



BDTPolicyControl

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OpenAPI

OpenAPI Version: 3.0.0

Info

Title: Npcf_BDTPolicyControl Service API

Version: "1.0.0"

Description: The Npcf_BDTPolicyControl Service is used by an NF service consumer to retrieve background data transfer policies from the PCF and to update the PCF with the background data transfer policy selected by the NF service consumer.

Servers

URL: '{apiRoot}/npcf-bdtpolicycontrol/v1'

Variables:

API Root:

Default: https://example.com

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

Security

```
- {}
- oAuth2ClientCredentials:
  - npcf-bdtpolicycontrol
```

Paths

/bdtpolicies

Method: Post

Summary: Create a new Individual BDT policy

Operation ID: CreateBDTPolicy

Tags:

- BDT policies (Collection)

Request Body:

Description: Contains information for the creation of a new Individual BDT policy resource.

Required/Optional: true

Content:

Application/JSON:

Schema:

Reference: '#/components/schemas/BdtReqData'

Responses:

'201':

Description: Background data transfer policies offered to an ASP.

Content:

Application/JSON:

Schema:

Reference: '#/components/schemas/BdtPolicy'

Headers:

Location:

description: 'Contains the URI of the created individual BDT policy resource, according to the structure:

{apiRoot}/npcf-bdtpolicycontrol/v1/bdtpolicies/{bdtPolicyId}'

Required/Optional: true

Schema:

Type: string

Error scenarios POST

'303':

Description: See Other. The result of the POST request would be equivalent to the existing Individual BDT policy resource. The HTTP response shall contain a Location header field set to the URI of the existing individual BDT policy resource.

'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'
  '411':
    Reference: 'TS29571_CommonData.yaml#/components/responses/411'
  '413':
    Reference: 'TS29571_CommonData.yaml#/components/responses/413'
  '415':
    Reference: 'TS29571_CommonData.yaml#/components/responses/415'
  '429':
    Reference: 'TS29571_CommonData.yaml#/components/responses/429'
  '500':
    Reference: 'TS29571_CommonData.yaml#/components/responses/500'
  '503':
    Reference: 'TS29571_CommonData.yaml#/components/responses/503'
  Default:
    Reference: 'TS29571_CommonData.yaml#/components/responses/default'
# End error scenarios POST

```

/bdtpolicies/{bdtPolicyId}

get:

Summary: Read an Individual BDT policy

Operation ID: GetBDTPolicy

Tags:

- Individual BDT policy (Document)

Parameters:

- **Name:** bdtPolicyId

Description: String identifying the individual BDT policy resource in the PCF.

In: path

Required/Optional: true

Schema:

Type: string

Responses:

'200':

Description: Background data transfer policies offered to and selected by an ASP.

Content:

Application/JSON:

Schema:

Reference: '#/components/schemas/BdtPolicy'

Error scenarios GET

'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'
    '429':
      Reference: 'TS29571_CommonData.yaml#/components/responses/429'
    '500':
      Reference: 'TS29571_CommonData.yaml#/components/responses/500'
    '503':
      Reference: 'TS29571_CommonData.yaml#/components/responses/503'
  Default:
    Reference: 'TS29571_CommonData.yaml#/components/responses/default'
# End error scenarios GET
patch:
  Summary: Update an Individual BDT policy
  Operation ID: UpdateBDTPolicy

  Tags:
    - Individual BDT policy (Document)

  Parameters:
    - Name: bdtPolicyId
      Description: String identifying the individual BDT policy resource in the PCF.
      In: path
      Required/Optional: true
      Schema:
        Type: string
  Request Body:
    Description: Contains modification instruction to be performed on the BdtPolicy
data structure to select a transfer policy.
    Required/Optional: true
    Content:
      application/merge-patch+json:
        Schema:
          Reference: '#/components/schemas/BdtPolicyDataPatch'

  Responses:
    '200':
      Description: The Individual BDT Policy resource is modified and a representation
of that resource is returned.
      Content:
        Application/JSON:
          Schema:
            Reference: '#/components/schemas/BdtPolicy'
    '204':
      Description: The Individual BDT Policy resource is modified.
# Error scenarios PATCH
    '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'
'411':
  Reference: 'TS29571_CommonData.yaml#/components/responses/411'
'413':
  Reference: 'TS29571_CommonData.yaml#/components/responses/413'
'415':
  Reference: 'TS29571_CommonData.yaml#/components/responses/415'
'429':
  Reference: 'TS29571_CommonData.yaml#/components/responses/429'
'500':
  Reference: 'TS29571_CommonData.yaml#/components/responses/500'
'503':
  Reference: 'TS29571_CommonData.yaml#/components/responses/503'
Default:
  Reference: 'TS29571_CommonData.yaml#/components/responses/default'
# End error scenarios PATCH

```

Components

```

securitySchemes:
  oAuth2ClientCredentials:
    Type: oauth2
    Flows:
      clientCredentials:
        tokenUrl: '{nrfApiRoot}/oauth2/token'
        scopes:
          npcf-bdtpolicycontrol: Access to the Npcf_BDTPolicyControl API

schemas:
# Structured data types
  BdtPolicy:
    Description: Represents an Individual BDT policy resource.
    Type: object
    Properties:
      bdtPolData:
        Reference: '#/components/schemas/BdtPolicyData'
      bdtReqData:
        Reference: '#/components/schemas/BdtReqData'
  BdtReqData:
    Description: Contains service requirements for creation a new Individual BDT policy
    resource.
    Type: object
    Required:
      - aspId
      - desTimeInt
      - numOfUes
      - volPerUe
    Properties:

```

```

aspId:
  Reference: '#/components/schemas/AspId'
desTimeInt:
  Reference: 'TS29122_CommonData.yaml#/components/schemas/TimeWindow'
nwAreaInfo:
  Reference: '#/components/schemas/NetworkAreaInfo'
numOfUes:
  Description: Indicates a number of UEs.
  Type: integer
volPerUe:
  Reference: 'TS29122_CommonData.yaml#/components/schemas/UsageThreshold'
suppFeat:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
BdtPolicyData:
  Description: Describes the authorization data of an Individual BDT policy resource.
  Type: object
  Required:
  - bdtRefId
  - transfPolicies
  Properties:
    bdtRefId:
      Reference: 'TS29122_CommonData.yaml#/components/schemas/BdtReferenceId'
    transfPolicies:
      Description: Contains transfer policies.
      Type: array
      Items:
        Reference: '#/components/schemas/TransferPolicy'
      minItems: 1
    selTransPolicyId:
      Description: Contains an identity of the selected transfer policy.
      Type: integer
    suppFeat:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  BdtPolicyDataPatch:
    Description: A JSON Merge Patch body schema containing modification instruction to
    be performed on the BdtPolicy data structure to select a transfer policy. Adds
    selTransPolicyId to BdtPolicyData data structure.
    Type: object
    Required:
    - selTransPolicyId
    Properties:
      selTransPolicyId:
        Description: Contains an identity (i.e. transPolicyId value) of the selected
        transfer policy.
        Type: integer
    TransferPolicy:
      Description: Describes a transfer policy.
      Type: object
      Required:
      - ratingGroup
      - recTimeInt
      - transPolicyId
      Properties:

```

```
maxBitRateDl:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/BitRate'
maxBitRateUl:
  Reference: 'TS29571_CommonData.yaml#/components/schemas/BitRate'
ratingGroup:
  Description: Indicates a rating group for the recommended time window.
  Type: integer
recTimeInt:
  Reference: 'TS29122_CommonData.yaml#/components/schemas/TimeWindow'
transPolicyId:
  Description: Contains an identity of a transfer policy.
  Type: integer
NetworkAreaInfo:
  Description: Describes a network area information in which the NF service consumer
requests the number of UEs.
  Type: object
Properties:
  ecgis:
    Description: Contains a list of E-UTRA cell identities.
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ecgi'
    minItems: 1
  ncgis:
    Description: Contains a list of NR cell identities.
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Ncgi'
    minItems: 1
  gRanNodeIds:
    Description: Contains a list of NG RAN nodes.
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/GlobalRanNodeId'
    minItems: 1
  tais:
    Description: Contains a list of tracking area identities.
    Type: array
    Items:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Tai'
    minItems: 1
# Simple data types
AspId:
  Description: Contains an identity of an application service provider.
  Type: string
```

External Docs

Description: 3GPP TS 29.554 V15.2.0; 5G System; Background Data Transfer Policy Control

Service.

URL: 'http://www.3gpp.org/ftp/Specs/archive/29_series/29.554/'