



## Nausf\_SoRProtection

The Authentication Server Function (AUSF) acts as NF Service Producer. It provides SoRProtection service to the NF Service Consumer. This service permits to provide the NF Service Consumer (for example, UDM) with the SoR-MAC-IAUSF and CounterSoR to protect the the Steering Information List from being tampered with or removed by the VPLMN.



### Note

If the Steering Information List is not available or HPLMN determines that no steering of the UE is required, a SOR transparent container information element with an HPLMN indication that no change of the "Operator Controlled PLMN Selector with Access Technology" list stored in the UE protected by SoR-MAC-IAUSF and CounterSoR is still sent to the UE during registration. The Steering Information List in such a case, the NF Service Consumer shall send an empty list to the AUSF when consuming the Nausf\_SoRProtection Service.

The service operation defined for the Nausf\_SoRProtection is as follows:

- Protect: The Protect service operation is used in the following procedures:
  - Procedure for steering of UE in VPLMN during registration (see subclause 6.14.2.1 of 3GPP TS 33.501 [8])
  - Procedure for steering of UE in VPLMN after registration (see subclause 6.14.2.2 of 3GPP TS 33.501 [8])

**Reference:** 3GPP TS 33.501 v15.5.0

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## OpenAPI

OpenAPI Version: 3.0.0

## info

**Version:** 1.0.0

**Title:** Nausf\_SoRProtection Service

**Description:** AUSF SoR Protection Service

## externalDocs

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

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

## security

- {}
- oAuth2ClientCredentials:
- nausf-sorprotection

## servers

**URL:** '{apiRoot}/nausf-sorprotection/v1'

**Variables:**

**API Root:**

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

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

## paths

### supi ue-sor

**Method:** Post

**Parameters:**

- name: supi

**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/SorInfo'**Required/Optional:** true**Responses:**

'201' SorSecurityInfo

**Content:****Application/JSON:****Schema:****Reference:** '#/components/schemas/SorSecurityInfo'

'503' Service Unavailable

**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-sorprotection:** Access to the Nausf\_SoRProtection API

## schemas

### SorInfo

**Type:** object

**Properties:**

**steeringContainer:**

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

**ackInd:**

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

**Required:**

- ackInd

### SorSecurityInfo

**Type:** object

**Properties:**

**sorMacIausf:**

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

**counterSor:**

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

**sorXmacIue:**

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

**Required:**

- sorMacIausf

- counterSor

### SteeringContainer

**oneOf:**

- type: array

**Items:**

**Reference:** 'TS29509\_Nausf\_SoRProtection.yaml#/components/schemas/SteeringInfo'

**minItems:** 1

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

### SteeringInfo

**Type:** object

**Properties:**

**plmnId:**

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

**accessTechList:**

**Type:** array

**Items:**

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

**minItems:** 1

**Required:**

- plmnId

## SorMac

**Type:** string

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

## CounterSor

**Type:** string

**Pattern:** '^[A-Fa-f0-9]{4}\$'

## AckInd

**Type:** boolean

## SecuredPacket

**Type:** string

**format:** base64

## AccessTech

**anyOf:**

- type: string

