Content Type: application/vnd.3gpp.ngap
                  Headers:
                    Content ID:
```

```
            Schema:
              Type: string
  Required/Optional: true

Responses:
  '202':
    Description: N1N2 Message Transfer accepted.
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/N1N2MessageTransferRspData'
  '200':
    Description: N1N2 Message Transfer successfully initiated.
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/N1N2MessageTransferRspData'
  '307':
    Description: Temporary Redirect
    Content:
      application/problem+json:
        Schema:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
  '400':
    Reference: 'TS29571_CommonData.yaml#/components/responses/400'
  '403':
    Reference: 'TS29571_CommonData.yaml#/components/responses/403'
  '404':
    Reference: 'TS29571_CommonData.yaml#/components/responses/404'
  '409':
    Description: Conflicts
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/N1N2MessageTransferError'
  '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'
  '504':
    Description: Gateway Timeout
    Content:
      Application/JSON:
        Schema:
```

```
          Reference: '#/components/schemas/N1N2MessageTransferError'
    Default:
      Description: Unexpected error
  Callbacks:
    onN1N2TransferFailure:
      '{$request.body#/n1n2FailureTxfNotifURI}':
        Method: Post
        Summary: Namf_Communication N1N2Transfer Failure Notification service Operation


          Tags:
            - N1N2 Transfer Failure Notification
          Operation ID: N1N2TransferFailureNotification
          Request Body:
            Description: N1N2Transfer Failure Notification
            Content:
              Application/JSON:
                Schema:
                  Reference: '#/components/schemas/N1N2MsgTxfrFailureNotification'

          Responses:
            '204':
              Description: Expected response to a successful callback processing
            '400':
              Reference: 'TS29571_CommonData.yaml#/components/responses/400'
            '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'
```

/non-ue-n2-messages/transfer

```
Method: Post
  Summary: Namf_Communication Non UE N2 Message Transfer service Operation

  Tags:
    - Non UE N2Messages collection (Document)
  Operation ID: NonUeN2MessageTransfer
  Request Body:
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/N2InformationTransferReqData'
```

```
    Multipart/Related: # message with binary body part(s)
      Schema:
        Type: object
        Properties: # Request parts
          JSON Data:
            Reference: '#/components/schemas/N2InformationTransferReqData'
          binaryDataN2Information:
            Type: string
            Format: binary
      Encoding:
        JSON Data:
          Content Type: application/json
        binaryDataN2Information:
          Content Type: application/vnd.3gpp.ngap
          Headers:
            Content ID:
              Schema:
                Type: string
  Required/Optional: true

Responses:
  '200':
    Description: Non UE N2 Message Transfer successfully initiated.
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/N2InformationTransferRspData'
  '400':
    Description: Bad Request
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/N2InformationTransferError'
  '403':
    Description: Forbidden
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/N2InformationTransferError'
  '404':
    Description: Not Found
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/N2InformationTransferError'
  '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: Internal Server Error
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/N2InformationTransferError'
    '503':
      Description: Service Unavailable
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/N2InformationTransferError'
    Default:
      Description: Unexpected error
```

/non-ue-n2-messages/subscriptions

```
  Method: Post
    Summary: Namf_Communication Non UE N2 Info Subscribe service Operation

    Tags:
      - Non UE N2Messages Subscriptions collection (Document)
    Operation ID: NonUeN2InfoSubscribe
    Request Body:
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/NonUeN2InfoSubscriptionCreateData'
      Required/Optional: true

    Responses:
      '201':
        Description: Non UE N2 Info Subscription successfully created.
        Headers:
          Location:
            description: 'Contains the URI of the newly created resource,
according to the structure:
{apiRoot}/namf-comm/v1/non-ue-n2-messages/subscriptions/{n2NotifySubscriptionId}'
            Required/Optional: true
            Schema:
              Type: string
        Content:
          Application/JSON:
            Schema:
              Reference: '#/components/schemas/NonUeN2InfoSubscriptionCreatedData'
      '400':
        Reference: 'TS29571_CommonData.yaml#/components/responses/400'
      '403':
        Reference: 'TS29571_CommonData.yaml#/components/responses/403'
      '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:
      Description: Unexpected error
Callbacks:
  onN2InfoNotify:
    '{$request.body#/n2NotifyCallbackUri}':
      Method: Post
        Summary: Namf_Communication Non UE N2 Info Notify service Operation

        Tags:
          - Non UE N2 Info Notify
        Operation ID: NonUeN2InfoNotify
        Request Body:
          Description: Non UE N2 Informaiton Notification
          Content:
            Application/JSON:
              Schema:
                Reference: '#/components/schemas/N2InformationNotification'
            Multipart/Related: # message with binary body part(s)
              Schema:
                Type: object
                Properties: # Request parts
                  JSON Data:
                    Reference: '#/components/schemas/N2InformationNotification'
                  binaryDataN2Information:
                    Type: string
                    Format: binary
              Encoding:
                JSON Data:
                  Content Type: application/json
                binaryDataN2Information:
                  Content Type: application/vnd.3gpp.ngap
                  Headers:
                    Content ID:
                      Schema:
                        Type: string

        Responses:
          '204':
            Description: Expected response to a successful callback processing
          '400':
            Reference: 'TS29571_CommonData.yaml#/components/responses/400'
```

```
        '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'
```

/non-ue-n2-messages/subscriptions/{n2NotifySubscriptionId}

```
delete:
  Summary: Namf_Communication Non UE N2 Info UnSubscribe service Operation

  Tags:
    - Non UE N2 Message Notification Individual Subscription (Document)
  Operation ID: NonUeN2InfoUnSubscribe

  Parameters:
    - Name: n2NotifySubscriptionId
      In: path
      Description: N2 info Subscription Identifier
      Required/Optional: true
      Schema:
        Type: string

  Responses:
    '204':
      Description: Non UE N2 INfo Subscription successfully removed.
    '400':
      Reference: 'TS29571_CommonData.yaml#/components/responses/400'
    '429':
      Reference: 'TS29571_CommonData.yaml#/components/responses/429'
    '500':
      Reference: 'TS29571_CommonData.yaml#/components/responses/500'
    '503':
      Reference: 'TS29571_CommonData.yaml#/components/responses/503'
```

/subscriptions

```
Method: Post
  Summary: Namf_Communication AMF Status Change Subscribe service Operation

  Tags:
    - subscriptions collection (Document)
  Operation ID: AMFStatusChangeSubscribe
```

```
    Request Body:
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/SubscriptionData'
      Required/Optional: true

    Responses:
      '201':
        Description: N1N2 Message Subscription successfully created.
        Headers:
          Location:
            description: 'Contains the URI of the newly created resource,
according to the structure: {apiRoot}/namf-comm/v1/subscriptions/{subscriptionId}'
            Required/Optional: true
            Schema:
              Type: string
        Content:
          Application/JSON:
            Schema:
              Reference: '#/components/schemas/SubscriptionData'
      '400':
        Reference: 'TS29571_CommonData.yaml#/components/responses/400'
      '403':
        Reference: 'TS29571_CommonData.yaml#/components/responses/403'
      '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:
        Description: Unexpected error
    Callbacks:
      onAmfStatusChange:
        '{$request.body#/amfStatusUri}':
          Method: Post
            Summary: Amf Status Change Notify service Operation

            Tags:
              - Amf Status Change Notify
            Operation ID: AmfStatusChangeNotify
            Request Body:
              Description: Amf Status Change Notification
              Content:
                Application/JSON:
```

```
        Schema:
          Reference: '#/components/schemas/AmfStatusChangeNotification'

    Responses:
      '204':
        Description: Expected response to a successful callback processing
      '400':
        Reference: 'TS29571_CommonData.yaml#/components/responses/400'
      '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'
```

/subscriptions/{subscriptionId}

```
delete:
  Summary: Namf_Communication AMF Status Change UnSubscribe service Operation

  Tags:
    - individual subscription (Document)
  Operation ID: AMFStatusChangeUnSubscribe

  Parameters:
    - Name: subscriptionId
      In: path
      Description: AMF Status Change Subscription Identifier
      Required/Optional: true
      Schema:
        Type: string

  Responses:
    '204':
      Description: N1N2 Message Subscription successfully removed.
    '400':
      Reference: 'TS29571_CommonData.yaml#/components/responses/400'
    '404':
      Reference: 'TS29571_CommonData.yaml#/components/responses/404'
    '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:
      Description: Unexpected error
put:
  Summary: Namf_Communication AMF Status Change Subscribe Modify service Operation

  Tags:
    - individual subscription (Document)
  Operation ID: AMFStatusChangeSubscribeModfy

  Parameters:
    - Name: subscriptionId
      In: path
      Description: AMF Status Change Subscription Identifier
      Required/Optional: true
      Schema:
        Type: string
  Request Body:
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/SubscriptionData'
    Required/Optional: true

  Responses:
    '202':
      Description: N1N2 Message Subscription successfully updated.
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/SubscriptionData'
    '400':
      Reference: 'TS29571_CommonData.yaml#/components/responses/400'
    '403':
      Reference: 'TS29571_CommonData.yaml#/components/responses/403'
    '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:
      Description: Unexpected error
  Callbacks:
    OnAmfStatusChange:
```

```
    '{$request.body#/amfStatusUri}':
      Method: Post
        Summary: Amf Status Change Notify service Operation

        Tags:
          - Amf Status Change Notify
        Operation ID: AmfStatusChangeNOtify
        Request Body:
          Description: Amf Status Change Notification
          Content:
            Application/JSON:
              Schema:
                Reference: '#/components/schemas/AmfStatusChangeNotification'

        Responses:
          '204':
            Description: Expected response to a successful callback processing
          '400':
            Reference: 'TS29571_CommonData.yaml#/components/responses/400'
          '403':
            Reference: 'TS29571_CommonData.yaml#/components/responses/403'
          '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'
```

Components

```
securitySchemes:
  oAuth2ClientCredentials:
    Type: oauth2
    Flows:
      clientCredentials:
        tokenUrl: '{nrfApiRoot}/oauth2/token'
        scopes:
          namf-comm: Access to the Namf_Communication API

schemas:
# STRUCTURED DATA TYPES
  SubscriptionData:
    Type: object
    Properties:
```

```
    amfStatusUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    guamiList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
      minItems: 1
  Required:
    - amfStatusUri
AmfStatusChangeNotification:
  Type: object
  Properties:
    amfStatusInfoList:
      Type: array
      Items:
        Reference: '#/components/schemas/AmfStatusInfo'
      minItems: 1
  Required:
    - amfStatusInfo
AmfStatusInfo:
  Type: object
  Properties:
    guamiList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
      minItems: 1
    statusChange:
      Reference: '#/components/schemas/StatusChange'
    targetAmfRemoval:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AmfName'
    targetAmfFailure:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AmfName'
  Required:
    - guamis
    - statusChange
AssignEbiData:
  Type: object
  Properties:
    pduSessionId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
    arpList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Arp'
      minItems: 1
    releasedEbiList:
      Type: array
      Items:
        Reference: '#/components/schemas/EpsBearerId'
      minItems: 1
  Required:
```

```
    - pduSessionId
AssignedEbiData:
  Type: object
  Properties:
    pduSessionId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
    assignedEbiList:
      Type: array
      Items:
        Reference: 'TS29502_Nsmf_PDUSession.yaml#/components/schemas/EbiArpMapping'
      minItems: 0
    failedArpList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Arp'
      minItems: 1
    releasedEbiList:
      Type: array
      Items:
        Reference: '#/components/schemas/EpsBearerId'
      minItems: 1
  Required:
    - pduSessionId
    - assignedEbis
AssignEbiFailed:
  Type: object
  Properties:
    pduSessionId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
    failedArpList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Arp'
      minItems: 1
  Required:
    - pduSessionId
UEContextRelease:
  Type: object
  Properties:
    supi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
    unauthenticatedSupi:
      Type: boolean
      Default: false
    ngapCause:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'
  Required:
    - ngapCause
N2InformationTransferReqData:
  Type: object
  Properties:
    taiList:
```

```
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
      minItems: 1
    ratSelector:
      Reference: '#/components/schemas/RatSelector'
    ecgiList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Ecgi'
      minItems: 1
    ncgiList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Ncgi'
      minItems: 1
    globalRanNodeList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/GlobalRanNodeId'
      minItems: 1
    n2Information:
      Reference: '#/components/schemas/N2InfoContainer'
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  Required:
    - n2Information
NonUeN2InfoSubscriptionCreateData:
  Type: object
  Properties:
    globalRanNodeList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/GlobalRanNodeId'
      minItems: 1
    anTypeList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
      minItems: 1
    n2InformationClass:
      Reference: '#/components/schemas/N2InformationClass'
    n2NotifyCallbackUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    nfId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  Required:
    - n2InformationClass
    - n2NotifyCallbackUri
NonUeN2InfoSubscriptionCreatedData:
```

```
    Type: object
    Properties:
      n2NotifySubscriptionId:
        Type: string
      supportedFeatures:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    Required:
      - n2NotifySubscriptionId
  UeN1N2InfoSubscriptionCreateData:
    Type: object
    Properties:
      n2InformationClass:
        Reference: '#/components/schemas/N2InformationClass'
      n2NotifyCallbackUri:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
      n1MessageClass:
        Reference: '#/components/schemas/N1MessageClass'
      n1NotifyCallbackUri:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
      nfId:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
      supportedFeatures:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  UeN1N2InfoSubscriptionCreatedData:
    Type: object
    Properties:
      n1n2NotifySubscriptionId:
        Type: string
      supportedFeatures:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    Required:
      - n1n2NotifySubscriptionId
  N2InformationNotification:
    Type: object
    Properties:
      n2NotifySubscriptionId:
        Type: string
      n2InfoContainer:
        Reference: '#/components/schemas/N2InfoContainer'
      toReleaseSessionList:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
        minItems: 1
      lcsCorrelationId:
        Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/CorrelationID'
      notifyReason:
        Reference: '#/components/schemas/N2InfoNotifyReason'
    Required:
      - n2NotifySubscriptionId
  N2InfoContainer:
    Type: object
```

```
    Properties:
      n2InformationClass:
        Reference: '#/components/schemas/N2InformationClass'
      smInfo:
        Reference: '#/components/schemas/N2SmInformation'
      ranInfo:
        Reference: '#/components/schemas/N2RanInformation'
      nrppaInfo:
        Reference: '#/components/schemas/NrppaInformation'
      pwsInfo:
        Reference: '#/components/schemas/PwsInformation'
    Required:
      - n2InformationClass
  N1MessageNotification:
    Type: object
    Properties:
      n1NotifySubscriptionId:
        Type: string
      n1MessageContainer:
        Reference: '#/components/schemas/N1MessageContainer'
      lcsCorrelationId:
        Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/CorrelationID'
      registrationCtxtContainer:
        Reference: '#/components/schemas/RegistrationContextContainer'
    Required:
      - n1MessageContainer
  N1MessageContainer:
    Type: object
    Properties:
      n1MessageClass:
        Reference: '#/components/schemas/N1MessageClass'
      n1MessageContent:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
      nfId:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    Required:
      - n1MessageClass
      - n1MessageContent
  N1N2MessageTransferReqData:
    Type: object
    Properties:
      n1MessageContainer:
        Reference: '#/components/schemas/N1MessageContainer'
      n2InfoContainer:
        Reference: '#/components/schemas/N2InfoContainer'
      skipInd:
        Type: boolean
        Default: false
      lastMsgIndication:
        Type: boolean
      pduSessionId:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
```

```
    lcsCorrelationId:
      Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/CorrelationID'
    ppi:
      Reference: '#/components/schemas/Ppi'
    arp:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Arp'
    5qi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/5Qi'
    n1n2FailureTxfNotifURI:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    smfReallocationInd:
      Type: boolean
      Default: false
    areaOfValidity:
      Reference: '#/components/schemas/AreaOfValidity'
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
N1N2MessageTransferRspData:
  Type: object
  Properties:
    cause:
      Reference: '#/components/schemas/N1N2MessageTransferCause'
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  Required:
    - cause
RegistrationContextContainer:
  Type: object
  Properties:
    ueContext:
      Reference: '#/components/schemas/UeContext'
    localTimeZone:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
    anType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
    anN2ApId:
      Type: integer
    ranNodeId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/GlobalRanNodeId'
    initialAmfName:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AmfName'
    userLocation:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
    rrcEstCause:
      Type: string
      Pattern: '^[0-9a-fA-F]+$'
    ueContextRequest:
      Type: boolean
      Default: false
    anN2IPv4Addr:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
    anN2IPv6Addr:
```

```
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'
    allowedNssai:
      Reference: 'TS29531_Nnssf_NSSelection.yaml#/components/schemas/AllowedNssai'
    configuredNssai:
      Type: array
      Items:
       Reference: 'TS29531_Nnssf_NSSelection.yaml#/components/schemas/ConfiguredSnssai'

      minItems: 1
    rejectedNssaiInPlmn:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
      minItems: 1
    rejectedNssaiInTa:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
      minItems: 1
  Required:
    - ueContext
    - anType
    - anN2ApId
    - ranNodeId
    - initialAmfName
    - userLocation
AreaOfValidity:
  Type: object
  Properties:
    taiList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
      minItems: 0
  Required:
    - taList
UeContextTransferReqData:
  Type: object
  Properties:
    reason:
      Reference: '#/components/schemas/TransferReason'
    accessType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
    plmnId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
    regRequest:
      Reference: '#/components/schemas/N1MessageContainer'
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  Required:
    - reason
    - accessType
UeContextTransferRspData:
```

```
    Type: object
    Properties:
      ueContext:
        Reference: '#/components/schemas/UeContext'
      ueRadioCapability:
        Reference: '#/components/schemas/N2InfoContent'
      supportedFeatures:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    Required:
      - ueContext
  UeContext:
    Type: object
    Properties:
      supi:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
      supiUnauthInd:
        Type: boolean
      gpsiList:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
        minItems: 1
      pei:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
      udmGroupId:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NfGroupId'
      ausfGroupId:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NfGroupId'
      routingIndicator:
        Type: string
      groupList:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/GroupId'
        minItems: 1
      drxParameter:
        Reference: '#/components/schemas/DrxParameter'
      subRfsp:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/RfspIndex'
      usedRfsp:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/RfspIndex'
      subUeAmbr:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Ambr'
      smsSupport:
        Reference: '#/components/schemas/SmsSupport'
      smsfId:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
      seafData:
        Reference: '#/components/schemas/SeafData'
      5gMmCapability:
        Reference: '#/components/schemas/5GMmCapability'
      pcfId:
```

```
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
      pcfAmPolicyUri:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
      amPolicyReqTriggerList:
        Type: array
        Items:
          Reference: '#/components/schemas/AMPolicyReqTrigger'
        minItems: 1
      hpcfId:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
      restrictedRatList:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
        minItems: 1
      forbiddenAreaList:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Area'
        minItems: 1
      serviceAreaRestriction:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/ServiceAreaRestriction'
      restrictedCoreNwTypeList:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/CoreNetworkType'
        minItems: 1
      eventSubscriptionList:
        Type: array
        Items:
          Reference:
'TS29518_Namf_EventExposure.yaml#/components/schemas/AmfEventSubscription'
        minItems: 1
      mmContextList:
        Type: array
        Items:
          Reference: '#/components/schemas/MmContext'
        minItems: 1
        maxItems: 2
      sessionContextList:
        Type: array
        Items:
          Reference: '#/components/schemas/PduSessionContext'
        minItems: 1
      traceData:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
  N2SmInformation:
    Type: object
    Properties:
      pduSessionId:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
      n2InfoContent:
```

```
      Reference: '#/components/schemas/N2InfoContent'
    sNssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    subjectToHo:
      Type: boolean
  Required:
    - pduSessionId
N2InfoContent:
  Type: object
  Properties:
    ngapMessageType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uinteger'
    ngapIeType:
      Reference: '#/components/schemas/NgapIeType'
    ngapData:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RefToBinaryData'
  Required:
    - ngapIeType
    - ngapData
NrppaInformation:
  Type: object
  Properties:
    nfId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    nrppaPdu:
      Reference: '#/components/schemas/N2InfoContent'
  Required:
    - nfId
    - nrppaPdu
PwsInformation:
  Type: object
  Properties:
    messageIdentifier:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uint16'
    serialNumber:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uint16'
    pwsContainer:
      Reference: '#/components/schemas/N2InfoContent'
    sendRanResponse:
      Type: boolean
      Default: false
    omcId:
      Reference: '#/components/schemas/OmcIdentifier'
  Required:
    - messageIdentifier
    - serialNumber
    - pwsContainer
N1N2MsgTxfrFailureNotification:
  Type: object
  Properties:
    cause:
      Reference: '#/components/schemas/N1N2MessageTransferCause'
    n1n2MsgDataUri:
```

```
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  Required:
    - cause
    - n1n2MsgDataUri
N1N2MessageTransferError:
  Type: object
  Properties:
    error:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    errInfo:
      Reference: '#/components/schemas/N1N2MsgTxfrErrDetail'
  Required:
    - error
N1N2MsgTxfrErrDetail:
  Type: object
  Properties:
    retryAfter:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uinteger'
    highestPrioArp:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Arp'
N2InformationTransferRspData:
  Type: object
  Properties:
    result:
      Reference: '#/components/schemas/N2InformationTransferResult'
    pwsRspData:
      Reference: '#/components/schemas/PWSResponseData'
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  Required:
    - result
MmContext:
  Type: object
  Properties:
    accessType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
    nasSecurityMode:
      Reference: '#/components/schemas/NasSecurityMode'
    nasDownlinkCount:
      Reference: '#/components/schemas/NasCount'
    nasUplinkCount:
      Reference: '#/components/schemas/NasCount'
    ueSecurityCapability:
      Reference: '#/components/schemas/UeSecurityCapability'
    s1UeNetworkCapability:
      Reference: '#/components/schemas/S1UeNetworkCapability'
    allowedNssai:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
      minItems: 1
    nssaiMappingList:
```

```
      Type: array
      Items:
        Reference: '#/components/schemas/NssaiMapping'
      minItems: 1
    nsInstanceList:
      Type: array
      Items:
        Reference: 'TS29531_Nnssf_NSSelection.yaml#/components/schemas/NsiId'
      minItems: 1
    expectedUEbehavior:
      Reference: '#/components/schemas/ExpectedUeBehavior'
  Required:
    - accessType
SeafData:
  Type: object
  Properties:
    ngKsi:
      Reference: '#/components/schemas/NgKsi'
    keyAmf:
      Reference: '#/components/schemas/KeyAmf'
    nh:
      Type: string
      Pattern: '^[A-Fa-f0-9]+$'
    ncc:
      Type: integer
      Minimum: 0
      Maximum: 7
    keyAmfChangeInd:
      Type: boolean
    keyAmfHDerivationInd:
      Type: boolean
  Required:
    - ngKsi
    - keyAmf
NasSecurityMode:
  Type: object
  Properties:
    integrityAlgorithm:
      Reference: '#/components/schemas/IntegrityAlgorithm'
    cipheringAlgorithm:
      Reference: '#/components/schemas/CipheringAlgorithm'
  Required:
    - integrityAlgorithm
    - cipheringAlgorithm
PduSessionContext:
  Type: object
  Properties:
    pduSessionId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
    smContextRef:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    sNssai:
```

```
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    dnn:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
    accessType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
    allocatedEbiList:
      Type: array
      Items:
        Reference: 'TS29502_Nsmf_PDUSession.yaml#/components/schemas/EbiArpMapping'
      minItems: 1
    hsmfId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    vsmfId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    nsInstance:
      Reference: 'TS29531_Nnssf_NSSelection.yaml#/components/schemas/NsiId'
  Required:
    - pduSessionId
    - smContextRef
    - sNssai
    - dnn
    - accessType
    - allocatedEbiList
NssaiMapping:
  Type: object
  Properties:
    mappedSnssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    hSnssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  Required:
    - mappedSnssai
    - hSnssai
UeRegStatusUpdateReqData:
  Type: object
  Properties:
    transferStatus:
      Reference: '#/components/schemas/UeContextTransferStatus'
    toReleaseSessionList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
      minItems: 1
    pcfReselectedInd:
      Type: boolean
  Required:
    - transferStatus
UeRegStatusUpdateRspData:
  Type: object
  Properties:
    regStatusTransferComplete:
      Type: boolean
  Required:
```

```
    - regStatusTransferComplete
AssignEbiError:
  Type: object
  Properties:
    error:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    failureDetails:
      Reference: '#/components/schemas/AssignEbiFailed'
  Required:
    - error
    - failureDetails
UeContextCreateData:
  Type: object
  Properties:
    ueContext:
      Reference: '#/components/schemas/UeContext'
    targetId:
      Reference: '#/components/schemas/NgRanTargetId'
    sourceToTargetData:
      Reference: '#/components/schemas/N2InfoContent'
    pduSessionList:
      Type: array
      Items:
        Reference: '#/components/schemas/N2SmInformation'
      minItems: 1
    n2NotifyUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    ueRadioCapability:
      Reference: '#/components/schemas/N2InfoContent'
    ngapCause:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  Required:
    - ueContext
    - targetId
    - sourceToTargetData
    - pduSessions
UeContextCreatedData:
  Type: object
  Properties:
    ueContext:
      Reference: '#/components/schemas/UeContext'
    targetToSourceData:
      Reference: '#/components/schemas/N2InfoContent'
    pduSessionList:
      Type: array
      Items:
        Reference: '#/components/schemas/N2SmInformation'
      minItems: 1
    ngapCause:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'
    failedSessionList:
```

```
      Type: array
      Items:
        Reference: '#/components/schemas/N2SmInformation'
      minItems: 1
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    pcfReselectedInd:
      Type: boolean
  Required:
    - ueContext
    - targetToSourceData
    - pduSessions
UeContextCreateError:
  Type: object
  Properties:
    error:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    ngapCause:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NgApCause'
  Required:
    - error
NgRanTargetId:
  Type: object
  Properties:
    ranNodeId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/GlobalRanNodeId'
    tai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
  Required:
    - ranNodeId
    - tai
PWSResponseData:
  Type: object
  Properties:
    ngapMessageType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uinteger'
    serialNumber:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uint16'
    messageIdentifier:
      Type: integer
    unknownTaiList:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
      minItems: 1
  Required:
    - ngapMessageType
    - serialNumber
    - messageIdentifier
PWSErrorData:
  Type: object
  Properties:
    namfCause:
```

```
      Type: integer
  Required:
    - namfCause
N2InformationTransferError:
  Type: object
  Properties:
    error:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    pwdErrorInfo:
      Reference: '#/components/schemas/PWSErrorData'
  Required:
    - error
NgKsi:
  Type: object
  Properties:
    tsc:
      Reference: '#/components/schemas/ScType'
    ksi:
      Type: integer
      Minimum: 0
      Maximum: 6
  Required:
    - tsc
    - ksi
KeyAmf:
  Type: object
  Properties:
    keyType:
      Reference: '#/components/schemas/KeyAmfType'
    keyVal:
      Type: string
  Required:
    - keyType
    - keyVal
ExpectedUeBehavior:
  Type: object
  Properties:
    expMoveTrajectory:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
      minItems: 1
    validityTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  Required:
    - expMoveTrajectory
    - validityTime
N2RanInformation:
  Type: object
  Properties:
    n2InfoContent:
      Reference: '#/components/schemas/N2InfoContent'
  Required:
```

```
      - n2InfoContent
  # SIMPLE DATA TYPES
    EpsBearerId:
      Type: integer
      Minimum: 0
      Maximum: 15
    Ppi:
      Type: integer
      Minimum: 0
      Maximum: 7
    NasCount:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uinteger'
    5GMmCapability:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
    UeSecurityCapability:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
    S1UeNetworkCapability:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
    DrxParameter:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Bytes'
    OmcIdentifier:
      Type: string
  # ENUMERATIONS
    StatusChange:
      anyOf:
      - type: string
        enum:
          - AMF_UNAVAILABLE
          - AMF_AVAILABLE
      - type: string
    N2InformationClass:
      anyOf:
      - type: string
        enum:
          - SM
          - NRPPa
          - PWS
          - PWS-BCAL
          - PWS-RF
          - RAN
      - type: string
    N1MessageClass:
      anyOf:
      - type: string
        enum:
          - 5GMM
          - SM
          - LPP
          - SMS
          - UPDP
      - type: string
    N1N2MessageTransferCause:
      anyOf:
      - type: string
        enum:
          - ATTEMPTING_TO_REACH_UE
```

```
      - N1_N2_TRANSFER_INITIATED
      - WAITING_FOR_ASYNCHRONOUS_TRANSFER
      - UE_NOT_RESPONDING
      - N1_MSG_NOT_TRANSFERRED
      - UE_NOT_REACHABLE_FOR_SESSION
  - type: string
UeContextTransferStatus:
  anyOf:
  - type: string
    enum:
      - TRANSFERRED
      - NOT_TRANSFERRED
  - type: string
N2InformationTransferResult:
  anyOf:
  - type: string
    enum:
      - N2_INFO_TRANSFER_INITIATED
  - type: string
CipheringAlgorithm:
  anyOf:
  - type: string
    enum:
      - NEA0
      - NEA1
      - NEA2
      - NEA3
  - type: string
IntegrityAlgorithm:
  anyOf:
  - type: string
    enum:
      - NIA0
      - NIA1
      - NIA2
      - NIA3
  - type: string
SmsSupport:
  anyOf:
  - type: string
    enum:
      - 3GPP
      - NON_3GPP
      - BOTH
      - NONE
  - type: string
ScType:
  anyOf:
  - type: string
    enum:
      - NATIVE
      - MAPPED
  - type: string
KeyAmfType:
  anyOf:
  - type: string
    enum:
      - KAMF
      - KPRIMEAMF
```

```
  - type: string
TransferReason:
  anyOf:
  - type: string
    enum:
      - INIT_REG
      - MOBI_REG
      - MOBI_REG_UE_VALIDATED
  - type: string
AMPolicyReqTrigger:
  anyOf:
  - type: string
    enum:
      - LOCATION_CHANGE
      - PRA_CHANGE
      - SARI_CHANGE
      - RFSP_INDEX_CHANGE
  - type: string
RatSelector:
  anyOf:
  - type: string
    enum:
      - E-UTRA
      - NR
  - type: string
NgapIeType:
  anyOf:
  - type: string
    enum:
      - PDU_RES_SETUP_REQ
      - PDU_RES_REL_CMD
      - PDU_RES_MOD_REQ
      - HANDOVER_CMD
      - HANDOVER_REQUIRED
      - HANDOVER_PREP_FAIL
      - SRC_TO_TAR_CONTAINER
      - TAR_TO_SRC_CONTAINER
      - RAN_STATUS_TRANS_CONTAINER
      - SON_CONFIG_TRANSFER
      - NRPPA_PDU
      - UE_RADIO_CAPABILITY
  - type: string
N2InfoNotifyReason:
  anyOf:
  - type: string
    enum:
      - HANDOVER_COMPLETED
  - type: string
```

External Docs

```
Description: 3GPP TS 29.518 V15.2.0; 5G System; Access and Mobility Management Services
URL: 'http://www.3gpp.org/ftp/Specs/archive/29_series/29.518/'
```