



PFDmanagement

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OpenAPI

OpenAPI Version: 3.0.0

Info

Title: Nnef_PFDmanagement Sevice API
Version: "1.0.0"
Description: Packet Flow Description Management Service

Servers

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

Security

- {}

- oAuth2ClientCredentials:
 - nef-pfdmanagement

Paths

/applications

get:

Summary: Retrieve PFDs for all applications or for one or multiple applications with query parameter.

Tags:

- PFD of applications

Operation ID: Nnef_PFDmanagement_Fetch

Parameters:

- **Name:** application-ids
Description: The required application identifier(s) for the returned PFDs.
In: query
Required/Optional: true
Schema:
Type: array
Items:
Reference: 'TS29571_CommonData.yaml#/components/schemas/ApplicationId'
Min Items: 1
- **Name:** supported-features
In: query
Description: To filter irrelevant responses related to unsupported features
Schema:
Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'

Responses:

- '200':
Description: The PFDs for one or more application identifier(s) in the request URI are returned.
Content:
Application/JSON:
Schema:
Type: array
Items:
Reference: '#/components/schemas/PfdDataForApp'
Min Items: 0
- '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'

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'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':
  Reference: 'TS29571_CommonData.yaml#/components/responses/500'
'503':
  Reference: 'TS29571_CommonData.yaml#/components/responses/503'

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/applications/{appld}

get:

Summary: Retrieve the PFD for an application.

Tags:

- Individual application PFD

Operation ID: Nnef_PFDmanagement_Fetch

Parameters:

- **Name:** appId

Description: The required application identifier(s) for the returned PFDs.

In: path

Required/Optional: true

Schema:

Type: string

- **Name:** supported-features

In: query

Description: To filter irrelevant responses related to unsupported features

Schema:

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

Responses:

'200':

Description: A representation of PFDs for an application in the request URI is returned.

Content:

Application/JSON:

Schema:

Reference: '#/components/schemas/PfdDataForApp'

'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'

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'429':
  Reference: 'TS29571_CommonData.yaml#/components/responses/429'
'414':
  Reference: 'TS29571_CommonData.yaml#/components/responses/414'
'500':
  Reference: 'TS29571_CommonData.yaml#/components/responses/500'
'503':
  Reference: 'TS29571_CommonData.yaml#/components/responses/503'

```

/subscriptions

Method: Post

Summary: Subscribe the notification of PFD changes.

Tags:

- PFD subscriptions

Operation ID: Nnef_PFDmanagement_Subscribe

Request Body:

Description: a PfdSubscription resource to be created.

Required/Optional: true

Content:

Application/JSON:

Schema:

Reference: '#/components/schemas/PfdSubscription'

Callbacks:

PfdChangeNotification:

'{request.body#/notifyUri}':

Method: Post

Summary: Notification of PFD change.

Tags:

- PfdChangeNotification data

Operation ID: Nnef_PFDmanagement_Notify

Request Body:

Required/Optional: true

Content:

Application/JSON:

Schema:

Type: array

Items:

Reference: '#/components/schemas/PfdChangeNotification'

Min Items: 1

Responses:

'200':

Description: The PFD operation in the notification is performed and the PfdChangeReport indicates failure reason.

Content:

Application/JSON:

Schema:

Type: array

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        Items:
          Reference: '#/components/schemas/PfdChangeReport'
          Min Items: 1
      '204':
        Description: The PFD operation in the notification is performed
successfully.
      '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'

Responses:
  '201':
    Description: The creation of a PfdSubscription resource is confirmed and a
representation of that resource is returned.
    Content:
      Application/JSON:
        Schema:
          Reference: '#/components/schemas/PfdSubscription'
        Headers:
          Location:
            description: 'Contains the URI of the newly created resource,
according to the structure:
{apiRoot}/nnef-pfdmanagement/v1/subscriptions/{subscriptionId}'
            Required/Optional: true
            Schema:
              Type: string
  '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'

/subscriptions/{subscriptionId}

delete:

Summary: Delete a subscription of PFD change notification.

Tags:

- Individual PFD subscription

Operation ID: Nnef_PFDmanagement_Unsubscribe

Parameters:

- **Name:** subscriptionId

Description: Identify the subscription.

In: path

Required/Optional: true

Schema:

Type: string

Responses:

'204':

Description: The PfdSubscription resource matching the subscriptionId was deleted successfully.

'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'

'429':

Reference: 'TS29571_CommonData.yaml#/components/responses/429'

'500':

Reference: 'TS29571_CommonData.yaml#/components/responses/500'

'503':

Reference: 'TS29571_CommonData.yaml#/components/responses/503'

Components

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securitySchemes:
  oAuth2ClientCredentials:
    Type: oauth2
    Flows:
      clientCredentials:
        tokenUrl: '{nrfApiRoot}/oauth2/token'
        scopes:
          nnef-pfdmanagement: Access to the Nnef_PFDmanagement API

schemas:
# STRUCTURED DATA TYPES
PfdContent:
  Type: object
  Properties:
    pfdId:
      Type: string
      Description: Identifies a PDF of an application identifier.
    flowDescriptions:
      Type: array
      Items:
        Type: string
      minItems: 1
      Description: Represents a 3-tuple with protocol, server ip and server port for
UL/DL application traffic.
    urls:
      Type: array
      Items:
        Type: string
      minItems: 1
      Description: Indicates a URL or a regular expression which is used to match the
significant parts of the URL.
    domainNames:
      Type: array
      Items:
        Type: string
      minItems: 1
      Description: Indicates an FQDN or a regular expression as a domain name matching
criteria.
PfdDataForApp:
  Type: object
  Properties:
    applicationId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ApplicationId'
    pfd:
      Type: array
      Items:
        Reference: '#/components/schemas/PfdContent'
      minItems: 1

```

```

    cachingTime:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/DateTime'
  Required:
    - applicationId
    - pfd
PfdSubscription:
  Type: object
  Properties:
    applicationIds:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/ApplicationId'
      minItems: 1
    notifyUri:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/Uri'
    supportedFeatures:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/SupportedFeatures'
  Required:
    - notifyUri
    - supportedFeatures
PfdChangeNotification:
  Type: object
  Properties:
    applicationId:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ApplicationId'
    removalFlag:
      Type: boolean
      Default: false
    partialFlag:
      Type: boolean
      Default: false
    pfd:
      Type: array
      Items:
        Reference: '#/components/schemas/PfdContent'
      minItems: 1
  Required:
    - applicationId
PfdChangeReport:
  Type: object
  Properties:
    pfdError:
      Reference: 'TS29571_CommonData.yaml#/components/schemas/ProblemDetails'
    applicationId:
      Type: array
      Items:
        Reference: 'TS29571_CommonData.yaml#/components/schemas/ApplicationId'
      minItems: 1
  Required:
    - pfdError
    - applicationId

```


External Docs

Description: 3GPP TS 29.551 v15.1.0, 5G System; Packet Flow Description Management Service

URL: 'http://www.3gpp.org/ftp/Specs/archive/29_series/29.551/'

