



# Nudm\_UECM

---

The Nudm Context Management Service provides the NF consumer of the information related to UE's transaction information, allows the NF consumer to register and deregister its information for the serving UE in the UDM, and allows the NF consumer to update some UE context information in the UDM.

**Reference:** 3GPP TS 29.503 Unified Data Management Services, version 15.3.0

- [OpenAPI, on page 1](#)
- [Info, on page 1](#)
- [Servers, on page 1](#)
- [Security, on page 2](#)
- [Paths, on page 2](#)
- [Components, on page 6](#)
- [External Docs, on page 13](#)

## OpenAPI

OpenAPI Version: 3.0.0

## Info

**Version:** '1.1.0.alpha-3'

**Title:** 'Nudm\_UECM'

**Description:** |

Nudm Context Management Service.

© 2020, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).

All rights reserved.

## Servers

**URL:** '{apiRoot}/nudm-uecm/v1'

**Variables:**

**API Root:**

**Default:** https://example.com

**Description:** apiRoot as defined in clause clause 4.4 of 3GPP TS 29.501.

## Security

- oAuth2ClientCredentials:
  - nudm-uecm
- {}

## Paths

### {ueId}/registrations/amf-3gpp-access

**put:**

**Summary:** register as AMF for 3GPP access

**Operation ID:** 3GppRegistration

**Tags:**

- AMF registration for 3GPP access

**Parameters:**

- **Name:** ueId

**In:** path

**Description:** Identifier of the UE

**Required/Optional:** true

**Schema:**

**Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'

**Request Body:**

**Content:**

**Application/JSON:**

**Schema:**

**Reference:** '#/components/schemas/Amf3GppAccessRegistration'

**Required/Optional:** true

**Responses:**

'201':

**Description:** Created

**Content:**

**Application/JSON:**

**Schema:**

**Reference:** '#/components/schemas/Amf3GppAccessRegistration'

**Headers:**

**Location:**

**description:** 'Contains the URI of the newly created resource, according to the structure:

{apiRoot}/nudm-uecm/v1/{ueId}/registrations/amf-3gpp-access'

**Required/Optional:** true

```

    Schema:
      Type: string
  '200':
    Description: OK
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/Amf3GppAccessRegistration'
  '204':
    Description: No content
  '400':
    Reference: 'TS29571_CommonData.yaml#/components/responses/400'
  '403':
    Reference: 'TS29571_CommonData.yaml#/components/responses/403'
  '404':
    Reference: 'TS29571_CommonData.yaml#/components/responses/404'
  '500':
    Reference: 'TS29571_CommonData.yaml#/components/responses/500'
  '503':
    Reference: 'TS29571_CommonData.yaml#/components/responses/503'
Default:
  Description: Unexpected error
Callbacks:
deregistrationNotification:
  '{request.body#/deregCallbackUri}':
    Method: Post
    Request Body:
      Required/Optional: true
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/DeregistrationData'

Responses:
  '204':
    Description: Successful Notification response
  '400':
    Reference: 'TS29571_CommonData.yaml#/components/responses/400'
  '404':
    Reference: 'TS29571_CommonData.yaml#/components/responses/404'
  '500':
    Reference: 'TS29571_CommonData.yaml#/components/responses/500'
  '503':
    Reference: 'TS29571_CommonData.yaml#/components/responses/503'
Default:
  Description: Unexpected error
pcscfRestorationNotification:
  '{request.body#/pcscfRestorationCallbackUri}':
    Method: Post
    Request Body:
      Required/Optional: true
      Content:

```

**Application/JSON:****Schema:****Reference:** '#/components/schemas/PcscfRestorationNotification'**Responses:****'204':****Description:** Successful Notification response**'400':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/400'**'404':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/404'**'500':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/500'**'503':****Reference:** 'TS29571\_CommonData.yaml#/components/responses/503'**Default:****Description:** Unexpected error**patch:****Summary:** Update a parameter in the AMF registration for 3GPP access**Operation ID:** Update3GppRegistration**Tags:**

- Parameter update in the AMF registration for 3GPP access

**Parameters:**

- **Name:** ueId

**In:** path**Description:** Identifier of the UE**Required/Optional:** true**Schema:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/Supi'

- **Name:** supported-features

**In:** query**Description:** Features required to be supported by the target NF**Schema:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'**Request Body:****Content:****application/merge-patch+json:****Schema:****Reference:** '#/components/schemas/Amf3GppAccessRegistrationModification'**Required/Optional:** true**Responses:****'200':****Description:** Expected response to a valid request**Content:****Application/JSON:****Schema:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/PatchResult'**'204':****Description:** Expected response to a valid request

```

'400':
  Reference: 'TS29571_CommonData.yaml#/components/responses/400'
'403':
  Reference: 'TS29571_CommonData.yaml#/components/responses/403'
'404':
  Reference: 'TS29571_CommonData.yaml#/components/responses/404'
'422':
  Description: Unprocessable Request
  Content:
    application/problem+json:
      Schema:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
'500':
  Reference: 'TS29571_CommonData.yaml#/components/responses/500'
'503':
  Reference: 'TS29571_CommonData.yaml#/components/responses/503'
Default:
  Description: Unexpected error
get:
  Summary: retrieve the AMF registration for 3GPP access information
  Operation ID: Get3GppRegistration

Tags:
  - AMF 3Gpp-access Registration Info Retrieval

Parameters:
- Name: ueId
  In: path
  Description: Identifier of the UE
  Required/Optional: true
  Schema:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/VarUeId'
- Name: supported-features
  In: query
  Schema:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'

Responses:
'200':
  Description: Expected response to a valid request
  Content:
    Application/JSON:
      Schema:
        Reference: '#/components/schemas/Amf3GppAccessRegistration'
'400':
  Reference: 'TS29571_CommonData.yaml#/components/responses/400'
'403':
  Reference: 'TS29571_CommonData.yaml#/components/responses/403'
'404':
  Reference: 'TS29571_CommonData.yaml#/components/responses/404'
'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:
          nudm-uecm: Access to the nudm-uecm API

schemas:
# COMPLEX TYPES:
Amf3GppAccessRegistration:
  Type: object
  Required:
    - amfInstanceId
    - deregCallbackUri
    - guami
    - ratType
  Properties:
    amfInstanceId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    purgeFlag:
      Reference: '#/components/schemas/PurgeFlag'
    pei:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
    imsVoPs:
      Reference: '#/components/schemas/ImsVoPs'
    deregCallbackUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    amfServiceNameDereg:
      Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/ServiceName'
    pcscfRestorationCallbackUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    amfServiceNamePcscfRest:
      Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/ServiceName'
    initialRegistrationInd:
      Type: boolean
    guami:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
    backupAmfInfo:
      Type: array

```

```

    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/BackupAmfInfo'
    minItems: 1
  drFlag:
    Reference: '#/components/schemas/DualRegistrationFlag'
  ratType:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
  urrpIndicator:
    Type: boolean
  amfEeSubscriptionId:
    Type: string
  epsInterworkingInfo:
    Reference: '#/components/schemas/EpsInterworkingInfo'
  ueSrvccCapability:
    Type: boolean
  nid:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Nid'
  registrationTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  vgmlcAddressIpv4:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
  vgmlcAddressIpv6:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'
  vgmlcFqdn:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/Fqdn'
Amf3GppAccessRegistrationModification:
  Type: object
  Required:
    - guami
  Properties:
    guami:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
    purgeFlag:
      Reference: '#/components/schemas/PurgeFlag'
    pei:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
    imsVoPs:
      Reference: '#/components/schemas/ImsVoPs'
    backupAmfInfo:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/BackupAmfInfo'
    epsInterworkingInfo:
      Reference: '#/components/schemas/EpsInterworkingInfo'
    ueSrvccCapability:
      Type: boolean
      nullable: true
EpsInterworkingInfo:
  Type: object
  Properties:
    epsIwkPgws:
      Description: A map (list of key-value pairs where Dnn serves as key) of EpsIwkPgws

```

```

    Type: object
    additionalProperties:
      Reference: '#/components/schemas/EpsIwkPgw'
EpsIwkPgw:
  Type: object
  Required:
    - pgwFqdn
    - smfInstanceId
  Properties:
    pgwFqdn:
      Type: string
    smfInstanceId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
AmfNon3GppAccessRegistration:
  Type: object
  Required:
    - amfInstanceId
    - imsVoPs
    - deregCallbackUri
    - guami
    - ratType
  Properties:
    amfInstanceId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
    purgeFlag:
      Reference: '#/components/schemas/PurgeFlag'
    pei:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
    imsVoPs:
      Reference: '#/components/schemas/ImsVoPs'
    deregCallbackUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    amfServiceNameDereg:
      Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/ServiceName'
    pcscfRestorationCallbackUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    amfServiceNamePcscfRest:
      Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/ServiceName'
    guami:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
    backupAmfInfo:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/BackupAmfInfo'
      minItems: 1
    ratType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/RatType'
    urrpIndicator:
      Type: boolean
    amfEeSubscriptionId:

```



```

    Type: string
nid:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Nid'
registrationTime:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
vgmlcAddressIpv4:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
vgmlcAddressIpv6:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'
vgmlcFqdn:
    Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/Fqdn'
AmfNon3GppAccessRegistrationModification:
Type: object
Required:
  - guami
Properties:
  guami:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Guami'
  purgeFlag:
    Reference: '#/components/schemas/PurgeFlag'
  pei:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
  imsVoPs:
    Reference: '#/components/schemas/ImsVoPs'
  backupAmfInfo:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/BackupAmfInfo'
SmfRegistration:
Type: object
Required:
  - smfInstanceId
  - pduSessionId
  - singleNssai
  - plmnId
Properties:
  smfInstanceId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
  smfSetId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/NfSetId'
  supportedFeatures:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  pduSessionId:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
  singleNssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  dnn:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Dnn'
  emergencyServices:
    Type: boolean
  pcscfRestorationCallbackUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'

```

```

plmnId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
pgwFqdn:
  Type: string
epdgInd:
  Type: boolean
  Default: false
deregCallbackUri:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
registrationReason:
  Reference: '#/components/schemas/RegistrationReason'
registrationTime:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
SmsfRegistration:
Type: object
Required:
  - smsfInstanceId
  - plmnId
Properties:
smsfInstanceId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
smsfSetId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/NfSetId'
supportedFeatures:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
plmnId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
smsfMAPAddress:
  Reference: '#/components/schemas/E164Number'
smsfDiameterAddress:
  Reference: '#/components/schemas/NetworkNodeDiameterAddress'
registrationTime:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
DeregistrationData:
Type: object
Required:
  - deregReason
  - accessType
Properties:
deregReason:
  Reference: '#/components/schemas/DeregistrationReason'
accessType:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
pduSessionId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/PduSessionId'
newSmfInstanceId:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
PcscfRestorationNotification:
Type: object
Required:
  - supi
Properties:

```

```

    supi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
NetworkNodeDiameterAddress:
  Type: object
  Required:
    - name
    - realm
  Properties:
    name:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DiameterIdentity'
    realm:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DiameterIdentity'
TriggerRequest:
  Type: object
  Required:
    - supi
  Properties:
    supi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
SmfRegistrationInfo:
  Type: object
  Required:
    - smfRegistrationList
  Properties:
    smfRegistrationList:
      Type: array
      Items:
        Reference: '#/components/schemas/SmfRegistration'
      minItems: 1
AmfDeregInfo:
  Type: object
  Required:
    - deregReason
  Properties:
    deregReason:
      Reference: '#/components/schemas/DeregistrationReason'
LocationInfo:
  Type: object
  Required:
    - registrationLocationInfoList
  Properties:
    supi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
    gpsi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Gpsi'
    registrationLocationInfoList:
      Type: array
      Items:
        Reference: '#/components/schemas/RegistrationLocationInfo'
      minItems: 1
      maxItems: 2
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'

```

```

RegistrationLocationInfo:
  Type: object
CmInfoReport:
  Type: object
  Required:
    - newCmInfoList
  Properties:
    oldCmInfoList:
      Type: array
      Items:
        Reference: 'TS29518_Namf_EventExposure.yaml#/components/schemas/CmInfo'
        minItems: 1
        maxItems: 2
      newCmInfoList:
        Type: array
        Items:
          Reference: 'TS29518_Namf_EventExposure.yaml#/components/schemas/CmInfo'
          minItems: 1
          maxItems: 2
    VgmlcAddress:
      Type: object
      Properties:
        vgmlcAddressIpv4:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv4Addr'
        vgmlcAddressIpv6:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Ipv6Addr'
        vgmlcFqdn:
          Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/Fqdn'
    PeiUpdateInfo:
      Type: object
      Required:
        - pei
      Properties:
        pei:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Pei'
# SIMPLE TYPES:
PurgeFlag:
  Type: boolean
E164Number:
  Type: string
  Pattern: '^[0-9]{1,15}$'
DualRegistrationFlag:
  Type: boolean
# ENUMS:
ImsVoPs:
  anyOf:
    - type: string
      enum:
        - HOMOGENEOUS_SUPPORT
        - HOMOGENEOUS_NON_SUPPORT
        - NON_HOMOGENEOUS_OR_UNKNOWN
    - type: string
DeregistrationReason:

```

```
anyOf:
  - type: string
  enum:
    - UE_INITIAL_REGISTRATION
    - UE_REGISTRATION_AREA_CHANGE
    - SUBSCRIPTION_WITHDRAWN
    - 5GS_TO_EPS_MOBILITY
    - 5GS_TO_EPS_MOBILITY_UE_INITIAL_REGISTRATION
    - REREGISTRATION_REQUIRED
    - SMF_CONTEXT_TRANSFERRED
  - type: string
RegistrationReason:
  anyOf:
    - type: string
    enum:
      - SMF_CONTEXT_TRANSFERRED
    - type: string
```

## External Docs

**Description:** 3GPP TS 29.503 Unified Data Management Services, version 16.3.0

**URL:** '[http://www.3gpp.org/ftp/Specs/archive/29\\_series/29.503/](http://www.3gpp.org/ftp/Specs/archive/29_series/29.503/)'

