



Nausf UEAuthentication

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OpenAPI

OpenAPI Version: 3.0.0

Info

Version: 1.0.0
Title: AUSF API
Description: OpenAPI specification for AUSF

Servers

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

Security

- {}

```
- oAuth2ClientCredentials:
  - nausf-auth
```

Paths

/ue-authentications

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

Responses:
  '201':
    Description: UEAuthenticationCtx
    Content:
      application/3gppHal+json:
        Schema:
          Reference: '#/components/schemas/UEAuthenticationCtx'
    Headers:
      Location:
        description: 'Contains the URI of the newly created resource
according to the structure: {apiRoot}/nausf-auth/v1/ue-authentications/{authCtxId}'
        Required/Optional: true
        Schema:
          Type: string
  '400':
    Description: Bad Request from the AMF
    Content:
      application/problem+json:
        Schema:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
  '403':
    Description: Forbidden due to serving network not authorized
    Content:
      application/problem+json:
        Schema:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
  '500':
    Description: Internal Server Error
    Content:
      application/problem+json:
        Schema:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
```

/ue-authentications/{authCtxId}/5g-aka-confirmation

put:

Parameters:

- **Name:** authCtxId
In: path
Required/Optional: true
Schema:
Type: string

Request Body:

Content:
Application/JSON:
Schema:
Reference: '#/components/schemas/ConfirmationData'

Responses:

'200':
Description: Request processed (EAP success or Failure)
Content:
Application/JSON:
Schema:
Reference: '#/components/schemas/ConfirmationDataResponse'

'400':
Description: Bad Request
Content:
application/problem+json:
Schema:
Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'

'500':
Description: Internal Server Error
Content:
application/problem+json:
Schema:
Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'

/ue-authentications/{authCtxId}/eap-session

Method: Post

Operation ID: EapAuthMethod

Parameters:

- **Name:** authCtxId
In: path
Required/Optional: true
Schema:
Type: string

Request Body:

Content:
Application/JSON:

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    Schema:
      Reference: '#/components/schemas/EapSession'

  Responses:
    '200':
      Description: Use to handle or close the EAP session
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/EapSession'
        application/3gppHal+json:
          Schema:
            Type: object
            Properties:
              eapPayload:
                Reference: '#/components/schemas/EapPayload'
              _links:
                Type: object
                description: 'URI : /{eapSessionUri}'
                additionalProperties:
                  Reference:
                    'TS29571_CommonData.yaml#/components/schemas/LinksValueSchema'
                minProperties: 1
            Required/Optional:
              - eapPayload
              - _links
    '400':
      Description: Bad Request
      Content:
        application/problem+json:
          Schema:
            Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    '500':
      Description: Internal Server Error
      Content:
        application/problem+json:
          Schema:
            Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'

```

Components

```

securitySchemes:
  oAuth2ClientCredentials:
    Type: oauth2
    Flows:
      clientCredentials:
        tokenUrl: '{nrfApiRoot}/oauth2/token'
        scopes:
          nausf-auth: Access to Nausf_UEAuthentication API

```

```

schemas:
  AuthenticationInfo:
    Type: object
    Properties:
      supiOrSuci:
        Reference: 'TS29503_Nudm_UEAU.yaml#/components/schemas/SupiOrSuci'
      servingNetworkName:
        Reference: 'TS29503_Nudm_UEAU.yaml#/components/schemas/ServingNetworkName'
      resynchronizationInfo:
        Reference: 'TS29503_Nudm_UEAU.yaml#/components/schemas/ResynchronizationInfo'
      traceData:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/TraceData'
    Required:
      - supiOrSuci
      - servingNetworkName
  UEAuthenticationCtx:
    Type: object
    Properties:
      authType:
        Reference: '#/components/schemas/AuthType'
      5gAuthData:
        oneOf:
          - $ref: '#/components/schemas/Av5gAka'
          - $ref: '#/components/schemas/EapPayload'
      _links:
        Type: object
        additionalProperties:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/LinksValueSchema'
      servingNetworkName:
        Reference: 'TS29503_Nudm_UEAU.yaml#/components/schemas/ServingNetworkName'
    Required:
      - authType
      - 5gAuthData
      - _links
  Av5gAka:
    Type: object
    Required:
      - rand
      - hxresStar
      - autn
    Properties:
      rand:
        Reference: 'TS29503_Nudm_UEAU.yaml#/components/schemas/Rand'
      hxresStar:
        Reference: '#/components/schemas/HxresStar'
      autn:
        Reference: 'TS29503_Nudm_UEAU.yaml#/components/schemas/Autn'
  ConfirmationData:
    Type: object
    Required:
      - resStar
    Properties:
      resStar:
        Reference: '#/components/schemas/ResStar'

```

```

ConfirmationDataResponse:
  Type: object
  Properties:
    authResult:
      Reference: '#/components/schemas/AuthResult'
    supi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
    kseaf:
      Reference: '#/components/schemas/Kseaf'
  Required:
    - authResult
EapSession:
  Type: object
  Properties:
    eapPayload:
      Reference: '#/components/schemas/EapPayload'
    kSeaf:
      Reference: '#/components/schemas/Kseaf'
    _links:
      Type: object
      additionalProperties:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/LinksValueSchema'
    authResult:
      Reference: '#/components/schemas/AuthResult'
    supi:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Supi'
  Required:
    - eapPayload
AuthResult:
  Type: string
  enum:
    - AUTHENTICATION_SUCCESS
    - AUTHENTICATION_FAILURE
    - AUTHENTICATION_ONGOING
EapPayload:
  Type: string
  format: base64
  Description: contains an EAP packet
Kseaf:
  Type: string
  Pattern: '[A-Za-f0-9]{64}'
ResStar:
  Type: string
  Pattern: '[A-Za-f0-9]{32}'
HxresStar:
  Type: string
  Pattern: "[A-Za-f0-9]{32}"
AuthType:
  anyOf:
    - type: string
      enum:
        - 5G_AKA
        - EAP_AKA_PRIME

```

```
- EAP_TLS  
- type: string
```

External Docs

Description: 3GPP TS 29.509 V15.2.0; 5G System; 3GPP TS Authentication Server services.

URL: http://www.3gpp.org/ftp/Specs/archive/29_series/29.509

