



# Namf Location

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## OpenAPI

OpenAPI Version: 3.0.0

## Info

**Version:** 1.0.0  
**Title:** Namf\_Location  
**Description:** AMF Location Service

## Servers

**URL:** '{apiRoot}/namf-loc/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-loc
```

## Paths

### `{ueContextId}/provide-pos-info`

**Method:** Post

**Summary:** Namf\_Location ProvidePositioningInfo service Operation

**Tags:**

- Individual UE context (Document)

**Operation ID:** ProvidePositioningInfo

**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}|.+)$`

**Request Body:**

**Content:**

**Application/JSON:**

**Schema:**

**Reference:** `#/components/schemas/RequestPosInfo`

**Required/Optional:** true

**Responses:**

'200':

**Description:** Expected response to a valid request

**Content:**

**Application/JSON:**

**Schema:**

**Reference:** `#/components/schemas/ProvidePosInfo`

'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'
  '504':
    Reference: 'TS29571_CommonData.yaml#/components/responses/504'
  Default:
    Description: Unexpected error
  Callbacks:
    onUELocationNotification:
      '{$request.body#/locationNotificationUri}':
        Method: Post
        Request Body:
          Description: UE Location Event Notification
          Content:
            Application/JSON:
              Schema:
                Reference: '#/components/schemas/NotifiedPosInfo'

  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'

```

## /{ueContextId}/provide-loc-info

**Method:** Post

**Summary:** Namf\_Location ProvideLocationInfo service Operation

**Tags:**

- Individual UE context (Document)

**Operation ID:** ProvideLocationInfo

**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}|.+)$'
Request Body:
  Content:
    Application/JSON:
      Schema:
        Reference: '#/components/schemas/RequestLocInfo'
    Required/Optional: true

Responses:
  '200':
    Description: Expected response to a valid request
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/ProvideLocInfo'
  '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

```

## Components

```

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

```

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schemas:
  RequestPosInfo:
    Type: object
    Properties:
      lcsClientType:
        Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/ExternalClientType'
      lcsLocation:
        Reference: '#/components/schemas/LocationType'
      supi:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
      gpsi:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
      priority:
        Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/LcsPriority'
      lcsQoS:
        Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/LocationQoS'
      velocityRequested:
        Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/VelocityRequested'
      lcsSupportedGADShapes:
        Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/SupportedGADShapes'
      locationNotificationUri:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
      supportedFeatures:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    Required:
      - lcsClientType
      - lcsLocation
  ProvidePosInfo:
    Type: object
    Properties:
      locationEstimate:
        Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/GeographicArea'
      accuracyFulfilmentIndicator:
        Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/AccuracyFulfilmentIndicator'
      ageOfLocationEstimate:
        Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/AgeOfLocationEstimate'
      velocityEstimate:
        Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/VelocityEstimate'
      positioningDataList:
        Type: array
        Items:
          Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/PositioningMethodAndUsage'
        minItems: 0
        maxItems: 9
      gnssPositioningDataList:
        Type: array
        Items:
          Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/GnssPositioningMethodAndUsage'

```

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    minItems: 0
    maxItems: 9
  ecgi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Ecgi'
  ncgi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Ncgi'
  targetServingNode:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
  civicAddress:
    Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/CivicAddress'
  barometricPressure:
    Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/BarometricPressure'
  altitude:
    Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/Altitude'
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
NotifiedPosInfo:
  Type: object
  Properties:
    locationEvent:
      Reference: '#/components/schemas/LocationEvent'
    supi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
    gpsi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
    pei:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
    locationEstimate:
      Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/GeographicArea'
    ageOfLocationEstimate:
      Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/AgeOfLocationEstimate'

    velocityEstimate:
      Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/VelocityEstimate'
    positioningDataList:
      Type: array
      Items:
        Reference:
'TS29572_Nlmf_Location.yaml#/components/schemas/PositioningMethodAndUsage'
        minItems: 0
        maxItems: 9
    gnssPositioningDataList:
      Type: array
      Items:
        Reference:
'TS29572_Nlmf_Location.yaml#/components/schemas/GnssPositioningMethodAndUsage'
        minItems: 0
        maxItems: 9
  ecgi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Ecgi'
  ncgi:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Ncgi'

```

```

servingNode:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
civicAddress:
  Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/CivicAddress'
barometricPressure:
  Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/BarometricPressure'
altitude:
  Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/Altitude'
Required:
  - locationEvent
RequestLocInfo:
Type: object
Properties:
  req5gsLoc:
    Type: boolean
    Default: false
  reqCurrentLoc:
    Type: boolean
    Default: false
  reqRatType:
    Type: boolean
    Default: false
  reqTimeZone:
    Type: boolean
    Default: false
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
ProvideLocInfo:
Type: object
Properties:
  currentLoc:
    Type: boolean
  location:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/UserLocation'
  geoInfo:
    Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/GeographicArea'
  locatoInAge:
    Reference: 'TS29572_Nlmf_Location.yaml#/components/schemas/AgeOfLocationEstimate'

  ratType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
  timezone:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/TimeZone'
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
LocationType:
anyOf:
  - type: string
enum:
  - CURRENT_LOCATION
  - CURRENT_OR_LAST_KNOWN_LOCATION
  - INITIAL_LOCATION
  - type: string

```

```
LocationEvent:  
  anyOf:  
    - type: string  
    enum:  
      - EMERGENCY_CALL_ORIGINATION  
      - EMERGENCY_CALL_RELEASE  
      - EMERGENCY_CALL_HANDOVER  
    - 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/'