



Nnssf_NSSelection

The Nnssf_NSSelection service is used by an NF Service Consumer (e.g. AMF or NSSF in a different PLMN) to retrieve the information related to network slice in the non-roaming and roaming case. It also enables the NSSF to provide to the AMF the Allowed NSSAI and the Configured NSSAI for the Serving PLMN. The NF service consumer discovers the NSSF based on the local configuration. The NSSF in a different PLMN is discovered based on the selfconstructed FQDN as specified in 3GPP TS 23.003[9].

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OpenAPI

OpenAPI Version: 3.0.0

Info

Version: '2.0.1'

Title: 'NSSF NS Selection'

Description: |

NSSF Network Slice Selection Service.

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Servers

URL: '{apiRoot}/nnssf-nssselection/v2'

Variables:

API Root:

Default: https://example.com

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

Security

- {}
- oAuth2ClientCredentials:
 - nnssf-nssselection

Paths

/network-slice-information

get:

Summary: Retrieve the Network Slice Selection Information

Tags:

- Network Slice Information (Document)

Operation ID: NSSelectionGet

Parameters:

- **Name:** nf-type

In: query

Description: NF type of the NF service consumer

Required/Optional: true

Schema:

Reference: 'TS29510_Nnrf_NFManagement.yaml#/components/schemas/NFType'

- **Name:** nf-id

In: query

Description: NF Instance ID of the NF service consumer

Required/Optional: true

Schema:

Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'

- **Name:** slice-info-request-for-registration

In: query

Description: Requested network slice information during Registration procedure

Content:

Application/JSON:

Schema:

Reference: '#/components/schemas/SliceInfoForRegistration'

- **Name:** slice-info-request-for-pdu-session

In: query

Description: Requested network slice information during PDU session establishment procedure

Content:

Application/JSON:

Schema:

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        Reference: '#/components/schemas/SliceInfoForPDUSession'
- Name: slice-info-request-for-ue-cu
  In: query
  Description: Requested network slice information during UE configuration update
procedure
  Content:
    Application/JSON:
      Schema:
        Reference: '#/components/schemas/SliceInfoForUEConfigurationUpdate'
- Name: home-plmn-id
  In: query
  Description: PLMN ID of the HPLMN
  Content:
    Application/JSON:
      Schema:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/PlmnId'
- Name: tai
  In: query
  Description: TAI of the UE
  Content:
    Application/JSON:
      Schema:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
- Name: supported-features
  In: query
  Description: Features required to be supported by the NFs in the target slice
instance
  Schema:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'

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Responses:

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'200':
  Description: OK (Successful Network Slice Selection)
  Content:
    Application/JSON:
      Schema:
        Reference: '#/components/schemas/AuthorizedNetworkSliceInfo'
'400':
  Reference: 'TS29571_CommonData.yaml#/components/responses/400'
'401':
  Reference: 'TS29571_CommonData.yaml#/components/responses/401'
'403':
  Reference: 'TS29571_CommonData.yaml#/components/responses/403'
'404':
  Reference: 'TS29571_CommonData.yaml#/components/responses/404'
'406':
  Reference: 'TS29571_CommonData.yaml#/components/responses/406'
'414':
  Reference: 'TS29571_CommonData.yaml#/components/responses/414'
'429':
  Reference: 'TS29571_CommonData.yaml#/components/responses/429'
'500':

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Reference: 'TS29571_CommonData.yaml#/components/responses/500'
'503':
Reference: 'TS29571_CommonData.yaml#/components/responses/503'
Default:
Description: Unexpected error

Components

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securitySchemes:
  oAuth2ClientCredentials:
    Type: oauth2
    Flows:
      clientCredentials:
        tokenUrl: '{nrfApiRoot}/oauth2/token'
        scopes:
          nssf-nsselection: Access to the Nssf_NSSelection API

schemas:
  AuthorizedNetworkSliceInfo:
    Type: object
    Properties:
      allowedNssaiList:
        Type: array
        Items:
          Reference: '#/components/schemas/AllowedNssai'
        minItems: 1
      configuredNssai:
        Type: array
        Items:
          Reference: '#/components/schemas/ConfiguredSnssai'
        minItems: 1
      targetAmfSet:
        Type: string
        Pattern: '^([0-9]{3})-([0-9]{2-3})-[A-Fa-f0-9]{2}-[0-3][A-Fa-f0-9]{2}$'
      candidateAmfList:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/NfInstanceId'
        minItems: 1
      rejectedNssaiInPlmn:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
        minItems: 1
      rejectedNssaiInTa:
        Type: array
        Items:
          Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
        minItems: 1

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nsiInformation:
  Reference: '#/components/schemas/NsiInformation'
supportedFeatures:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
nrfAmfSet:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
nrfAmfSetNfmgtUri:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
nrfAmfSetAccessTokenUri:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
SubscribedSnssai:
  Type: object
  Required:
  - subscribedSnssai
  Properties:
    subscribedSnssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    defaultIndication:
      Type: boolean
AllowedSnssai:
  Type: object
  Required:
  - allowedSnssai
  Properties:
    allowedSnssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    nsiInformationList:
      Type: array
      Items:
        Reference: '#/components/schemas/NsiInformation'
      minItems: 1
    mappedHomeSnssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
AllowedNssai:
  Type: object
  Required:
  - allowedSnssaiList
  - accessType
  Properties:
    allowedSnssaiList:
      Type: array
      Items:
        Reference: '#/components/schemas/AllowedSnssai'
      minItems: 1
    accessType:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/AccessType'
NsiInformation:
  Type: object
  Required:
  - nrfId
  Properties:
    nrfId:

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    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  nsiId:
    Reference: '#/components/schemas/NsiId'
  nrfNfMgtUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
  nrfAccessTokenUri:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
MappingOfSnssai:
  Type: object
  Required:
    - servingSnssai
    - homeSnssai
  Properties:
    servingSnssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    homeSnssai:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
SliceInfoForRegistration:
  Type: object
  Properties:
    subscribedNssai:
      Type: array
      Items:
        Reference: '#/components/schemas/SubscribedSnssai'
      minItems: 1
    allowedNssaiCurrentAccess:
      Reference: '#/components/schemas/AllowedNssai'
    allowedNssaiOtherAccess:
      Reference: '#/components/schemas/AllowedNssai'
    sNssaiForMapping:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
      minItems: 1
    requestedNssai:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
      minItems: 1
    defaultConfiguredSnssaiInd:
      Type: boolean
    mappingOfNssai:
      Type: array
      Items:
        Reference: '#/components/schemas/MappingOfSnssai'
      minItems: 1
    requestMapping:
      Type: boolean
SliceInfoForPDUSession:
  Type: object
  Required:
    - sNssai

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- roamingIndication
Properties:
  sNssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  roamingIndication:
    Reference: '#/components/schemas/RoamingIndication'
  homeSnssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
SliceInfoForUEConfigurationUpdate:
Type: object
Properties:
  subscribedNssai:
    Type: array
    Items:
      Reference: '#/components/schemas/SubscribedSnssai'
    minItems: 1
  allowedNssaiCurrentAccess:
    Reference: '#/components/schemas/AllowedNssai'
  allowedNssaiOtherAccess:
    Reference: '#/components/schemas/AllowedNssai'
  defaultConfiguredSnssaiInd:
    Type: boolean
  requestedNssai:
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
    minItems: 1
  mappingOfNssai:
    Type: array
    Items:
      Reference: '#/components/schemas/MappingOfSnssai'
    minItems: 1
ConfiguredSnssai:
Type: object
Required:
- configuredSnssai
Properties:
  configuredSnssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
  mappedHomeSnssai:
    Reference: 'TS29571_CommonData.yaml#/components/schemas/Snssai'
RoamingIndication:
anyOf:
- type: string
  enum:
- NON_ROAMING
- LOCAL_BREAKOUT
- HOME_ROUTED_ROAMING
- type: string
NsiId:
Type: string

```

External Docs

Description: 3GPP TS 29.531 V15.3.0; 5G System; Network Slice Selection Services; Stage 3

URL: http://www.3gpp.org/ftp/Specs/archive/29_series/29.531/