



# NUDM UEAU

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The Nudm\_UEAuthentication service is used by the AUSF to request the UDM to select an authentication method, calculate a fresh authentication vector (AV) if required for the selected method, and provide it to the AUSF by means of the Get service operation. The Nudm\_UEAuthentication service is also used by the AUSF to inform the UDM about the occurrence of a successful or unsuccessful authentication by means of the ResultConfirmation service operation

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## OpenAPI

OpenAPI Version: 3.0.0

## info

**Version:** '1.0.0'

**Title:** 'NudmUEAU'

**Description:** 'UDM UE Authentication Service'

## externalDocs

**Description:** 3GPP TS 29.503 Unified Data Management Services, version 15.2.1

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

## security

- oAuth2ClientCredentials:
- nudm-ueau
- {}

## servers

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

**Variables:**

**API Root:**

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

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

## paths

### supi or Suci security information generate auth data

**Method:** Post

**Summary:** Generate authentication data for the UE

**Operation ID:** GenerateAuthData

**Tags:**

- Generate Auth Data

**Parameters:**

- name: supiOrSuci

**In:** path

**Description:** SUPI or SUCI of the user

**Required/Optional:** true

**Schema:**

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

**Request Body:**

**Content:**

**Application/JSON:**

**Schema:**

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

**Required/Optional:** true

**Responses:**

'200' Expected response to a valid request

**Content:**

**Application/JSON:**

**Schema:**

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

'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'

'501': Reference 'TS29571\_CommonData.yaml#/components/responses/501'

'503': Reference 'TS29571\_CommonData.yaml#/components/responses/503'

**default:**

**Description:** Unexpected error

## supi auth events

**Method:** Post

**Summary:** Create a new confirmation event

**Operation ID:** ConfirmAuth

**Tags:**

- Confirm Auth

**Parameters:**

- name: supi

**In:** path

**Description:** SUPI of the user

**Required/Optional:** true

**Schema:**

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

**Request Body:**

**Content:**

**Application/JSON:**

**Schema:**

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

**Required/Optional:** true

**Responses:**

'201': Expected response to a valid request

**Content:**

**Application/JSON:**

**Schema:**

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

**Headers:**

**Location:**

**Description:** 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/nudm-ueau/v1/{supi}/auth-events/{authEventId}'

**Required/Optional:** true

**Schema:**

**Type:** string

'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

## components

### securitySchemes

#### oAuth2ClientCredentials

**Type:** oauth2

**Flows:**

**clientCredentials:**

**tokenUrl:** '{nrfApiRoot}/oauth2/token'

**scopes:**

**nudm-ueau:** Access to the nudm-ueau API

## schemas

# COMPLEX TYPES:

### AuthenticationInfoRequest

**Type:** object

**Required:**

- servingNetworkName
- ausfInstanceId

**Properties:**

**supportedFeatures:**

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

**servingNetworkName:**

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

**resynchronizationInfo:**

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

**ausfInstanceId:**

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

### AuthenticationInfoResult

**Type:** object

**Required:**

- authType

**Properties:**

**authType:**

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

**supportedFeatures:**

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

**authenticationVector:**

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

**supi:**

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

### AuthenticationVector

**oneOf:**

- \$ref: '#/components/schemas/AvEapAkaPrime'

- \$ref: '#/components/schemas/Av5GHeAka'

**discriminator:**

**propertyName:** avType

**mapping:**

5G\_HE\_AKA: '#/components/schemas/Av5GHeAka'

EAP\_AKA\_PRIME: '#/components/schemas/AvEapAkaPrime'

## AvEapAkaPrime

**Type:** object

**Required:**

- avType

- rand

- xres

- autn

- ckPrime

- ikPrime

**Properties:**

**avType:**

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

**rand:**

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

**xres:**

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

**autn:**

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

**ckPrime:**

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

**ikPrime:**

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

## Av5GHeAka

**Type:** object

**Required:**

- avType

- rand

- xresStar

- autn

- kauf

**Properties:**

**avType:**

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

**rand:**

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

**xresStar:**

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

**autn:**

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

**kauf:**

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

## ResynchronizationInfo

**Type:** object

**Required:**

- rand

- auts

**Properties:**

**rand:**

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

**auts:**

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

## AuthEvent

**Type:** object

**Required:**

- nfInstanceId

- success

- timeStamp

- authType

- servingNetworkName

**Properties:**

**nfInstanceId:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/NfInstanceId'**success:****Reference:** '#/components/schemas/Success'**timeStamp:****Reference:** 'TS29571\_CommonData.yaml#/components/schemas/DateTime'**authType:****Reference:** '#/components/schemas/AuthType'**servingNetworkName:****Reference:** '#/components/schemas/ServingNetworkName'

# SIMPLE TYPES:

**Autn****Type:** string**Pattern:** '^[A-Za-f0-9]{32}\$'**Auts****Type:** string**Pattern:** '^[A-Za-f0-9]{28}\$'**CkPrime****Type:** string**Pattern:** '^[A-Za-f0-9]{32}\$'**IkPrime****Type:** string**Pattern:** '^[A-Za-f0-9]{32}\$'**Kausf****Type:** string**Pattern:** '^[A-Za-f0-9]{64}\$'**Rand****Type:** string**Pattern:** '^[A-Za-f0-9]{32}\$'



## Xres

**Type:** string

**Pattern:** '^[A-Za-f0-9]{8,32}\$'

## XresStar

**Type:** string

**Pattern:** '^[A-Za-f0-9]{32}\$'

## SupiOrSuci

**Type:** string

**Pattern:** '^((imsi-[0-9]{5,15}|nai-.+|

suci(0-[0-9]{3}-[0-9]{2,3}[[1-7]-.+-][0-9]{1,4}-(0-0-+[[a-fA-F1-9]-([1-9]][1-9][0-9]1[0-9]{2}2[0-4][0-9]25[0-5])-[a-fA-F0-9]+).+)\$'

## ServingNetworkName

**Type:** string

**Pattern:** '^5G:mnc[0-9]{3}[.].mcc[0-9]{3}[.].3gppnetwork[.]org\$'

## Success

**Type:** boolean

# ENUMS:

## AuthType

**anyOf:**

- type: string

**enum:**

- 5G\_AKA

- EAP\_AKA\_PRIME

- EAP\_TLS

- type: string

## AvType

**anyOf:**

- type: string

**enum:**

- 5G\_HE\_AKA

- EAP\_AKA\_PRIME

- type: string

