

Oracle® Communications

Cloud Native Core, Converged Policy REST Specification Guide



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Preface

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Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
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Acronyms

Below table provides information about the acronyms used in the document.

Table Acronyms

Acronym	Definition
AMF	Access and Mobility Management Function
BSF	Oracle Communications Cloud Native core Binding Support Function
CHF	Charging Function
CM	Configuration Management
CUSTOMER_REPO	Docker registry address including the port number, if the docker registry has an associated port.
IMAGE_TAG	Image tag from release tar file. You can use any tag number. However, make sure that you use that specific tag number while pushing docker image to the docker registry.
MCC	Mobile Country code
METALLB_ADDRESS_POOL	Address pool which configured on metallb to provide external IPs .
MNC	Mobile Network code
NRF	Network Repository Function
PCF	Policy Control Function
REST API	Representational State Transfer Application Program Interfaces (REST API)
CNPCRF	Cloud Native Policy and Charging Rules Function
SAN	Subject Alternate Name
SMF	Session Management Function
UDR	Unified Data Repository

What's New in This Guide

This section introduces the documentation updates for release 25.1.2xx.

Release 25.1.201 - G25512-02, January 2026

There is no change to this document in this release.

Release 25.1.200 - G25512-01, July 2025

- Added the [Diameter Gateway Congestion Migration](#) APIs to support data migration of Diameter Gateway service congestion control configurations.
- Added the [Bulwark Congestion Migration](#) APIs to support data migration of Bulwark service congestion control configurations.
- Updated the following APIs for **Supports Traffic Detection on SMF-N7 and TDF using Sd Interface** feature:
 - Updated the Policy Session Viewer APIs API's sessionType parameter to handle SM_TDF_Session in [Session Viewer](#) API section.
 - Added the AuditTdfSession parameter in [Session Management Service](#) API section to support auditing of TDF stale sessions.
 - Added the [PCF Traffic Profile ADC Rule](#) APIs for configuring the Traffic profile with ADC rules for PCF.
 - Added the [PCF Predefined ADC Rule](#) APIs for configuring the predefined ADC rule for PCF.
 - Added the [PCF Predefined ADC Rule Base](#) APIs for configuring the predefined ADC rule base for PCF.
- Updated the following APIs for **Supports Reattempt after Backoff during N1N2 Communication** feature.
 - Added the [Timer Service](#) APIs to provide timer related configurations.
 - Added the [Mated Region](#) APIs to provide mated region configurations.
 - Added the [Site Fallback](#) APIs to provide site fallback configurations.
 - Updated the Recreate Attempts APIs in [Recreate Attempts Profile](#) section with following request/response body parameters:
 - * reattemptErrorCodeSettings
 - * rateLimitSettings
 - Updated the interfaceType parameter in [Recreate Attempts Profile](#) section to support **AMF** and **NRF** values.
 - Updated the Policy NF Communication Profiles APIs in [NF Communication Profiles](#) section with reattemptSettings request/response body parameter.
- Updated the GET, POST, PUT, and DELETE [Custom Vendor](#) to new APIs.
- Updated the GET, POST, PUT, and DELETE [Time Period](#) to new APIs.
- Updated the GET, POST, PUT, and DELETE [Media Profile](#) to new APIs.

- Added the [Diameter Gateway Congestion Migration](#) APIs to provide support for data migration between older versions of Diameter Gateway Congestion Control feature, to the current Diameter Gateway Congestion Control feature in Policy 25.1.200.
- Updated the following API's sample payload information for UDR Connector, CHF Connector, Diameter Connector, Diameter Gateway, Notifier, and AM services in [Congestion Control](#) section.
 - Congestion Control Configurations
 - Congestion Control Threshold Profile
 - Import/Export Congestion Control Settings
 - Import/Export Congestion Control Threshold Profiles
- Updated the following API's sample payload information for UDR Connector, CHF Connector, Diameter Connector, Diameter Gateway, Notifier, and AM services in [Congestion Control Load Shedding Profiles](#) section.
 - Congestion Control Load Shedding Rules
 - Congestion Control Load Shedding Profiles
 - Import/Export Congestion Control Load Shedding Rules
- Updated the Congestion Control Load Shedding Rules APIs in [Congestion Control Load Shedding Profiles](#) section with following request/response body parameters:
 - discardPriorityPercentage.range
 - discardPriorityPercentage.percentage
- Updated the Data Sources APIs in [Data Sources](#) section with LdapRetry request/response body parameters.
- Updated the UE Policy APIs in [UE Policy](#) section with the following request/response body parameters:
 - amf.enableConsolidation
 - allowT3501RetransmissionConsolidation
- Added the [Rx Reauth Profiles](#) section to provide the details of Rx reauth profiles.
- Added the following parameters to [Binding Service](#):
 - revalidateEnable
 - bsfRetryProfRevalid
- Added [Diameter Connector](#) to describe the parameters in configuring Diameter Connector service.
- Added [PDS UE ID Configuration Settings](#), which is used to configure UE ID based query on PolicyDS database.
- Removed *Pod Protection at Ingress Gateway* section from [Common Services REST Specifications](#), as currently Policy supports configuring pod protection at Ingress Gateway only through REST API.
- Updated [Diameter Settings](#) to replace congestionMessagePriorityProfile parameter under DiamSettingsCongestionControl and overloadMessagePriorityProfile parameter under DiamSettingsOverloadControl with messagePriority to configure the message priority profile name for congestion control and overload control.

1

Introduction

This document provides information about how to configure the services and manageable objects in Oracle Communications Cloud Native Core Converged Policy using Representational State Transfer Application Program Interfaces (REST API).

1.1 Overview

The Policy solution provides a standard policy design experience and a consistent user experience. This solution supports both 4G and 5G networks. In addition, there is an overlap in PCF and PCRF functionalities, such as need for a policy engine, policy design, Rx, similarity between Sy and Nchf_Spending LimitControl, and so on. Policy utilizes this overlap to build microservices that can be used for providing PCRF and PCF functionalities. Although, it is a unified policy solution, you can deploy PCF and PCRF independently.

Policy is a functional element for policy control decision and flow based charging control functionality. It provides the following functions:

- Policy rules for application and service data flow detection, gating, QoS, and flow based charging to the Session Management Function (SMF)
- Access and Mobility Management related policies to the Access and Mobility Management Function (AMF)
- UE Route Selection Policies (URSP) rules to User Equipment (UE) through AMF
- Access to subscription information relevant for policy decisions in a Unified Data Repository (UDR)
- Network control for service data flow detection, gating, and Quality of Service (QoS)
- Flow based charging towards the Policy and Charging Enforcement Function (PCEF)
- Receiving session and media related information from Application Function (AF) and informing AF of traffic plane events
- Provision of PCC Rules to PCEF through the Gx reference point

The CNC Policy supports the above functions through the following services:

- Session Management Service
- Access and Mobility Service
- Policy Authorization Service
- User Equipment (UE) Policy Service
- PCRF Core Service
- Binding Service
- Policy Data Source Service
- Usage Monitoring Service
- Notifier Service
- NWDAF Agent

Note

The performance and capacity of the Policy system may vary based on the Call model, Feature/Interface configuration, underlying CNE and hardware environment, including but not limited to the complexity of deployed policies, policy table size , object expression and custom json usage in policy design.

For more information about the Policy supported services, see *Oracle Communications Cloud Native Core, Converged Policy User's Guide*.

1.2 References

Refer the following documents for more information about Policy:

- *Oracle Communications Cloud Native Core, Converged Policy User's Guide*
- *Oracle Communications Cloud Native Core, Converged Policy Installation, Upgrade and Fault Recovery Guide*

1.3 OpenAPI Specification

Policy supports the OpenAPI version 1.0.0.

2

Policy REST Specifications

This chapter provides information about REST specifications used in Oracle Communications Cloud Native Core, Converged Policy (Policy).

Note

action is a query parameter that has been provided for each individual import api, which can either have **replace** or **ignore** value. If the **action** parameter is not provided, then the default value is **ignore**.

2.1 PCF Traffic Profile ADC Rule

Table 2-1 PCF traffic for adc rule APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Traffic ADC Rule	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/adctrfficrules/{trafficAdcRuleName}	See Table A-1
Update Traffic Adc Rule	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/adctrfficrules/{trafficAdcRuleName}	See Table A-2
Delete Traffic ADC Rule	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/adctrfficrules/{trafficAdcRuleName}	See Table A-4
Create Traffic ADC Rule	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/adctrfficrules	See Table A-3

Get and Update Operations

Table 2-2 TrafficAdcRule Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
tcId	string	M	
description	string	O	

Table 2-2 (Cont.) TrafficAdcRule Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
param.diameter.adcRule.name	string	O	
param.diameter.adcRule.maxAuthUL	string	O	
param.diameter.adcRule.maxAuthDL	string	O	
param.diameter.adcRule.MonitoringKey	string	O	
param.diameter.adcRule.FlowStatus	string: Enum	O	Allowed values: • 0 • 1 • 2 • 3
param.diameter.adcRule.tdfApplicationIdentifier	string	O	
param.diameter.adcRule.tdfRedirectSupport	string: Enum	O	Allowed values: • 0 • 1 • 2
param.diameter.adcRule.tdfRedirectAddressType	string : Enum	O	Allowed values: • 0 • 1 • 2 • 3 • 4
param.diameter.adcRule.tdfRedirectServerAddress	string	O	
param.diameter.adcRule.tdfMuteNotification	string : Enum	O	Allowed values: • 0 • 1
param.diameter.adcRule.ServiceIdentifier	string	O	
param.diameter.adcRule.RatingGroup	string	O	
param.diameter.adcRule.ReportingLevel	string : Enum	O	Allowed values: • 0 • 1 • 2
param.diameter.adcRule.Online	string : Enum	O	Allowed values: • 0 • 1 • 2
param.diameter.adcRule.Offline	string : Enum	O	Allowed values: • 0 • 1 • 2

Table 2-2 (Cont.) TrafficAdcRule Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
param.diameter.adcRule. .MeteringMethod	string : Enum	O	Allowed values: • 0 • 1 • 2 • 3 • 3
param.diameter.adcRule. .Precedence	string	O	

A sample of the request or response body:

```
{
  "name": "string",
  "description": "string",
  "param.diameter.adcRule.name": "string",
  "param.diameter.adcRule.maxAuthUL": "4292566642",
  "param.diameter.adcRule.maxAuthDL": "4294206946",
  "param.diameter.adcRule.MonitoringKey": "string",
  "param.diameter.adcRule.FlowStatus": "0",
  "param.diameter.adcRule.tdfApplicationIdentifier": "string",
  "param.diameter.adcRule.tdfRedirectSupport": "0",
  "param.diameter.adcRule.tdfRedirectAddressType": "0",
  "param.diameter.adcRule.tdfRedirectServerAddress": "string",
  "param.diameter.adcRule.tdfMuteNotification": "0",
  "param.diameter.adcRule.ServiceIdentifier": "56562570273140140",
  "param.diameter.adcRule.RatingGroup":
"834230701429507004586357990032488266149954030625803028841937860169",
  "param.diameter.adcRule.ReportingLevel": "0",
  "param.diameter.adcRule.Online": "0",
  "param.diameter.adcRule.Offline": "0",
  "param.diameter.adcRule.MeteringMethod": "0",
  "param.diameter.adcRule.Precedence":
"982282151896732255224072394658191119482788772631487340307602311123858135"
}
```

Import or Export PCF traffic profile ADC rule APIs

Table 2-3 Import or Export PCF traffic profile ADC rule APIs

API Name	Request Type	Request Url	Possible Result Code
Import Traffic Adc Rule	POST	{apiRoot}/oc-cnpolicy- configuration/v1/ policydata/pcrf/adcrules/ import	See Table A-3

Table 2-3 (Cont.) Import or Export PCF traffic profile ADC rule APIs

API Name	Request Type	Request Url	Possible Result Code
Export Traffic Adc Rule	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/adcrules/export	See Table A-1

Table 2-4 Request/Response Body Parameters

Field Name	Data Type	Mandatory/Optional/Conditional	Description
topic	String	M	
sourceVersion	String	M	Build version
date	String	M	Date in pattern "yyyy-MM-dd'T'HH:mm:ss'Z"
exportData		M	
errors			

A sample of the import or export request:

```
{
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": [
    {
      "name": "string",
      "description": "string",
      "param.diameter.adcRule.name": "string",
      "param.diameter.adcRule.maxAuthUL": "4264534498",
      "param.diameter.adcRule.maxAuthDL": "4293625992",
      "param.diameter.adcRule.MonitoringKey": "string",
      "param.diameter.adcRule.FlowStatus": "0",
      "param.diameter.adcRule.tdfApplicationIdentifier": "string",
      "param.diameter.adcRule.tdfRedirectSupport": "0",
      "param.diameter.adcRule.tdfRedirectAddressType": "0",
      "param.diameter.adcRule.tdfRedirectServerAddress": "string",
      "param.diameter.adcRule.tdfMuteNotification": "0",
      "param.diameter.adcRule.ServiceIdentifier": "27725208328769",
      "param.diameter.adcRule.RatingGroup": "50423799",
      "param.diameter.adcRule.ReportingLevel": "0",
      "param.diameter.adcRule.Online": "0",
      "param.diameter.adcRule.Offline": "0",
      "param.diameter.adcRule.MeteringMethod": "0",
      "param.diameter.adcRule.Precedence":
        "616801263210908668475153217630024988"
    }
  ],
  "errors": [
    {
      "name": "string",
```

```

    "message": "string"
  }
]
}

```

2.2 PCF Predefined ADC Rule

Table 2-5 PCF Predefined ADC Rule APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Predefined Adc Rule	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/predefinedadcrules/{predefinedAdcRuleName}	See Table A-1
Update Predefined Adc Rule	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/predefinedadcrules/{predefinedAdcRuleName}	See Table A-2
Delete Predefined Adc Rule	DELETE	/oc-cnpolicy-configuration/v1/policydata/pcfsm/predefinedadcrules/{predefinedAdcRuleName}	See Table A-4
Create Predefined Adc Rule	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/predefinedadcrules	See Table A-3

Get and Update Operations

Table 2-6 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
diameter predefined ADC rule profile name	string	O	
diameter predefined ADC rule name	string	O	
diameter predefined ADC rule profile description	string	O	

A sample of the request or response body:

```

{
  "diameter predefined ADC rule profile name": "string",

```

```

    "diameter predefined ADC rule name": "string",
    "diameter predefined ADC rule profile description": "string"
  }

```

Import or Export PCF predefined ADC rule APIs

Table 2-7 Import or Export PCF predefined ADC rule APIs

API Name	Request Type	Request Url	Possible Result Code
Import Predefined Adc Rule	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/predefinedadcrules/import	See Table A-3
Export Predefined Adc Rule	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/predefinedadcrules/export	See Table A-1

Table 2-8 Request/Response Body Parameters

Field Name	Data Type	Mandatory/Optional/Conditional	Description
topic	String	M	
sourceVersion	String	M	Build version
date	String	M	Date in pattern "yyyy-MM-dd'T'HH:mm:ss'Z"
exportData		M	
errors			

A sample of the import or export request:

```

{
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": [
    {
      "diameter predefined ADC rule profile name": "string",
      "diameter predefined ADC rule name": "string",
      "diameter predefined ADC rule profile description": "string"
    }
  ],
  "errors": [
    {
      "name": "string",
      "message": "string"
    }
  ]
}

```

2.3 PCF Predefined ADC Rule Base

Table 2-9 PCF predefined adc rule base APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Predefined Adc Rule Base	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/predefinedadcrulebases/{predefinedAdcRuleBaseName}	See Table A-1
Update Predefined Adc Rule Base	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/predefinedadcrulebases/{predefinedAdcRuleBaseName}	See Table A-2
Delete Predefined Adc Rule Base	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/predefinedadcrulebases/{predefinedAdcRuleBaseName}	See Table A-4
Create Predefined Adc Rule Base	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/predefinedadcrulebases	See Table A-3

Get and Update Operations

Table 2-10 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	O	
diameter predefined ADC rule base name	string	O	
param.diameter.adcPredefinedBaseRule.description	string	O	

A sample of the request or response body:

```
{
  "name": "string",
  "diameter predefined ADC rule base name": "string",
}
```

```

    "param.diameter.adcPredefBaseRule.description": "string"
  }

```

Import or Export PCF predefined ADC rule APIs

Table 2-11 Import or Export PCF predefined ADC rule APIs

API Name	Request Type	Request Url	Possible Result Code
Import Predefined Adc Rule Base	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/predefinedadcrulebases/import	See Table A-3
Export Predefined Adc Rule Base	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/predefinedadcrulebases/export	See Table A-1

Table 2-12 Request/Response Body Parameters

Field Name	Data Type	Mandatory/Optional/Conditional	Description
topic	String	M	
sourceVersion	String	M	Build version
date	String	M	Date in pattern "yyyy-MM-dd'T'HH:mm:ss'Z"
exportData		M	
errors			

A sample of the import or export request:

```

{
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": [
    {
      "name": "string",
      "diameter predefined ADC rule base name": "string",
      "param.diameter.adcPredefBaseRule.description": "string"
    }
  ],
  "errors": [
    {
      "name": "string",
      "message": "string"
    }
  ]
}

```

2.4 Mated Region

Table 2-13 Policy Mated Region APIs

API Name	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Mated Region	GET	{apiRoot}/oc-cnpolicy-configuration/v1/general/matedRegion/{matedRegionName}	See Table A-1
Update Mated Region	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/general/matedRegion/{matedRegionName}	See Table A-2
Delete Mated Region	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/general/matedRegion/{matedRegionName}	See Table A-4
Create Mated Region	POST	{apiRoot}/oc-cnpolicy-configuration/v1/general/matedRegion	See Table A-3

Get and Update Operations

Table 2-14 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
name	string	M	The unique name for the site. This name is used to refer to the site in other configuration screen, such as Site Fallback. The name can only contain the characters A–Z, a–z, 0–9, period (.), hyphen (-), and underline (_). The maximum length is 255 characters.
siteId	string	O	The UUID of the site.

A sample of the request or response body:

```
{
  "name": "string",
  "siteId": "string"
}
```

Import or Export Mated Region APIs

Table 2-15 Import or Export Mated Region APIs

API Name	Request Type	Request Url	Possible Result Code
Import Mated Region	POST	{apiRoot}/oc-cnpolicy-configuration/v1/general/matedRegion/import	See Table A-3
Export Mated Region	GET	{apiRoot}/oc-cnpolicy-configuration/v1/general/matedRegion/export	See Table A-1

Table 2-16 Request/Response Body Parameters

Field Name	Data Type	Mandatory/Optional/Conditional	Description
topic	String	M	
sourceVersion	String	M	Build version
date	String	M	Date in pattern "yyyy-MM-dd'T'HH:mm:ss'Z"
exportData		M	
errors			

A sample of the import or export request:

```
{
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": [
    {
      "name": "string",
      "siteId": "string"
    }
  ],
  "errors": [
    {
      "name": "string",
      "message": "string"
    }
  ]
}
```

2.5 Site Fallback

Table 2-17 Policy Site Fallback APIs

API Name	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Site Fallback	GET	{apiRoot}/oc-cnpolicy-configuration/v1/general/siteFallback/{siteFallbackName}	See Table A-1
Update Site Fallback	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/general/siteFallback/{siteFallbackName}	See Table A-2
Delete Site Fallback	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/general/siteFallback/{siteFallbackName}	See Table A-4
Create Site Fallback	POST	{apiRoot}/oc-cnpolicy-configuration/v1/general/siteFallback	See Table A-3

Get and Update Operations

Table 2-18 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	O	The drop down list of site names that can be chosen to be the fallback site. This list is populated from Policy Mated Region Configurations .
fallbackList	FallbackList	O	Fallback list name and their preference order.

Table 2-19 FallbackList

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
fallbackSiteName	string	O	The drop down list of fallback site names. This list is populated from Policy Mated Region Configurations .
preferenceOrder	integer	O	The preference order of the selected site.

A sample of the request or response body:

```
{
  "name": "string",
  "fallbackList": [
    {
      "fallbackSiteName": "string",
      "preferenceOrder": 0
    }
  ]
}
```

Import or Export Site Fallback APIs

Table 2-20 Import or Export Site Fallback APIs

API Name	Request Type	Request Url	Possible Result Code
Import Site Fallback	POST	{apiRoot}/oc-cnpolicy-configuration/v1/general/siteFallback/import	See Table A-3
Export Site Fallback	GET	{apiRoot}/oc-cnpolicy-configuration/v1/general/siteFallback/export	See Table A-1

Table 2-21 Request/Response Body Parameters

Field Name	Data Type	Mandatory/Optional/Conditional	Description
topic	String	M	
sourceVersion	String	M	Build version
date	String	M	Date in pattern "yyyy-MM-dd'T'HH:mm:ss'Z"
exportData		M	
errors			

A sample of the import or export request:

```
{
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": [
    {
      "name": "string",
      "fallbackList": [
        {
          "fallbackSiteName": "string",
          "preferenceOrder": 0
        }
      ]
    }
  ]
}
```

```

    ],
    "errors": [
      {
        "name": "string",
        "message": "string"
      }
    ]
  }
}

```

2.6 Timer Service

Table 2-22 Policy Timer Service APIs

API Name	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Individual Timer Service Configuration	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/timerService	See Table A-1
Update Timer Service Configuration.	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/timerService	See Table A-2

Get and Update Operations

Table 2-23 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
timerEnabled	boolean	O	Enable or Disable the timer service.
advancedSettings	AdvancedSettings	O	To add additional advanced settings keys to the settings.

Table 2-24 AdvancedSettings

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
key	string	O	Specifies the key name.
value	string	O	Specifies the value of the key.

Sample body request for Put operation for timer service:

```

{
  "timerEnabled": true,
  "advancedSettings": [
    {
      "key": "string",

```

```

    "value": "string"
  }
]
}

```

Table 2-25 Import/Export Timer Service

API Name	Request Type	Request Url	Possible Result Code
Export Timer Service Configuration	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/timerService/export	See Table A-1
Import Timer Service Configuration	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/timerService/import	See Table A-3

Table 2-26 Request/Response Body Parameters

Field Name	Data Type	Mandatory/Optional/Conditional	Description
topic	String	M	
sourceVersion	String	M	Build version
date	String	M	Date in pattern "yyyy-MM-dd'T'HH:mm:ss'Z'"
exportData		M	

Sample Request Body structure for Import and Export operations:

```

{
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": {
    "timerEnabled": true,
    "advancedSettings": [
      {
        "key": "string",
        "value": "string"
      }
    ]
  }
}

```

2.7 Bulwark Congestion Migration

Bulwark Service Congestion Control Data Migration

Table 2-27 Bulwark Congestion Migration APIs

API Description	HTTP Method or Custom Operation	Resource URI	Description	Possible Result Code
Get Bulwark Congestion Migration Details	GET	{apiRoot}/oc-cnpolicy-configuration/v1/congestioncontrol/bulwark/migration	To get the status of data migration details when the systems is upgraded from the older version to current version.	See Table A-1
Migrate bulwark congestion control previous version configuration data to current version	POST	{apiRoot}/oc-cnpolicy-configuration/v1/congestioncontrol/bulwark/migration	Migrate congestion control previous version configuration data to current version by taking some required inputs from the user and this migration is the one-time activity after version upgrade from old version to current version.	See Table A-3

Table 2-28 Request/Response Congestion Migration Data

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
enabled	boolean	M	This enables the congestion control feature after successful migration.
activeThresholdProfile	string	M	The name of the active threshold profile.
thresholdProfiles	CongestionThresholdsProfile	M	This new thresholds profile will be created with this profile data.
activeLoadSheddingProfile	string	M	The active load shedding rule.
loadSheddingRules	CongestionControlLoadShedding	M	This load shedding profile will configure as default profile for congestion load shedding rules.

Table 2-29 Request/Response CongestionThresholdsProfile

Field Name	Field Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	M	A new thresholds profile will be created with this profile name to migrate the old version thresholds data.
value	CongestionThresholdData	M	This queue data will be applied for different congestion states to migrate the old version threshold data.
isCustomProfile	boolean	M	This CPU data will be applied for congestion states to migrate the old version thresholds data.

Table 2-30 Request/Response CongestionControlLoadShedding

Field Name	Field Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	M	The provided load shedding profile will become the default profile for congestion load shedding rules. Value: Provide previous version profile name.
value	CongestionLoadSheddingState	M	This Respective Discard Priority data will be applied for congestion states to migrate the old version thresholds data.
isCustomProfile	boolean	M	Is this custom profile.

Table 2-31 Request/Response CongestionThresholdState

Field Name	Field Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
state	string	M	The congestion state: DANGER_OF_CONGESTION, CONGESTION_L1, CONGESTION_L2, CONGESTED.
resourceUsageLimit	CongestionResourceUsageLimit	M	The congestion state resource values.

Table 2-32 Request/Response CongestionResourceUsageLimit

Field Name	Field Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
cpu	integer	M	The congestion resource threshold limit for CPU. This value can be in the range of 1 - 100.
queue	integer	M	The congestion resource threshold limit for Queue. This value can be in the range of 1 - 40.

Table 2-33 Request/Response CongestionLoadSheddingState

Field Name	Field Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
state	string	M	
discardPriority	integer	M	
discardPriorityPercentage	DiscardPriorityPercentage	O	

Table 2-34 Request/Response DiscardPriorityPercentage

Field Name	Field Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
range	string	M	
percentage	integer	M	

Sample for GET Congestion migration details:

```
{
  "migrated": true,
  "attempts": 0,
  "cause": "string"
}
```

Sample for add (POST) migration details from previous version configuration data to current version:

```
{
  "enabled": true,
  "activeThresholdProfile": "string",
  "thresholdProfiles": [
    {
      "name": "profileName",
      "value": [
```

```

        {
          "state": "CONGESTED",
          "resourceUsageLimit": {
            "cpu": 45,
            "queue": 40
          }
        }
      ],
      "isCustomProfile": true
    }
  ],
  "activeLoadSheddingProfile": "string",
  "loadSheddingRules": [
    {
      "name": "ruleName",
      "value": [
        {
          "state": "CONGESTED",
          "discardPriority": 5,
          "discardPriorityPercentage": [
            {
              "range": "1 or 11-13",
              "percentage": 23
            }
          ]
        }
      ]
    }
  ],
  "isCustomProfile": true
}
]
}

```

Note

When Policy 25.1.200 or any of the later versions is fresh installed or when Policy is upgraded from any of the previous versions to Policy 25.1.200 or later versions, after the Bulwark congestion migration is completed, the updated Congestion Control REST API does not accept the configuration of `activeThresholdProfile` parameter in the request body. This is inline with all services congestion control behaviour.

Sample REST API:

```
Method: PUT
URL: ../oc-cnpolicy-configuration/v1/congestionConfigurations/bulwark
Header:
  Content-Type: application/json
  Accept: application/json
Body:
{
  "enable":true,
  "stateChangeSampleCount":5,
  "stateCalculationInterval":5000
}
```

When Policy is upgraded from any of the previous versions to 25.1.200 or later versions, before the Bulwark congestion migration completed, the updated Congestion Control REST API accepts the `activeThresholdProfile` parameter in the Request Body as this is old Bulwark congestion behaviour and is not inline with all services congestion control behaviour.

Sample REST API:

```
Method: PUT
URL: ../oc-cnpolicy-configuration/v1/congestionConfigurations/bulwark
Header:
  Content-Type: application/json
  Accept: application/json
Body:
{
  "activeThresholdProfile":"DEFAULT",
  "enable":true,
  "stateChangeSampleCount":5,
  "stateCalculationInterval":5000
}
```


2.8 Diameter Gateway Congestion Migration

Table 2-35 Diameter Gateway Congestion Migration APIs

API Name	HTTP Method or Custom Operation	Resource URI	Description	Possible Result Code
Get Diameter-Gateway Congestion Migration Details	GET	{apiRoot}/oc-cnpolicy-configuration/v1/congestioncontrol/diameter-gateway/migration	To get the status of data migration details when the systems is upgraded from the older version to current version.	See Table A-1
Migrate congestion control previous version configuration data to current version	POST	{apiRoot}/oc-cnpolicy-configuration/v1/congestioncontrol/diameter-gateway/migration	Migrate congestion control previous version configuration data to current version by taking some required inputs from the user and this migration is the one-time activity after version upgrade from old version to current version.	See Table A-3

Table 2-36 Request/Response Congestion Migration Data

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
enable	boolean	M	This enables the congestion control feature after successful migration.
thresholdsProfileData	ThresholdsProfileData	M	This new thresholds profile will be created with this profile data.
loadSheddingProfileData	LoadSheddingProfileData	M	This load shedding profile will configure as default profile for congestion load shedding rules.
messagePriorityProfileData	MessagePriorityProfileData	M	This message priority profile will configure as default profile for message priority profile, and this will be the common profile for both overload and congestion control feature.

Table 2-37 Request/Response ThresholdsProfileData

Field Name	Field Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
profileName	string	M	A new thresholds profile will be created with this profile name to migrate the old version thresholds data.
queueData	CongestionStateData	M	This queue data will be applied for different congestion states to migrate the old version threshold data.
cpuData	CongestionStateData	M	This CPU data will be applied for congestion states to migrate the old version thresholds data.

Table 2-38 Request/Response LoadSheddingProfileData

Field Name	Field Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
profileName	string	M	The provided load shedding profile will become the default profile for congestion load shedding rules. Value: Provide previous version profile name.
ruleDiscardPriorityData	CongestionStateData	M	This Respective Discard Priority data will be applied for congestion states to migrate the old version thresholds data.
loadSheddingResponseCodeData	LoadSheddingResponseCodeData	M	This congestion response result code will configure as common response code for all congestion discards in advance settings configurations.
ruleDiscardPriorityPercentageData	CongestionStatePriorityPercentageData	M	This is to decide the result code is the general result code or experimental result code, so if this value is greater than then the congestionResponseResultCode is consider as experimental result code.

Table 2-39 Request/Response CongestionStateData

Field Name	Field Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
queueData.state	string	M	Specify different congestion states. The allowed values are: • DANGER_OF_CONGESTION • CONGESTION_L1 • CONGESTION_L1 • CONGESTED
queueData.value	integer	M	Provide a numerical value in the range of 1-2147483647.
cpuData.state	string	M	Specify different congestion states. The allowed values are: • CONGESTION_L1 • CONGESTION_L1
cpuData.value	integer	M	Provide a numerical value in the range of 1-100.
ruleDiscardPriorityData.state	string	M	Specify different congestion states. The allowed values are: • CONGESTION_L1 • CONGESTION_L1
ruleDiscardPriorityData.value	integer	M	Provide a numerical value in the range of 1-31.

Table 2-40 Request/Response CongestionStatePriorityPercentageData

Field Name	Field Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
state	string	M	
discardPriorityPercentageData	DiscardPriorityPercentage	M	

Table 2-41 Request/Response DiscardPriorityPercentage

Field Name	Field Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
range	string	M	
percentage	integer	M	

Table 2-42 Request/Response LoadSheddingResponseCodeData

Field Name	Field Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
congestionResponseResultCode	integer	M	Provide a numerical value in the range of 1001-5999.
congestionResponseVendorId	integer	O	Provide a numerical value in the range of 0-4294967295

Table 2-43 Request/Response MessagePriorityProfileData

Field Name	Field Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
profileName	string	M	This message priority profile will configure as default profile for message priority profile, and this will be the common profile for both overload and congestion control feature Value: Provide previous version profile name.

Sample for GET Congestion migration details:

```
{
  "migrated": true,
  "attempts": 0,
  "cause": "string"
}
```

Sample for add (POST) migration details from previous version configuration data to current version:

```
{
  "enable": true,
  "thresholdsProfileData": {
    "profileName": "string",
    "queueData": [
      {
        "state": "string",
        "value": 0
      }
    ],
    "cpuData": [
      {
```

```

        "state": "string",
        "value": 0
    }
]
},
"loadSheddingProfileData": {
    "profileName": "string",
    "ruleDiscardPriorityData": [
        {
            "state": "string",
            "value": 0
        }
    ],
    "ruleDiscardPriorityPercentageData": [
        {
            "state": "string",
            "discardPriorityPercentagesData": [
                {
                    "range": "1 or 11-13",
                    "percentage": 23
                }
            ]
        }
    ],
    "loadSheddingResponseCodeData": {
        "congestionResponseResultCode": 0,
        "congestionResponseVendorId": 0
    }
},
"messagePriorityProfileData": {
    "profileName": "string"
}
}

```

2.9 Congestion Control

Note

The default Congestion Control Threshold profile cannot be updated by the User.

The Pod Congestion Control PCF services, resource URI parameter {serviceName} values can be:

- bulwark
- binding
- usage-mon
- policy-ds
- pcf-sm
- pcrf-core
- pcf-ue

- oc-diam-gateway
- diam-connector
- udr-connector
- chf-connector
- pcf-am
- notifier

Table 2-44 Congestion Control Configurations

API Description	HTTP Method or Custom Operation	Resource URI	Description	Possible Result Code
Get congestion control configurations.	GET	{apiRoot}/oc-cnpolicy-configuration/v1/congestionConfigurations/{serviceName}	To get enable, stateChangeSampleCount and stateCalculationInterval	See Table A-1
Update congestion control configurations.	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/congestionConfigurations/{serviceName}	To update enable, stateChangeSampleCount and stateCalculationInterval	See Table A-2

Get and Update Operations**Table 2-45 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
enable	boolean	M	Enable or Disable the Pod Congestion Control feature.
stateChangeSampleCount	integer	M	After how many continuous intervals, state can be changed. The count can range from 1 to 2147483647. Default value: 5
stateCalculationInterval	integer	M	Number of interval in milliseconds, after which the pod congestion state will be re-verified. Default value: 200ms
advancedSettings	AdvancedSettings	O	To add additional advanced settings keys to the settings.

Table 2-46 AdvancedSettings

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
key	string	O	Specifies the key name.
value	string	O	Specifies the value of the key.

Sample body request for PUT operation for Congestion Control Settings:

```
{
  "stateChangeSampleCount": 5,
  "stateCalculationInterval": 200,
  "enable": true,
  "advancedSettings": [
    {
      "key": "string",
      "value": "string"
    }
  ]
}
```

Table 2-47 Congestion Control Threshold Profile

API Description	HTTP Method or Custom Operation	Resource URI	Description	Possible Result Code
Update congestion control active threshold profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/congestionActiveThresholdProfile/{serviceName}/	To update the active threshold profile.	See Table A-2
Get congestion control active threshold profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/congestionThresholdProfiles/{serviceName}	To get the CPU and Queue threshold of DANGER_OF_CONGESTION, CONGESTION_L1, CONGESTION_L2 and CONGESTED states for all threshold profiles	See Table A-1
Update congestion control threshold profile.	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/congestionThresholdProfiles/{serviceName}/{profileName}	To update the CPU and Queue threshold of DANGER_OF_CONGESTION, CONGESTION_L1, CONGESTION_L2 and CONGESTED states of specific threshold profile.	See Table A-2

Table 2-47 (Cont.) Congestion Control Threshold Profile

API Description	HTTP Method or Custom Operation	Resource URI	Description	Possible Result Code
Get Congestion Control Threshold Profiles	GET	{apiRoot}/oc-cnpolicy-configuration/v1/congestionThresholdProfiles/{serviceName}	Get the configured threshold profile for the selected policy service.	See Table A-1
Add congestion control threshold profile.	POST	{apiRoot}/oc-cnpolicy-configuration/v1/congestionThresholdProfiles/{serviceName}/{profileName}	To add new congestion threshold profile with specified name	See Table A-3
Delete congestion control threshold profile.	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/congestionThresholdProfiles/{serviceName}/{profileName}	To delete new congestion threshold profile with specified name	See Table A-4

GET, PUT, and POST Operations

Table 2-48 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
name	String	M	This value should be same as the profileName in path variable.
value	CongestionThresholdState	M	Provide the congestion state.
isCustomProfile	Boolean	M	Denotes that this profile is custom created. Note: Currently user can create custom profiles only. Hence this value should be set to true.

Table 2-49 CongestionThresholdState

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
state	String	M	The value can be following pod Congestion states: • DANGER_OF_CONGESTION • CONGESTION_L1 • CONGESTION_L2 • CONGESTED Bulwark service supports only two states DANGER_OF_CONGESTION and CONGESTED.
resourceUsageLimit	CongestionResourceUsageLimit	M	The Threshold profiles resource usage limits for CPU & Queue.

Table 2-50 CongestionResourceUsageLimit

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
cpu	integer	M	Specifies the Queue percentage for Bulwark and Queue (pending requests) for all other Policy services across all the congestion levels. For Bulwark the range is 1 to 100 and for other services the range is between 1 to 2147483647.
queue	integer	M	Specifies the CPU percentage across all the congestion levels. The number can be between 1 to 100.

Sample body request for PUT and POST operations for Bulwark Service:

```
{
  "name": "profileName",
  "isCustomProfile": true,
  "value": [
    {
      "state": "DANGER_OF_CONGESTION",
      "resourceUsageLimit": {
        "cpu": 80,
```

```

        "queue": 75
      }
    },
    {
      "state": "CONGESTED",
      "resourceUsageLimit": {
        "cpu": 90,
        "queue": 85
      }
    }
  ]
}

```

Sample body request for PUT and POST operations for Congestion Threshold Profiles:

```

{
  "name": "profileName",
  "isCustomProfile": true,
  "value": [
    {
      "state": "DANGER_OF_CONGESTION",
      "resourceUsageLimit": {
        "cpu": 70,
        "queue": 30
      }
    },
    {
      "state": "CONGESTION_L1",
      "resourceUsageLimit": {
        "cpu": 75,
        "queue": 36
      }
    },
    {
      "state": "CONGESTION_L2",
      "resourceUsageLimit": {
        "cpu": 80,
        "queue": 42
      }
    },
    {
      "state": "CONGESTED",
      "resourceUsageLimit": {
        "cpu": 85,
        "queue": 48
      }
    }
  ]
}

```

Table 2-51 Import/Export Congestion Control Settings

API Name	Request Url	Request Type	Description
Export Congestion Control Settings	{apiRoot}/oc-cnpolicy-configuration/v1/congestionConfigurations/export	GET	To export congestion control settings
Import Congestion Control Settings	{apiRoot}/oc-cnpolicy-configuration/v1/congestionConfigurations/import?action={action}	POST	To import congestion control settings

Table 2-52 Request/Response Body Parameters

Field Name	Data Type	Mandatory/Optional/Conditional	Description
topic	String	M	It should be commonconfig.congestionControlSettings
sourceVersion	String	M	Build version
date	String	M	Date in pattern "yyyy-MM-dd'T'HH:mm:ss'Z"
exportData	Congestion Control Settings Data	M	Array for Congestion Control Settings. This array contains JSON objects for each service that supports congestion control feature.

```
{
  "topic": "commonconfig.congestionControlSettings",
  "sourceVersion": "24.3.0-beta.5",
  "date": "2024-08-29T07:15:09Z",
  "exportData": [
    {
      "serviceName": "binding",
      "stateChangeSampleCount": 5,
      "stateCalculationInterval": 200,
      "enable": false
    },
    {
      "serviceName": "diameter-gateway",
      "stateChangeSampleCount": 10,
      "stateCalculationInterval": 1000,
      "enable": true
    },
    {
      "serviceName": "pcf-sm",
      "stateChangeSampleCount": 2,
      "stateCalculationInterval": 5000,
      "enable": false
    }
  ],
}
```

```

    {
      "serviceName": "usage-mon",
      "stateChangeSampleCount": 5,
      "stateCalculationInterval": 200,
      "enable": false
    },
    {
      "serviceName": "pcrf-core",
      "stateChangeSampleCount": 5,
      "stateCalculationInterval": 200,
      "enable": true
    },
    {
      "serviceName": "policy-ds",
      "stateChangeSampleCount": 5,
      "stateCalculationInterval": 200,
      "enable": false
    },
    {
      "serviceName": "pcf-ue",
      "stateChangeSampleCount": 5,
      "stateCalculationInterval": 200,
      "enable": false
    },
    {
      "serviceName": "udr-connector",
      "stateChangeSampleCount": 2,
      "stateCalculationInterval": 5000,
      "enable": true
    },
    {
      "serviceName": "chf-connector",
      "stateChangeSampleCount": 2,
      "stateCalculationInterval": 5000,
      "enable": true
    },
    {
      "serviceName": "bulwark",
      "stateChangeSampleCount": 2,
      "stateCalculationInterval": 5000,
      "enable": true
    }
  ]
}

```

Table 2-53 Import/Export Congestion Control Threshold Profiles

API Name	Request Url	Request Type	Description
Export Congestion Control Threshold Profiles	{apiRoot}/oc-cnpolicy-configuration/v1/congestionThresholdProfiles/export	GET	To export congestion control threshold profiles

Table 2-53 (Cont.) Import/Export Congestion Control Threshold Profiles

API Name	Request Url	Request Type	Description
Import Congestion Control Threshold Profiles	{apiRoot}/oc-cnpolicy-configuration/v1/congestionThresholdProfiles/import?action={action}	POST	To import congestion control threshold profiles

Table 2-54 Request/Response Body Parameters

Field Name	Data Type	Mandatory/Optional/Conditional	Description
topic	String	M	It should be commonconfig.congestionThresholdProfiles
sourceVersion	String	M	Build version
date	String	M	Date in pattern "yyyy-MM-dd'T'HH:mm:ss'Z"
exportData	Congestion Threshold Profiles Data	M	Array for Congestion Control Threshold Profiles. This array contains JSON objects of each service that supports congestion control feature.

```
{
  "topic": "commonconfig.congestionThresholdProfiles",
  "sourceVersion": "24.3.0-beta.5",
  "date": "2024-08-29T07:17:37Z",
  "exportData": [
    {
      "congestionThresholdProfiles": [
        {
          "name": "DEFAULT",
          "value": [
            {
              "state": "DANGER_OF_CONGESTION",
              "resourceUsageLimit": {
                "cpu": 70,
                "queue": 120
              }
            },
            {
              "state": "CONGESTION_L1",
              "resourceUsageLimit": {
                "cpu": 75,
                "queue": 150
              }
            }
          ]
        }
      ]
    }
  ]
}
```

```

        "state": "CONGESTION_L2",
        "resourceUsageLimit": {
            "cpu": 80,
            "queue": 180
        }
    },
    {
        "state": "CONGESTED",
        "resourceUsageLimit": {
            "cpu": 85,
            "queue": 200
        }
    }
],
"isCustomProfile": false
}
],
"serviceName": "binding"
},
{
    "activeThresholdProfile": "DEFAULT",
    "congestionThresholdProfiles": [
        {
            "name": "DEFAULT",
            "value": [
                {
                    "state": "DANGER_OF_CONGESTION",
                    "resourceUsageLimit": {
                        "cpu": 60,
                        "queue": 20
                    }
                },
                {
                    "state": "CONGESTION_L1",
                    "resourceUsageLimit": {
                        "cpu": 70,
                        "queue": 30
                    }
                },
                {
                    "state": "CONGESTION_L2",
                    "resourceUsageLimit": {
                        "cpu": 75,
                        "queue": 40
                    }
                },
                {
                    "state": "CONGESTED",
                    "resourceUsageLimit": {
                        "cpu": 80,
                        "queue": 50
                    }
                }
            ]
        }
    ],
    "isCustomProfile": false
}
}

```

```

    ],
    "serviceName": "diameter-gateway"
  },
  {
    "congestionThresholdProfiles": [
      {
        "name": "DEFAULT",
        "value": [
          {
            "state": "DANGER_OF_CONGESTION",
            "resourceUsageLimit": {
              "cpu": 77,
              "queue": 140
            }
          },
          {
            "state": "CONGESTION_L1",
            "resourceUsageLimit": {
              "cpu": 78,
              "queue": 160
            }
          },
          {
            "state": "CONGESTION_L2",
            "resourceUsageLimit": {
              "cpu": 79,
              "queue": 180
            }
          },
          {
            "state": "CONGESTED",
            "resourceUsageLimit": {
              "cpu": 80,
              "queue": 200
            }
          }
        ]
      },
      {
        "isCustomProfile": false
      }
    ],
    "serviceName": "pcf-sm"
  },
  {
    "congestionThresholdProfiles": [
      {
        "name": "DEFAULT",
        "value": [
          {
            "state": "DANGER_OF_CONGESTION",
            "resourceUsageLimit": {
              "cpu": 70,
              "queue": 80
            }
          },
          {
            "state": "CONGESTION_L1",

```

```

        "resourceUsageLimit": {
            "cpu": 75,
            "queue": 100
        }
    },
    {
        "state": "CONGESTION_L2",
        "resourceUsageLimit": {
            "cpu": 80,
            "queue": 120
        }
    },
    {
        "state": "CONGESTED",
        "resourceUsageLimit": {
            "cpu": 85,
            "queue": 140
        }
    }
],
"isCustomProfile": false
}
],
"serviceName": "usage-mon"
},
{
    "congestionThresholdProfiles": [
        {
            "name": "DEFAULT",
            "value": [
                {
                    "state": "DANGER_OF_CONGESTION",
                    "resourceUsageLimit": {
                        "cpu": 60,
                        "queue": 250
                    }
                }
            ],
            {
                "state": "CONGESTION_L1",
                "resourceUsageLimit": {
                    "cpu": 65,
                    "queue": 300
                }
            },
            {
                "state": "CONGESTION_L2",
                "resourceUsageLimit": {
                    "cpu": 75,
                    "queue": 350
                }
            },
            {
                "state": "CONGESTED",
                "resourceUsageLimit": {
                    "cpu": 85,
                    "queue": 400
                }
            }
        ]
    }
]

```



```

        }
      },
      "isCustomProfile": false
    },
    {
      "name": "p1",
      "value": [
        {
          "state": "DANGER_OF_CONGESTION",
          "resourceUsageLimit": {
            "cpu": 96,
            "queue": 50
          }
        },
        {
          "state": "CONGESTION_L1",
          "resourceUsageLimit": {
            "cpu": 97,
            "queue": 100
          }
        },
        {
          "state": "CONGESTION_L2",
          "resourceUsageLimit": {
            "cpu": 98,
            "queue": 150
          }
        },
        {
          "state": "CONGESTED",
          "resourceUsageLimit": {
            "cpu": 99,
            "queue": 200
          }
        }
      ],
      "isCustomProfile": true
    }
  ],
  "serviceName": "pcrf-core"
},
{
  "congestionThresholdProfiles": [
    {
      "name": "DEFAULT",
      "value": [
        {
          "state": "DANGER_OF_CONGESTION",
          "resourceUsageLimit": {
            "cpu": 65,
            "queue": 50
          }
        },
        {
          "state": "CONGESTION_L1",

```

```

        "resourceUsageLimit": {
            "cpu": 70,
            "queue": 100
        }
    },
    {
        "state": "CONGESTION_L2",
        "resourceUsageLimit": {
            "cpu": 75,
            "queue": 150
        }
    },
    {
        "state": "CONGESTED",
        "resourceUsageLimit": {
            "cpu": 80,
            "queue": 200
        }
    }
],
"isCustomProfile": false
}
],
"serviceName": "policy-ds"
},
{
    "congestionThresholdProfiles": [
        {
            "name": "DEFAULT",
            "value": [
                {
                    "state": "DANGER_OF_CONGESTION",
                    "resourceUsageLimit": {
                        "cpu": 77,
                        "queue": 140
                    }
                }
            ],
            {
                "state": "CONGESTION_L1",
                "resourceUsageLimit": {
                    "cpu": 78,
                    "queue": 160
                }
            },
            {
                "state": "CONGESTION_L2",
                "resourceUsageLimit": {
                    "cpu": 79,
                    "queue": 180
                }
            },
            {
                "state": "CONGESTED",
                "resourceUsageLimit": {
                    "cpu": 80,
                    "queue": 200
                }
            }
        ]
    }
}

```

```

        }
      },
      "isCustomProfile": false
    },
    {
      "serviceName": "pcf-ue"
    },
    {
      "congestionThresholdProfiles": [
        {
          "name": "DEFAULT",
          "value": [
            {
              "state": "DANGER_OF_CONGESTION",
              "resourceUsageLimit": {
                "cpu": 55,
                "queue": 60
              }
            },
            {
              "state": "CONGESTION_L1",
              "resourceUsageLimit": {
                "cpu": 65,
                "queue": 70
              }
            },
            {
              "state": "CONGESTION_L2",
              "resourceUsageLimit": {
                "cpu": 75,
                "queue": 80
              }
            },
            {
              "state": "CONGESTED",
              "resourceUsageLimit": {
                "cpu": 85,
                "queue": 90
              }
            }
          ]
        },
        {
          "name": "DEFAULT",
          "value": [
            {
              "state": "DANGER_OF_CONGESTION",
              "resourceUsageLimit": {
                "cpu": 55,

```

```

        "queue": 60
      }
    },
    {
      "state": "CONGESTION_L1",
      "resourceUsageLimit": {
        "cpu": 65,
        "queue": 70
      }
    },
    {
      "state": "CONGESTION_L2",
      "resourceUsageLimit": {
        "cpu": 75,
        "queue": 80
      }
    },
    {
      "state": "CONGESTED",
      "resourceUsageLimit": {
        "cpu": 85,
        "queue": 90
      }
    }
  ],
  "isCustomProfile": false
},
{
  "serviceName": "chf-connector"
},
{
  "congestionThresholdProfiles": [
    {
      "name": "DEFAULT",
      "value": [
        {
          "state": "DANGER_OF_CONGESTION",
          "resourceUsageLimit": {
            "cpu": 80,
            "queue": 75
          }
        },
        {
          "state": "CONGESTED",
          "resourceUsageLimit": {
            "cpu": 90,
            "queue": 85
          }
        }
      ],
      "isCustomProfile": false
    }
  ],
  "serviceName": "bulwark"
}

```

```
} ]
```

2.10 Congestion Control Load Shedding Profiles

Congestion Control Load Shedding Rules APIs

Note

The default Congestion Control Load Shedding Rule cannot be updated by the User.

The Pod Congestion Control PCF services, resource URI parameter {serviceName} values can be:

- bulwark
- binding
- usage-mon
- policy-ds
- pcf-sm
- pcrf-core
- pcf-ue
- oc-diam-gateway
- diam-connector
- udr-connector
- chf-connector
- pcf-am
- notifier

Table 2-55 Congestion Control Load Shedding Rules APIs

API Description	HTTP Method or Custom Operation	Resource URI	Description	Possible Result Code
Get Congestion Control Load Shedding Rules	GET	/oc-cnpolicy-configuration/v1/congestionLoadSheddingRule/{serviceName}	Gets the load shedding rules for bulwark, binding, usage-mon, policy-ds, pcf-sm, pcrf-core, pcf-ue, oc-diam-gateway, diam-connector, udr-connector, chf-connector, pcf-am, and notifier services.	See Table A-1
Update congestion control load shedding rule.	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/congestionLoadSheddingRule/{serviceName}/{ruleName}	To update the discard priority of DANGER_OF_CONGESTION, CONGESTION_L1, CONGESTION_L2 and CONGESTED states of specific threshold rule.	See Table A-2
Add congestion control load shedding rule.	POST	{apiRoot}/oc-cnpolicy-configuration/v1/congestionLoadSheddingRule/{serviceName}/{ruleName}	To add new congestion load shedding rule with specified name	See Table A-3
Delete congestion control load shedding rule.	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/congestionLoadSheddingRule/{serviceName}/{ruleName}	To delete congestion load shedding rule with specified name	See Table A-4

Table 2-56 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
name	String	M	This value should be same as the ruleName in path variable.
value	CongestionLoadSheddingState	M	This value should be different congestion states.

Table 2-56 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
isCustomProfile	Boolean	M	Denotes that the rule is custom created by user. Note: Currently user can create custom rules only. Hence this value should be set to true.

Table 2-57 CongestionLoadSheddingState

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
state	String	M	The value can be following pod Congestion states: • DANGER_OF_CONGESTION • CONGESTION_L1 • CONGESTION_L2 • CONGESTED Bulwark service supports only two states DANGER_OF_CONGESTION and CONGESTED.
discardPriority	integer	M	The discard priority value for the requests. The minimum value is 0 and maximum value is 31. Default Value: 5
discardPriorityPercentage	DiscardPriorityPercentage	O	The discard priority range or percentage for the requests. Note: This is applicable only to Diameter Gateway service.

Table 2-58 DiscardPriorityPercentage

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
range	string	M	The discard priority value or range for the requests. The values allowed is a number such as 1 or a pattern like 11-13. Note: This is applicable only to Diameter Gateway service.
percentage	integer	M	The percentage of requests that needs to be discarded. The minimum value is 1 and maximum value is 100. Example: 23 Note: This is applicable only to Diameter Gateway service.

Sample body request for Put and Post operations for Priority Based Load Shedding for Bulwark Service:

```
{
  "name": "ruleName",
  "value":
  [
    {
      "state": "CONGESTED",
      "discardPriority": 10
    },
    {
      "state": "DANGER_OF_CONGESTION",
      "discardPriority": 20
    }
  ],
  "isCustomProfile": true
}
```

Sample body request for Put and Post operations for Priority Based Load Shedding for Other Policy Services :

```
{
  "name": "ruleName",
  "value":
  [
    {
```



```

        "state": "CONGESTED",
        "discardPriority": 20
    },
    {
        "state": "CONGESTION_L2",
        "discardPriority": 24
    },
    {
        "state": "CONGESTION_L1",
        "discardPriority": 27
    },
    {
        "state": "DANGER_OF_CONGESTION",
        "discardPriority": 30
    }
],
"isCustomProfile": true
}

```

Sample body request for Put and Post operations for Priority and Percentage based Load Shedding for Diameter Gateway Services:

```

{
  "name": "ruleName",
  "value": [
    {
      "state": "CONGESTED",
      "discardPriorityPercentage": [
        {
          "range": 11
          "percentage": 20
        }
      ]
    },
    {
      "state": "CONGESTION_L2",
      "discardPriorityPercentage": [
        {
          "range": 1-3
          "percentage": 30
        },
        {
          "range": 5
          "percentage": 60
        }
      ]
    },
    {
      "state": "CONGESTION_L1",
      "discardPriorityPercentage": [
        {
          "range": 5-10
          "percentage": 60
        }
      ]
    }
  ]
}

```

```

    },
    {
      "range": 1-3
      "percentage": 30
    },
    {
      "range": 12
      "percentage": 70
    }
  ]
},
{
  "state": "DANGER_OF_CONGESTION",
  "discardPriorityPercentage": [
    {
      "range": 6
      "percentage": 70
    }
  ]
}
],
"isCustomProfile": true
}

```

Congestion Control Load Shedding Profile APIs

Table 2-59 Congestion Control Load Shedding Profiles

API Description	HTTP Method or Custom Operation	Resource URI	Description	Possible Result Code
Get Congestion Control Load Shedding Profiles	GET	{apiRoot}/oc-cnpolicy-configuration/v1/congestionLoadSheddingProfile/{serviceName}	To get the name, type and active load shedding rule.	See Table A-1
Update Congestion Control Load Shedding Profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/congestionLoadSheddingProfile/{serviceName}	To update name and loadSheddingRule Name	See Table A-2

Table 2-60 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
name	String	M	Name of the load shedding profile.
loadSheddingRuleName	String	M	Name of profile name which we want to activate.

Table 2-60 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
type	String	M	This value will be congestion always.

Sample body request for Get operations for Load Shedding Profiles:

```
{
  "name": "loadSheddingProfile",
  "loadSheddingRuleName": "DEFAULT",
  "type": "congestion"
}
```

Sample body request for Put operations for Load Shedding Profiles:

```
{
  "name": "loadSheddingProfile",
  "loadSheddingRuleName": "loadSheddingRule",
  "type": "congestion"
}
```

Import or Export Congestion Control Load Shedding Rules

Table 2-61 Import/Export Congestion Control Load Shedding Rules

API Name	Request Url	Request Type	Description
Export Congestion Control Load Shedding Rules	{apiRoot}/oc-cnpolicy-configuration/v1/congestionLoadSheddingRule/export	GET	To export congestion control load shedding rules
Import Congestion Control Load Shedding rules	{apiRoot}/oc-cnpolicy-configuration/v1/congestionLoadSheddingRule/import?action={action}	POST	To import congestion control load shedding rules

Table 2-62 Request/Response Body Parameters

Field Name	Data Type	Mandatory/Optional/ Conditional	Description
topic	String	M	commonconfig.congestionLoadSheddingRules
sourceVersion	String	M	Build version
date	String	M	Date in pattern "yyyy-MM-dd'T'HH:mm:ss'Z'"

Table 2-62 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory/Optional/Conditional	Description
exportData	Congestion Load Shedding Data	M	Array for Congestion Control Settings. This array contains JSON objects for each service that supports congestion control feature.

```
{
  "topic": "commonconfig.congestionLoadSheddingRules",
  "sourceVersion": "25.1.100",
  "date": "2025-01-03T09:29:46Z",
  "exportData": [
    {
      "congestionLoadSheddingProfiles": [
        {
          "name": "loadSheddingProfile",
          "loadSheddingRuleName": "DEFAULT",
          "type": "congestion"
        }
      ],
      "congestionLoadSheddingRules": [
        {
          "name": "DEFAULT",
          "value": [
            {
              "state": "DANGER_OF_CONGESTION",
              "discardPriority": 27
            },
            {
              "state": "CONGESTION_L1",
              "discardPriority": 19
            },
            {
              "state": "CONGESTION_L2",
              "discardPriority": 17
            },
            {
              "state": "CONGESTED",
              "discardPriority": 15
            }
          ],
          "isCustomProfile": false
        },
        {
          "name": "DEFAULT_PRIORITY_AND_PERCENTAGE",
          "value": [
            {
              "state": "DANGER_OF_CONGESTION",
              "discardPriorityPercentage": [
```

```

        {
          "range": "27-31",
          "percentage": 50
        }
      ],
    },
    {
      "state": "CONGESTION_L1",
      "discardPriorityPercentage": [
        {
          "range": "19-26",
          "percentage": 50
        },
        {
          "range": "27-31",
          "percentage": 75
        }
      ]
    },
    {
      "state": "CONGESTION_L2",
      "discardPriorityPercentage": [
        {
          "range": "17-18",
          "percentage": 50
        },
        {
          "range": "19-26",
          "percentage": 75
        },
        {
          "range": "27-31",
          "percentage": 100
        }
      ]
    },
    {
      "state": "CONGESTED",
      "discardPriorityPercentage": [
        {
          "range": "15-31",
          "percentage": 100
        }
      ]
    }
  ],
  "isCustomProfile": false
},
"serviceName": "oc-diam-gateway"
},
{
  "congestionLoadSheddingProfiles": [
    {
      "name": "loadSheddingProfile",
      "loadSheddingRuleName": "DEFAULT",

```

```

        "type": "congestion"
    }
],
"congestionLoadSheddingRules": [
    {
        "name": "DEFAULT",
        "value": [
            {
                "state": "DANGER_OF_CONGESTION",
                "discardPriority": 29
            },
            {
                "state": "CONGESTION_L1",
                "discardPriority": 23
            },
            {
                "state": "CONGESTION_L2",
                "discardPriority": 17
            },
            {
                "state": "CONGESTED",
                "discardPriority": 15
            }
        ],
        "isCustomProfile": false
    }
],
"serviceName": "udr-connector"
},
{
    "congestionLoadSheddingProfiles": [
        {
            "name": "loadSheddingProfile",
            "loadSheddingRuleName": "DEFAULT",
            "type": "congestion"
        }
    ],
    "congestionLoadSheddingRules": [
        {
            "name": "DEFAULT",
            "value": [
                {
                    "state": "DANGER_OF_CONGESTION",
                    "discardPriority": 28
                },
                {
                    "state": "CONGESTION_L1",
                    "discardPriority": 25
                },
                {
                    "state": "CONGESTION_L2",
                    "discardPriority": 20
                },
                {
                    "state": "CONGESTED",
                    "discardPriority": 17
                }
            ]
        }
    ]
}

```

```

        }
      ],
      "isCustomProfile": false
    }
  ],
  "serviceName": "diam-connector"
},
{
  "congestionLoadSheddingProfiles": [
    {
      "name": "loadSheddingProfile",
      "loadSheddingRuleName": "DEFAULT",
      "type": "congestion"
    }
  ],
  "congestionLoadSheddingRules": [
    {
      "name": "DEFAULT",
      "value": [
        {
          "state": "DANGER_OF_CONGESTION",
          "discardPriority": 30
        },
        {
          "state": "CONGESTION_L1",
          "discardPriority": 27
        },
        {
          "state": "CONGESTION_L2",
          "discardPriority": 24
        },
        {
          "state": "CONGESTED",
          "discardPriority": 20
        }
      ]
    }
  ],
  "isCustomProfile": false
}
],
"serviceName": "binding"
},
{
  "congestionLoadSheddingProfiles": [
    {
      "name": "loadSheddingProfile",
      "loadSheddingRuleName": "DEFAULT",
      "type": "congestion"
    }
  ],
  "congestionLoadSheddingRules": [
    {
      "name": "DEFAULT",
      "value": [
        {
          "state": "DANGER_OF_CONGESTION",
          "discardPriority": 27
        }
      ]
    }
  ]
}

```

```

        },
        {
            "state": "CONGESTION_L1",
            "discardPriority": 19
        },
        {
            "state": "CONGESTION_L2",
            "discardPriority": 17
        },
        {
            "state": "CONGESTED",
            "discardPriority": 15
        }
    ],
    "isCustomProfile": false
}
],
"serviceName": "pcf-sm"
},
{
    "congestionLoadSheddingProfiles": [
        {
            "name": "loadSheddingProfile",
            "loadSheddingRuleName": "DEFAULT",
            "type": "congestion"
        }
    ],
    "congestionLoadSheddingRules": [
        {
            "name": "DEFAULT",
            "value": [
                {
                    "state": "DANGER_OF_CONGESTION",
                    "discardPriority": 30
                },
                {
                    "state": "CONGESTION_L1",
                    "discardPriority": 27
                },
                {
                    "state": "CONGESTION_L2",
                    "discardPriority": 24
                },
                {
                    "state": "CONGESTED",
                    "discardPriority": 20
                }
            ],
            "isCustomProfile": false
        }
    ],
    "serviceName": "usage-mon"
},
{
    "congestionLoadSheddingProfiles": [
        {

```



```

        "name": "loadSheddingProfile",
        "loadSheddingRuleName": "DEFAULT",
        "type": "congestion"
    }
],
"congestionLoadSheddingRules": [
    {
        "name": "DEFAULT",
        "value": [
            {
                "state": "DANGER_OF_CONGESTION",
                "discardPriority": 29
            },
            {
                "state": "CONGESTION_L1",
                "discardPriority": 23
            },
            {
                "state": "CONGESTION_L2",
                "discardPriority": 17
            },
            {
                "state": "CONGESTED",
                "discardPriority": 15
            }
        ],
        "isCustomProfile": false
    }
],
"serviceName": "pcrf-core"
},
{
    "congestionLoadSheddingProfiles": [
        {
            "name": "loadSheddingProfile",
            "loadSheddingRuleName": "DEFAULT",
            "type": "congestion"
        }
    ],
    "congestionLoadSheddingRules": [
        {
            "name": "DEFAULT",
            "value": [
                {
                    "state": "DANGER_OF_CONGESTION",
                    "discardPriority": 28
                },
                {
                    "state": "CONGESTION_L1",
                    "discardPriority": 20
                },
                {
                    "state": "CONGESTION_L2",
                    "discardPriority": 17
                }
            ],
            {

```

```

        "state": "CONGESTED",
        "discardPriority": 15
    }
  ],
  "isCustomProfile": false
},
{
  "serviceName": "policy-ds"
},
{
  "congestionLoadSheddingProfiles": [
    {
      "name": "loadSheddingProfile",
      "loadSheddingRuleName": "DEFAULT",
      "type": "congestion"
    }
  ],
  "congestionLoadSheddingRules": [
    {
      "name": "DEFAULT",
      "value": [
        {
          "state": "DANGER_OF_CONGESTION",
          "discardPriority": 29
        },
        {
          "state": "CONGESTION_L1",
          "discardPriority": 23
        },
        {
          "state": "CONGESTION_L2",
          "discardPriority": 17
        },
        {
          "state": "CONGESTED",
          "discardPriority": 15
        }
      ],
      "isCustomProfile": false
    }
  ],
  "serviceName": "chf-connector"
},
{
  "congestionLoadSheddingProfiles": [
    {
      "name": "loadSheddingProfile",
      "loadSheddingRuleName": "DEFAULT",
      "type": "congestion"
    }
  ],
  "congestionLoadSheddingRules": [
    {
      "name": "DEFAULT",
      "value": [
        {

```

```

        "state": "DANGER_OF_CONGESTION",
        "discardPriority": 28
    },
    {
        "state": "CONGESTION_L1",
        "discardPriority": 25
    },
    {
        "state": "CONGESTION_L2",
        "discardPriority": 20
    },
    {
        "state": "CONGESTED",
        "discardPriority": 17
    }
],
"isCustomProfile": false
}
],
"serviceName": "pcf-ue"
},
{
    "congestionLoadSheddingProfiles": [
        {
            "name": "loadSheddingProfile",
            "loadSheddingRuleName": "DEFAULT",
            "type": "congestion"
        }
    ],
    "congestionLoadSheddingRules": [
        {
            "name": "DEFAULT",
            "value": [
                {
                    "state": "DANGER_OF_CONGESTION",
                    "discardPriority": 20
                },
                {
                    "state": "CONGESTED",
                    "discardPriority": 10
                }
            ],
            "isCustomProfile": false
        }
    ],
    "serviceName": "bulwark"
}
]
}

```

2.11 NRF Agent

Table 2-63 Policy General Settings APIs Schema updated for supporting Sbi-correlation:

Description	HTTP Method	Resource URI	Application Type	Response Status
Get NRF Agent Service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/nrfAgent	application/json	See Table A-1
Update NRF Agent Service	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/nrfAgent	application/json	See Table A-2
Import NRF agent service	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/nrfAgent/export	application/json	
Export NRF agent service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/nrfAgent/import	application/json	

Table 2-64 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
nrfAgentNfCommProfile	String	O	NRF Agent Communication Profile
onDemandDiscoveryCaching.enableFeature	Boolean	O	Indicates NRF Client to cache the profile data and use it to process the future discovery on-demand requests. Default value: false

Table 2-64 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
onDemandDiscoveryCaching.queryParameters	String	O	Accepts the list of parameters that NRF Client uses to fetch the profile data from cache. Note: The query parameters in the request from SM service, AM service, UE Policy service must match and must be in the same order as the data received from NRF. Otherwise, NRF Client can not process the request. Supported values: • target-nf-type • requester-nf-type • target-nf-set-id • service-names • amf-region-id • amf-set-id • GUAMI
onDemandDiscoveryCaching.refreshBeforeExpiryTime	String	O	Indicates the time in milliseconds before expiration when a rediscovery must be performed for the requested discovery parameters. Default value: 4500
onDemandDiscoveryCaching.limitCacheEntries	String	O	Parameter to set the upper bound of cache registries allowed to be retained. Default value: 2000
onDemandDiscoveryCaching.retentionPeriod	String	O	Indicates the time a record is allowed to stay in database after expiry and before any clean process is executed. Default value: 864000000 Note: Retention Period value is ignored when force discovery is enabled

Table 2-64 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
onDemandDiscoveryCaching.auditorSchedulerInterval	String	O	Parameter to set time in milliseconds to activate the Discovery Cache auditor service to clean stale records. Default value: 1800000
onDemandDiscoveryCaching.auditorPurgePercentage	String	O	Parameter to set the percentage of the cached DiscoveryRequests that will be pruned once the threshold has been passed. Default value: 20

Sample Response/Request body structure for GET and PUT operations respectively:

```
{
  "nrfAgentNfCommProfile": "string"
  "onDemandDiscoveryCaching":
    {
      "enableFeature": false,
      "queryParameters": [],
      "refreshBeforeExpiryTime": 4500,
      "limitCacheEntries": 2000,
      "retentionPeriod": 864000000,
      "auditorSchedulerInterval": 1800000,
      "auditorPurgePercentage": 20
    }
}
```

2.12 Error Configurations

API support is available for EXPORT/IMPORT of error handler configurations.

Table 2-65 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Media Type	Possible Result Code
Export Error Configuration	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/errorHandler/errorConfiguration/export	application/json	See Table A-1

Table 2-65 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Media Type	Possible Result Code
Import Error Configuration	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/errorHandler/errorConfiguration/import?action=replace*	application/json	See Table A-3

This section describes the body parameters for Error Import or Export Configurations.

Table 2-66 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
topic	string	M	Topic of each managed object
sourceVersion	string	O	System version of product from which data is exported
date	string	O	Current Timestamp
exportData	array	O	Exported list of error rules configurations

2.13 Diameter Error Codes

Table 2-67 Supported REST APIs - Diameter Error Codes

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Diameter Error Codes	GET	/oc-cnpolicy-configuration/v1/diameter/diameterErrorCodes/{appId}	200: OK 400: Bad request 404: Not Found 500: Internal Server Error 503: Service Unavailable
Update Diameter Error Codes	PUT	/oc-cnpolicy-configuration/v1/diameter/diameterErrorCodes/{appId}	200: OK 400: Bad request 404: Not Found 500: Internal Server Error 503: Service Unavailable

Table 2-67 (Cont.) Supported REST APIs - Diameter Error Codes

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export Diameter Error Codes	GET	/oc-cnpolicy-configuration/v1/diameter/diameterErrorCodes/export	200: OK 400: Bad request 404: Not Found 500: Internal Server Error 503: Service Unavailable
Import Diameter Error Codes	POST	/oc-cnpolicy-configuration/v1/diameter/diameterErrorCodes/import	200: OK 400: Bad request 404: Not Found 500: Internal Server Error 503: Service Unavailable

Get and Update Diameter Error Codes**Table 2-68 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
appld	string	Mandatory	Specifies the application ID.
errorCodes	array	Mandatory	Specifies the error parameters.
conditionName	string	Mandatory	Specifies the system defined name for a given condition.
useExperimentalResultCode	boolean	Optional	Indicates whether to use the Result Code AVP (268) or Experimental Result AVP (297) when an error result is generated by Policy.
errorMessage	string	Optional	Specifies the description for a defined condition. It is recommended to use descriptions that clearly explain the condition.
diameterResultCode	string	Conditional	Specifies the Diameter result code for a defined condition.
experimentalResultCode	string	Conditional	Specifies the custom Diameter result code for a defined condition.

Sample Request body for Diameter Error Codes PUT operation:

```
{
  "appId": "Rx",
  "errorCodes": [
    {
      "conditionName": "IP CAN session not established",
      "useExperimentalResultCode": false,
      "errorMessage": "Enforcement session not found for current request",

```



```

        "diameterResultCode": "3012"
    }
  ]
}

```

Sample Response body structure for Diameter Error Codes GET and PUT operation:

```

{
  "appId": "Rx",
  "errorCodes": [
    {
      "conditionName": "IP CAN session not established",
      "useExperimentalResultCode": false,
      "errorMessage": "Enforcement session not found for current request",
      "diameterResultCode": "3012"
    }
  ]
}

```

Import and Export Diameter Error Codes

Table 2-69 Request or Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
topic	string	Mandatory	Topic of each managed object
sourceVersion	string	Optional	System version of product from which data is exported
date	string	Optional	Current timestamp
exportData	array	Mandatory	Exported list of Error Codes.
appld	string	Mandatory	Specifies the application ID.
errorCodes	string	Mandatory	Specifies the error parameters.
conditionName	string	Mandatory	Specifies the error condition name
useExperimentalResult Code	Boolean	Optional	Indicates whether to use the Result Code AVP (268) or Experimental Result AVP (297) when an error result is generated by BSF.
errors.message	string	Optional	Error message
diameterResultCode	string	Conditional	Specifies the custom Diameter result code for a defined condition.

Sample Request Body structure for Diameter Error Codes Import and Export operations:

```

{
  "topic": "diameter.errorcodes.test",
  "sourceVersion": "23.2.0-od-20230307",
  "date": "2023-03-10T17:44:08Z",
  "exportData": [
    {
      "appId": "Rx",
      "errorCodes": [
        {
          "conditionName": "IP CAN session not established",
          "useExperimentalResultCode": false,
          "errorMessage": "Enforcement session not found for current request",
          "diameterResultCode": "3012"
        }
      ]
    }
  ]
}

```

2.14 Session Viewer

Table 2-70 Policy Session Viewer APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Session	GET	{apiRoot}/oc-cnpolicy-query/v1/sessions	See Table A-1
Delete Session	DELETE	{apiRoot}/oc-cnpolicy-query/v1/sessions	See Table A-4

Get and Delete Session

Table 2-71 Request Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
sessionType	string	M	Allowed Values: 1. SM_Policy_Association 2. AM_Policy_Association 3. PA_Policy_Association 4. SM_TDF_Session 5. PCRF_Core_Session 6. Binding_Session 7. User_Data 8. UE_Policy_Association 9. Usage_Monitoring 10. All DELETE with "All" option is implemented to delete all subscriber/session for SM and PA session type only.

Table 2-71 (Cont.) Request Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
identifierType	string	M	Allowed Values: • SUPI • IMSI • MSISDN • POLICY_ASSOC_ID • DIAMETER_SESSION_ID • GPSI • PEI SM Service supports all the values from 1-6 UE Service supports SUPI, GPSI, PEI, and POLICY_ASSOC_ID AM Service supports SUPI, GPSI, and POLICY_ASSOC_ID PA service only supports POLICY_ASSOC_ID PCRF-CORE supports (IMSI , MSISDN ,IPV4, IPV6, DIAMETER_SESSION_ID) USER-DATA supports SUPI and GPSI UE Service supports (SUPI and POLICY_ASSOC_ID) Usage Monitoring supports SUPI and GPSI ALL supports SUPI and GPSI
identifierValue	string	M	Indicates the value of the selected identifier type.
sessionSubtype	string	O	Allowed Values: • ALL • GX • RX • SD
remote	boolean	O	Allowed Values: • true • false
getUserData	boolean	M	Allowed Values: • true • false

Sample Response body structure for GET operation:

```
"string"
```

cURL Commands

The following are sample cURL commands for some of the services:

For UE Service

- **GET**

```
curl -X GET "http://<localhost>/oc-cnpolicy-query/v1/sessions?
identifierType=POLICY_ASSOC_ID&identifierValue=5bc04e63-b2b8-4084-
b8d5-577c8d05a0b2&sessionType=UE_Policy_Association" -H "accept: application/
json"
```

- **DELETE**

```
curl -X DELETE "http://<localhost>/oc-cnpolicy-query/v1/sessions?
identifierType=SUPI&identifierValue=imsi-100000000002&sessionType=UE_Policy_Ass
ociation" -H "accept: application/json"
```

For PA Service

- **GET**

```
curl -X GET "http://<localhost>/oc-cnpolicy-query/v1/sessions?
identifierType=POLICY_ASSOC_ID&identifierValue=5bc04e63-b2b8-4084-
b8d5-577c8d05a0b2&sessionType=PA_Policy_Association" -H "accept: application/
json"
```

- **DELETE**

```
curl -X DELETE "http://<localhost>/oc-cnpolicy-query/v1/sessions?
identifierType=POLICY_ASSOC_ID&identifierValue=73c3a7cd-afdb-4ce6-828b-
a0fd2bd401ae&sessionType=PA_Policy_Association" -H "accept: application/json"
```

For AM Service

- **GET**

```
curl -X GET "http://<localhost>/oc-cnpolicy-query/v1/sessions?
identifierType=supi&identifierValue=imsi-450081000000001&sessionType=AM_Policy
_Association" -H "accept: application/json"
```

- **DELETE**

```
curl -X DELETE "http://<localhost>/oc-cnpolicy-query/v1/sessions?
identifierType=SUPI&identifierValue=imsi-450081000000001&sessionType=AM_Policy
_Association" -H "accept: application/json"
```

For PCRF Core Service

- **GET**

```
curl -X 'GET' \ 'https://<localhost>/oc-cnpolicy-query/v1/sessions?
getUserData=true&identifierType=MSISDN&identifierValue=01151601062&sessionType
=PCRF_Core_Session' \ -H 'accept: application/json'
```

- **DELETE**

```
curl -X 'DELETE' \ 'https://<localhost>/oc-cnpolicy-query/v1/sessions?
getUserData=true&identifierType=MSISDN&identifierValue=01151601062&sessionType
=PCRF_Core_Session' \ -H 'accept: application/json'
```

2.15 Policy General Settings

Table 2-72 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Individual General Configuration	GET	{apiRoot}/oc-cnpolicy-configuration/v1/general	See Table A-1
Update General Configuration	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/general	See Table A-2
Export Global Configurations	GET	{apiRoot}/oc-cnpolicy-configuration/v1/general/export	See Table A-1
Import Global Configurations	POST	{apiRoot}/oc-cnpolicy-configuration/v1/general/import	See Table A-3

Get and Update Operations

Table 2-73 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
apiGatewayHost	String	O	Name for the API gateway host
apiGatewayPort	Number	O	Port number of the API gateway
enableMetrics	boolean	O	This determines if system metrics is enabled. This will take priority on global metrics config Default Value: TRUE
enableTLS	boolean	O	This determines if TLS is enabled Default Value: TRUE
enableTracing	boolean	O	This determines if tracing is enabled Default Value: TRUE
enableSubscriberLog	boolean	O	This determines if subscriber logging is enabled for a subscriber Default Value: FALSE

Table 2-73 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
perHost	string	O	Valid url of PER host to receive the PER record. The format of the url is: http://per-host:per-port, where per-host specifies the PER host and per-port specifies the PER port. For example, http://localhost:8101/v1/echo
enablePER	boolean	O	This determines whether to enable/disable Policy Event Record (PER) feature Default Value: false
enableSBICorrelation	boolean	O	This determines whether to enable/disable correlation-info header in PCF Default Value: false
enhancedLogging	Array	O	Used to configure the enhanced logging for Policy. For details on the parameters under in section, see Table 2-74 .

Table 2-74 Request/Response Parameters for Enhanced Logging

Name	Data Type	Mandatory (M)/ Optional (O)	Description
enhancedLogging.enableEnhancedLogging	Boolean	O	Specifies whether to enable or disable enhanced logging for the Policy deployment. Default value: false

Table 2-74 (Cont.) Request/Response Parameters for Enhanced Logging

Name	Data Type	Mandatory (M)/ Optional (O)	Description
enhancedLogging.staleSessionDeletionLogLevel	String	O	Specifies the log level for stale session deletions. The available log levels for stale session deletions are: • TRACE • DEBUG • INFO • WARN • ERROR The logs for Policy stale binding deletion are generated at the specified level. Note: The value of this field does not modify in any way the log level for Policy. The root log level of Policy must be either the same log level defined in the selected or lower for these deletion logs to appear. For example, if the stale session deletions log level is at INFO, then Policy log level must be either TRACE, DEBUG, or INFO. Default value: INFO.
enhancedLogging.enableLogUEIdentifierInfo	Boolean	O	Specifies whether to enable or disable UE Identifier information for the Policy deployment. Default value: false
enhancedLogging.enableLogUEInfoInSessionDeletion	Boolean	O	Specifies whether to enable or disable UE Identifier information in stale session deletion logging. When this field is disabled, the UE Identifier information in the logs are masked. That is, the identifier information appears like 'xxxx'. Default value: false

Table 2-74 (Cont.) Request/Response Parameters for Enhanced Logging

Name	Data Type	Mandatory (M)/ Optional (O)	Description
enhancedLogging.enableTruncateStackTrace	Boolean	O	Specifies whether to enable or disable the Stack Trace Truncation feature. When this field is enabled, the amount of lines configured on all stack traces are truncated. Default value: true
enhancedLogging.stackTraceLines	Integer	O	This field is configured to limit the number of lines shown on the stack trace. Default value: 5

Sample Request body structure for PUT operations:

```
{
  "enableTracing": true,
  "enableMetrics": true,
  "apiGatewayHost": "string",
  "": 80,
  "enableTls": true,
  "enableSubscriberLog": true,
  "enablePER": true,
  "perHost": "string",
  "enableSBICorrelation": true,
  "enhancedLogging": {
    "enableTruncateStackTrace": true,
    "stackTraceLines": 0,
    "enableEnhancedLogging": true,
    "staleSessionDeletionLogLevel": "string",
    "enableLogUEIdentifierInfo": true,
    "enableLogUeInfoInSessionDeletion": true
  }
}
```

Sample Response body structure for GET and PUT operations:

```
{
  "enableTracing": true,
  "enableMetrics": true,
  "apiGatewayHost": "string",
  "enableTls": true,
  "enableSubscriberLog": true,
  "enablePER": true,
  "perHost": "string",
  "enhancedLogging": {
```

```

    "enableEnhancedLogging": true,
    "staleSessionDeletionLogLevel": "string",
    "enableLogUEIdentifierInfo": true,
    "enableLogUeInfoInSessionDeletion": true,
    "enableTruncateStackTrace": true,
    "stackTraceLines": 0
  }
}

```

Export/Import Global Configurations

Table 2-75 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of diameter settings. For more information, see Get and Update Operations
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": {
    "enableTracing": true,
    "enableMetrics": true,
    "apiGatewayHost": "string",
    "": 80,
    "enableTls": true,
    "enableSubscriberLog": true,
    "enablePER": true,
    "perHost": "string",
    "enableSBICorrelation": true,
    "enhancedLogging": {
      "enableTruncateStackTrace": true,
      "stackTraceLines": 0,
      "enableEnhancedLogging": true,
      "staleSessionDeletionLogLevel": "string",
      "enableLogUEIdentifierInfo": true,
      "enableLogUeInfoInSessionDeletion": true
    }
  }
}

```

2.16 Subscriber Logging

Table 2-76 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Subscriber Logging	POST	{apiRoot}/oc-cnpolicy-configuration/v1/subscriberActivityLogging	See Table A-3
Export Subscriber Logs	GET	{apiRoot}/oc-cnpolicy-configuration/v1/subscriberActivityLogging/export	See Table A-1
Import Subscriber Logs	POST	{apiRoot}/oc-cnpolicy-configuration/v1/subscriberActivityLogging/import	See Table A-3
Get Subscriber Logging	GET	{apiRoot}/oc-cnpolicy-configuration/v1/subscriberActivityLogging/{identifierValue}	See Table A-1
Update Subscriber Logging	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/subscriberActivityLogging/{identifierValue}	See Table A-2
Delete Subscriber Logging	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/subscriberActivityLogging/{identifierValue}	See Table A-4

Get and Create Subscriber Logging

Table 2-77 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
enable	boolean	M	
type	string	M	
value	string	M	

Sample Request body structure for POST operation:

```
{
  "enable": true,
  "type": "gpsi",
  "value": "string"
}
```

Sample Response body structure for GET, POST, and PUT operations:

```
[
  {
    "date": "string",
    "errors": [
      {
        "message": "string",
        "name": "string"
      }
    ],
    "exportData": [
      {
        "enable": true,
        "type": "gpsi",
        "value": "string"
      }
    ],
    "sourceVersion": "string",
    "topic": "string"
  }
]
```

Delete Subscriber Logging**Table 2-78 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
identifierValue	string	M	Subscriber Identifier

Export/Import Subscriber Logging s**Table 2-79 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string	O	Current timestamp
exportData	array	M	Exported list of subscriber logs. For more information, see Get and Create Subscriber Logging .
sourceVersion	string	O	System version of product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "enable": true,
      "type": "gpsi",
      "value": "string"
    }
  ],
  "sourceVersion": "string",
  "topic": "string"
}

```

2.17 Recreate Attempts Profile

This section describes the service URIs available to create and configure reattempt profiles for Policy.

Table 2-80 Policy Recreate Attempts Profile APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Reattempt Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/reattemptsProfile	See Table A-3
Get Reattempt Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/reattemptsProfile/{retryProfileName}	See Table A-1
Update Reattempt Profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/reattemptsProfile/{retryProfileName}	See Table A-2
Delete Reattempt Profile	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/reattemptsProfile/{retryProfileName}	See Table A-4

Request and Response Body Parameters

This section describes the request and response parameters used in reattempt profile APIs.

Table 2-81 Request and Response Body Parameters (for POST and PUT operations)

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
name	String	M	The unique name for the reattempt profile. This name is used to refer to the reattempt profile in other service configuration screen, such as SM Service. The name can only contain the characters A–Z, a–z, 0–9, period (.), hyphen (-), and underline (_). The maximum length is 255 characters.
interface Type	String	O	The interface for which a reattempt profile is being created. The interface types are: • BSF • AMF • NRF
reattemptSettings	BSFRecreateAttempt	O	Creates a number of reattempts that should be run for the chosen interface type.
reattemptErrorCodeSettings	ReattemptErrorCodesSettings	O	Provide Re-attempt Error Code settings details.
rateLimitSettings	RateLimitSettings	O	Provide Rate Limiting settings details.

Table 2-82 BSFRecreateAttempt

Field Name	Data Type	Mandatory(M)/Optional(O) / Conditional(C)	Description
numberOfAttempts	integer	M	To configure the maximum number of reattempts that are allowed for a service operation. On selecting BSF interface type, it is the number of reattempts that must be run when PCF Binding request fails. It takes a range between 0 - 50. On selecting NRF interface type, it is the number of reattempts that must be run when AMF discovery request fails. It takes a range between 0 - 100. On selecting AMF interface type, it is the number of reattempt that must be run when N1N2 Subscribe, N1N2 Transfer, N1N2 Failure Notification requests fails. It takes a range between 0 - 100.
backOffTimerConfig	Attempt	O	The amount of time that represents each back-off timer. Note: In case the number of configured attempts in the Back-off timer configurations table is less than the set value for Maximum Number of Attempts , the remaining attempts uses the back off timer and max random number of the last configured attempt. Note: Policy supports a maximum of 20 back-off timer configurations.
thresholdLimitLevel	integer	O	The threshold limit for the Pending Operations. Once this value is reached, no pending operations are added to the table. Range: 0 - 1000 for BSF interface type. Range: 0 - 360000 for NRF/AMF interface type.

Table 2-83 Attempt

Field Name	Data Type	Mandatory(M)/Optional(O) / Conditional(C)	Description
index	integer	O	Represents the number of back-off timer.
backOffTimer	integer	M	Configure back-off timer for every reattempt request in seconds.

Table 2-83 (Cont.) Attempt

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
maxRandomNumber	integer	O	Configure any random number in milliseconds that is added to the back-off timer. This can be in the range of 0-5000 milliseconds. If this is not configured then the back-off timer is considered without an random value.

Table 2-84 ReattemptErrorCodeSettings

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
reattemptOnInternalFailure	boolean	O	To enable reattempt for internal failure, for example: request timed out at UE service. Default value: true
reattemptErrorCodes	ReattemptErrorCodes	O	Configure the list of combination of HTTP error code and cause for reattempt with back off. A maximum of 32 combinations of error code and cause can be provided.

Table 2-85 ReattemptErrorCodes

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
errorCode	integer	M	Provide the HTTP error code for which the reattempt is applicable. It is a number and can range from 100-999.
errorCauses	[string]	O	Provide the cause for an error code so that reattempt is made only for the matching causes of the error code. Note: The Error Cause value should be in upper case. Use only underscore '_' between words, and do not use space.

Table 2-86 RateLimitSettings

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
rateLimitPerSecond	integer	M	Configure the rate limit threshold per second for NF service operation(s). This value can be in the range between 0 - 700. Default value: 50

Sample Request body structure for POST and PUT operations:

```
{
  "name": "string",
  "interfaceType": "bsf",
  "retrySettings": {
    "numberOfAttempts": 0,
    "backOffTimerConfig": [
```

```

        {
            "index": 0,
            "backOffTimer": 0,
            "maxRandomNumber": 5000
        }
    ],
    "thresholdLimitLevel": 0
},
"retryAttemptErrorCodesSettings": {
    "retryAttemptOnInternalFailure": true,
    "retryAttemptErrorCodes": [
        {
            "errorCode": 999,
            "errorCauses": [
                "string"
            ]
        }
    ]
}
],
},
"rateLimitSettings": {
    "rateLimitPerSecond": 50
}
}

```

```

{
    "name": "string",
    "interfaceType": "bsf",
    "retryAttemptSettings": {
        "numberOfAttempts": 0,
        "backOffTimerConfig": [
            {
                "index": 0,
                "backOffTimer": 0,
                "maxRandomNumber": 5000
            }
        ],
        "thresholdLimitLevel": 0
    },
    "retryAttemptErrorCodesSettings": {
        "retryAttemptOnInternalFailure": true,
        "retryAttemptErrorCodes": [
            {
                "errorCode": 999,
                "errorCauses": [
                    "string"
                ]
            }
        ]
    }
},
"rateLimitSettings": {
    "rateLimitPerSecond": 50
}
}

```

cURL Command for GET

```
curl -X GET "http://<IP Address>/api-docs/oc-cnpolicy-configuration/v1/
services/common/reattemptsProfile/<retryProfileName>" -H "accept: application/
json"
```

cURL Command for POST

```
curl -X POST "http://<IP Address>/api-docs/oc-cnpolicy-configuration/v1/
services/common/reattemptsProfile" -H "accept: application/json" -H "Content-
Type: application/json" -d "{ \"alternateRoutingSettings\":
{ \"enableFallback\": true, \"errorCodesAlternateRoute\":
[ { \"errorCauses\": [ \"string\" ], \"errorCode\": 0 } ],
\"errorCodesReAttempt\": [ { \"errorCauses\": [ \"string\" ], \"errorCode\":
0 } ], \"localityPreference\": \"DIFFERENT\",
\"maxNumOfAlternateRoutingAttempts\": 3, \"nfSetPreference\": \"DIFFERENT\",
\"priorityPool\": false, \"reAttemptFailedNF\": true, \"reAttemptSameNf\":
true, \"retryFallbackAfterInterval\": 900,
\"useAlternateSCPforAlternateRouting\": true, \"useSbiBindingInformation\":
true }, \"enableAlternateRouting\": true, \"enableRetry\": true, \"name\":
\"string\", \"retrySettings\": { \"maximumNumberOfRetries\": 3 },
\"serverHeaderSupport\": \"DISABLED\"}"
```

Export or Import Retry Profile**Table 2-87 Response Body Parameters for Import Request**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string	O	Specifies the current timestamp
errors:message	string	O	Specifies the error message.
errors:name	string	O	Specifies the name of the error.
exportData	array	M	Exported retry profile. For more information, see Table 2-91 .
key	string	O	Indicates the ID of Retry Profile
sourceVersion	string	O	System version of product from which data is exported
topic	string	M	Topic of each managed object

Table 2-88 Import/Export Recreate Attempt Profile

API Name	Request Type	Request Url	Possible Result Code
Export Recreate Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/reattemptProfile/export	See Table A-1
Import Recreate Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/reattemptProfile/import	See Table A-3

Table 2-89 Request/Response Body Parameters

Field Name	Data Type	Mandatory/Optional/Conditional	Description
topic	String	M	It should be commonconfig.congestionThresholdProfiles
sourceVersion	String	M	Build version
date	String	M	Date in pattern "yyyy-MM-dd'T'HH:mm:ss'Z"
exportData	Congestion Threshold Profiles Data	M	Array for Congestion Control Threshold Profiles. This array contains JSON objects of each service that supports congestion control feature.

Sample Request Body structure for Import and Export operations:

```
{
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": [
    {
      "name": "string",
      "interfaceType": "bsf",
      "reattemptSettings": {
        "numberOfAttempts": 0,
        "backOffTimerConfig": [
          {
            "index": 0,
            "backOffTimer": 0,
            "maxRandomNumber": 5000
          }
        ],
        "thresholdLimitLevel": 0
      },
      "reattemptErrorCodeSettings": {
        "reattemptOnInternalFailure": true,

```

```

        "reattemptErrorCodes": [
            {
                "errorCode": 999,
                "errorCauses": [
                    "string"
                ]
            }
        ],
        "rateLimitSettings": {
            "rateLimitPerSecond": 50
        }
    },
    "errors": [
        {
            "name": "string",
            "message": "string"
        }
    ]
}

```

2.18 Retry Profile

This section describes the service URIs available to create and configure retry profiles for Policy.

Table 2-90 Supported REST APIs for Retry Profile

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Retry Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/retryprofiles	See Table A-3
Get Retry Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/retryprofiles/{retryProfileName}	See Table A-1
Update Retry Profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/retryprofiles/{retryProfileName}	See Table A-2
Export Retry Profiles	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/retryprofiles/export	See Table A-1
Import Retry Profiles	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/retryprofiles/import	See Table A-3

Table 2-90 (Cont.) Supported REST APIs for Retry Profile

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Delete Retry Profile	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/retryprofiles/{retryProfileName}	See Table A-4

Request and Response Body Parameters

This section describes the request and response parameters used in retry profile APIs.

Table 2-91 Request and Response Body Parameters (for POST and PUT operations)

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
alternateRoutingSettings	AlternateRoutingSettings	Optional	Specifies the alternate routing settings for a retry profile.
enableAlternateRouting	boolean	Optional	Specifies whether to enable or disable alternate routing. On enabling this switch, ensure that you configure the parameters under the Alternate Routing Settings group. When enabled, alternate routing is attempted when Policy messages are not delivered successfully to an external NF destination. It may happen because of an exception on the Egress Gateway, such as connection error, timeout, or a failure returned by the external NF or an intermediate router.
enableRetry	boolean	Optional	Specifies whether to enable or disable retry for failed messages between core microservices of Policy. On enabling this switch, ensure that you configure the parameters under Retry Settings group. However, if the switch is disabled, the configurations in the Retry Settings group are not taken into consideration. When enabled, retries are attempted when PCF encounters internal send failures for egress messages. A failure to send egress messages internally indicates an exception in the core service, such as SM service, UDR or CHF connector, and so on. The exception can occur while connecting to the next microservice or a failure on the microservice itself. For example, egress message did not reach the egress gateway. This also includes the connection errors and timeouts on the core microservice. Note: Since the failure is internal, the external NF and SCP (if applicable) remain the same during retry attempt.

Table 2-91 (Cont.) Request and Response Body Parameters (for POST and PUT operations)

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
name	string	Optional The name can only contain the characters A–Z, a–z, 0–9, period (.), hyphen (-), and underline (_). The maximum length is 255 characters.	Specifies the unique name for the retry profile.
retrySettings	RetrySettings	Optional	Specifies the retry settings for a retry profile.
serverHeaderSupport	Enum The valid values for this parameter are as follow: - DISABLED - MULTI_INSTANCE - SINGLE_INSTANCE	Optional	Specifies whether to enable or disable server header. The value configured in this parameter is used when PCF acts as a consumer and receives server header in error response messages. - Disabled: Disable server header. On disabling server header, Policy as a consumer searches for alternate producer without considering the value of server header. - Single Instance: Accept only one value in the server header. When the value is configured as Single Instance and server header contains multiple values, Policy rejects the header. - Multi Instance: Accept only one value in the server header.

Table 2-91 (Cont.) Request and Response Body Parameters (for POST and PUT operations)

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
ignoreCustomServerHeaderValue	String	Optional	This field appears on selection of either "Single Instance" or "Multi Instance" value for the field Server Header Support . In this field you can specify the string pattern that can be ignored in the server header value. This is provided in the form of regular expression. The regular expression evaluates the server header content to ignore the strings that match the pattern specified the regular expression.

Table 2-92 AlternateRoutingSettings

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
enableFallback	boolean	Optional	Specifies whether to enable or disable falling back to the higher priority destination that failed earlier (after the retry interval). Policy attempts fallback even if the current destination is available. When enabled, Policy attempts to fallback to a higher priority NF destination. The priority of NF destination is determined by Alternate Route service (either via DNS-SRV resolution or by static configuration). By default, it is disabled.
errorCodesAlternateRoute	AlternateRoutingErrorCodes	Optional	Specifies the HTTP error codes for which Policy retries alternate routing on receiving the error response from the destination network function or Egress Gateway.

Table 2-92 (Cont.) AlternateRoutingSettings

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
errorCodesReAttempt	AlternateRoutingErrorCodes	Optional	Specifies the HTTP error codes for which Policy does not look for alternate producer and retries the request to the same producer NF or SCP that failed in the first attempt. Policy considers this parameter only when Re-attempt to same NF switch is enabled.
localityPreference	ENUM The valid values for this parameter are as follow: • DIFFERENT • NONE • SAME	Optional	Specifies the locality preference when choosing the alternate producer for a failed request. Policy excludes the producer (received in the failed request) and selects an alternate producer based on the value provided for this attribute. • Same: Chooses the next producer from the same locality as the previous request. • Different: Chooses the next producer from a different locality. • None (default): Locality filter does not apply.

Table 2-92 (Cont.) AlternateRoutingSettings

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
maxNumOfAlternateRoutingAttempts	boolean	Optional	Specifies the number of retries that PCF attempts on receiving error response from Ingress Gateway. The number of retry attempts can be in the range of 1 to 10. Note: The value configured for this parameter does not include the initial attempt. For instance, if you set the value as 3, Policy performs the retry cycle three times after the initial attempt. If the retry attempts are exhausted, Policy fails the transaction with an exception. In certain cases, the number of retry attempts can be greater than the available alternate destinations to be tried. If such a situation arises, Policy fails the transaction when no alternate destination is available even if retry attempts are still available.

Table 2-92 (Cont.) AlternateRoutingSettings

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
nfSetPreference	ENUM The valid values for this parameter are as follow: • DIFFERENT • NONE • SAME	Optional	Specifies the NF set preference when choosing the alternate producer for an initial request. Policy excludes the producer (received in the failed request) and selects an alternate producer based on the value provided for this attribute. • Same: Selects the next producer from the same NFSet as the previous request. • Different: Selects the next producer from a different NFSet. • None (default): NFSets filter does not apply. Note: This parameter applies only to initial requests. For subsequent requests, the default behavior is to choose the same NFSet irrespective of the value configured for this field.

Table 2-92 (Cont.) AlternateRoutingSettings

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
reAttemptFailedNF	boolean	Optional	When you set the value for this parameter to true, Policy initiates the retry cycle and sends request to the selected NF when the following conditions are true: • Retry attempts made to all available NF instances • Maximum Number of Alternate Routing Attempt is not exhausted
reAttemptSameNf	boolean	Optional	Specifies whether Policy shall send the request to the same NF that failed in the first attempt. If you set the value to true, make sure to configure the value for <code>errorCodesReAttempt</code> attribute. By default, the value is false for this parameter.

Table 2-92 (Cont.) AlternateRoutingSettings

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
retryFallbackAfterInterval	integer	Optional	Specifies the time in seconds after which Policy re-attempts a request to a higher priority destination. In case of fallback, when a route is being determined while the current destination has not failed, PCF attempts to fallback to a higher priority NF destination. Priority of NF destination is determined by Alternate Route service, either through DNS-SRV resolution or static configuration. You can set the value for retry after interval from 0 to 86,400 seconds. By default, the value is set to 0, which means that a high priority destination is blocklisted. Note: • This configuration applies to subsequent message routing only. • Blacklisting may still be done by Egress Gateway • An NF destination (FQDN) is not re-attempted within the context of a single operation, such as SM Modification request

Table 2-92 (Cont.) AlternateRoutingSettings

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
useAlternateSCPforAlternateRouting	boolean	Optional	Specifies whether to enable or disable choosing alternate SCP to reach the alternate destination. If you set the value for this parameter as true, Egress Gateway uses an alternate SCP for routing to an alternate NF destination. If there are fewer SCPs than alternate NF destinations, Egress Gateway tries sending the request through one of the previously used SCPs. Note: Additional SCP configuration is required for Egress Gateway. For more information, see <i>Oracle Communications Cloud Native Core, Converged Policy Installation, Upgrade and Fault Recovery Guide</i>.

Table 2-92 (Cont.) AlternateRoutingSettings

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
useSbiBindingInformation	boolean	Optional	Specifies whether to enable or disable use of information received in 3gpp-sbi-binding header. When Policy receives the unique NF Instance ID in the error response, it retrieves 3gpp-sbi-binding header for that particular NF instance, and then extracts the SetId to choose the alternate producer. This parameter is considered only for subsequent retry requests. By default, the value is false for this attribute. Note: When the value is set to false, the NFSet Preference parameter is not taken into consideration.

Table 2-93 AlternateRoutingErrorCodes

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
errorCauses	string	Optional You can configure up to five error causes per error code.	Specifies the HTTP error code. For example, 504
errorCode	integer	Mandatory You can configure up to 10 error codes for a retry profile. Enter a range in [100-999] number	Specifies the error cause. For example, GATEWAY_TIMEOUT, NF_TIMEOUT.

Table 2-94 RetrySettings

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
maximumNumberOfRetries	integer	Optional The number of retry attempts can be in the range of 1 to 10. Note: It is mandatory to configure this parameter if Retry on Internal Send Failure parameter is set to true.	Specifies the number of retries that PCF attempts on encountering failure while sending egress messages between Policy core microservices. Note: The value configured for this parameter does not include the initial attempt. For instance, if you set the value as 3, Policy performs the retry cycle three times after the initial attempt.

Sample Request body structure for POST and PUT operations:

```
{
  "alternateRoutingSettings": {
    "enableFallback": true,
    "errorCodesAlternateRoute": [
      {
        "errorCauses": [
          "string"
        ],
        "errorCode": 0
      }
    ],
    "errorCodesReAttempt": [
      {
        "errorCauses": [
          "string"
        ],
        "errorCode": 0
      }
    ],
    "localityPreference": "DIFFERENT",
    "maxNumOfAlternateRoutingAttempts": 3,
    "nfSetPreference": "DIFFERENT",
    "reAttemptFailedNF": true,
    "reAttemptSameNF": true,
    "retryFallbackAfterInterval": 900,
    "useAlternateSCPforAlternateRouting": true,
    "useSbiBindingInformation": true
  },
  "enableAlternateRouting": true,
  "enableRetry": true,
  "name": "string",
  "retrySettings": {
    "maximumNumberOfRetries": 3
  },
}
```



```
"serverHeaderSupport": "DISABLED"
}
```

Sample Response body structure for GET, POST, and PUT operations:

```
{
  "alternateRoutingSettings": {
    "enableFallback": true,
    "errorCodesAlternateRoute": [
      {
        "errorCauses": [
          "string"
        ],
        "errorCode": 0
      }
    ],
    "errorCodesReAttempt": [
      {
        "errorCauses": [
          "string"
        ],
        "errorCode": 0
      }
    ],
    "localityPreference": "DIFFERENT",
    "maxNumOfAlternateRoutingAttempts": 3,
    "nfSetPreference": "DIFFERENT",
    "reAttemptFailedNF": true,
    "reAttemptSameNF": true,
    "retryFallbackAfterInterval": 900,
    "useAlternateSCPforAlternateRouting": true,
    "useSbiBindingInformation": true
  },
  "enableAlternateRouting": true,
  "enableRetry": true,
  "name": "string",
  "retrySettings": {
    "maximumNumberOfRetries": 3
  },
  "serverHeaderSupport": "DISABLED"
}
```

cURL Command for GET

```
curl -X GET "http://10.75.168.25:31679/oc-cnpolicy-configuration/v1/services/
common/retryprofiles/<retryProfileName>" -H "accept: application/json"
```

cURL Command for POST

```
curl -X POST "http://10.75.168.25:31679/oc-cnpolicy-configuration/v1/services/
common/retryprofiles" -H "accept: application/json" -H "Content-Type:
application/json" -d "{ \"alternateRoutingSettings\": { \"enableFallback\":
true, \"errorCodesAlternateRoute\": [ { \"errorCauses\": [ \"string\" ],
\"errorCode\": 0 } ], \"errorCodesReAttempt\": [ { \"errorCauses\":
```

```
[ \"string\" ], \"errorCode\": 0 } ], \"localityPreference\": \"DIFFERENT\",
\"maxNumOfAlternateRoutingAttempts\": 3, \"nfSetPreference\": \"DIFFERENT\",
\"priorityPool\": false, \"reAttemptFailedNF\": true, \"reAttemptSameNf\":
true, \"retryFallbackAfterInterval\": 900,
\"useAlternateSCPforAlternateRouting\": true, \"useSbiBindingInformation\":
true }, \"enableAlternateRouting\": true, \"enableRetry\": true, \"name\":
\"string\", \"retrySettings\": { \"maximumNumberOfRetries\": 3 },
\"serverHeaderSupport\": \"DISABLED\"}"
```

Export or Import Retry Profile

Table 2-95 Response Body Parameters for Import Request

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string	O	Specifies the current timestamp
errors:message	string	O	Specifies the error message.
errors:name	string	O	Specifies the name of the error.
exportData	array	M	Exported retry profile. For more information, see Table 2-91 .
key	string	O	Indicates the ID of Retry Profile
sourceVersion	string	O	System version of product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import and Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "alternateRoutingSettings": {
        "enableFallback": true,
        "errorCodesAlternateRoute": [
          {
            "errorCauses": [
              "string"
            ],
            "errorCode": 0
          }
        ]
      }
    }
  ]
}
```

```

    },
    "errorCodesReAttempt": [
      {
        "errorCauses": [
          "string"
        ],
        "errorCode": 0
      }
    ],
    "localityPreference": "DIFFERENT",
    "maxNumOfAlternateRoutingAttempts": 3,
    "nfSetPreference": "DIFFERENT",
    "reAttemptFailedNF": true,
    "reAttemptSameNF": true,
    "retryFallbackAfterInterval": 900,
    "useAlternateSCPforAlternateRouting": true,
    "useSbiBindingInformation": true
  },
  "enableAlternateRouting": true,
  "enableRetry": true,
  "name": "string",
  "retrySettings": {
    "maximumNumberOfRetries": 3
  },
  "serverHeaderSupport": "DISABLED"
}
},
"key": "string",
"sourceVersion": "string",
"systemVersion": "string",
"topic": "string"
}

```

2.19 Timer Profile

Table 2-96 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Timer Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/timerprofiles	See Table A-3
Get Timer Profile	GET	/oc-cnpolicy-configuration/v1/services/common/timerprofiles/{serviceType}	See Table A-1
Update Timer Profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/timerprofiles/{serviceType}	See Table A-2

Table 2-96 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export Timer Profiles	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/timerprofiles/export	See Table A-1
Import Timer Profiles	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/timerprofiles/import	See Table A-3
Delete Timer Profile	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/timerprofiles/{serviceType}	See Table A-4

Get, Create, and Update Timer Profiles**Table 2-97 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
serviceType	string	M	Specifies the following supported service types: - PCF User Connector - PCF Session Management - PCF Access and Mobility - PCF UE Policy - PCF Binding Service
UDR.svcTimeoutMapping	SvcTimeoutMapping ForUDR	C	Details of UDR service time out.
CHF.svcTimeoutMapping	SvcTimeoutMapping ForCHF	C	Details of CHF service time out.
BSF.svcTimeoutMapping	SvcTimeoutMapping ForBSF	C	Details of BSF service time out.
SMF.svcTimeoutMapping	SvcTimeoutMapping ForSMF	C	Details of SMF service time out.
AF.svcTimeoutMapping	SvcTimeoutMapping ForAF	C	Details of AF service time out.
AMF.svcTimeoutMapping	SvcTimeoutMapping ForAMF	C	Details of AMF service time out.

Table 2-98 SvcTimeoutMappingForUDR Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
nudr-dr	integer	O	Timeout value specified in "3gpp-Sbi-Max-Rsp-Time" header for the nudr-dr service. Provide a number between 1 to 2147483647. For example: 3000.
QUERY	integer	O	Timeout value specified in "3gpp-max-response-time" header for the Query messages.
SUBSCRIBE	integer	O	Timeout value specified in "3gpp-max-response-time" header for the subscribe messages.
UNSUBSCRIBE	integer	O	Timeout value specified in "3gpp-max-response-time" header for the unsubscribe messages.
UPDATE	integer	O	Timeout value specified in "3gpp-max-response-time" header for the update messages.

Table 2-99 SvcTimeoutMappingForCHF Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
nchf-spendinglimitcontrol	integer	O	Timeout value specified in "3gpp-Sbi-Max-Rsp-Time" header for the nchfspendinglimitcontrol service. Provide a number between 1 to 2147483647. For example: 3000.

Table 2-100 SvcTimeoutMappingForBSF Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
nbsf-management	integer	O	Timeout value specified in "3gpp-Sbi-Max-Rsp-Time" header for the nbsfmanagement service. Provide a number between 1 to 2147483647. For example: 3000.

Table 2-101 SvcTimeoutMappingForSMF Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
notification	integer	O	Timeout value specified in "3gpp-Sbi-Max-Rsp-Time" header for the notification service. Provide a number between 1 to 2147483647. For example: 3000.

Table 2-102 SvcTimeoutMappingForAF Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
notification	integer	O	Timeout value specified in "3gpp-Sbi-Max-Rsp-Time" header for the notification service. Provide a number between 1 to 2147483647. For example: 3000.

Table 2-103 SvcTimeoutMappingForAMF Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
namf-comm	integer	O	Timeout value specified in "3gpp-Sbi-Max-Rsp-Time" header for the namf-comm service. Provide a number between 1 to 2147483647. For example: 3000.
notification	integer	O	Timeout value specified in "3gpp-max-response-time" header for the notification service.

Sample Request body structure for POST and PUT operations:

```
{
  "serviceType": "string",
  "UDR": {
    "svcTimeoutMapping": {
      "nudr-dr": 3000,
      "QUERY": 0,
      "SUBSCRIBE": 0,
      "UNSUBSCRIBE": 0,
      "UPDATE": 0
    }
  },
  "CHF": {
    "svcTimeoutMapping": {
      "nchf-spendinglimitcontrol": 3000
    }
  },
  "BSF": {
    "svcTimeoutMapping": {
      "nbsf-management": 3000
    }
  },
  "SMF": {
    "svcTimeoutMapping": {
      "notification": 3000
    }
  },
  "AF": {
    "svcTimeoutMapping": {
      "notification": 3000
    }
  },
  "AMF": {
    "svcTimeoutMapping": {
      "namf-comm": 3000,

```

```

        "notification": 3000
    }
}
}

```

Export/Import Timer Profiles

Table 2-104 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
systemVersion	string	O	The system version.
topic	string	M	Topic of each managed object
sourceVersion	string	O	System version of the product from which data is exported
date	string	O	Current timestamp
exportData	array	M	Date to be exported.
errors.message	string	O	The error message.
errors.name	string	O	The error name.

Sample Request Body structure for Import/Export operations:

```

{
  "systemVersion": "string",
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": [
    {
      "serviceType": "string",
      "UDR": {
        "svcTimeoutMapping": {
          "nudr-dr": 3000,
          "QUERY": 0,
          "SUBSCRIBE": 0,
          "UNSUBSCRIBE": 0,
          "UPDATE": 0
        }
      },
      "CHF": {
        "svcTimeoutMapping": {
          "nchf-spendinglimitcontrol": 3000
        }
      },
      "BSF": {
        "svcTimeoutMapping": {
          "nbsf-management": 3000
        }
      },
      "SMF": {

```



```

        "svcTimeoutMapping": {
          "notification": 3000
        }
      },
      "AF": {
        "svcTimeoutMapping": {
          "notification": 3000
        }
      },
      "AMF": {
        "svcTimeoutMapping": {
          "namf-comm": 3000,
          "notification": 3000
        }
      }
    }
  ],
  "errors": [
    {
      "name": "string",
      "message": "string"
    }
  ]
}

```

2.20 Retry Profile for PCC

Table 2-105 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create PCC Retry Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccretryprofiles	See Table A-3
Export PCC Retry Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccretryprofiles/export	See Table A-1
Import PCC Retry Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccretryprofiles/import	See Table A-3
Get PCC Retry Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccretryprofiles/{pccRetryProfileName}	See Table A-1
Update PCC Retry Profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccretryprofiles/{pccRetryProfileName}	See Table A-2

Table 2-105 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Delete PCC Retry Profile	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccretryprofiles/{pccRetryProfileName}	See Table A-4

Create, Get, and Update Retry Profile for PCC**Table 2-106 Data structures supported by the POST, GET, and PUT Response Body**

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
backOffInterval	integer	M	Enter a value between 1 and 86400
description	string	O	
id	string	O	
initialRetryInterval	integer	M	Enter a value between 0 and 30
maxRetryAttempt	integer	M	Enter a value between 1 and 10
maxRetryCycles	integer	M	Enter a value between 1 and 4
maxRetryInterval	integer	M	Enter a value between 1 and 180
name	string	M	

Table 2-106 (Cont.) Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
ruleFailureCode	array		Contains items of type string. Supported values: - UNKNOWN_RULE_NAME - RATING_GROUP_ERROR - SERVICE_IDENTIFIER_ERROR - GW_PCEF_MALFUNCTION - RESOURCES_LIMITATION - MAX_NR_BEARERS_REACHED - UNKNOWN_BEARER_ID - MISSING_BEARER_ID - MISSING_FLOW_INFORMATION - RESOURCE_ALLOCATION_FAILURE - UNSUCCESSFUL_QOS_VALIDATION - INCORRECT_FLOW_INFORMATION - PS_TO_CS_HANDOVER - TDF_APPLICATION_IDENTIFIER_ERROR - NO_BEARER_BOUND - FILTER_RESTRICTIONS - AN_GW_FAILED - MISSING_REDIRECT_SERVER_ADDRESS - CM_END_USER_SERVICE_DENIED - CM_CREDIT_CONTROL_NOT_APPLICABLE - CM_AUTHORIZATION_REJECTED - CM_USER_UNKNOWN - CM_RATING_FAILED

Sample Request Body structure for POST and PUT operations:

```
{
  "backOffInterval": 0,
  "description": "string",
  "id": "string",
  "initialRetryInterval": 0,
  "maxRetryAttempt": 0,
  "maxRetryCycles": 0,
  "maxRetryInterval": 0,
  "name": "string",
  "ruleFailureCode": [
```

```

    "AN_GW_FAILED"
  ]
}

```

Sample Response Body structure for GET, POST and PUT operations:

```

{
  "backOffInterval": 0,
  "description": "string",
  "id": "string",
  "initialRetryInterval": 0,
  "maxRetryAttempt": 0,
  "maxRetryCycles": 0,
  "maxRetryInterval": 0,
  "name": "string",
  "ruleFailureCode": [
    "AN_GW_FAILED"
  ]
}

```

Export/Import Retry Profile for PCC

Table 2-107 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of PCC retry profile. For more information, see Table 2-106 .
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [

```

```

{
  "backOffInterval": 0,
  "description": "string",
  "id": "string",
  "initialRetryInterval": 0,
  "maxRetryAttempt": 0,
  "maxRetryCycles": 0,
  "maxRetryInterval": 0,
  "name": "string",
  "ruleFailureCode": [
    "AN_GW_FAILED"
  ]
}
],
"key": "string",
"sourceVersion": "string",
"topic": "string"
}

```

Delete Retry Profile for PCC

Table 2-108 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
pccRetryProfileName	string	M	PCC Retry Profile Name

2.21 Retry Profile for ADC

Table 2-109 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create ADC Retry Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/adcretryprofiles	See Table A-3
Export ADC Retry Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/adcretryprofiles/export	See Table A-1
Import ADC Retry Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/adcretryprofiles/export	See Table A-3
Get ADC Retry Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/adcretryprofiles/{adcRetryProfileName}	See Table A-1

Table 2-109 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Update ADC Retry Profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/adcretryprofiles/{adcRetryProfileName}	See Table A-2
Delete ADC Retry Profile	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/adcretryprofiles/{adcRetryProfileName}	See Table A-4

Create, Get, and Update Retry Profile for ADC**Table 2-110 Data structures supported by the POST, GET, and PUT Response Body**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
backOffInterval	integer	M	Enter a value between 1 and 86400
description	string	O	
id	string	O	
initialRetryInterval	integer	M	Enter a value between 0 and 30
maxRetryAttempt	integer	M	Enter a value between 1 and 10
maxRetryCycles	integer	M	Enter a value between 1 and 4
maxRetryInterval	integer	M	Enter a value between 1 and 180
name	string	M	

Table 2-110 (Cont.) Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
ruleFailureCode	array		Contains items of type string. Supported values: - UNKNOWN_RULE_NAME - RATING_GROUP_ERROR - SERVICE_IDENTIFIER_ERROR - GW_PCEF_MALFUNCTION - RESOURCES_LIMITATION - MAX_NR_BEARERS_REACHED - UNKNOWN_BEARER_ID - MISSING_BEARER_ID - MISSING_FLOW_INFORMATION - RESOURCE_ALLOCATION_FAILURE - UNSUCCESSFUL_QOS_VALIDATION - INCORRECT_FLOW_INFORMATION - PS_TO_CS_HANDOVER - TDF_APPLICATION_IDENTIFIER_ERROR - NO_BEARER_BOUND - FILTER_RESTRICTIONS - AN_GW_FAILED - MISSING_REDIRECT_SERVER_ADDRESS - CM_END_USER_SERVICE_DENIED - CM_CREDIT_CONTROL_NOT_APPLICABLE - CM_AUTHORIZATION_REJECTED - CM_USER_UNKNOWN - CM_RATING_FAILED

Sample Request Body structure for POST and PUT operations:

```
{
  "backOffInterval": 0,
  "description": "string",
  "id": "string",
  "initialRetryInterval": 0,
  "maxRetryAttempt": 0,
  "maxRetryCycles": 0,
  "maxRetryInterval": 0,
  "name": "string",
  "ruleFailureCode": [
```

```

    "AN_GW_FAILED"
  ]
}

```

Sample Response Body structure for GET, POST and PUT operations:

```

{
  "backOffInterval": 0,
  "description": "string",
  "id": "string",
  "initialRetryInterval": 0,
  "maxRetryAttempt": 0,
  "maxRetryCycles": 0,
  "maxRetryInterval": 0,
  "name": "string",
  "ruleFailureCode": [
    "AN_GW_FAILED"
  ]
}

```

Export/Import Retry Profile for ADC

Table 2-111 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of ADC retry profile.
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "backOffInterval": 0,

```



```

        "description": "string",
        "id": "string",
        "initialRetryInterval": 0,
        "maxRetryAttempt": 0,
        "maxRetryCycles": 0,
        "maxRetryInterval": 0,
        "name": "string",
        "ruleFailureCode": [
            "AN_GW_FAILED"
        ]
    }
},
"key": "string",
"sourceVersion": "string",
"topic": "string"
}

```

Delete Retry Profile for ADC

Table 2-112 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
adcRetryProfileName	string	M	ADC Retry Profile Name

2.22 Site Takeover

This section describes the service URIs available to create and configure sites for takeover for Policy.

Table 2-113 Supported REST APIs for Site Takeover

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export Site Takeovers	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/sitetakeover/export	See Table A-1
Import Site Takeovers	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/sitetakeover/import	See Table A-3

Export or Import Site Takeover

Table 2-114 Response Body Parameters for Import Request

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string	O	Specifies the current timestamp
errors:message	string	O	Specifies the error message.
errors:name	string	O	Specifies the name of the error.
exportData	array	M	Exported Site Takeover. For more information, see Table 2-91 .
key	string	O	Indicates the ID of Site Takeover
sourceVersion	string	O	System version of product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import and Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "name": "site1",
      "targetSiteId": "siteid12345"
    }
  ]
}
```

2.23 NF Profile

Table 2-115 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create the NF Profile	POST	/oc-cnpolicy-configuration/v1/services/common/producer-nfprofile/{NFType}	See Table A-3

Table 2-115 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Update the NF Profile	PUT	/oc-cnpolicy-configuration/v1/services/common/producer-nfprofile/{NFType}/{nfInstanceId}	See Table A-2
Delete the NF Profile	DELETE	/oc-cnpolicy-configuration/v1/services/common/producer-nfprofile/{NFType}/{nfInstanceId}	See Table A-4
Get All nfInstanceIds	GET	/oc-cnpolicy-configuration/v1/services/common/producer-nfinstanceids/{NFType}	See Table A-1
Get a NF Profile	GET	/oc-cnpolicy-configuration/v1/services/common/producer-nfprofile/{NFType}/{nfInstanceId}	See Table A-1

Table 2-116 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M) Optional(O) Conditional(C)	Description
nfInstanceId	NfInstanceId	M	Unique identity of the NF Instance.
nfType	NFType	M	Type of Network Function
nfStatus	NFStatus	M	Status of the NF Instance
heartBeatTimer	Integer	C	Time in seconds expected between two consecutive heartbeat messages from an NF Instance to the NRF.
plmnList	array(PlmnId)	C	PLMN(s) of the Network Function
sNssais	array(Snssai)	O	S-NSSAIs of the Network Function.
perPlmnSnssaiList	array(PlmnSnssai)	O	List of S-NSSAIs supported by the Network Function for each PLMN.
nsiList	array(string)	O	NSI identities of the Network Function.
fqdn	Fqdn	C	FQDN of the Network Function
interPlmnFqdn	Fqdn	C	Specifies the FQDN that is used for inter-PLMN routing, if the NF needs to be discoverable by other NFs in a different PLMN.
ipv4Addresses	array(Ipv4Address)	C	IPv4 address(es) of the Network Function

Table 2-116 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M) / Optional(O) Conditional(C)	Description
ipv6Addresses	rarray(Ipv6Addr)	C	IPv6 address(es) of the Network Function
allowedPlmns	array(PlmnId)	O	PLMNs allowed to access the NF instance.
allowedNfTypes	array(NFType)	O	Type of the NFs allowed to access the NF instance.
allowedNfDomains	array(string)	O	Pattern representing the NF domain names allowed to access the NF instance. If not provided, any NF domain is allowed to access the NF.
allowedNssais	array(Snssai)	O	S-NSSAI of the allowed slices to access the NF instance.
priority	integer	O	Priority (relative to other NFs of the same type) in the range of 0-65535, to be used for NF selection; lower values indicate a higher priority.
capacity	integer	O	Static capacity information in the range of 0-65535, expressed as a weight relative to other NF instances of the same type.
load	integer	O	Dynamic load information, ranged from 0 to 100, indicates the current load percentage of the NF.
locality	string	O	Operator defined information about the location of the NF instance (e.g. geographic location, data center)
udrInfo	UdrInfo	O	Specific data for the UDR (ranges of SUPI, group ID ...)
groupId	NfGroupId	O	Identity of the UDM group that is served by the UDM instance. If not provided, the UDM instance does not pertain to any UDM group.
supiRanges	array(SupiRange)	O	List of ranges of SUPIs whose profile data is available in the UDM instance.
gpsiRanges	array(IdentityRange)	O	List of ranges of GPSIs whose profile data is available in the UDM instance.
externalGroupIdentifiersRanges	array(IdentityRange)	O	List of ranges of external groups whose profile data is available in the UDM instance
supportedDataSets	array(DataSetId)	O	List of supported data sets in the UDR instance. If not provided, the UDR supports all data sets.
bsfInfo	BsfInfo	O	Specific data for the BSF
ipv4AddressRanges	array(Ipv4AddressesRange)	O	List of ranges of IPv4 addresses handled by BSF. If not provided, the BSF can serve any IPv4 address.
dnnList	array(Dnn)	O	List of DNNs handled by the BSF. If not provided, the BSF can serve any DNN.
ipDomainList	array(string)	O	List of IPv4 address domains.
ipv6PrefixRanges	array(Ipv6PrefixRange)	O	List of ranges of IPv6 prefixes handled by the BSF. If not provided, the BSF can serve any IPv6 prefix.
chfInfo	ChfInfo	O	specific data for the CHF.
gpsiRangeList	array(IdentityRange)	O	List of ranges of GPSI that can be served by the CHF instance. If not provided, the CHF can serve any GPSI.

Table 2-116 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M) / Optional(O) Conditional(C)	Description
customInfo	Object	O	Specific data for custom Network Functions
nfProfileChangesSupportInd	boolean	O	NF Profile Changes Support Indicator. This parameter indicates if the NF Service Consumer supports receiving NF Profile Changes in the response or not.
nfProfileChangesInd	boolean	O	NF Profile Changes Indicator. This parameter indicates if the NF Profile contains NF Profile changes or the complete NF Profile.

Sample request body:

```
{
  "nfInstanceId": "3fa85f64-5717-4562-b3fc-2c963f66afa",
  "nfType": "BSF",
  "nfStatus": "REGISTERED",
  "heartBeatTimer": 0,
  "plmnList": [
    {
      "mcc": "string",
      "mnc": "string"
    }
  ],
  "sNssais": [
    {
      "sst": 0,
      "sd": "string"
    }
  ],
  "perPlmnSnsaiList": [
    {
      "plmnId": {
        "mcc": "string",
        "mnc": "string"
      },
      "sNssaiList": [
        {
          "sst": 0,
          "sd": "string"
        }
      ]
    }
  ],
  "nsiList": [
    "string"
  ],
  "fqdn": "string",
  "interPlmnFqdn": "string",
}
```

```

"ipv4Addresses": [
  "string"
],
"ipv6Addresses": [
  "string"
],
"allowedPlmns": [
  {
    "mcc": "string",
    "mnc": "string"
  }
],
"allowedNfTypes": [
  "string"
],
"allowedNfDomains": [
  "string"
],
"allowedNssais": [
  {
    "sst": 0,
    "sd": "string"
  }
],
"priority": 0,
"capacity": 0,
"load": 0,
"locality": "string",
"udrInfo": {
  "groupId": "string",
  "supiRanges": [
    {
      "start": "string",
      "end": "string",
      "pattern": "string"
    }
  ],
  "gpsiranges": [
    {
      "start": "string",
      "end": "string",
      "pattern": "string"
    }
  ],
  "externalGroupIdentityfiersRanges": [
    {
      "start": "string",
      "end": "string",
      "pattern": "string"
    }
  ],
  "supportedDataSets": [
    "APPLICATION"
  ]
},
"bsfInfo": {

```

```

    "ipv4AddressRanges": [
      {
        "start": "string",
        "end": "string"
      }
    ],
    "dnnList": [
      "string"
    ],
    "ipDomainList": [
      "string"
    ],
    "ipv6PrefixRanges": [
      {
        "start": "string",
        "end": "string"
      }
    ]
  },
  "chfInfo": {
    "supiRangeList": [
      {
        "start": "string",
        "end": "string",
        "pattern": "string"
      }
    ],
    "gpsiRangeList": [
      {
        "start": "string",
        "end": "string",
        "pattern": "string"
      }
    ]
  },
  "customInfo": {},
  "recoveryTime": "string",
  "nfServicePersistence": true,
  "nfServices": [
    {
      "serviceInstanceId": "string",
      "serviceName": "string",
      "versions": [
        {
          "apiVersionInUri": "string",
          "apiFullVersion": "string",
          "expiry": "string"
        }
      ],
      "scheme": "http",
      "nfServiceStatus": "REGISTERED",
      "fqdn": "string",
      "ipEndpoints": [
        {
          "ipv4Address": "string",
          "ipv6Address": "string",

```

```

        "transport": "TCP",
        "port": 0
      }
    ],
    "apiPrefix": "string",
    "allowedNfTypes": [
      "string"
    ],
    "priority": 0,
    "capacity": 0,
    "load": 0
  }
],
"nfProfileChangesSupportInd": true,
"nfProfileChangesInd": true
}

```

Sample response body:

```

{
  "nfInstanceId": "3fa85f64-5717-4562-b3fc-2c963f66afa9",
  "nfType": "BSF",
  "nfStatus": "REGISTERED",
  "heartBeatTimer": 0,
  "plmnList": [
    {
      "mcc": "string",
      "mnc": "string"
    }
  ],
  "sNssais": [
    {
      "sst": 0,
      "sd": "string"
    }
  ],
  "perPlmnSnssaiList": [
    {
      "plmnId": {
        "mcc": "string",
        "mnc": "string"
      },
      "sNssaiList": [
        {
          "sst": 0,
          "sd": "string"
        }
      ]
    }
  ],
  "nsiList": [
    "string"
  ],
  "fqdn": "string",
  "interPlmnFqdn": "string",

```



```

"ipv4Addresses": [
  "string"
],
"ipv6Addresses": [
  "string"
],
"allowedPlmns": [
  {
    "mcc": "string",
    "mnc": "string"
  }
],
"allowedNfTypes": [
  "string"
],
"allowedNfDomains": [
  "string"
],
"allowedNssais": [
  {
    "sst": 0,
    "sd": "string"
  }
],
"priority": 0,
"capacity": 0,
"load": 0,
"locality": "string",
"udrInfo": {
  "groupId": "string",
  "supiRanges": [
    {
      "start": "string",
      "end": "string",
      "pattern": "string"
    }
  ],
  "gpsiranges": [
    {
      "start": "string",
      "end": "string",
      "pattern": "string"
    }
  ],
  "externalGroupIdentityfiersRanges": [
    {
      "start": "string",
      "end": "string",
      "pattern": "string"
    }
  ],
  "supportedDataSets": [
    "APPLICATION"
  ]
},
"bsfInfo": {

```

```

    "ipv4AddressRanges": [
      {
        "start": "string",
        "end": "string"
      }
    ],
    "dnnList": [
      "string"
    ],
    "ipDomainList": [
      "string"
    ],
    "ipv6PrefixRanges": [
      {
        "start": "string",
        "end": "string"
      }
    ]
  },
  "chfInfo": {
    "supiRangeList": [
      {
        "start": "string",
        "end": "string",
        "pattern": "string"
      }
    ],
    "gpsiRangeList": [
      {
        "start": "string",
        "end": "string",
        "pattern": "string"
      }
    ]
  },
  "customInfo": {},
  "recoveryTime": "string",
  "nfServicePersistence": true,
  "nfServices": [
    {
      "serviceInstanceId": "string",
      "serviceName": "string",
      "versions": [
        {
          "apiVersionInUri": "string",
          "apiFullVersion": "string",
          "expiry": "string"
        }
      ],
      "scheme": "http",
      "nfServiceStatus": "REGISTERED",
      "fqdn": "string",
      "ipEndpoints": [
        {
          "ipv4Address": "string",
          "ipv6Address": "string",

```

```

        "transport": "TCP",
        "port": 0
    },
    "apiPrefix": "string",
    "allowedNfTypes": [
        "string"
    ],
    "priority": 0,
    "capacity": 0,
    "load": 0
}
],
"nfProfileChangesSupportInd": true,
"nfProfileChangesInd": true
}

```

2.24 Session Management Service

Table 2-117 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Session Management Service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfsm	See Table A-1
Update Session Management Service	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfsm	See Table A-2
Export Session Management Service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfsm/export	See Table A-1
Import Session Management Service	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfsm/import	See Table A-3

Get and Update Session Management Service

Table 2-118 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)	Description
system	SystemConfiguration	O	
user	SmUserConfiguration	O	
policy	Policy	O	
policyControlRequestTrigger	PolicyControlRequestTrigger	O	
binding	SmBindingConfiguration	O	
qos	QOSConfiguration	O	
rule	RuleConfiguration		

Table 2-118 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)	Description
charging	ChargingConfiguration	O	
trafficControl	TrafficControlConfiguration	O	
imsEmergencySession	IMSEmergencySessionConfiguration	O	
audit	AuditConfiguration	O	
extendedAudit	AuditExtendedConfiguration	O	
pendingTransaction	PendingTransactionConfiguration	O	
nwdaf	SmNwdafConfiguration	O	
advancedSettings	AdvancedSettings	M	

Table 2-119 SystemConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
componentTracingEnabled	boolean	O	Determines if component tracing is enabled. Component tracing is used to evaluate system process latency in detail level. Default Value: false
pcf_fqdn	string	O	This is the PCF FQDN used by the PCF to register Binding data to BSF. AF may use this FQDN to communicate with PCF on N5 reference point. Default Value: pcf-smsservice.pcf
pcf_diamrealm	string	O	This is the PCF diameter realm used by the PCF to register Binding data to BSF. Diameter based AF may use this diameter realm to communicate with PCF on Rx reference point. Default Value: pcf-smsservice.svc
pcf_diamidentity	string	O	This is the PCF diameter identity used by the PCF to register Binding data to BSF. Diameter based AF may use this diameter identity to communicate with PCF on Rx reference point. Default Value: pcf-smsservice.svc
snssai	string	O	This is the PCF SNSSAI used by the PCF to register Binding data to BSF. AF/BSF may use this SNSSAI to discover proper PCF. Format: sst,sd. Default Value: 0-000000

Table 2-119 (Cont.) SystemConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
metricsEnabled	boolean	O	This determines if system metrics is enabled. This will take priority on global metrics config. Default Value: true
smfNotificationRetryProfile	string	O	Defines the retry profile configuration for session management.
overrideSupportedFeatures	string, ENUM	O	Specifies the list of supported features that can be configured to override system embedded values. For example, SessionRuleErrorHandling, NetLoc, and so on.
enableCustomJson	boolean	O	Specifies either to enable or disable customized JSON file reading.
nfCommProfile	string	O	Specifies the NF communication profile used by SMF.
dataCompressionScheme	string	O	Specifies the data compression scheme used by SM. Following are the allowed values for this field: - Disabled - MySQL_Compressed - Zlib_Compressed By default, this value remains disabled.
dbEncodingEnabled	boolean	O	Specifies either to enable or disable database encoding. Default Value: false

Table 2-120 SmUserConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
validateUser	boolean	O	Determines if user validate is enabled. HTTP 400 with cause USER_UNKNOWN returns, if this is enabled and user not found in UDR. Default Value: FALSE
queryUser	boolean	O	Determines if user query from UDR is enabled. Default Value: TRUE
queryUserOnUpdate	boolean	O	Determines if user query from UDR on update is enabled. Default Value: FALSE
queryUserOnDelete	boolean	O	Determines if user query from UDR on delete is enabled. Default Value: FALSE
queryUserOnReauth	boolean	O	Determines if user query from UDR on reauth is enabled. Default Value: FALSE

Table 2-120 (Cont.) SmUserConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
subsToNotifyEnabled	boolean	O	Determines if subscribe to notify about subscriber data change is enabled. Default Value: true
ignoreSubsNotificationCheck	boolean	O	Ignore subscriber's notification check. Default Value: false Note: Currently, this field is not used by the Policy application.
enableChfQueryAll	boolean	O	Determines whether to enable on-demand retrieval of policy counters for a subscriber from OCS synchronously.
enableAsyncChfQuery	boolean	O	Determines whether to enable on-demand retrieval of policy counters for a subscriber from OCS asynchronously.
enableOcsQueryAll	boolean	O	Determines whether to fetch policy counters for a subscriber from OCS.
forceLookupOcsDataOnSmUpdate	boolean	O	Determines whether to perform force lookup for OCS Data. Default Value: false
enableSmDataQuery	boolean	O	
enableOsdQuery	boolean		Determines whether to perform on demand lookup for Policy Counters to be fetched from OCS. Default Value: false
includeSnssaiInUserQuery	boolean	O	Determines if Snssai is included for SmPolicyData for PCF query and subscribe to UDR for Notification.
includeDnnInUserQuery	boolean	O	Determines if Dnn is included for SmPolicyData for PCF query and subscribe to UDR for Notification.
disableSubscriberVariables	boolean	O	Determines if subscriber variables are stored or not in the PCF database. Default Value: false
ldapData.enable	boolean	O	PCF fetches user profile from LDAP through PDS. Default Value: false
operatorSpecificData.subscribeToNotify	boolean	O	PCF fetches OperatorSpecificData (imported using Custom Schema) from UDR.

Table 2-121 Policy

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
evaluateEnabled	boolean	O	This determines if policy evaluation is enabled or not. Default Value: TRUE

Table 2-122 PolicyControlRequestTrigger

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
defaultPolicyControlRequestTriggers	defaultPolicyControlRequestTriggers [string, ENUM]	O	Default Policy Control Request Trigger(s) to install on PDU session at SM Policy association establishment. This is a comma split string. Example: [PLMN_CH, RES_MO_RE, AC_TY_CH, UE_IP_CH, UE_MAC_CH, AN_CH_COR, US_RE, APP_STA, APP_STO, AN_INFO, CM_SES_FAIL, PS_DA_OFF, DEF_QOS_CH, SE_AMBR_CH, QOS_NOTIF, NO_CREDIT, PRA_CH, SAREA_CH, SCNN_CH, RE_TIMEOUT, RES_RELEASE, SUCC_RES_ALLO, RAT_TY_CH, REF_QOS_IND_CH, SCELL_CH]

Table 2-123 SmBindingConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
bsfRetryProfileForInitMsgs	string	O	Retry Profile to be used when PCF fails to send a create message to a producer node.
bindingOperationEnabled	boolean	O	This determines if binding operation (register and deregister) to the BSF is enabled. Default Value: TRUE
useLocalConfiguredBsfAlways	boolean	O	Whether to use local configured BSF without Always discovering. Default Value: FALSE
useLocalConfiguredBsfWhenNotDiscovered	boolean	O	Whether to use local configured (if having) BSF when not discovered or discover failed. Default Value: FALSE
useHttp2	boolean	O	Determines if using http/2 to communicate with BSF. Otherwise use http/1.1. Default Value: TRUE
abortOnBindingError	boolean	O	Determines if PCF (SM service) should abort terminate session when binding error is received.

Table 2-123 (Cont.) SmBindingConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
bsfRetryProfileForSubsqMsgs	string	O	Retry Profile to be used when PCF fails to send an in-session message to a producer node. Note: • If both “Retry Profile for Initial Messages” and “Retry Profile for Subsequent Messages” are not configured (default case) no retry is attempted. • If both “Retry Profile for Initial Messages” and “Retry Profile for Subsequent Messages” are configured, retries is attempted accordingly. • If “Retry Profile for Initial Messages” is configured but “Retry Profile for Subsequent Messages” is not configured then the profile for initial messages is used for subsequent messages. (to be backward compatible with release 1.8.x) • If “Retry Profile for Initial Messages” is not configured but “Retry Profile for Subsequent Messages” is configured then retry is not attempted for initial messages but is attempted for subsequent messages.
bsfRecreateAttemptState	string	O	Specifies to either enable or disable the BSF recreate attempts functionality. The possible values: Enabled Disable Disable and Cleanup
bsfReattemptProfile	string	O	Specifies the reattempt profile to be used for binding recreate attempts.
bsfNfCommProfile	string	O	Specifies the NF communication profile used by BSF.

Table 2-123 (Cont.) SmBindingConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
defaultBindingOperationMode	ENUM	O	Allows users to configure binding operation mode as synchronous or asynchronous. Note: The mode chosen during the CREATE request remains same during UPDATE and TERMINATE operations for the same SM session. The default binding operation mode is set to synchronous. Note: To ensure backward compatibility, if this attribute is not available in the database, the value is set to "Synchronous" After performing necessary configurations, user may use the policy action - Set Binding Registration Mode to update configurations for specific policies. For more information, see <i>Oracle Communications Cloud Native Core, Converged Policy Design Guide</i>.

Table 2-124 QOSConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)ain ts	Description
defaultQos5qi	string	O	This is the 5Qi of default Qos which will be applied if no default Qos is requested by UE. Default Value: 9
defaultQosArpPreemptCap	ENUM	O	This is the ARP PreemptionCapability of default Qos which will be applied if no default Qos is requested by UE. Default Value: MAY_PREEMPT
defaultQosArpPreemptVuln	ENUM	O	This is the ARP PreemptionVulnerability of default Qos which will be applied if no default Qos is requested by UE. Default Value: NOT_PREEMPTABLE
defaultQosArpPriorityLevel	string	O	This is the ARP Priority Level of default Qos which will be applied if no default Qos is requested by UE. Default Value: 1
installDefQosIfNotRequested	boolean	O	This determines whether to install default Qos to the PDU session if UE not requested Default Value: TRUE

Table 2-124 (Cont.) QOSConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)ain ts	Description
qosDataIdPrefix	string	O	This is the prefix of qos data id used by PCF to generate qos data id. For example, prefix is "qosdata_", the generated qos data id is qosdata_0, chgdata_1, etc. Default Value: qosdata_
updateDefaultPcfRuleWithAuthDefQos	boolean	O	This determines whether to update Qos of default PccRule with the authDefQos of session rule. Default Value: TRUE

Table 2-125 RuleConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)ain ts	Description
appRulePrecedenceMax	string	O	This value defines the maximum value for precedence of a PCC rule as authorized by the establishment of an application flow by the AF. If multiple rules are applied to the same packet flow or UE resource (i.e., overlapping rules) a rule with lower precedence value takes the priority over a rule with higher precedence value. The value of -1 is used to not set the precedence of a rule (NOT RECOMMENDED). Default Value: 899
appRulePrecedenceMin	string	O	This value defines the minimum value for precedence of a PCC rule as authorized by the establishment of an application flow by the AF. If multiple rules are applied to the same packet flow or UE resource (i.e., overlapping rules) a rule with lower precedence value takes the priority over a rule with higher precedence value. The value of -1 is used to not set the precedence of a rule (NOT RECOMMENDED). Default Value: 400
defaultPccRule5qi	string	O	This is the 5Qi of default pcc rule. Default Value: 9
defaultQosArpPriorityLevel	string	O	This is the ARP Priority Level of qos of default pcc rule The range is 1 to 15. Values are ordered in decreasing order of priority, for example, with 1 as the highest priority and 15 as the lowest priority. Default Value: 15

Table 2-125 (Cont.) RuleConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)ain ts	Description
defaultPccRuleArp PreemptCap	ENUM	O	This is the ARP PreemptionCapability of qos of default PCC rule. - NOT_PREEMPT - MAY_PREEMPT Default Value: NOT_PREEMPT
defaultPccRuleArp PreemptVuln	ENUM	O	This is the ARP PreemptionVulnerability of qos of default pcc rule. - PREEMPTABLE - NOT_PREEMPTABLE Default Value: PREEMPTABLE
defaultPccRuleArp PriorityLevel	string example: 15	O	This is the ARP Priority Level of qos of default pcc rule The range is 1 to 15. Values are ordered in decreasing order of priority, for example, with 1 as the highest priority and 15 as the lowest priority. Default Value: 15
defaultPccRulePre cedence	string	O	This is the precedence of default pcc rule. Default Value: 3000
installDefaultPccRu le	ENUM	O	This determine whether and how to install default pcc rule for a PDU session - ALWAYS - IF_NO_PROVISIONED_RULE: Only if no other provisioned rule is configured - IF_NO_RULE: Only if no other rule (predefined or provisioned) is configured/installed - NEVER Default Value: IF_NO_RULE
defaultPccRuleProf ile	string	O	If a default PCC Rule Profile is configured by the user, it is applied to the chosen PCC Rule.
ruleIdPrefix	string	O	This is the prefix of rule id of the pcc rule or session rule auto generated by PCF. for example, prefix is "0_", the generated rule id is 0_0, 0_1, etc. Default Value: 0_
switchFlowInToOut Enabled	boolean	O	This determines whether to switch "in" to "out" in flow description. The src and desc will be switched as well. For example, if enabled, "permit in ip from 2800:a00:cc01:c056:1c00:de10:c481:f193/128 to 2800:a00:800:7::1:3b/128 36004" will be changed to "permit out ip from 2800:a00:800:7::1:3b/128 36004 to 2800:a00:cc01:c056:1c00:de10:c481:f193/128" Default Value: FALSE
packetFilterUsageT oTrueForPreliminar yServiceInfo	string	O	

Table 2-125 (Cont.) RuleConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)ain ts	Description
ruleConflictsStrategy	string	O	
setPacketFilterUsageToTrueForPreliminaryServiceInfo	boolean	O	
defaultPolicyControlRequestTriggers	string, ENUM	O	This is the default Policy Control Request Trigger(s) to install on PDU session at SM Policy association establishment. This is a comma split string.
defaultPccRuleRequestedRuleData	string, ENUM	O	

Table 2-126 ChargingConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
chgDataIdPrefix	string	O	This is the prefix of chg data id used by PCF to generate chg data id. For example, prefix is "chgdata_", the generated chg data id is chgdata_0, chgdata_1, etc. Default Value: chgdata_
offline	boolean	O	Indicates the offline charging is applicable to the PDU session.
online	boolean	O	Indicates the online charging is applicable to the PDU session.
primaryChfAddress	string	O	Specifies the primary CHF address.
primaryChfInstanceId	string	O	Specifies the Instance ID of the primary CHF.
primaryChfSetId	string	O	Specifies the Set ID of the primary CHF.
secondaryChfAddress	string	O	Specifies the secondary CHF address.
secondaryChfInstanceId	string	O	Specifies the Instance ID of the secondary CHF.
secondaryChfSetId	string	O	Specifies the Set ID of the secondary CHF.
useSubscriberDefChgMethod	boolean	O	Indicates whether to use the online value defined in the PDU session. Default Value: true

Table 2-127 TrafficControlConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
tcDataIdPrefix	string	O	This is the prefix of traffic control data id used by PCF to generate tc data id. For example, prefix is "tcdata_", the generated tc data id is tcdata_0, tcdata_1, etc. Default Value: tcdata_

Table 2-128 IMSEmergencySessionConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
arpPreemptCap	ENUM	M	Defines whether a service data flow may get resources that were already assigned to another service data flow with a lower priority level. Default Value: MAY_PREEMPT
arpPreemptVuln	boolean	M	Defines whether a service data flow may lose the resources assigned to it in order to admit a service data flow with higher priority level. Default Value: NOT_PREEMPTABLE
arpPriorityLevel	integer (\$int32)	O	Defines the relative importance of a resource request. Default Value: 1
Any number of values are permitted for Emergency DNNs	string	O	DNN included in the request from SMF to PCF to establish an emergency session.

Table 2-129 AuditConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enable	boolean	O	Determines whether to send registration request to Audit service or not. Default Value: true
frequency: Enter a range in minutes from [1-1440]	integer	M	Default Value: 330

Table 2-129 (Cont.) AuditConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
maxTtl: Enter a range in minutes from [10-20160]	integer	M	Defines the maximum age of a SM policy association after which a record is purged from PCF SM database without sending further queries to SM. Default Value: 2880
notificationRate: Enter a range in seconds from [20-700]	integer	M	Defines the number of stale records which Audit service will notify to Session Management (SM) service in one second. Default Value: 50
ttl: Enter a range in minutes from [5-10080]	integer	M	Default Value : 1440

Table 2-130 AuditExtendedConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
pendingOperation	AuditPendingOperation	M	Pending Operation details.
smPolicyAssociation	AuditSmPolicyAssociation	M	SM Policy Association details.
tdfSession	AuditTdfSession	M	TDF Session details for Audit.

Table 2-131 AuditPendingOperation

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
notificationRate	integer	O	Defines the number of pending operation records which Audit service notifies to Session Management (SM) service in one second. Note: The notification rate for all the operations of Audit service remains the same. Policy does not allow to configure different values for different operations. Therefore, by default the notification rate configured for the SmPolicyAssociation section applies for Pending Operations . Default Value: 50
ttl	integer	O	Defines the age of a pending operation after which a record is considered to be stale. This is a non modifiable field. Default Value: 0
maxTtl	integer	O	Defines the maximum age of a pending operation after which a record is purged from PCF SM database without sending further queries to SM. Default Value: 2880
frequency	integer	O	Defines the frequency with which the Audit service performs audit of the pending operation table for the Retry Timestamps that have been reached. Default Value: 10
enableAlternateSite	boolean	O	The site takeover profile.
alternateSiteId	string	O	Specifies if the site takeover must be enabled in case of failure.

Table 2-132 AuditSmPolicyAssociation

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enable	boolean	O	Determines whether to send registration request to Audit service or not. Default Value: True
notificationRate	integer	O	Defines the number of stale records which Audit service notifies to Session Management (SM) service in one second. Default and Recommended Value: 50 Note: To configure higher number than the recommended value, contact My Oracle Support (https://support.oracle.com)
ttl	integer	O	Defines the age of a SM policy association after which a record is considered to be stale on PCF and the SMF is queried for presence of such associations. Default Value: 1440
maxTtl	integer	O	Defines the maximum age of a SM policy association after which a record is purged from PCF SM database without sending further queries to SM. Default Value: 2880

Table 2-132 (Cont.) AuditSmPolicyAssociation

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
minAuditAttempts	integer	M	Specifies the minimum number of consecutive failed audit attempts until maxTTL / forceTTL is reached. If maxTTL is reached and audit_attempts + 1 >= Minimum Audit Attempts for maxTTL, Audit service sends notification to SM service with maxTTL flag set to <i>true</i>. SM Service sends DELETE request to PDS and Binding Service. Range: 0-99 Default Value: 0 Note: If maxTTL is not reached and if audit attempts are reached, the number of audit attempts are incremented until maxTTL is reached.
frequency	integer	O	Defines the time when next audit for the SM service table is done after delta time if auditing this table has been finished before this specified time. Default Value: 10

Table 2-133 AuditTdfSession

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enable	boolean	O	SM determines whether to send registration request to Audit service or not. Default Value: True

Table 2-133 (Cont.) AuditTdfSession

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
notificationRate	integer	O	Defines the number of TDF stale records which Audit service notifies to Session Management (SM) service in one second. Default Value: 50
ttl	integer	O	Defines the age of a TDF session after which a record is considered to be stale on PCF and the TDF is queried for presence of such associations. Default Value: 1440
maxTtl	integer	O	Defines the maximum age of a pending operation after which a record is purged from PCF SM database without sending further queries to SM. Default Value: 2880
minAuditAttempts	integer	M	Specifies the minimum number of consecutive failed audit attempts until maxTTL / forceTTL is reached. If maxTTL is reached and audit_attempts + 1 >= Minimum Audit Attempts for maxTTL, Audit service sends notification to SM service with maxTTL flag set to <i>true</i> . SM Service deletes stale TDF Session from TdfSession table. If maxTTL is not reached and if audit attempts are reached, the number of audit attempts are incremented until maxTTL is reached. Range: 0-99 Default Value: 0

Table 2-133 (Cont.) AuditTdfSession

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
frequency	integer	O	Defines the time frequency with which the Audit service performs audit for the stale sessions in TdfSession table. If the audit of TdfSession table is finished before this specified time, then next audit for this table happens after the delta time. Default Value: 10
queryTDF	boolean	O	On true, SM sends a RAR request with Tdfsession toward TDF. On false, SM deletes the Tdfsession. Default Value: False

Table 2-134 PendingTransactionConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)	Description
enter a range in milliseconds from [0-10000]	integer	M	Indicates the time between two consecutive retry UpdateNotify messages when UpdateNotify message is held back from being sent to SMF. The default value for this field is 1000.
enter a range from [0-5]	integer	M	Indicates the count for UpdateNotify message to be retried when it is held back from sending to SMF. The default value for this field is 2.
errorUpdateNotifyHandlingApp	string	O	On Update Notify to SMF triggered by Rx, this configuration decides if it should RETRY (with UpdateNotifyRetryBackoff and UpdateNotifyRetryCount settings) or DISCARD when receiving 400 Pending Transaction response from SMF. The default value for this field is DISCARD. The allowed values are: - DISCARD (0) - RETRY (1)

Table 2-134 (Cont.) PendingTransactionConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)	Description
updateNotifyHandling	string	O	On Update Notify to SMF triggered by Subscriber Notification, this configuration decides if it should RETRY (with UpdateNotifyRetryBackoff and UpdateNotifyRetryCount settings) or DISCARD when receiving 400 Pending Transaction response from SMF. The default value for this field is RETRY. The allowed values are: - DISCARD (0) - RETRY (1)

Table 2-135 SmNwdafConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enableNwdafData	boolean	O	To enable or disable the Nwdaf data.

Table 2-136 AdvancedSettings

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
key	string	O	Specifies the key name.
value	string	O	Specifies the value of the key.

For more information on the Advanced Settings "Keys" and "Values", see "**Session Management Service**" section of "Configuring Policy Using CNC Console" in *Oracle Communications Cloud Native Core, Converged Policy User Guide*.

Sample Request body structure for GET and PUT operations:

```
{
  "system": {
    "componentTracingEnabled": true,
    "pcf_fqdn": "pcf-smsservice.oacle.com",
    "pcf_diamrealm": "oacle.com",
    "pcf_diamidentity": "pcf-smsservice.oacle.com",
    "snssai": "0,000000",
    "metricsEnabled": true,
    "smfNotificationRetryProfile": "string",
    "overrideSupportedFeatures": [
      "TSC"
    ],
    "enableCustomJson": true,
  }
}
```

```

    "nfCommProfile": "string",
    "dataCompressionScheme": "string",
    "dbEncodingEnabled": true,
    "rxReauthProfileForRxCreate": "string",
    "rxReauthProfileForRxUpdate": "string"
  },
  "user": {
    "validateUser": true,
    "queryUser": true,
    "queryUserOnUpdate": true,
    "queryUserOnDelete": true,
    "queryUserOnReauth": true,
    "subsToNotifyEnabled": true,
    "ignoreSubsNotificationCheck": true,
    "enableChfQueryAll": true,
    "enableAsyncChfQuery": true,
    "enableOcsQueryAll": true,
    "enableAsyncOcsQuery": true,
    "forceLookupOcsDataOnSmUpdate": true,
    "enableSmDataQuery": true,
    "enableOsdQuery": true,
    "includeSnssaiInUserQuery": true,
    "includeDnnInUserQuery": true,
    "disableSubscriberVariables": true,
    "ldapData.enable": true,
    "operatorSpecificData.subscribeToNotify": true
  },
  "policy": {
    "evaluateEnabled": true
  },
  "policyControlRequestTrigger": {
    "defaultPolicyControlRequestTriggers": [
      "PLMN_CH"
    ]
  },
  "binding": {
    "bsfRetryProfileForInitMsgs": "string",
    "bindingOperationEnabled": true,
    "useLocalConfiguredBsfAlways": true,
    "useLocalConfiguredBsfWhenNotDiscovered": true,
    "useHttp2": true,
    "abortOnBindingError": true,
    "bsfRetryProfileForSubsqMsgs": "string",
    "bsfNfCommProfile": "string",
    "bsfRecreateAttemptState": "string",
    "bsfReattemptProfile": "string",
    "defaultBindingOperationMode": "SYNCHRONOUS"
  },
  "qos": {
    "qosDataIdPrefix": "qosdata_",
    "updateDefaultPcfRuleWithAuthDefQos": true,
    "installDefQosIfNotRequested": true,
    "defaultQos5qi": "9",
    "defaultQosArpPreemptCap": "MAY_PREEMPT",
    "defaultQosArpPreemptVuln": "NOT_PREEMPTABLE",
    "defaultQosArpPriorityLevel": "1"
  }
}

```

```

},
"rule": {
  "defaultPolicyControlRequestTriggers": [
    "SUCC_RES_ALLO"
  ],
  "packetFilterUsageToTrueForPreliminaryServiceInfo": "string",
  "installDefaultPccRule": "ALWAYS",
  "defaultPccRuleProfile": "string",
  "ruleIdPrefix": "0_",
  "defaultPccRule5qi": "9",
  "defaultPccRulePrecedence": "3000",
  "defaultPccRuleArpPreemptCap": "NOT_PREEMPT",
  "defaultPccRuleRequestedRuleData": [
    "SUCC_RES_ALLO"
  ],
  "defaultPccRuleArpPreemptVuln": "PREEMPTABLE",
  "ruleConflictsStrategy": "INSTALL",
  "appRulePrecedenceMin": "400",
  "appRulePrecedenceMax": "899",
  "defaultPccRuleArpPriorityLevel": "15",
  "switchFlowInToOutEnabled": true,
  "setPacketFilterUsageToTrueForPreliminaryServiceInfo": true
},
"charging": {
  "chgDataIdPrefix": "chgdata_",
  "primaryChfAddress": "string",
  "primaryChfInstanceId": "string",
  "primaryChfSetId": "string",
  "secondaryChfAddress": "string",
  "secondaryChfInstanceId": "string",
  "secondaryChfSetId": "string",
  "online": true,
  "offline": true,
  "useSubscriberDefChgMethod": true
},
"trafficControl": {
  "tcDataIdPrefix": "tcdata_"
},
"imsEmergencySession": {
  "Any number of values are permitted for Emergency DNNs": [
    "string"
  ],
  "arpPriorityLevel": 15,
  "arpPreemptCap": "NOT_PREEMPT",
  "arpPreemptVuln": "NOT_PREEMPTABLE"
},
"audit": {
  "enable": true,
  "enter a range in sec from [20-700]": 50,
  "enter a range in minutes from [1-10080]": 1440,
  "enter a range in minutes from [1-20160]": 2880,
  "enter a range in minutes from [1-1440]": 330
},
"extendedAudit": {
  "pendingOperation": {
    "notificationRate": 0,

```

```

        "ttl": 0,
        "maxTtl": 0,
        "frequency": 0,
        "enableAlternateSite": true,
        "alternateSiteId": "string"
    },
    "smPolicyAssociation": {
        "enable": true,
        "notificationRate": 0,
        "ttl": 0,
        "maxTtl": 0,
        "minAuditAttempts": 5,
        "frequency": 0
    },
    "tdfSession": {
        "enable": true,
        "notificationRate": 0,
        "ttl": 0,
        "maxTtl": 0,
        "minAuditAttempts": 5,
        "frequency": 0,
        "queryTDF": true
    }
},
"pendingTransaction": {
    "enter a range in milliseconds from [0-10000]": 1000,
    "enter a range from [0-5]": 2,
    "errorUpdateNotifyHandlingApp": "string",
    "updateNotifyHandling": "string"
},
"nwdaF": {
    "enableNwdaFData": true
},
"advancedSettings": [
    {
        "key": "string",
        "value": "string"
    }
]
}

```

Export/Import Session Management Service

Table 2-137 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors:message	string		
errors:name	string		

Table 2-137 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
exportData	array		Exported list of session management service. For more information, see Get and Update Session Management Service .
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": {
    "advancedSettings": [
      {
        "key": "string",
        "value": "string"
      }
    ],
    "audit": {
      "enable": true,
      "frequency": 330,
      "maxTtl": 2880,
      "notificationRate": 50,
      "ttl": 1440
    },
    "binding": {
      "abortOnBindingError": true,
      "bindingOperationEnabled": true,
      "bsfNfCommProfile": "string",
      "bsfRetryProfileForInitMsgs": "string",
      "bsfRetryProfileForSubsqMsgs": "string",
      "defaultBindingOperationMode": "SYNCHRONOUS",
      "useHttp2": true,
      "useLocalConfiguredBsfAlways": true,
      "useLocalConfiguredBsfWhenNotDiscovered": true
    },
    "charging": {
      "chgDataIdPrefix": "chgdata_",
      "offline": true,

```



```

    "online": true,
    "primaryChfAddress": "string",
    "primaryChfInstanceId": "string",
    "primaryChfSetId": "string",
    "secondaryChfAddress": "string",
    "secondaryChfInstanceId": "string",
    "secondaryChfSetId": "string",
    "useSubscriberDefChgMethod": true
  },
  "imsEmergencySession": {
    "arpPreemptCap": "MAY_PREEMPT",
    "arpPreemptVuln": "NOT_PREEMPTABLE",
    "arpPriorityLevel": 0,
    "emergencyDNNs": [
      "string"
    ]
  },
  "pendingTransaction": {
    "updateNotifyRetryBackoff": 1000,
    "updateNotifyRetryCount": 2
  },
  "policy": {
    "evaluateEnabled": true
  },
  "policyControlRequestTrigger": {
    "defaultPolicyControlRequestTriggers": [
      "AC_TY_CH"
    ]
  },
  "qos": {
    "defaultQos5qi": 9,
    "defaultQosArpPreemptCap": "MAY_PREEMPT",
    "defaultQosArpPreemptVuln": "NOT_PREEMPTABLE",
    "defaultQosArpPriorityLevel": 1,
    "installDefQosIfNotRequested": true,
    "qosDataIdPrefix": "qosdata_",
    "updateDefaultPccRuleWithAuthDefQos": true
  },
  "rule": {
    "appRulePrecedenceMax": 899,
    "appRulePrecedenceMin": 400,
    "defaultPccRule5qi": 9,
    "defaultPccRuleArpPreemptCap": "NOT_PREEMPT",
    "defaultPccRuleArpPreemptVuln": "PREEMPTABLE",
    "defaultPccRuleArpPriorityLevel": 15,
    "defaultPccRulePrecedence": 3000,
    "defaultPccRuleProfile": "string",
    "installDefaultPccRule": "ALWAYS",
    "packetFilterUsageToTrueForPreliminaryServiceInfo": true,
    "ruleConflictsStrategy": "INSTALL",
    "ruleIdPrefix": "0_",
    "setPacketFilterUsageToTrueForPreliminaryServiceInfo": true,
    "switchFlowInToOutEnabled": true
  },
  "system": {
    "componentTracingEnabled": true,

```

```

    "enableCustomJson": true,
    "metricsEnabled": true,
    "nfCommProfile": "string",
    "overrideSupportedFeatures": [
      "3GPP-PS-Data-Off"
    ],
    "pcf_diamidentity": "pcf-smsservice.oracle.com",
    "pcf_diamrealm": "oracle.com",
    "pcf_fqdn": "pcf-smsservice.oracle.com",
    "smfNotificationRetryProfile": "string",
    "snssai": "0,000000"
  },
  "trafficControl": {
    "tcDataIdPrefix": "tcdata_"
  },
  "user": {
    "disableSubscriberVariables": true,
    "enableAsyncChfQuery": true,
    "enableAsyncOcsQuery": true,
    "enableChfQueryAll": true,
    "enableOcsQueryAll": true,
    "enableOsdQuery": true,
    "enableSmDataQuery": true,
    "ignoreSubsNotificationCheck": true,
    "includeDnnInUserQuery": true,
    "includeSnssaiInUserQuery": true,
    "ldapData.enable": true,
    "operatorSpecificData.subscribeToNotify": true,
    "queryUser": true,
    "queryUserOnDelete": true,
    "queryUserOnReauth": true,
    "queryUserOnUpdate": true,
    "subsToNotifyEnabled": true,
    "validateUser": true
  }
},
"sourceVersion": "string",
"topic": "string"
}

```

2.25 Session Rule

Table 2-138 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Session Rule	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/sessionrules	See Table A-3
Export Session Rules	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/sessionrules/export	See Table A-1

Table 2-138 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Import Session Rule	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/sessionrules/import	See Table A-3
Get Session Rule	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/sessionrules/{sessionRuleName}	See Table A-1
Update Session Rule	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/sessionrules/{sessionRuleName}	See Table A-2
Delete Session Rule	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/sessionrules/{sessionRuleName}	See Table A-4

Get, Create, and Update Session Rules

Table 2-139 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
authDefQosId	string	O	Authorized default QoS information
authSessAmbr	AuthSessAmbr	O	Authorized Session-AMBR
description	string	O	Specifies the description of the Session Rule
name	string	M	Specifies the name of the Session Rule
refCondData	string		specifies the reference to the condition data
sessRuleId	string	M	Specifies the Session Rule ID

Table 2-140 AuthSessAmbr

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
downlink	string Enter a value starting with number and ending bps or Kbps or Mbps or Gbps or Tbps	O	AMBR for downlink

Table 2-140 (Cont.) AuthSessAmbr

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
uplink	string Enter a value starting with number and ending bps or Kbps or Mbps or Gbps or Tbps	O	AMBR for uplink

Sample Request body structure for POST and PUT operations:

```
{
  "authDefQosId": "string",
  "authSessAmbr": {
    "downlink": "string",
    "uplink": "string"
  },
  "description": "string",
  "name": "string",
  "refCondData": "string",
  "sessRuleId": "string"
}
```

Sample Response body structure for GET, POST, and PUT operations:

```
{
  "authDefQosId": "string",
  "authSessAmbr": {
    "downlink": "string",
    "uplink": "string"
  },
  "description": "string",
  "name": "string",
  "refCondData": "string",
  "sessRuleProfileId": "string"
}
```

Delete Session Rule**Table 2-141 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
sessionRuleName	string	M	Session Rule Name

Export/Import Session Rule

Table 2-142 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors:message	string		Error message
errors:name	string		Name of the error
exportData	array		Exported list of session rules. For more information, see Get, Create, and Update Session Rules
key	string		Indicates the ID of Session Rule
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "authDefQosId": "string",
      "authSessAmbr": {
        "downlink": "string",
        "uplink": "string"
      },
      "description": "string",
      "name": "string",
      "refCondData": "string",
      "sessRuleId": "string"
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}

```

2.26 Session Rule Profile

Table 2-143 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Session Rule Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/sessionruleprofiles	See Table A-3
Export Session Rule Profiles	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/sessionruleprofiles/export	See Table A-1
Import Session Rule Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/sessionruleprofiles/import	See Table A-3
Get Session Rule Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/sessionruleprofiles/{sessionRuleProfileName}	See Table A-1
Update Session Rule Profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/sessionruleprofiles/{sessionRuleProfileName}	See Table A-2
Delete Session Rule Profile	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/sessionruleprofiles/{sessionRuleProfileName}	See Table A-4

Get, Create, and Update Session Rule Profiles

Table 2-144 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)aints	Description
authDefQosId	string	O	Authorized default QoS information
authSessAmbr	AuthSessAmbr	O	Authorized Session-AMBR
description	string		Specifies the description of the Session Rule Profile
name	string	M	Specifies the name of the Session Rule Profile

Table 2-144 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
refCondData	string		
sessRuleProfileId	string	M	Specifies the Session Rule Profile ID

Table 2-145 AuthSessAmbr

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
downlink	string	O	AMBR for downlink
uplink	string	O	AMBR for uplink

Sample Request body structure for POST and PUT operations:

```
{
  "authDefQosId": "string",
  "authSessAmbr": {
    "downlink": "string",
    "uplink": "string"
  },
  "description": "string",
  "name": "string",
  "refCondData": "string",
  "sessRuleProfileId": "string"
}
```

Sample Response body structure for GET, POST, and PUT operations:

```
{
  "authDefQosId": "string",
  "authSessAmbr": {
    "downlink": "string",
    "uplink": "string"
  },
  "description": "string",
  "name": "string",
  "refCondData": "string",
  "sessRuleProfileId": "string"
}
```

Delete Session Rule Profile**Table 2-146 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
sessionRuleProfileName	string	M	Session Rule Profile Name

Export/Import Session Rule Profile**Table 2-147 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors:message	string		Error message
errors:name	string		Name of the error
exportData	array		Exported list of session rule profiles. For more information, see Get, Create, and Update Session Rule Profiles .
key	string		Indicates the ID of Session Rule Profile
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "authDefQosId": "string",
      "authSessAmbr": {
        "downlink": "string",
        "uplink": "string"
      },
      "description": "string",
      "name": "string",
      "refCondData": "string",
      "sessRuleProfileId": "string"
    }
  ]
}
```



```

    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}

```

2.27 QoS Information

Table 2-148 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create QoS Information	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/qosinformation	See Table A-3
Export QoS Information	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/qosinformation/export	See Table A-1
Import QoS Information	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/qosinformation/import	See Table A-3
Get QoS Information	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/qosinformation/{qosInformationName}	See Table A-1
Update QoS Information	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/qosinformation/{qosInformationName}	See Table A-2
Delete QoS Information	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/qosinformation/{qosInformationName}	See Table A-4

Get, Create, and Update QoS Information

Table 2-149 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)aints	Description
5qi	string (\$int32) enter a range in [0-255] number	O	Identifier for the authorized QoS parameters for the service data flow. It shall be included when the QoS data decision is initially provisioned.

Table 2-149 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
arp	Arp	O	Indicates the allocation and retention priority. It shall be included when the Authorized Default QoS is initially provisioned.
averWindow	integer	O	Represents the duration over which the guaranteed and maximum bitrate shall be calculated. The allowed integer value ranges from 1 to 4095. Default Value: 2000
description	string	O	The description of the Qos Information.
maxDataBurstVol	integer	O	Denotes the largest amount of data that is required to be transferred within a period of 5GAN PDB. The allowed integer value ranges from 1 to 4095. Default Value: 2000
name	string	M	The name of the Qos Information.
priorityLevel	integer (\$int32)	O	Unsigned integer indicating the 5QI Priority Level, within a range of 1 to 127.

Table 2-150 Arp

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
preemptCap	ENUM	M	Defines whether a service data flow may get resources that were already assigned to another service data flow with a lower priority level. Possible values are: • NOT_PREEMPT : Shall not trigger pre-emption. • MAY_PREEMPT : May trigger pre-emption.

Table 2-150 (Cont.) Arp

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
preemptVuln	ENUM	M	Defines whether a service data flow may lose the resources assigned to it in order to admit a service data flow with higher priority level. Possible values are: • NOT_PREEMPTABLE : Shall not be pre-empted. • PREEMPTABLE : May be pre-empted.
priorityLevel	integer (\$int32)	M	Unsigned integer indicating the ARP Priority Level, within the range 1 to 15.

Sample Request body structure for POST and PUT operations:

```
{
  "5qi": "string",
  "arp": {
    "preemptCap": "MAY_PREEMPT",
    "preemptVuln": "NOT_PREEMPTABLE",
    "priorityLevel": 0
  },
  "averWindow": 2000,
  "description": "string",
  "maxDataBurstVol": 2000,
  "name": "string",
  "priorityLevel": "string"
}
```

Sample Response body structure for GET, POST, and PUT operations:

```
{
  "5qi": "string",
  "arp": {
    "preemptCap": "MAY_PREEMPT",
    "preemptVuln": "NOT_PREEMPTABLE",
    "priorityLevel": 0
  },
  "averWindow": 2000,
  "description": "string",
  "maxDataBurstVol": 2000,
  "name": "string",
  "priorityLevel": "string"
}
```

Delete QoS Information**Table 2-151 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
qosInformationName	string	M	Qos Information Name

Export/Import QoS Information**Table 2-152 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string	M	Current timestamp
exportData	array	M	Exported list of QoS information. For more information, see Get, Create, and Update QoS Information .
key	string	M	Indicates the ID of QoS Information
sourceVersion	string	M	System version of product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "5qi": "string",
      "arp": {
        "preemptCap": "MAY_PREEMPT",
        "preemptVuln": "NOT_PREEMPTABLE",
        "priorityLevel": 0
      },
      "averWindow": 2000,
      "description": "string",
      "maxDataBurstVol": 2000,
      "name": "string",
      "priorityLevel": "string"
    }
  ]
}
```

```

    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}

```

2.28 QoS Data

Table 2-153 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create QoS Data	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/qosdata	See Table A-3
Export QoS Data	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/qosdata/export	See Table A-1
Import QoS Data	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/qosdata/import	See Table A-3
Get QoS Data	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/qosdata/{qosDataName}	See Table A-1
Update QoS Data	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/qosdata/{qosDataName}	See Table A-2
Delete QoS Data	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/qosdata/{qosDataName}	See Table A-4

Get, Create, and Update QoS Data s

Table 2-154 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)aints	Description
5qi	string (\$int32) enter a range in [0-255] number	O	Identifier for the authorized QoS parameters for the service data flow. It shall be included when the QoS data decision.
arp	Arp	O	ARP information

Table 2-154 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
averwindow	string	O	Averwindow details.
defQosFlowIndication	boolean	O	Indicates that the dynamic PCC rule shall always have its binding with the QoS Flow associated with the default QoS rule. Default value is "FALSE", if not present and has not been supplied previously.
description	string	O	The description of the Qos Data
gbrDL	string , Enter a value starting with number and ending bps or Kbps or Mbps or Gbps or Tbps	O	Indicates the guaranteed bandwidth in downlink.
gbrUL	string , Enter a value starting with number and ending bps or Kbps or Mbps or Gbps or Tbps	O	Indicates the guaranteed bandwidth in uplink.
maxDataBurstVol	integer (\$int32) Enter a value between 1 and 4095	O	Denotes the largest amount of data that is required to be transferred within a period of 5GAN PDB (NOTE).
maxPacketLossRateDL	integer (\$int32) Enter a value between 0 and 1000	O	Indicates the downlink maximum rate for lost packets that can be tolerated for the service data flow.
maxPacketLossRateUL	integer (\$int32) Enter a value between 0 and 1000	O	Indicates the uplink maximum rate for lost packets that can be tolerated for the service data flow.
maxbrDL	string , Enter a value starting with number and ending bps or Kbps or Mbps or Gbps or Tbps	O	Indicates the max bandwidth in downlink.
maxbrUL	string , Enter a value starting with number and ending bps or Kbps or Mbps or Gbps or Tbps	O	Indicates the max bandwidth in uplink.
name	string	M	The name of the Qos Data
priorityLevel	integer (\$int32) Enter a value between 1 and 127	O	Defines the relative importance of a resource request.

Table 2-154 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
qnc	boolean	O	Indicates whether notifications are requested from 3GPP NG-RAN when the GFBF can no longer (or again) be guaranteed for a QoS flow during the lifetime of the QoS flow.
qosId	string	O	Specifies the QoS Id.
reflectiveQos	boolean	O	Indicates whether the QoS information is reflective for the corresponding service data flow. Default value is "FALSE", if not present and has not been supplied previously.
sharingKeyDI	string	O	Indicates, by containing the same value, what PCC rules may share resource in downlink direction.
sharingKeyUI	string	O	Indicates, by containing the same value, what PCC rules may share resource in uplink direction.

Table 2-155 Arp

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
preemptCap	ENUM	M	Defines whether a service data flow may get resources that were already assigned to another service data flow with a lower priority level.
preemptVuln	ENUM	M	Defines whether a service data flow may lose the resources assigned to it in order to admit a service data flow with higher priority level.
priorityLevel	integer (\$int32) enter a range in [1-15] number	M	Defines the relative importance of a resource request.

Sample Request body structure for POST and PUT operations:

```
{
  "5qi": 0,
  "arp": {
    "preemptCap": "MAY_PREEMPT",
    "preemptVuln": "NOT_PREEMPTABLE",
    "priorityLevel": 0
  },
  "averWindow": 2000,
  "defQosFlowIndication": true,
  "description": "string",
  "gbrDL": "string",
  "gbrUL": "string",
  "maxDataBurstVol": 0,
  "maxPacketLossRateDL": 0,
  "maxPacketLossRateUL": 0,
  "maxbrDL": "string",
  "maxbrUL": "string",
  "name": "string",
  "priorityLevel": 0,
  "qnc": true,
  "qosId": "string",
  "reflectiveQos": true,
  "sharingKeyDL": "string",
  "sharingKeyUL": "string"
}
```

Sample Response body structure for GET, POST, and PUT operations:

```
{
  "5qi": 0,
  "arp": {
    "preemptCap": "MAY_PREEMPT",
    "preemptVuln": "NOT_PREEMPTABLE",
    "priorityLevel": 0
  },
  "averWindow": 2000,
  "defQosFlowIndication": true,
  "description": "string",
  "gbrDL": "string",
  "gbrUL": "string",
  "maxDataBurstVol": 0,
  "maxPacketLossRateDL": 0,
  "maxPacketLossRateUL": 0,
  "maxbrDL": "string",
  "maxbrUL": "string",
  "name": "string",
  "priorityLevel": 0,
  "qnc": true,
  "qosId": "string",
  "reflectiveQos": true,
  "sharingKeyDL": "string",
  "sharingKeyUL": "string"
}
```


Delete QoS Data**Table 2-156 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
qosDataName	string	M	Qos Data Name

Export/Import QoS Data s**Table 2-157 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string	M	Current timestamp
exportData	array	M	Exported list of QoS data. For more information, see Get, Create, and Update QoS Data s .
key	string	O	Indicates the ID of QoS Data
sourceVersion	string	O	System version of product from which data is exported
topic	string	O	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "5qi": 0,
      "arp": {
        "preemptCap": "MAY_PREEMPT",
        "preemptVuln": "NOT_PREEMPTABLE",
        "priorityLevel": 0
      },
      "averWindow": 2000,
      "defQosFlowIndication": true,
      "description": "string",
      "gbrDl": "string",
      "gbrUl": "string",

```

```

        "maxDataBurstVol": 0,
        "maxPacketLossRateDl": 0,
        "maxPacketLossRateUl": 0,
        "maxbrDl": "string",
        "maxbrUl": "string",
        "name": "string",
        "priorityLevel": 0,
        "qnc": true,
        "qosId": "string",
        "reflectiveQos": true,
        "sharingKeyDl": "string",
        "sharingKeyUl": "string"
    }
},
"key": "string",
"sourceVersion": "string",
"topic": "string"
}

```

2.29 Traffic for PCC Rule

Table 2-158 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Traffic PCC Rule	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccrules	See Table A-3
Export Traffic PCC Rule	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccrules/export	See Table A-1
Import Traffic PCC Rule	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccrules/import	See Table A-3
Get Traffic PCC Rule	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccrules/{trafficPccRuleName}	See Table A-1
Update Traffic PCC Rule	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccrules/{trafficPccRuleName}	See Table A-2
Delete Traffic PCC Rule	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccrules/{trafficPccRuleName}	See Table A-4

Create, Get, and Update Traffic for PCC Rule

Table 2-159 Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
description	string	O	
name	string	M	
param.diameter.pccRule.ARP.PreemptionCapability	string	O	Allowed values • 0 • 1
param.diameter.pccRule.ARP.PreemptionVulnerability	string	O	Allowed values • 0 • 1
param.diameter.pccRule.ARP.PriorityLevel	string	O	
param.diameter.pccRule.FlowDescriptions	string	O	
param.diameter.pccRule.FlowInformations	array	O	
param.diameter.pccRule.FlowStatus	string	O	Allowed values • 0 • 1 • 2 • 3
param.diameter.pccRule.bearerUsage	ENUM	O	
param.diameter.pccRule.MeteringMethod	string	O	Allowed values • 0 • 1 • 2 • 3
param.diameter.pccRule.MonitoringKey	string	O	
param.diameter.pccRule.Offline	string	O	Allowed values • 0 • 1
param.diameter.pccRule.Online	string	O	Allowed values • 0 • 1
param.diameter.pccRule.Precedence	string	O	
param.diameter.pccRule.RatingGroup	string	O	
param.diameter.pccRule.ReportingLevel	string	O	Allowed values • 0 • 1 • 2

Table 2-159 (Cont.) Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
param.diameter.pccRule.RequiredAccessInfo	string	O	Allowed values • 1 • 2 • 3
param.diameter.pccRule.ResourceAllocationNotification	string	O	Allowed values • 0
param.diameter.pccRule.ServiceIdentifier	string	O	
param.diameter.pccRule.applicationServiceProviderIdentity	string	O	
param.diameter.pccRule.maxAuthDL	string	O	
param.diameter.pccRule.maxAuthUL	string	O	
param.diameter.pccRule.minRateDL	string	O	
param.diameter.pccRule.minRateUL	string	O	
param.diameter.pccRule.qci	string	O	Allowed values: • 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • 65 • 66 • 69 • 70
param.diameter.pccRule.sponsorIdentity	string	O	
param.diameter.pccRule.tdfApplicationIdentifier	string	O	
param.diameter.pccRule.tdfMuteNotification	string	O	Allowed values • 0

Table 2-159 (Cont.) Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
param.diameter.pccRule.tdfRedirectAddressType	string	O	Allowed values • 0 • 1 • 2 • 3
param.diameter.pccRule.tdfRedirectServerAddress	string	O	
param.diameter.pccRule.tdfRedirectSupport	string	O	Allowed values • 0 • 1

Table 2-160 param.diameter.pccRule.FlowInformations

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
flowDescription	string	O	
flowDirection	string	M	Allowed values: • -1 • 0 • 1 • 2 • 3
tos	string	O	
tosMask	string	O	

Sample Request Body structure for POST and PUT operations:

```
{
  "description": "string",
  "name": "string",
  "param.diameter.pccRule.ARP.PreemptionCapability": "0",
  "param.diameter.pccRule.ARP.PreemptionVulnerability": "0",
  "param.diameter.pccRule.ARP.PriorityLevel": "string",
  "param.diameter.pccRule.FlowDescriptions": "string",
  "param.diameter.pccRule.FlowInformations": [
    {
      "flowDescription": "string",
      "flowDirection": "-1",
      "tos": "string",
      "tosMask": "string"
    }
  ],
  "param.diameter.pccRule.FlowStatus": "0",
  "param.diameter.pccRule.MeteringMethod": "0",
}
```

```

"param.diameter.pccRule.MonitoringKey": "string",
"param.diameter.pccRule.Offline": "0",
"param.diameter.pccRule.Online": "0",
"param.diameter.pccRule.PStoCSSessionContinuity": "0",
"param.diameter.pccRule.Precedence": "string",
"param.diameter.pccRule.RatingGroup": "string",
"param.diameter.pccRule.ReportingLevel": "0",
"param.diameter.pccRule.RequiredAccessInfo": "1",
"param.diameter.pccRule.ResourceAllocationNotification": "0",
"param.diameter.pccRule.ServiceIdentifier": "string",
"param.diameter.pccRule.applicationServiceProviderIdentity": "string",
"param.diameter.pccRule.maxAuthDL": "string",
"param.diameter.pccRule.maxAuthUL": "string",
"param.diameter.pccRule.minRateDL": "string",
"param.diameter.pccRule.minRateUL": "string",
"param.diameter.pccRule.name": "string",
"param.diameter.pccRule.qci": "1",
"param.diameter.pccRule.sponsorIdentity": "string",
"param.diameter.pccRule.tdfApplicationIdentifier": "string",
"param.diameter.pccRule.tdfMuteNotification": "0",
"param.diameter.pccRule.tdfRedirectAddressType": "0",
"param.diameter.pccRule.tdfRedirectServerAddress": "string",
"param.diameter.pccRule.tdfRedirectSupport": "0"
}

```

Sample Response Body structure for GET, POST and PUT operations:

```

{
  "description": "string",
  "name": "string",
  "param.diameter.pccRule.ARP.PreemptionCapability": "0",
  "param.diameter.pccRule.ARP.PreemptionVulnerability": "0",
  "param.diameter.pccRule.ARP.PriorityLevel": "string",
  "param.diameter.pccRule.FlowDescriptions": "string",
  "param.diameter.pccRule.FlowInformations": [
    {
      "flowDescription": "string",
      "flowDirection": "-1",
      "tos": "string",
      "tosMask": "string"
    }
  ],
  "param.diameter.pccRule.FlowStatus": "0",
  "param.diameter.pccRule.MeteringMethod": "0",
  "param.diameter.pccRule.MonitoringKey": "string",
  "param.diameter.pccRule.Offline": "0",
  "param.diameter.pccRule.Online": "0",
  "param.diameter.pccRule.PStoCSSessionContinuity": "0",
  "param.diameter.pccRule.Precedence": "string",
  "param.diameter.pccRule.RatingGroup": "string",
  "param.diameter.pccRule.ReportingLevel": "0",
  "param.diameter.pccRule.RequiredAccessInfo": "1",
  "param.diameter.pccRule.ResourceAllocationNotification": "0",
  "param.diameter.pccRule.ServiceIdentifier": "string",
  "param.diameter.pccRule.applicationServiceProviderIdentity": "string",

```

```

"param.diameter.pccRule.maxAuthDL": "string",
"param.diameter.pccRule.maxAuthUL": "string",
"param.diameter.pccRule.minRateDL": "string",
"param.diameter.pccRule.minRateUL": "string",
"param.diameter.pccRule.name": "string",
"param.diameter.pccRule.qci": "1",
"param.diameter.pccRule.sponsorIdentity": "string",
"param.diameter.pccRule.tdfApplicationIdentifier": "string",
"param.diameter.pccRule.tdfMuteNotification": "0",
"param.diameter.pccRule.tdfRedirectAddressType": "0",
"param.diameter.pccRule.tdfRedirectServerAddress": "string",
"param.diameter.pccRule.tdfRedirectSupport": "0"
}

```

Export/Import Traffic for PCC Rule

Table 2-161 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of traffic Pcc Rule. For more information, see Table 2-159 .
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "description": "string",
      "name": "string",
      "param.diameter.pccRule.ARP.PreemptionCapability": "0",
      "param.diameter.pccRule.ARP.PreemptionVulnerability": "0",
      "param.diameter.pccRule.ARP.PriorityLevel": "string",
      "param.diameter.pccRule.FlowDescriptions": "string",

```

```

"param.diameter.pccRule.FlowInformations": [
  {
    "flowDescription": "string",
    "flowDirection": "-1",
    "tos": "string",
    "tosMask": "string"
  }
],
"param.diameter.pccRule.FlowStatus": "0",
"param.diameter.pccRule.MeteringMethod": "0",
"param.diameter.pccRule.MonitoringKey": "string",
"param.diameter.pccRule.Offline": "0",
"param.diameter.pccRule.Online": "0",
"param.diameter.pccRule.PStoCSSessionContinuity": "0",
"param.diameter.pccRule.Precedence": "string",
"param.diameter.pccRule.RatingGroup": "string",
"param.diameter.pccRule.ReportingLevel": "0",
"param.diameter.pccRule.RequiredAccessInfo": "1",
"param.diameter.pccRule.ResourceAllocationNotification": "0",
"param.diameter.pccRule.ServiceIdentifier": "string",
"param.diameter.pccRule.applicationServiceProviderIdentity": "string",
"param.diameter.pccRule.maxAuthDL": "string",
"param.diameter.pccRule.maxAuthUL": "string",
"param.diameter.pccRule.minRateDL": "string",
"param.diameter.pccRule.minRateUL": "string",
"param.diameter.pccRule.name": "string",
"param.diameter.pccRule.qci": "1",
"param.diameter.pccRule.sponsorIdentity": "string",
"param.diameter.pccRule.tdfApplicationIdentifier": "string",
"param.diameter.pccRule.tdfMuteNotification": "0",
"param.diameter.pccRule.tdfRedirectAddressType": "0",
"param.diameter.pccRule.tdfRedirectServerAddress": "string",
"param.diameter.pccRule.tdfRedirectSupport": "0"
}
],
"key": "string",
"sourceVersion": "string",
"topic": "string"
}

```

Delete Traffic for PCC Rule

Table 2-162 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
trafficPccRuleName	string	M	Traffic PCC Rule Name

2.30 Traffic for PCC Profile

Table 2-163 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Traffic PCC Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccruleprofiles	See Table A-3
Export Traffic PCC Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccruleprofiles/export	See Table A-1
Import Traffic PCC Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccruleprofiles/import	See Table A-3
Get Traffic PCC Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccruleprofiles/{trafficPccProfileName}	See Table A-1
Update Traffic PCC Profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccruleprofiles/{trafficPccProfileName}	See Table A-2
Delete Traffic PCC Profile	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pccruleprofiles/{trafficPccProfileName}	See Table A-4

Create, Get, and Update Traffic for PCC Profile

Table 2-164 Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
description	string	O	
name	string	M	
param.diameter.pcc Profile.ARP.PreemptionCapability	string	O	Allowed values 0 1
param.diameter.pcc Profile.ARP.PreemptionVulnerability	string	O	Allowed values 0 1
param.diameter.pcc Profile.ARP.Priority Level	string	O	

Table 2-164 (Cont.) Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
param.diameter.pcc Profile.FlowDescriptions	string	O	
param.diameter.pcc Profile.FlowInformations	array	O	
param.diameter.pcc Profile.FlowStatus	string	O	Allowed values • 0 • 1 • 2 • 3
param.diameter.pcc Profile.bearerUsage	ENUM	O	
param.diameter.pcc Profile.MeteringMethod	string	O	Allowed values • 0 • 1 • 2 • 3
param.diameter.pcc Profile.MonitoringKey	string	O	
param.diameter.pcc Profile.Offline	string	O	Allowed values • 0 • 1
param.diameter.pcc Profile.Online	string	O	Allowed values • 0 • 1
param.diameter.pcc Profile.Precedence	string	O	
param.diameter.pcc Profile.RatingGroup	string	O	
param.diameter.pcc Profile.ReportingLevel	string	O	Allowed values • 0 • 1 • 2
param.diameter.pcc Profile.RequiredAccessInfo	string	O	Allowed values • 1 • 2 • 3
param.diameter.pcc Profile.ResourceAllocationNotification	string	O	Allowed values • 0
param.diameter.pcc Profile.ServiceIdentifier	string	O	

Table 2-164 (Cont.) Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
param.diameter.pccProfile.applicationServiceProviderIdentity	string	O	
param.diameter.pccProfile.maxAuthDL	string	O	
param.diameter.pccProfile.maxAuthUL	string	O	
param.diameter.pccProfile.minRateDL	string	O	
param.diameter.pccProfile.minRateUL	string	O	
param.diameter.pccProfile.qci	string	O	Allowed values: • 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • 65 • 66 • 69 • 70
param.diameter.pccProfile.sponsorIdentity	string	O	
param.diameter.pccProfile.tdfApplicationIdentifier	string	O	
param.diameter.pccProfile.tdfMuteNotification	string	O	Allowed values • 0
param.diameter.pccProfile.tdfRedirectAddressType	string	O	Allowed values • 0 • 1 • 2 • 3
param.diameter.pccProfile.tdfRedirectServerAddress	string	O	
param.diameter.pccProfile.tdfRedirectSupport	string	O	Allowed values • 0 • 1

Table 2-165 param.diameter.pccProfile.FlowInformations

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
flowDescription	string	O	
flowDirection	string	M	Allowed values: • -1 • 0 • 1 • 2 • 3
tos	string	O	
tosMask	string	O	

Sample Request Body structure for POST and PUT operations:

```
{
  "description": "string",
  "name": "string",
  "param.diameter.pccProfile.ARP.PreemptionCapability": "0",
  "param.diameter.pccProfile.ARP.PreemptionVulnerability": "0",
  "param.diameter.pccProfile.ARP.PriorityLevel": "string",
  "param.diameter.pccProfile.FlowDescriptions": "string",
  "param.diameter.pccProfile.FlowInformations": [
    {
      "flowDescription": "string",
      "flowDirection": "-1",
      "tos": "string",
      "tosMask": "string"
    }
  ],
  "param.diameter.pccProfile.FlowStatus": "0",
  "param.diameter.pccProfile.MeteringMethod": "0",
  "param.diameter.pccProfile.MonitoringKey": "string",
  "param.diameter.pccProfile.Offline": "0",
  "param.diameter.pccProfile.Online": "0",
  "param.diameter.pccProfile.Precedence": "string",
  "param.diameter.pccProfile.RatingGroup": "string",
  "param.diameter.pccProfile.ReportingLevel": "0",
  "param.diameter.pccProfile.RequiredAccessInfo": "1",
  "param.diameter.pccProfile.ResourceAllocationNotification": "0",
  "param.diameter.pccProfile.ServiceIdentifier": "string",
  "param.diameter.pccProfile.applicationServiceProviderIdentity": "string",
  "param.diameter.pccProfile.maxAuthDL": "string",
  "param.diameter.pccProfile.maxAuthUL": "string",
  "param.diameter.pccProfile.minRateDL": "string",
  "param.diameter.pccProfile.minRateUL": "string",
  "param.diameter.pccProfile.qci": "1",
  "param.diameter.pccProfile.sponsorIdentity": "string",
  "param.diameter.pccProfile.tdfApplicationIdentifier": "string",
  "param.diameter.pccProfile.tdfMuteNotification": "0",
  "param.diameter.pccProfile.tdfRedirectAddressType": "0",
  "param.diameter.pccProfile.tdfRedirectServerAddress": "string",
}
```

```
"param.diameter.pccProfile.tdfRedirectSupport": "0"
}
```

Sample Response Body structure for GET, POST and PUT operations:

```
{
  "description": "string",
  "name": "string",
  "param.diameter.pccProfile.ARP.PreemptionCapability": "0",
  "param.diameter.pccProfile.ARP.PreemptionVulnerability": "0",
  "param.diameter.pccProfile.ARP.PriorityLevel": "string",
  "param.diameter.pccProfile.FlowDescriptions": "string",
  "param.diameter.pccProfile.FlowInformations": [
    {
      "flowDescription": "string",
      "flowDirection": "-1",
      "tos": "string",
      "tosMask": "string"
    }
  ],
  "param.diameter.pccProfile.FlowStatus": "0",
  "param.diameter.pccProfile.MeteringMethod": "0",
  "param.diameter.pccProfile.MonitoringKey": "string",
  "param.diameter.pccProfile.Offline": "0",
  "param.diameter.pccProfile.Online": "0",
  "param.diameter.pccProfile.Precedence": "string",
  "param.diameter.pccProfile.RatingGroup": "string",
  "param.diameter.pccProfile.ReportingLevel": "0",
  "param.diameter.pccProfile.RequiredAccessInfo": "1",
  "param.diameter.pccProfile.ResourceAllocationNotification": "0",
  "param.diameter.pccProfile.ServiceIdentifier": "string",
  "param.diameter.pccProfile.applicationServiceProviderIdentity": "string",
  "param.diameter.pccProfile.maxAuthDL": "string",
  "param.diameter.pccProfile.maxAuthUL": "string",
  "param.diameter.pccProfile.minRateDL": "string",
  "param.diameter.pccProfile.minRateUL": "string",
  "param.diameter.pccProfile.qci": "1",
  "param.diameter.pccProfile.sponsorIdentity": "string",
  "param.diameter.pccProfile.tdfApplicationIdentifier": "string",
  "param.diameter.pccProfile.tdfMuteNotification": "0",
  "param.diameter.pccProfile.tdfRedirectAddressType": "0",
  "param.diameter.pccProfile.tdfRedirectServerAddress": "string",
  "param.diameter.pccProfile.tdfRedirectSupport": "0"
}
```

Export/Import Traffic for PCC Profile

Table 2-166 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		

Table 2-166 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of traffic Pcc Profile. For more information, see Table 2-164 .
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "description": "string",
      "name": "string",
      "param.diameter.pccProfile.ARP.PreemptionCapability": "0",
      "param.diameter.pccProfile.ARP.PreemptionVulnerability": "0",
      "param.diameter.pccProfile.ARP.PriorityLevel": "string",
      "param.diameter.pccProfile.FlowDescriptions": "string",
      "param.diameter.pccProfile.FlowInformations": [
        {
          "flowDescription": "string",
          "flowDirection": "-1",
          "tos": "string",
          "tosMask": "string"
        }
      ],
      "param.diameter.pccProfile.FlowStatus": "0",
      "param.diameter.pccProfile.MeteringMethod": "0",
      "param.diameter.pccProfile.MonitoringKey": "string",
      "param.diameter.pccProfile.Offline": "0",
      "param.diameter.pccProfile.Online": "0",
      "param.diameter.pccProfile.Precedence": "string",
      "param.diameter.pccProfile.RatingGroup": "string",
      "param.diameter.pccProfile.ReportingLevel": "0",
      "param.diameter.pccProfile.RequiredAccessInfo": "1",
      "param.diameter.pccProfile.ResourceAllocationNotification": "0",
    }
  ],
}
```

```

        "param.diameter.pccProfile.ServiceIdentifier": "string",
        "param.diameter.pccProfile.applicationServiceProviderIdentity":
"string",
        "param.diameter.pccProfile.maxAuthDL": "string",
        "param.diameter.pccProfile.maxAuthUL": "string",
        "param.diameter.pccProfile.minRateDL": "string",
        "param.diameter.pccProfile.minRateUL": "string",
        "param.diameter.pccProfile.qci": "1",
        "param.diameter.pccProfile.sponsorIdentity": "string",
        "param.diameter.pccProfile.tdfApplicationIdentifier": "string",
        "param.diameter.pccProfile.tdfMuteNotification": "0",
        "param.diameter.pccProfile.tdfRedirectAddressType": "0",
        "param.diameter.pccProfile.tdfRedirectServerAddress": "string",
        "param.diameter.pccProfile.tdfRedirectSupport": "0"
    }
},
"key": "string",
"sourceVersion": "string",
"topic": "string"
}

```

Delete Traffic for PCC Profile

Table 2-167 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
trafficPccProfileName	string	M	Traffic PCC Profile Name

2.31 Traffic for Diameter QoS

Table 2-168 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Traffic Diameter QoS	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/diameterqos	See Table A-3
Export Traffic Diameter QoS	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/diameterqos/export	See Table A-1
Import Traffic Diameter QoS	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/diameterqos/import	See Table A-3

Table 2-168 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Traffic Diameter QoS	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/diameterqos/{trafficDiameterQoSName}	See Table A-1
Update Traffic Diameter QoS	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/diameterqos/{trafficDiameterQoSName}	See Table A-2
Delete Traffic Diameter QoS	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/diameterqos/{trafficDiameterQoSName}	See Table A-4

Create, Get, and Update Traffic for Diameter QoS

Table 2-169 Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
description	string	O	
name	string	M	
param.diameter.qosProfile.ARP.PreemptionCapability	string	O	Allowed values: 0 1
param.diameter.qosProfile.ARP.PreemptionVulnerability	string	O	Allowed values: 0 1
param.diameter.qosProfile.ARP.PriorityLevel	string	O	
param.diameter.qosProfile.ResourceAllocationNotification	string	O	Allowed values: 0
param.diameter.qosProfile.maxAuthDL	string	O	
param.diameter.qosProfile.maxAuthUL	string	O	
param.diameter.qosProfile.minRateDL	string	O	
param.diameter.qosProfile.minRateUL	string	O	

Table 2-169 (Cont.) Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
param.diameter.qosProfile.qci	string	O	Allowed values: • 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • 65 • 66 • 69 • 70

Sample Request Body structure for POST and PUT operations:

```
{
  "description": "string",
  "name": "string",
  "param.diameter.qosProfile.ARP.PreemptionCapability": "0",
  "param.diameter.qosProfile.ARP.PreemptionVulnerability": "0",
  "param.diameter.qosProfile.ARP.PriorityLevel": "string",
  "param.diameter.qosProfile.ResourceAllocationNotification": "0",
  "param.diameter.qosProfile.maxAuthDL": "string",
  "param.diameter.qosProfile.maxAuthUL": "string",
  "param.diameter.qosProfile.minRateDL": "string",
  "param.diameter.qosProfile.minRateUL": "string",
  "param.diameter.qosProfile.qci": "1"
}
```

Sample Response Body structure for GET, POST and PUT operations:

```
{
  "description": "string",
  "name": "string",
  "param.diameter.qosProfile.ARP.PreemptionCapability": "0",
  "param.diameter.qosProfile.ARP.PreemptionVulnerability": "0",
  "param.diameter.qosProfile.ARP.PriorityLevel": "string",
  "param.diameter.qosProfile.ResourceAllocationNotification": "0",
  "param.diameter.qosProfile.maxAuthDL": "string",
  "param.diameter.qosProfile.maxAuthUL": "string",
  "param.diameter.qosProfile.minRateDL": "string",
  "param.diameter.qosProfile.minRateUL": "string",
  "param.diameter.qosProfile.qci": "1"
}
```

Export/Import Traffic for Diameter QoS

Table 2-170 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of traffic diameter QoS. For more information, see Table 2-169 .
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "description": "string",
      "name": "string",
      "param.diameter.qosProfile.ARP.PreemptionCapability": "0",
      "param.diameter.qosProfile.ARP.PreemptionVulnerability": "0",
      "param.diameter.qosProfile.ARP.PriorityLevel": "string",
      "param.diameter.qosProfile.ResourceAllocationNotification": "0",
      "param.diameter.qosProfile.maxAuthDL": "string",
      "param.diameter.qosProfile.maxAuthUL": "string",
      "param.diameter.qosProfile.minRateDL": "string",
      "param.diameter.qosProfile.minRateUL": "string",
      "param.diameter.qosProfile.qci": "1"
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}

```

Delete Traffic for Diameter QoS

Table 2-171 Request/Response Body Parameters

Field Name	Data Type	Constraints	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
trafficDiameterQoS Name	string		M	Traffic Diameter QoS Name

2.32 Traffic for ADC Rule

Table 2-172 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Traffic Adc Rule	POST	{apiRoot}/oc-cnpolicy- configuration/v1/ policydata/pcrf/ adcrules	See Table A-3
Export Traffic Adc Rule	GET	{apiRoot}/oc-cnpolicy- configuration/v1/ policydata/pcrf/ adcrules/export	See Table A-1
Import Traffic Adc Rule	POST	{apiRoot}/oc-cnpolicy- configuration/v1/ policydata/pcrf/ adcrules/import	See Table A-3
Get Traffic Adc Rule	GET	{apiRoot}/oc-cnpolicy- configuration/v1/ policydata/pcrf/ adcrules/ {trafficAdcRuleName}	See Table A-1
Update Traffic Adc Rule	PUT	{apiRoot}/oc-cnpolicy- configuration/v1/ policydata/pcrf/ adcrules/ {trafficAdcRuleName}	See Table A-2
Delete Traffic Adc Rule	DELETE	{apiRoot}/oc-cnpolicy- configuration/v1/ policydata/pcrf/ adcrules/ {trafficAdcRuleName}	See Table A-4

Create, Get, and Update Traffic for ADC Rule

Table 2-173 Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
description	string	O	

Table 2-173 (Cont.) Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	M	
param.diameter.adc Rule.FlowStatus	string	O	Allowed values: • 0 • 1 • 2 • 3
param.diameter.adc Rule.MeteringMethod	string	O	Allowed values: • 0 • 1 • 2 • 3
param.diameter.adc Rule.MonitoringKey	string	O	
param.diameter.adc Rule.Offline	string	O	Allowed values: • 0 • 1
param.diameter.adc Rule.Online	string	O	Allowed values: • 0 • 1
param.diameter.adc Rule.Precedence	string	O	
param.diameter.adc Rule.RatingGroup	string	O	
param.diameter.adc Rule.ReportingLevel	string	O	Allowed values: • 0 • 1
param.diameter.adc Rule.ServiceIdentifier	string	O	
param.diameter.adc Rule.maxAuthDL	string	O	
param.diameter.adc Rule.maxAuthUL	string	O	
param.diameter.adc Rule.name	string	M	
param.diameter.adc Rule.tdfApplicationIdentifier	string	O	
param.diameter.adc Rule.tdfMuteNotification	string	O	Allowed values: • 0
param.diameter.adc Rule.tdfRedirectAddressType	string	O	Allowed values: • 0 • 1 • 2 • 3

Table 2-173 (Cont.) Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
param.diameter.adcRule.tdfRedirectServerAddress	string	O	
param.diameter.adcRule.tdfRedirectSupport	string	O	Allowed values: • 0 • 1

Sample Request Body structure for POST and PUT operations:

```
{
  "description": "string",
  "name": "string",
  "param.diameter.adcRule.FlowStatus": "0",
  "param.diameter.adcRule.MeteringMethod": "0",
  "param.diameter.adcRule.MonitoringKey": "string",
  "param.diameter.adcRule.Offline": "0",
  "param.diameter.adcRule.Online": "0",
  "param.diameter.adcRule.Precedence": "string",
  "param.diameter.adcRule.RatingGroup": "string",
  "param.diameter.adcRule.ReportingLevel": "0",
  "param.diameter.adcRule.ServiceIdentifier": "string",
  "param.diameter.adcRule.maxAuthDL": "string",
  "param.diameter.adcRule.maxAuthUL": "string",
  "param.diameter.adcRule.name": "string",
  "param.diameter.adcRule.tdfApplicationIdentifier": "string",
  "param.diameter.adcRule.tdfMuteNotification": "0",
  "param.diameter.adcRule.tdfRedirectAddressType": "0",
  "param.diameter.adcRule.tdfRedirectServerAddress": "string",
  "param.diameter.adcRule.tdfRedirectSupport": "0"
}
```

Sample Response Body structure for GET, POST and PUT operations:

```
{
  "description": "string",
  "name": "string",
  "param.diameter.adcRule.FlowStatus": "0",
  "param.diameter.adcRule.MeteringMethod": "0",
  "param.diameter.adcRule.MonitoringKey": "string",
  "param.diameter.adcRule.Offline": "0",
  "param.diameter.adcRule.Online": "0",
  "param.diameter.adcRule.Precedence": "string",
  "param.diameter.adcRule.RatingGroup": "string",
  "param.diameter.adcRule.ReportingLevel": "0",
  "param.diameter.adcRule.ServiceIdentifier": "string",
  "param.diameter.adcRule.maxAuthDL": "string",
  "param.diameter.adcRule.maxAuthUL": "string",
}
```

```

"param.diameter.adcRule.name": "string",
"param.diameter.adcRule.tdfApplicationIdentifier": "string",
"param.diameter.adcRule.tdfMuteNotification": "0",
"param.diameter.adcRule.tdfRedirectAddressType": "0",
"param.diameter.adcRule.tdfRedirectServerAddress": "string",
"param.diameter.adcRule.tdfRedirectSupport": "0"
}

```

Export/Import Traffic for ADC Rule

Table 2-174 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of traffic Adc Rule. For more information, see Create, Get, and Update Traffic for ADC Rule
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "description": "string",
      "name": "string",
      "param.diameter.adcRule.FlowStatus": "0",
      "param.diameter.adcRule.MeteringMethod": "0",
      "param.diameter.adcRule.MonitoringKey": "string",
      "param.diameter.adcRule.Offline": "0",
      "param.diameter.adcRule.Online": "0",
      "param.diameter.adcRule.Precedence": "string",
      "param.diameter.adcRule.RatingGroup": "string",
      "param.diameter.adcRule.ReportingLevel": "0",
      "param.diameter.adcRule.ServiceIdentifier": "string",

```

```

        "param.diameter.adcRule.maxAuthDL": "string",
        "param.diameter.adcRule.maxAuthUL": "string",
        "param.diameter.adcRule.name": "string",
        "param.diameter.adcRule.tdfApplicationIdentifier": "string",
        "param.diameter.adcRule.tdfMuteNotification": "0",
        "param.diameter.adcRule.tdfRedirectAddressType": "0",
        "param.diameter.adcRule.tdfRedirectServerAddress": "string",
        "param.diameter.adcRule.tdfRedirectSupport": "0"
    }
},
"key": "string",
"sourceVersion": "string",
"topic": "string"
}

```

Delete Traffic for ADC Rule

Table 2-175 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
trafficAdcRuleName	string	M	Traffic ADC Rule Name

2.33 Time Period

Table 2-176 PCRF and PCF Time Period APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Time Period	GET	{apiRoot}/oc-cnpolicy-configuration/v1/timePeriod/{timePeriodName}	See Table A-1
Update Time Period	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/timePeriod/{timePeriodName}	See Table A-2
Delete Time Period	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/timePeriod/{timePeriodName}	See Table A-4
Create Time Period	POST	{apiRoot}/oc-cnpolicy-configuration/v1/timePeriod	See Table A-3

Table 2-177 PCRF Time Period REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Time Period	GET	{apiRoot}/ocpm/pcrf/v1/configuration/policy/timePeriod/{timePeriodName}	See Table A-1
Update Time Period	PUT	{apiRoot}/ocpm/pcrf/v1/configuration/policy/timePeriod/{timePeriodName}	See Table A-2
Delete Time Period	DELETE	{apiRoot}/ocpm/pcrf/v1/configuration/policy/timePeriod/{timePeriodName}	See Table A-4
Create Time Period	POST	{apiRoot}/ocpm/pcrf/v1/configuration/policy/timePeriod	See Table A-3

Table 2-178 PCF Time Period REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Time Period	GET	{apiRoot}/oc-cnpolicy-configuration/v1/timePeriod/{timePeriodName}	See Table A-1
Update Time Period	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/timePeriod/{timePeriodName}	See Table A-2
Delete Time Period	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/timePeriod/{timePeriodName}	See Table A-4
Create Time Period	POST	{apiRoot}/oc-cnpolicy-configuration/v1/timePeriod	See Table A-3

Create, Get, and Update Time Period**Table 2-179 Data structures supported by the POST, GET, and PUT Response Body**

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
description	string	O	Provide the description.
name	string	M	Provide the name.
precedence	string	O	Provide the precedence.
timeSlot	TimeSlot	O	

Table 2-180 TimeSlot

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
daysOfMonth	string	O	
daysOfWeek	string	O	
endTime	string	O	
monthsOfYear	string	O	
startTime	string	O	
years	string	O	

Sample Request Body structure for GET, POST, and PUT operations:

```
{
  "name": "string",
  "description": "string",
  "precedence": "string",
  "timeSlot": [
    {
      "years": "string",
      "monthsOfYear": "string",
      "daysOfMonth": "string",
      "daysOfWeek": "string",
      "startTime": "string",
      "endTime": "string"
    }
  ]
}
```

Export/Import Time Period

Table 2-181 Export/Import Time Period APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Import Time Period	POST	{apiRoot}/ocpm/pcrf/v1/ configuration/policy/ timePeriod/import	See Table A-3
Export Time Period	GET	{apiRoot}/ocpm/pcrf/v1/ configuration/policy/ timePeriod/export	See Table A-1
PCF Import Time Period	POST	{apiRoot}/oc-cnpolicy- configuration/v1/ timePeriod/import	See Table A-3
PCF Export Time Period	GET	{apiRoot}/oc-cnpolicy- configuration/v1/ timePeriod/export	See Table A-1

Table 2-182 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of time period.
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": [
    {
      "name": "string",
      "description": "string",
      "precedence": "string",
      "timeSlot": [
        {
          "years": "string",
          "monthsOfYear": "string",
          "daysOfMonth": "string",
          "daysOfWeek": "string",
          "startTime": "string",
          "endTime": "string"
        }
      ]
    }
  ],
  "errors": [
    {
      "name": "string",
      "message": "string"
    }
  ]
}
```

2.34 Predefined Pcc Rule Base

Table 2-183 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Predefined Pcc Rule Base	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedpccrules	See Table A-3
Export Predefined Pcc Rule Base	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedpccrules/export	See Table A-1
Import Predefined Pcc Rule Base	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedpccrules/import	See Table A-3
Get Predefined Pcc Rule Base	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedpccrules/{predefinedPccRuleBaseName}	See Table A-1
Update Predefined Pcc Rule Base	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedpccrules/{predefinedPccRuleBaseName}	See Table A-2
Delete Predefined Pcc Rule Base	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedpccrules/{predefinedPccRuleBaseName}	See Table A-4

Create, Get, and Update Predefined Pcc Rule Base

Table 2-184 Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	M	
param.diameter.pccPredefBaseRule.description	string	O	

Table 2-184 (Cont.) Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
param.diameter.pccPredefBaseRule.name	string	O	

Sample Request Body structure for POST and PUT operations:

```
{
  "name": "string",
  "param.diameter.pccPredefBaseRule.description": "string",
  "param.diameter.pccPredefBaseRule.name": "string"
}
```

Sample Response Body structure for GET, POST and PUT operations:

```
{
  "name": "string",
  "param.diameter.pccPredefBaseRule.description": "string",
  "param.diameter.pccPredefBaseRule.name": "string"
}
```

Export/Import Predefined Pcc Rule Base

Table 2-185 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of predefined Pcc Rule Base. For more information, see Table 2-184 .
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "name": "string",
      "param.diameter.pccPredefBaseRule.description": "string",
      "param.diameter.pccPredefBaseRule.name": "string"
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}

```

Delete Predefined Pcc Rule Base**Table 2-186 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
predefinedPccRuleBase Name	string	M	Predefined Pcc Rule Base Name

2.35 Predefined Pcc Rule

Table 2-187 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Predefined Pcc Rule	POST	{apiRoot}/oc-cnpolicy- configuration/v1/ policydata/pcrf/ predefinedpccrules	See Table A-3
Export Predefined Pcc Rule	GET	{apiRoot}/oc-cnpolicy- configuration/v1/ policydata/pcrf/ predefinedpccrules/ export	See Table A-1
Import Predefined Pcc Rule	POST	{apiRoot}/oc-cnpolicy- configuration/v1/ policydata/pcrf/ predefinedpccrules/ import	See Table A-3

Table 2-187 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Predefined Pcc Rule	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedpccrules/{predefinedPccRuleName}	See Table A-1
Update Predefined Pcc Rule	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedpccrules/{predefinedPccRuleName}	See Table A-2
Delete Predefined Pcc Rule	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedpccrules/{predefinedPccRuleName}	See Table A-4

Create, Get, and Update Predefined Pcc Rule

Table 2-188 Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	M	
param.diameter.pccPredefRule.MonitoringKey	string	O	
param.diameter.pccPredefRule.description	string	O	
param.diameter.pccPredefRule.name	string	O	

Sample Request Body structure for POST and PUT operations:

```
{
  "name": "string",
  "param.diameter.pccPredefRule.MonitoringKey": "string",
  "param.diameter.pccPredefRule.description": "string",
  "param.diameter.pccPredefRule.name": "string"
}
```

Sample Response Body structure for GET, POST and PUT operations:

```
{
  "name": "string",
```

```

    "param.diameter.pccPredefRule.MonitoringKey": "string",
    "param.diameter.pccPredefRule.description": "string",
    "param.diameter.pccPredefRule.name": "string"
  }

```

Export/Import Predefined Pcc Rule

Table 2-189 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of predefined Pcc Rule.
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "name": "string",
      "param.diameter.pccPredefRule.MonitoringKey": "string",
      "param.diameter.pccPredefRule.description": "string",
      "param.diameter.pccPredefRule.name": "string"
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}

```

Delete Predefined Pcc Rule

Table 2-190 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
predefinedPccRuleName	string	M	Predefined Pcc Rule Name

2.36 Predefined Adc Rule Base

Table 2-191 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Predefined Adc Rule Base	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedadcrulebases	See Table A-3
Export Predefined Adc Rule Base	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedadcrulebases/export	See Table A-1
Import Predefined Adc Rule Base	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedadcrulebases/import	See Table A-3
Get Predefined Adc Rule Base	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedadcrulebases/{predefinedAdcRuleBaseName}	See Table A-1
Update Predefined Adc Rule Base	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedadcrulebases/{predefinedAdcRuleBaseName}	See Table A-2
Delete Predefined Adc Rule Base	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedadcrulebases/{predefinedAdcRuleBaseName}	See Table A-4

Create, Get, and Update Predefined Adc Rule Base

Table 2-192 Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	M	
param.diameter.adcPredefBaseRule.description	string	O	
param.diameter.adcPredefBaseRule.name	string	O	

Sample Request Body structure for POST and PUT operations:

```
{
  "name": "string",
  "param.diameter.adcPredefBaseRule.description": "string",
  "param.diameter.adcPredefBaseRule.name": "string"
}
```

Sample Response Body structure for GET, POST and PUT operations:

```
{
  "name": "string",
  "param.diameter.adcPredefBaseRule.description": "string",
  "param.diameter.adcPredefBaseRule.name": "string"
}
```

Export/Import Predefined Adc Rule Base

Table 2-193 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of predefined Adc Base Rule.
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "name": "string",
      "param.diameter.adcPredefBaseRule.description": "string",
      "param.diameter.adcPredefBaseRule.name": "string"
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}
```

Delete Predefined Adc Rule Base

Table 2-194 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
predefinedAdcRuleBase Name	string	M	Predefined Adc Rule Base Name

2.37 Predefined Adc Rule

Table 2-195 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Predefined Adc Rule	POST	{apiRoot}/oc-cnpolicy- configuration/v1/ policydata/pcrf/ predefinedadcrules	See Table A-3
Export Predefined Adc Rule	GET	{apiRoot}/oc-cnpolicy- configuration/v1/ policydata/pcrf/ predefinedadcrules/ export	See Table A-1
Import Predefined Adc Rule	POST	{apiRoot}/oc-cnpolicy- configuration/v1/ policydata/pcrf/ predefinedadcrules/ import	See Table A-3

Table 2-195 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Predefined Adc Rule	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedadcrules/{predefinedAdcRuleName}	See Table A-1
Update Predefined Adc Rule	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedadcrules/{predefinedAdcRuleName}	See Table A-2
Delete Predefined Adc Rule	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/predefinedadcrules/{predefinedAdcRuleName}	See Table A-4

Create, Get, and Update Predefined Adc Rule**Table 2-196 Data structures supported by the POST, GET, and PUT Response Body**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	M	
param.diameter.adcPredefRule.description	string	O	
param.diameter.adcPredefRule.name	string	O	

Sample Request Body structure for POST and PUT operations:

```
{
  "name": "string",
  "param.diameter.adcPredefRule.description": "string",
  "param.diameter.adcPredefRule.name": "string"
}
```

Sample Response Body structure for GET, POST and PUT operations:

```
{
  "name": "string",
  "param.diameter.adcPredefBaseRule.description": "string",
  "param.diameter.adcPredefBaseRule.name": "string"
}
```

Export/Import Predefined Adc Rule**Table 2-197 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of predefined Adc Rule.
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "name": "string",
      "param.diameter.adcPredefBaseRule.description": "string",
      "param.diameter.adcPredefBaseRule.name": "string"
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}
```

Delete Predefined Adc Rule**Table 2-198 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
predefinedAdcRuleName	string	M	Predefined Adc Rule Name

2.38 PCRF Presence Reporting Area

Table 2-199 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create PCRF Pesence Reporting Area	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pras	See Table A-3
Export PCRF Pesence Reporting Area	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pras/export	See Table A-1
Import PCRF Pesence Reporting Area	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pras/import	See Table A-3
Get PCRF Pesence Reporting Area	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pras/{praPcrfName}	See Table A-1
Update PCRF Pesence Reporting Area	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pras/{praPcrfName}	See Table A-2
Delete PCRF Pesence Reporting Area	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcrf/pras/{praPcrfName}	See Table A-4

Create, Get, and Update Pra

Table 2-200 Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
description	string	O	
id	string	M	
name	string	M	
praltems	array	O	
type	string		Allowed value: Core Network pre-configured

Table 2-201 praltems

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
cgi	Cgi	O	

Table 2-201 (Cont.) praltems

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
ecgi	Ecgi	O	Allowed values: • -1 • 0 • 1 • 2 • 3
home_enodeb	HomeEnodeb	O	
macro_enodeb	MacroEnodeb	O	
rai	RAI		
sai	SAI		
tai	TAI		
type	string		Allowed values: • tai • rai • macro_enodeb • home_enodeb • ecgi • sai • cgi

Table 2-202 cgi

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
ci	string	O	
lac	string	O	
mcc	string	O	
mnc	string	O	

Table 2-203 ecgi

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
eci	string	O	
mcc	string	O	
mnc	string	O	

Table 2-204 home_enodeb

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
henb	string	O	
mcc	string	O	
menb	string	O	
mnc	string	O	

Table 2-205 macro_enodeb

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
mcc	string	O	
menb	string	O	
mnc	string	O	

Table 2-206 rai

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
lac	string	O	
mcc	string	O	
mnc	string	O	
rac	string	O	

Table 2-207 sai

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
lac	string	O	
mcc	string	O	
mnc	string	O	
sac	string	O	

Table 2-208 tai

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
mcc	string	O	
mnc	string	O	
tac	string	O	

Sample Request Body structure for POST and PUT operations:

```

{
  "description": "string",
  "id": "string",
  "name": "string",
  "praItems": [
    {
      "cgi": {
        "ci": "string",
        "lac": "string",
        "mcc": "string",
        "mnc": "string"
      },
      "ecgi": {
        "eci": "string",
        "mcc": "string",
        "mnc": "string"
      },
      "home_enodeb": {
        "henb": "string",
        "mcc": "string",
        "menb": "string",
        "mnc": "string"
      },
      "macro_enodeb": {
        "mcc": "string",
        "menb": "string",
        "mnc": "string"
      },
      "rai": {
        "lac": "string",
        "mcc": "string",
        "mnc": "string",
        "rac": "string"
      },
      "sai": {
        "lac": "string",
        "mcc": "string",
        "mnc": "string",
        "sac": "string"
      },
      "tai": {
        "mcc": "string",
        "mnc": "string",
        "tac": "string"
      },
      "type": "cgi"
    }
  ],
  "type": "Core Network pre-configured"
}

```


Sample Response Body structure for GET, POST and PUT operations:

```
{
  "description": "string",
  "id": "string",
  "name": "string",
  "praItems": [
    {
      "cgi": {
        "ci": "string",
        "lac": "string",
        "mcc": "string",
        "mnc": "string"
      },
      "ecgi": {
        "eci": "string",
        "mcc": "string",
        "mnc": "string"
      },
      "home_enodeb": {
        "henb": "string",
        "mcc": "string",
        "menb": "string",
        "mnc": "string"
      },
      "macro_enodeb": {
        "mcc": "string",
        "menb": "string",
        "mnc": "string"
      },
      "rai": {
        "lac": "string",
        "mcc": "string",
        "mnc": "string",
        "rac": "string"
      },
      "sai": {
        "lac": "string",
        "mcc": "string",
        "mnc": "string",
        "sac": "string"
      },
      "tai": {
        "mcc": "string",
        "mnc": "string",
        "tac": "string"
      },
      "type": "cgi"
    }
  ],
  "type": "Core Network pre-configured"
}
```

Export/Import Pra

Table 2-209 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of Pra.
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "description": "string",
      "id": "string",
      "name": "string",
      "praItems": [
        {
          "cgi": {
            "ci": "string",
            "lac": "string",
            "mcc": "string",
            "mnc": "string"
          },
          "ecgi": {
            "eci": "string",
            "mcc": "string",
            "mnc": "string"
          },
          "home_enodeb": {
            "henb": "string",
            "mcc": "string",
            "menb": "string",
            "mnc": "string"
          }
        }
      ]
    }
  ],
}
```

```

    "macro_enodeb": {
      "mcc": "string",
      "menb": "string",
      "mnc": "string"
    },
    "rai": {
      "lac": "string",
      "mcc": "string",
      "mnc": "string",
      "rac": "string"
    },
    "sai": {
      "lac": "string",
      "mcc": "string",
      "mnc": "string",
      "sac": "string"
    },
    "tai": {
      "mcc": "string",
      "mnc": "string",
      "tac": "string"
    },
    "type": "cgi"
  },
  "type": "Core Network pre-configured"
}
],
"key": "string",
"sourceVersion": "string",
"topic": "string"
}

```

Delete Pra

Table 2-210 Request/Response Body Parameters

Field Name	Data Type	Constraints	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
praPcrfName	string		M	Pra Pcrf Name

2.39 Media Profile

Table 2-211 PCRF and PCF Media Profile APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Media Profile	GET	{apiRoot}/oc-cnpolicy- configuration/v1/ mediaProfile/ {mediaProfileName}	See Table A-1

Table 2-211 (Cont.) PCRF and PCF Media Profile APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Update Media Profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/mediaProfile/{mediaProfileName}	See Table A-2
Delete Media Profile	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/mediaProfile/{mediaProfileName}	See Table A-4
Create Media Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/mediaProfile	See Table A-3

Table 2-212 PCRF Media Profile APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Media Profile	GET	/ocpm/pcrf/v1/configuration/policy/mediaProfile/{mediaProfileName}	See Table A-1
Update Media Profile	PUT	{apiRoot}/ocpm/pcrf/v1/configuration/policy/mediaProfile/{mediaProfileName}	See Table A-2
Delete Media Profile	DELETE	{apiRoot}/ocpm/pcrf/v1/configuration/policy/mediaProfile/{mediaProfileName}	See Table A-4
Create Media Profile	POST	{apiRoot}/ocpm/pcrf/v1/configuration/policy/mediaProfile	See Table A-3

Table 2-213 PCF Media Profile APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Media Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/mediaProfile/{mediaProfileName}	See Table A-1
Update Media Profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/mediaProfile/{mediaProfileName}	See Table A-2
Delete Media Profile	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/mediaProfile/{mediaProfileName}	See Table A-4

Table 2-213 (Cont.) PCF Media Profile APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Media Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/mediaProfile	See Table A-3

Create, Get, and Update Media Profile**Table 2-214 Data structures supported by the POST, GET, and PUT Response Body**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
codecName	string	M	
description	string		Provide the description of the Media.
frameSizeInBytes	integer	M	enter a range in 0 to 65535
frameSizeInMS	number	M	
id	string	M	
mediaType	string	M	
name	string	M	
pTime	integer	M	enter a range in 0 to 65535
payLoad	integer	M	enter a range in 0 to 255
sampleRate	integer	M	enter a range in 0 to 65535
transportType	string ENUM	M	Possible values: RTP/AVP RTP/SAVP RTP/AVPF
useDefaultPTime	boolean	M	

Sample Request Body structure for GET, POST, and PUT operations:

```
{
  "id": "string",
  "name": "string",
  "description": "string",
  "codecName": "string",
  "transportType": "RTP/AVP",
  "mediaType": "string",
  "enter a range in 0 to 255": 255,
  "enter a range in 0 to 65535": 65535,
  "frameSizeInMS": 0,
  "useDefaultPTime": true
}
```

Export/Import Media Profile

Table 2-215 Export/Import Media Profile APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Import Media Profile	POST	{apiRoot}/ocpm/pcrf/v1/configuration/policy/mediaProfile/import	See Table A-3
Export Media Profile	GET	{apiRoot}/ocpm/pcrf/v1/configuration/policy/mediaProfile/export	See Table A-1
PCF Import Media Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/mediaProfile/import	See Table A-3
PCF Export Media Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/mediaProfile/export	See Table A-1

Table 2-216 Export/Import Media Profile Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
date	string	M	Current timestamp
errors	array	M	
errors:message	string	M	
errors:name	string	M	
exportData	array	M	Exported list of media profile.
key	string	M	Indicates the ID
sourceVersion	string	O	System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": [
    {
      "id": "string",
      "name": "string",
      "description": "string",
      "codecName": "string",
      "transportType": "RTP/AVP",
      "mediaType": "string",

```

```

        "enter a range in 0 to 255": 255,
        "enter a range in 0 to 65535": 65535,
        "frameSizeInMS": 0,
        "useDefaultPTime": true
    }
],
"errors": [
    {
        "name": "string",
        "message": "string"
    }
]
}

```

Delete Media Profile

Table 2-217 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
mediaProfileName	string	M	Media Profile Name

2.40 Match List

Table 2-218 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export Match List	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/matchList/export	See Table A-1
Import Match List	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/matchList/export	See Table A-3
Delete Match List	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/matchList/export	

Export/Import Match List

Table 2-219 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string	O	Current timestamp

Table 2-219 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
exportData.description	string	O	Includes a brief description of the match list.
exportData.id	string	M	A unique identifier for the match list. This unique identifier cannot be changed once set.
exportData.options.label	string	O	Includes a label for the match list.
exportData.items	array	M	Includes a list or array of homogeneous items in the match list. The data type of the items in the list must be the same as the data type of exportData.type parameter.
exportData.name	string	M	Specifies the name of the match list.
exportData.type	string	M	Specifies the data type of the items in the match list. The allowed data types are: • string • wildcard • ipv4 • ipv6 • Regular expression
sourceVersion	string	O	System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "description": "string",
      "id": "string",
      "items": [
        "string"
      ]
    }
  ]
}
```



```

    ],
    "name": "string",
    "type": "string"
  }
],
"sourceVersion": "string",
"topic": "string"
}

```

Sample cURL GET command

```
curl -X GET "http://10.75.151.216:30726/api-docs/oc-cnpolicy-configuration/v1/policydata/common/matchList/export" -H "accept: application/json"
```

Sample cURL POST command

```
curl -X POST "http://10.75.151.216:30726/api-docs/oc-cnpolicy-configuration/v1/policydata/common/matchList/import" -H "accept: application/problem+json" -H "Content-Type: application/json" -d "{ \"date\": \"string\", \"errors\": [ { \"message\": \"string\", \"name\": \"string\" } ], \"exportData\": [ { \"description\": \"string\", \"id\": \"string\", \"items\": [ \"string\" ], \"name\": \"string\", \"type\": \"string\" } ], \"sourceVersion\": \"string\", \"topic\": \"string\"}"
```

Sample cURL DELETE command

```
curl -X 'DELETE' 'http://localhost:8000/oc-cnpolicy-configuration/v1/policydata/common/matchList/{matchListName}' -H 'accept: */*'
```

2.41 Dropdown Blocks

Table 2-220 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export dropdown blocks	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/dropdownBlocks/export	See Table A-1
Import Dropdown Blocks	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/dropdownBlocks/import	See Table A-3

Export/Import Dropdown Blocks

Table 2-221 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData.attrName	string		
exportData.description	string		
exportData.options.label	string		
exportData.options.value	string		
exportData.topic	string		
exportData.type	string		
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "attrName": "string",
      "description": "string",
      "options": [
        {
          "label": "string",
          "value": "string"
        }
      ],
      "topic": "string",
      "type": "DYNAMIC"
    }
  ],
  "sourceVersion": "string",
  "topic": "string"
}
```

2.42 Custom Vendor

Create, Get, and Update Custom Vendor

Table 2-222 PCRF and PCF Custom Vendor APIs

API Name	HTTP Method or Custom Operation	Resource URI	Description	Possible Result Code
Get Custom Vendor	GET	{apiRoot}/oc-cnpolicy-configuration/v1/customVendor/{customVendorName}	Fetch the provided Custom Vendor details.	See Table A-1
Create Custom Vendor	POST	{apiRoot}/oc-cnpolicy-configuration/v1/customVendor	Create a Custom Vendor	See Table A-3
Update Custom Vendor	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/customVendor/{customVendorName}	Update the provided Custom Vendor information.	See Table A-2
Delete custom Vendor	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/customVendor/{customVendorName}	Delete the provided Custom vendor information.	See Table A-4

Table 2-223 PCRF Custom Vendor APIs

API Name	HTTP Method or Custom Operation	Resource URI	Description	Possible Result Code
Get Custom Vendor	GET	{apiRoot}/ocpm/pcrf/v1/configuration/policy/customVendor/{customVendorName}	Fetch the provided Custom Vendor details.	See Table A-1
Create Custom Vendor	POST	{apiRoot}/ocpm/pcrf/v1/configuration/policy/customVendor	Create a Custom Vendor	See Table A-3

Table 2-223 (Cont.) PCRF Custom Vendor APIs

API Name	HTTP Method or Custom Operation	Resource URI	Description	Possible Result Code
Update Custom Vendor	PUT	{apiRoot}/ocpm/pcrf/v1/configuration/policy/customVendor/{customVendorName}	Update the provided Custom Vendor information.	See Table A-2
Delete custom Vendor	DELETE	{apiRoot}/ocpm/pcrf/v1/configuration/policy/customVendor/{customVendorName}	Delete the provided Custom vendor information.	See Table A-4

Table 2-224 PCF Custom Vendor APIs

API Name	HTTP Method or Custom Operation	Resource URI	Description	Possible Result Code
Get Custom Vendor	GET	{apiRoot}/oc-npolicy-configuration/v1/customVendor/{customVendorName}	Fetch the provided Custom Vendor details.	See Table A-1
Create Custom Vendor	POST	{apiRoot}/oc-npolicy-configuration/v1/customVendor	Create a Custom Vendor	See Table A-3
Update Custom Vendor	PUT	{apiRoot}/oc-npolicy-configuration/v1/customVendor/{customVendorName}	Update the provided Custom Vendor information.	See Table A-2
Delete custom Vendor	DELETE	{apiRoot}/oc-npolicy-configuration/v1/customVendor/{customVendorName}	Delete the provided Custom vendor information.	See Table A-4

Table 2-225 Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
description	string	O	Provide description about the Custom Vendor.

Table 2-225 (Cont.) Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	M	Provide a name to the Custom Vendor.
value	string	O	Provide a value to the Custom Vendor.

Sample Request Body structure for POST and PUT operations:

```
{
  "name": "string",
  "description": "string",
  "value": "string"
}
```

Export/Import Custom Vendor

Table 2-226 Export/Import Custom Vendor REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export Custom Vendor	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/customattributes/customvendor/export	See Table A-1
Import Custom Vendor	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/customattributes/customvendor/import	See Table A-3

Table 2-227 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of custom avp.
key	string		Indicates the ID

Table 2-227 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "description": "string",
      "name": "string",
      "value": "string"
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}
```

2.43 Custom Schema

Table 2-228 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export Custom Schema	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/customattributes/customschema/export	See Table A-1
Import Custom Schema	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/customattributes/customschema/import	See Table A-3

Export/Import Custom Schema

Table 2-229 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData.name	string		
exportData.type	string		
key			
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "name": "string",
      "tag": [
        "string"
      ]
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}
```

2.44 Custom AVP

Table 2-230 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Custom AVP	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/customattributes/avp	See Table A-3

Table 2-230 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export Custom AVP	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/customattributes/avp/export	See Table A-1
Import Custom AVP	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/customattributes/avp/import	See Table A-3
Get Custom AVP	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/customattributes/avp/{customAVPName}	See Table A-1
Update Custom AVP	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/customattributes/avp/{customAVPName}	See Table A-2
Delete Custom AVP	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/customattributes/avp/{customAVPName}	See Table A-4

Create, Get, and Update Custom AVP Name

Table 2-231 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
vendorSpecificFlag	boolean		
avpCode	string		
avpType	string		- enumerated - float32 - float64 - grouped - id - int32 - int64 - ipFilterRule - octetString - time - uint32 - uint64 - uri - utf8String

Table 2-231 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
description	string		
mandatoryFlag	boolean		
mayEncryptFlag	boolean		
name	string	M	
protectFlag	boolean		
rootAvp	string		
vendorId	string	M	10415 5535 21274 9 5263 3076 255 2636 4874
vendorSpecificFlag	boolean		

Sample Request body structure for POST and PUT operations:

```
{
  "VendorSpecificFlag": true,
  "avpCode": "string",
  "avpType": "address",
  "description": "string",
  "mandatoryFlag": true,
  "mayEncryptFlag": true,
  "name": "string",
  "protectFlag": true,
  "rootAvp": "ADC-Rule-Definition:10415",
  "vendorId": "10415",
  "vendorSpecificFlag": true
}
```

Sample Response body structure for GET, POST, and PUT operations:

```
{
  "VendorSpecificFlag": true,
  "avpCode": "string",
  "avpType": "address",
  "description": "string",
  "mandatoryFlag": true,
  "mayEncryptFlag": true,
  "name": "string",
  "protectFlag": true,
  "rootAvp": "ADC-Rule-Definition:10415",
  "vendorId": "10415",
}
```

```

    "vendorSpecificFlag": true
  }

```

Delete Custom AVP

Table 2-232 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
customAVPName	string	M	Custom AVP Name

Export/Import Custom AVP

Table 2-233 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of custom avp.
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "VendorSpecificFlag": true,
      "avpCode": "string",
      "avpType": "address",
      "description": "string",
      "mandatoryFlag": true,
      "mayEncryptFlag": true,
      "name": "string",
      "protectFlag": true,
      "rootAvp": "ADC-Rule-Definition:10415",

```

```

        "vendorId": "10415",
        "vendorSpecificFlag": true
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}

```

2.45 Charging Server

Table 2-234 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Charging Server	POST	/oc-cnpolicy-configuration/v1/policy/chargingServer	See Table A-3
Export Charging Server	GET	/oc-cnpolicy-configuration/v1/policy/chargingServer/export	See Table A-1
Import Charging Server	POST	/oc-cnpolicy-configuration/v1/policy/chargingServer/import	See Table A-3
Get Charging Server	GET	/oc-cnpolicy-configuration/v1/policy/chargingServer/{chargingServerName}	See Table A-1
Update Charging Server	PUT	/oc-cnpolicy-configuration/v1/policy/chargingServer/{chargingServerName}	See Table A-2
Delete Charging Server	DELETE	/oc-cnpolicy-configuration/v1/policy/chargingServer/{chargingServerName}	See Table A-4

Get, Create, and Update Charging Server

Table 2-235 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
description	string		
hostName	string		
name	string	M	
port	string		
protocol	string	M	diameter radius tacacs+
security	boolean		

Table 2-235 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
transport	string	M	tcp udp sctp

Sample Request body structure for POST and PUT operations:

```
{
  "description": "string",
  "hostName": "string",
  "name": "string",
  "port": "string",
  "protocol": "diameter",
  "security": true,
  "transport": "sctp"
}
```

Sample Response body structure for GET, POST, and PUT operations:

```
{
  "description": "string",
  "hostName": "string",
  "name": "string",
  "port": "string",
  "protocol": "diameter",
  "security": true,
  "transport": "sctp"
}
```

Delete Charging Server

Table 2-236 Request/Response Body Parameters

Field Name	Data Type	Constraints	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
chargingServerName	string		M	Charging Server Name

Export/Import Charging Server

Table 2-237 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp

Table 2-237 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of charging server. For more information, see Get, Create, and Update Charging Server .
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "description": "string",
      "hostName": "string",
      "name": "string",
      "port": "string",
      "protocol": "diameter",
      "security": true,
      "transport": "sctp"
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}

```

2.46 PCRF Public Log

Table 2-238 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export Pcrf Log	GET	{apiRoot}/ocpm/pcrf/v1/configuration/diameter/logPcrf/export	See Table A-1
Import Pcrf Log	POST	{apiRoot}/ocpm/pcrf/v1/configuration/diameter/logPcrf/import	See Table A-3
Get Pcrf Log	GET	{apiRoot}/ocpm/pcrf/v1/configuration/service/logPcrf	See Table A-1
Update Pcrf Log	PUT	{apiRoot}/ocpm/pcrf/v1/configuration/service/logPcrf	See Table A-2

Get and Update PCRF Public Log

Table 2-239 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
packageLogLevel	Array	O	
rootLogLevel	string	M	Allowed values: • trace • debug • info • warn • error • fatal

Table 2-240 packageLogLevel

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
logLevelForPackage	string	O	Allowed values: • trace • debug • info • warn • error • fatal
packageName	string	M	

Export/Import PCRF Public Log

Table 2-241 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of Pcrf Log. For more information, see Get and Update PCRF Public Log .
sourceVersion	string		System version of the product from which data is exported
topic	string		Topic of each managed object

2.47 User Service

Table 2-242 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get User Service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfuser	See Table A-1
Update User Service	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfuser	See Table A-2
Export User Service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfuser/export	See Table A-1
Import User Service	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfuser/import	See Table A-3

Get and Update User Service

Table 2-243 Request/Response Body Parameters

Field Name	Data Type	Constraints	Mandatory(M)/ Optional(O)/ Conditional(C)a ints	Description
chf	chf configuration		O	
common	CommonConfigu ration		O	
db	DBConfiguration		O	

Table 2-243 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Constraints	Mandatory(M)/ Optional(O)/ Conditional(C)a ints	Description
system	UserSystemConf iguration		O	
udr	UDRConfiguratio n		O	

Table 2-244 chf Configuration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
chf.retryProfileForInitMsgs	String	O	Specifies the retry or alternate routing options to communicate with CHF.
chf.retryProfileForSubsequentMsgs	String	O	Specifies the retry or alternate routing options to send subsequent messages to CHF.
chf.nfCommProfile	String	O	Indicates whether to assign a profile created on the NF Communication Profile page to CHF.

Table 2-244 (Cont.) chf Configuration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
chf.pcfServiceName	String	O	Specifies the custom/ 3gpp defined PCF service name to be included in the Binding Header in the subscription request or notification responses sent towards CHF. Possible values: - Aggregate or custom service name that represents a group of PCF services with aggregated service level information. For example: npcfcustom-service - Any of the 3GPP defined PCF service names such as npcfsmpolicycontrol or npcfsmpolicy-control By default, the value of this parameter is empty.

Table 2-245 CommonConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
requestTimeout	string example: 1000	O	
resourceGetSub	boolean	O	

Table 2-246 DBConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
indexing	Indexing	O	
keysPrecedence	ENUM	O	
userIndexKeys	ENUM	O	

Table 2-247 Indexing

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
indexByExtid	boolean	O	
indexByImsi	boolean	O	
indexByMsisdn	boolean	O	
indexByNai	boolean	O	

Table 2-248 UserSystemConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
apiRoot	string	O	This is PCF User Service API Root URI. It is part of PCF user service. This value is auto injected at service deployment. User can also configure this manually. Default Value: N/A
logLevel	string, ENUM	O	Indicates the log level of PCF Session Management (SM) service. Default Value: WARN

Table 2-249 UDR Configuration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
udr.retryProfileForInitMsgs	string	O	
udr.baseUri	string example: /nudr-dr/v1	O	
udr.supportedFeatures	string example: f	O	
udr.smDataVSANames	string	O	
udr.amDataUri	string example: /policy-data/ues/{ueld}/am-data	O	
udr.uePolicySetUri	string example: /policy-data/ues/{ueld}/ue-policy-set	O	

Table 2-249 (Cont.) UDR Configuration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
udr.smDataUri	string example: /policy-data/ues/{ueid}/sm-data	O	
udr.usageMonUri	string example: /policy-data/ues/{ueid}/sm-data/{usageMonId}	O	
udr.subsToNotifyUri	string example: /policy-data/subs-to-notify	O	
udr.subsToNotifySubsIdUri	string example: /policy-data/subs-to-notify/{subsId}	O	
udr.retryProfileForSubsq tMsgs	string		
udr.smDataSubscription Resource	integer		
smDataSubscriptionRes ource	string, ENUM		
udr.discoverUdrWithPoli cyAsSupportedDataSet	boolean		udr
udr.requestTimeout	string example: 1000	O	
udr.explodeSnssai	boolean	O	
udr.enableDiscoveryOn Demand	boolean	O	
udr.retrySubscriptionAs	string	O	
udr.nfCommProfile	String	O	Indicates whether to assign a profile created on the NF Communication Profile page to UDR.
udr.sendTargetAPIRoute InSubsToNotify	boolean	O	Specifies whether to send target API route header in subscribe to notify request towards UDR.
udr.sendInitDiscParamsI nSubsToNotify	boolean	O	Specifies whether to send discovery parameters in subscribe to notify request towards UDR.
udr.sendProdIdInSubsTo Notify	boolean	O	Specifies whether to send producer Id in Discovery header in subscribe to notify request towards UDR.

Table 2-249 (Cont.) UDR Configuration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enableHttp11	boolean	O	

Sample Request body structure for PUT operations:

```
{
  "system": {
    "apiRoot": "string"
  },
  "common": {
    "requestTimeout": "1000"
  },
  "db": {
    "keysPrecedence": [
      "MSISDN"
    ],
    "userIndexKeys": [
      "msisdn"
    ],
    "indexing": {
      "indexByMsisdn": true,
      "indexByExtid": true,
      "indexByImsi": true,
      "indexByNai": true
    }
  },
  "udr": {
    "retryProfileForInitMsgs": "string",
    "baseUri": "/nudr-dr/v1",
    "supportedFeatures": "f",
    "smDataVSANames": "string",
    "amDataUri": "/policy-data/ues/{ueId}/am-data",
    "uePolicySetUri": "/policy-data/ues/{ueId}/ue-policy-set",
    "smDataUri": "/policy-data/ues/{ueId}/sm-data",
    "usageMonUri": "/policy-data/ues/{ueId}/sm-data/{usageMonId}",
    "subsToNotifyUri": "/policy-data/subs-to-notify",
    "subsToNotifySubsIdUri": "/policy-data/subs-to-notify/{subsId}",
    "retryProfileForSubsqtMsgs": "string",
    "smDataSubscriptionResource": "1",
    "discoverUdrWithPolicyAsSupportedDataSet": true,
    "requestTimeout": "1000",
    "explodeSnssai": true,
    "enableDiscoveryOnDemand": true,
    "retrySubscriptionAs": "subsequent",
    "nfCommProfile": "string",
    "sendTargetAPIRouteInSubsToNotify": true,
    "sendInitDiscParamsInSubsToNotify": false,
    "sendProdIdInSubsToNotify": false
  },
  "chf": {
```

```

    "retryProfileForInitMsgs": "string",
    "retryProfileForSubsqtMsgs": "string",
    "nfCommProfile": "string"
    "pcfServiceName": "string"
  },
  "advancedSettings": [
    {
      "key": "string",
      "value": "string"
    }
  ]
}

```

Sample Response body structure for GET and PUT operations:

```

{
  "system": {
    "apiRoot": "string"
  },
  "common": {
    "requestTimeout": "1000"
  },
  "db": {
    "keysPrecedence": [
      "MSISDN"
    ],
    "userIndexKeys": [
      "msisdn"
    ],
    "indexing": {
      "indexByMsisdn": true,
      "indexByExtid": true,
      "indexByImsi": true,
      "indexByNai": true
    }
  },
  "udr": {
    "retryProfileForInitMsgs": "string",
    "baseUri": "/nudr-dr/v1",
    "supportedFeatures": "f",
    "smDataVSANames": "string",
    "amDataUri": "/policy-data/ues/{ueId}/am-data",
    "uePolicySetUri": "/policy-data/ues/{ueId}/ue-policy-set",
    "smDataUri": "/policy-data/ues/{ueId}/sm-data",
    "usageMonUri": "/policy-data/ues/{ueId}/sm-data/{usageMonId}",
    "subsToNotifyUri": "/policy-data/subs-to-notify",
    "subsToNotifySubsIdUri": "/policy-data/subs-to-notify/{subsId}",
    "retryProfileForSubsqtMsgs": "string",
    "smDataSubscriptionResource": "1",
    "discoverUdrWithPolicyAsSupportedDataSet": true,
    "requestTimeout": "1000",
    "explodeSnssai": true,
    "enableDiscoveryOnDemand": true,
    "retrySubscriptionAs": "subsequent",

```

```

    "nfCommProfile": "string",
    "sendTargetAPIRouteInSubsToNotify": true,
    "sendInitDiscParamsInSubsToNotify": false,
    "sendProdIdInSubsToNotify": false
  },
  "chf": {
    "retryProfileForInitMsgs": "string",
    "retryProfileForSubsqtMsgs": "string",
    "nfCommProfile": "string"
  },
  "advancedSettings": [
    {
      "key": "string",
      "value": "string"
    }
  ]
}

```

Export/Import User Service

Table 2-250 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of user service. For more information, see Get and Update User Service .
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": {
    "chf": {
      "nfCommProfile": "string",
      "retryProfileForInitMsgs": "string",
      "retryProfileForSubsqtMsgs": "string"
    },
    "common": {
      "requestTimeout": 1000,
      "resourceGetSub": true
    }
  }
}

```

```

    },
    "db": {
      "indexing": {
        "indexByExtid": true,
        "indexByImsi": true,
        "indexByMsisdn": true,
        "indexByNai": true
      },
      "keysPrecedence": [
        "EXTID"
      ],
      "userIndexKeys": [
        "extid"
      ]
    },
    "system": {
      "apiRoot": "string"
    },
    "udr": {
      "amDataUri": "/policy-data/ues/{ueId}/am-data",
      "baseUri": "/nudr-dr/v1",
      "discoverUdrWithPolicyAsSupportedDataSet": true,
      "enableDiscoveryOnDemand": true,
      "enableHttp11": true,
      "explodeSnssai": true,
      "nfCommProfile": "string",
      "requestTimeout": 1000,
      "retryProfileForInitMsgs": "string",
      "retryProfileForSubsqtMsgs": "string",
      "sendInitDiscParamsInSubsToNotify": false,
      "sendProdIdInSubsToNotify": false,
      "sendTargetAPIRouteInSubsToNotify": true,
      "smDataSubscriptionResource": "1",
      "smDataUri": "/policy-data/ues/{ueId}/sm-data",
      "subsToNotifySubsIdUri": "/policy-data/subs-to-notify/{subsId}",
      "subsToNotifyUri": "/policy-data/subs-to-notify",
      "supportedFeatures": "f",
      "uePolicySetUri": "/policy-data/ues/{ueId}/ue-policy-set",
      "usageMonUri": "/policy-data/ues/{ueId}/sm-data/{usageMonId}"
    }
  },
  "sourceVersion": "string",
  "topic": "string"
}

```

2.48 Test Policy Projects

Table 2-251 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export test policy project	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policymgmt/policytests/testpolicyproject/export	See Table A-1
Import test policy project	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policymgmt/policytests/testpolicyproject/import	See Table A-3

Export/Import Test Policy Projects

Table 2-252 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
date	string		Current timestamp
exportData.script	string		
exportData.servcieType	string		
exportData.suiteName	string		
exportData.testcase.fieldVal.basicInfo.caseDesc	string		
exportData.testcase.fieldVal.basicInfo.caseName	string		
exportData.inputVal	string		
exportData.resVal	string		
exportData.name	string		
exportData.reqDataModel	string		
exportData.resDataModel	string		
exportData.suiteName	string		
exportData.testCaseScript	string		
key	string		
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "exportData": [
    {
      "script": "string",
      "serviceType": "string",
      "suiteName": "string",
      "testCase": [
        {
          "fieldVal": {
            "basicInfo": {
              "caseDesc": "string",
              "caseName": "string"
            },
            "inputVal": {},
            "resVal": {}
          },
          "name": "string",
          "reqDataModel": "string",
          "resDataModel": "string",
          "suiteName": "string",
          "testCaseScript": "string"
        }
      ]
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}

```

2.49 Data Model

Table 2-253 Supported REST APIs

Export data model	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Import data model	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policymgmt/policytests/datamodels/export	See Table A-1
Description	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policymgmt/policytests/datamodels/import	See Table A-3

Export/Import Data Models

Table 2-254 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData.description	string		
exportData.enumItems.name	string		
exportData.enumItems.value	string		
exportData.fields.description	string		
exportData.fields.itemType.objectType	string		
exportData.fields.itemType.primitiveType	string		
exportData.fields.itemType.type	string		
exportData.fields.labelName	string		
exportData.fields.name	string		
exportData.fields.objectType	string		
exportData.fields.primitiveType	string		
exportData.fields.type	string		
exportData.id	string		
exportData.labelName	string		
exportData.multiValue	string		
exportData.name	string		
exportData.type	string		
key	string		
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "exportData": [
    {
      "description": "string",
      "enumItems": [
        {
          "name": "string",
          "value": "string"
        }
      ]
    }
  ]
}
```

```

    }
  ],
  "fields": [
    {
      "description": "string",
      "itemType": {
        "objectType": "string",
        "primitiveType": "boolean",
        "type": "object"
      },
      "labelName": "string",
      "name": "string",
      "objectType": "string",
      "primitiveType": "string",
      "type": "array"
    }
  ],
  "id": "string",
  "labelName": "string",
  "multiValue": true,
  "name": "string",
  "type": "enum"
}
],
"key": "string",
"sourceVersion": "string",
"topic": "string"
}

```

2.50 Policy Projects

Table 2-255 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Import policy projects	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policymgmt/policyprojects/import	See Table A-3
Export Policy Projects	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policymgmt/policyprojects/export	See Table A-1
Get policy project	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policymgmt/policyprojects?policyProjectName=projectName&serviceName=service where, serviceName is a mandatory query Parameter and policyProjectName is an optional parameter.	See Table A-1

Table 2-255 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export Policy	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policymgmt/policyprojects/policy/export/{serviceName}/{policyProjectName}/{policyName}	See Table A-1
Import Policy	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policymgmt/policyprojects/policy/import	See Table A-3
Delete policy project	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policymgmt/policyprojects/{serviceName}/{policyProjectName}	See Table A-4
Update Policy Project State	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policymgmt/policyprojects/{serviceName}/{policyProjectName}	See Table A-2

Get, Create, and Update Policy Projects

Table 2-256 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
description	string	O	Specifies the description of a policy project.
name	String	O	Specifies the name of a policy project.
policy	array	O	
serviceType	String	O	Specifies the following supported service types: • PCF Session Management • PCF Access and Mobility • PCRF Core • PCF UE Policy • PCF Data Source • Usage Monitoring

Sample Response body structure for GET, POST, and PUT operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
```

```

        "name": "string"
      }
    ],
    "exportData": [
      {
        "description": "string",
        "entrance": true,
        "key": "string",
        "layout": "string",
        "name": "string",
        "outputModels": [
          "string"
        ],
        "policy": [
          {
            "entrance": true,
            "layout": "string",
            "name": "string",
            "outputModels": [
              "string"
            ],
            "script": "string"
          }
        ],
        "projectId": "string",
        "script": "string",
        "serviceType": "string"
      }
    ],
    "key": "string",
    "sourceVersion": "string",
    "topic": "string"
  }
}

```

Delete Policy Projects

Table 2-257 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
policyProjectName	string	M	Policy Project Name

Export/Import Policy Projects

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
}

```

```

"exportData": [
  {
    "description": "string",
    "entrance": true,
    "key": "string",
    "layout": "string",
    "name": "string",
    "outputModels": [
      "string"
    ],
    "policy": [
      {
        "entrance": true,
        "layout": "string",
        "name": "string",
        "outputModels": [
          "string"
        ],
        "script": "string"
      }
    ],
    "projectId": "string",
    "script": "string",
    "serviceType": "string"
  }
],
"key": "string",
"sourceVersion": "string",
"topic": "string"
}

```

2.51 Policy Library

Table 2-258 Supported REST APIs - Peer Node

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export Policy Library	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policymgmt/policylibrary/export	See Table A-1
Import Policy Library	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policymgmt/policylibrary/import	See Table A-3

Export/Import Policy Library

Table 2-259 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData.hasReturn	boolean		
exportData.layout	string		
exportData.library	string		
exportData.name	string		
exportData.paramList	array		
exportData.script	string		
exportData.service	string		
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "exportData": [
    {
      "hasReturn": true,
      "layout": "string",
      "library": "string",
      "name": "string",
      "paramList": [
        "string"
      ],
      "script": "string",
      "service": "string"
    }
  ],
  "sourceVersion": "string",
  "topic": "string"
}
```

2.52 Policy Data

Table 2-260 Supported REST APIs

API Name	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export Policy Data with or without Dependencies	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policymgmt/policydata/export	See Table A-3

Note

The **Policy Data** export API returns a ResourceId in response to the POST request. The ResourceId is the background task id for the POST operation. This id can be used to track the policy data export requests, and download the export data. For example, the POST API for Policy Data export operation takes the project name, policy name, and service type as input. The response of this API contains the resource id of the file created for export. You can use this resource Id to download the export data at any point of time. For more information about the API to download the export data, see [Bulk Import Export Controller](#).

Export Policy Data

Table 2-261 Request Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	M	Name of the project.
policies	array	M	Name of the policies.
serviceType	string	M	Service type. Note: Only AM and SM service types are supported.
includeDependencies	boolean	O	This is a flag to decide, if dependencies must be included with export data. Provide any of the following values: true: Export all the dependent MOs of the policy names provided in the policies field false: Does not export all the dependent MOs of the policy names provided in the policies field

Sample Request Body structure for Export operations:

```
[
  {
    "policyProjects": [
      {
        "name": "string",
        "policies": [
          "string"
        ]
      }
    ],
    "serviceType": "string"
  }
]
```

Below are the status displayed by Policy Data export:

- **INIT**: The policies are being validated and export of MOs is not started.
- **IN_PROGRESS**: The export is running.
- **DONE**: The export is complete. Following are the possible status if the export is in DONE status:
 - **SUCCESS** : The export is successful
 - **FAILED** : When error exist in all the Policies exported.
 - **PARTIAL_SUCCESS** : The export is partially successful

2.53 URSP

Table 2-262 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create URSP	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfue/ursps	See Table A-3
Export URSP	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfue/ursps/export	See Table A-1
Import URSP	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfue/ursps/import	See Table A-3
Get URSP	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfue/ursps/{urspName}	See Table A-1
Update URSP	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfue/ursps/{urspName}	See Table A-2

Table 2-262 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Delete URSP	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfue/ursps/{urspName}	See Table A-4

Get, Create, and Update URSPs**Table 2-263 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)aints	Description
name	string	M	Name of the URSP rule.
precedence	integer(\$int32) Enter a value between 0 and 255.	M	Precedence value of the URSP rule.
routeSelectionDescriptorList	UrspRouteSelectionDescriptorList	O	List of URSP routes.
trafficDescriptors	TrafficDescriptorIE	O	List of traffic descriptors.

Table 2-264 UrspRouteSelectionDescriptorList

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
routePrecedence	integer(\$int32)	M	
routeSelectionDescriptorComponents	RouteSelectionDescriptorComponentIE	M	

Table 2-265 UrspRouteSelectionDescriptorList

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
routePrecedence	integer(\$int32)	O	
routeSelectionDescriptorComponents	RouteSelectionDescriptorComponentIE	O	

Table 2-266 RouteSelectionDescriptorComponentIE

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
routeSelectionDescriptorType	ENUM	O	

Table 2-266 (Cont.) RouteSelectionDescriptorComponentIE

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
value	RouteSelectionDescriptorComponent	O	

Table 2-267 TrafficDescriptorIE

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
trafficDescriptorType	ENUM	O	
value	RouteSelectionDescriptorComponent	O	

Table 2-268 RouteSelectionDescriptorComponentIE

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
routeSelectionDescriptorType	ENUM	O	
value	TrafficDescriptorComponent	O	

Sample Request body structure for POST and PUT operations:

```
{
  "name": "string",
  "precedence": 0,
  "routeSelectionDescriptorList": [
    {
      "routePrecedence": 0,
      "routeSelectionDescriptorComponents": [
        {
          "routeSelectionDescriptorType": "DNN",
          "value": {}
        }
      ]
    }
  ],
  "trafficDescriptors": [
    {
      "trafficDescriptorType": "CONNECTION_CAPABILITIES",
      "value": {}
    }
  ]
}
```

Sample Response body structure for GET, POST, and PUT operations:

```

{
  "name": "string",
  "precedence": 0,
  "routeSelectionDescriptorList": [
    {
      "routePrecedence": 0,
      "routeSelectionDescriptorComponents": [
        {
          "routeSelectionDescriptorType": "DNN",
          "value": {}
        }
      ]
    }
  ],
  "trafficDescriptors": [
    {
      "trafficDescriptorType": "CONNECTION_CAPABILITIES",
      "value": {}
    }
  ]
}

```

Delete URSP**Table 2-269 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
urspName	string	M	URSP Name

Export/Import URSP**Table 2-270 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of URSPService. For more information, see Get, Create, and Update URSPs .
key	string		Indicates the ID of URSP
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "name": "string",
      "precedence": 0,
      "routeSelectionDescriptorList": [
        {
          "routePrecedence": 0,
          "routeSelectionDescriptorComponents": [
            {
              "routeSelectionDescriptorType": "DNN",
              "value": {}
            }
          ]
        }
      ]
    }
  ],
  "trafficDescriptors": [
    {
      "trafficDescriptorType": "CONNECTION_CAPABILITIES",
      "value": {}
    }
  ]
},
"key": "string",
"sourceVersion": "string",
"topic": "string"
}

```

2.54 UPSI

Table 2-271 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create UPSI	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfue/upsis	See Table A-3
Export UPSI	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfue/upsis/export	See Table A-1

Table 2-271 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Import UPSI	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfue/upsis/import	See Table A-3
Get UPSI	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfue/upsis/{upsiName}	See Table A-1
Update UPSI	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfue/upsis/{upsiName}	See Table A-2
Delete UPSI	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfue/upsis/{upsiName}	See Table A-4

Get, Create, and Update UPSIs**Table 2-272 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	M	Name of the UPSI.
plmn	Plmn	M	PLMN Identity
upsc	integer(\$int32) Enter a value between 0 and 65535.	M	Defines UE Policy Section Code. Enter a number between 0 and 65,535.
urspRules	string	O	Defines URSP rules.

Table 2-273 Plmn

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
mcc	string Valid Range [0-999]	M	Specifies a Mobile Country Code. enter a 2 or 3 digit number.
mnc	string Valid Range [0-999]	M	Specifies a Mobile Network Code. enter a 2 or 3 digit number.

Sample Request body structure for POST and PUT operations:

```
{
  "name": "string",
  "plmn": {
    "mcc": "string",
```

```

    "mnc": "string"
  },
  "upsc": 0,
  "urspRules": [
    "string"
  ]
}

```

Sample Response body structure for GET, POST, and PUT operations:

```

{
  "name": "string",
  "plmn": {
    "mcc": "string",
    "mnc": "string"
  },
  "upsc": 0,
  "urspRules": [
    "string"
  ]
}

```

Delete UPSI

Table 2-274 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
upsiName	string	M	UPSI Name

Export/Import UPSI

Table 2-275 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors:message	string		
errors:name	string		
exportData	array		Exported list of UPSI service. For more information, see Get, Create, and Update UPSIs .
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "name": "string",
      "plmn": {
        "mcc": "string",
        "mnc": "string"
      },
      "upsc": 0,
      "urspRules": [
        "string"
      ]
    }
  ],
  "sourceVersion": "string",
  "topic": "string"
}

```

2.55 Traffic Control Data

Table 2-276 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Traffic Control Data	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/trafficcontroldata	See Table A-3
Export Traffic Control Data	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/trafficcontroldata/export	See Table A-1
Import Traffic Control Data	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/trafficcontroldata/import	See Table A-3
Get Traffic Control Data	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/trafficcontroldata/{trafficControlDataName}	See Table A-1

Table 2-276 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Update Traffic Control Data	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/trafficcontroldata/{trafficControlDataName}	See Table A-2
Delete Traffic Control Data	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/trafficcontroldata/{trafficControlDataName}	See Table A-4

Get, Create, and Update Traffic Control Data

Table 2-277 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)aints	Description
description	string	O	The description of the Traffic Control policy data.
flowStatus	ENUM	O	The following options are available: - ENABLED-UPLINK - ENABLED-DOWNLINK - ENABLED - DISABLED - REMOVED Enum determining what action to perform on traffic. Possible values are: [enable, disable, enable_uplink, enable_downlink] . The default value "ENABLED" shall apply, if the attribute is not present and has not been supplied previously.
muteNotif	boolean	O	Indicates whether application's start or stop notification is to be muted. The default value "FALSE" shall apply, if the attribute is not present and has not been supplied previously.
name	string	M	The name of the Traffic Control policy data.
redirectInfo	RedirectInfo	O	Redirect Information
routeToLocs	RouteToLocs	O	Route To Locs Information
tcId	string	O	Specifies the traffic control ID.

Table 2-277 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
trafficSteeringPolIdDL	string	O	Reference to a pre-configured traffic steering policy for downlink traffic at the SMF.
trafficSteeringPolIdUL	string	O	Reference to a pre-configured traffic steering policy for uplink traffic at the SMF.
upPathChgEvent	UpPathChgEvent	O	Up Path Chg Event Information

Table 2-278 RedirectInfo

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
redirectAddressType	ENUM	O	This string provides forward-compatibility with future extensions to the enumeration but is not used to encode content defined in the present version of this API.
redirectEnabled	boolean	O	Indicates the redirect is enabled.
redirectServerAddress	string	O	Indicates the address of the redirect server.

Table 2-279 RouteToLocs

Field Name	Data Type	Constraints	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
dnai	string		O	Identifies the location of the application.
routeInfo	RouteInfo		O	Includes the traffic routing information.
routeProfileId	string		O	Identifies the routing profile Id.

Table 2-280 RouteInfo

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
ipv4Addr	string	O	Ipv4 address of the tunnel end point in the data network.
ipv6Addr	string	O	Ipv6 address of the tunnel end point in the data network
portNumber	integer (\$int32) Enter a number greater than or equal to 0	O	UDP port number of the tunnel end point in the data network.

Table 2-281 UpPathChgEvent

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
dnaiChgType	ENUM	O	The following options are available: • EARLY • EARLY_LATE • LATE Possible values are - EARLY: Early notification of UP path reconfiguration. - EARLY_LATE: Early and late notification of UP path reconfiguration. This value shall only be present in the subscription to the DNAI change event. - LATE: Late notification of UP path reconfiguration. This string provides forwardcompatibility with future extensions to the enumeration but is not used to encode content defined in the present version of this API.
notifCorreId	string	O	It is used to set the value of Notification Correlation ID in the notification sent by the SMF.
notificationUri	string	O	

Sample Request body structure for POST and PUT operations:

```
{
  "description": "string",
  "flowStatus": "DISABLED",
  "muteNotif": true,
  "name": "string",
  "redirectInfo": {
    "redirectAddressType": "IPV4_ADDR",
    "redirectEnabled": true,
    "redirectServerAddress": "string"
  },
  "routeToLocs": [
    {
      "dnai": "string",
      "routeInfo": {
        "ipv4Addr": "string",
        "ipv6Addr": "string",
        "portNumber": 0
      },
      "routeProfId": "string"
    }
  ],
  "tcId": "string",
  "trafficSteeringPolIdDl": "string",
  "trafficSteeringPolIdUl": "string",
  "upPathChgEvent": {
    "dnaiChgType": "EARLY",
    "notifCorreId": "string",
    "notificationUri": "string"
  }
}
```

Sample Response body structure for GET, POST, and PUT operations:

```
{
  "description": "string",
  "flowStatus": "DISABLED",
  "muteNotif": true,
  "name": "string",
  "redirectInfo": {
    "redirectAddressType": "IPV4_ADDR",
    "redirectEnabled": true,
    "redirectServerAddress": "string"
  },
  "routeToLocs": [
    {
      "dnai": "string",
      "routeInfo": {
        "ipv4Addr": "string",
        "ipv6Addr": "string",
        "portNumber": 0
      },
      "routeProfId": "string"
    }
  ]
}
```

```

    ],
    "tcId": "string",
    "trafficSteeringPolIdDl": "string",
    "trafficSteeringPolIdUl": "string",
    "upPathChgEvent": {
      "dnaiChgType": "EARLY",
      "notifCorreId": "string",
      "notificationUri": "string"
    }
  }
}

```

Delete Traffic Control Data

Table 2-282 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
trafficControlDataName	string	M	Traffic Control Data Name

Export/Import Traffic Control Data

Table 2-283 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of traffic control data service. For more information, see Get, Create, and Update Traffic Control Data .
key	string		Indicates the ID of Traffic Control Data
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "description": "string",

```

```

    "flowStatus": "DISABLED",
    "muteNotif": true,
    "name": "string",
    "redirectInfo": {
      "redirectAddressType": "IPV4_ADDR",
      "redirectEnabled": true,
      "redirectServerAddress": "string"
    },
    "routeToLocs": [
      {
        "dnai": "string",
        "routeInfo": {
          "ipv4Addr": "string",
          "ipv6Addr": "string",
          "portNumber": 0
        },
        "routeProfId": "string"
      }
    ],
    "tcId": "string",
    "trafficSteeringPolIdDl": "string",
    "trafficSteeringPolIdUl": "string",
    "upPathChgEvent": {
      "dnaiChgType": "EARLY",
      "notifCorreId": "string",
      "notificationUri": "string"
    }
  }
},
"key": "string",
"sourceVersion": "string",
"topic": "string"
}

```

2.56 PCC Rule

Table 2-284 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create PCC Rule	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/pccrules	See Table A-3
Export PCC Rules	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/pccrules/export	See Table A-1
Import PCC Rule	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/pccrules/import	See Table A-3

Table 2-284 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get PCC Rule	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/pccrules/{pccRuleName}	See Table A-1
Update PCC Rule	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/pccrules/{pccRuleName}	See Table A-2
Delete PCC Rule	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/pccrules/{pccRuleName}	See Table A-4

Get, Create, and Update PCC Rules

Table 2-285 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)aints	Description
afSigProtocol	ENUM	O	Indicates the protocol used for signalling between the UE and the AF. The default value "NO_INFORMATION" shall apply, if the attribute is not present and has not been supplied previously.
qosFlowUsage	ENUM	O	Indicates the QoS flow usage. The default value is not applicable for this field. Users can select GENERAL or IMS_SIG from the drop down list as per the requirement.
appld	string	O	A reference to the application detection filter configured at the UPF.
appReloc	boolean	O	Indication of application relocation possibility. The default value "NO_INFORMATION" shall apply, if the attribute is not present and has not been supplied previously.
contVer	string	O	Indicates the content version of the PCC rule.
description	string	O	The description of the PCC rule

Table 2-285 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
flowInfos	FlowInfos	O	An array of IP flow packet filter information.
name	string	M	The name of the PCC rule
pccRuleId	string	M	Univocally identifies the PCC rule within a PDU session.
precedence	string	O	Determines the order in which this PCC rule is applied relative to other PCC rules within the same PDU session. It shall be included if the "flowInfos" attribute is included or may be included if the "appld" attribute is included when the PCF initially provisions the PCC rule.
refChgData	string	O	A reference to the ChargingData policy decision type.
refCondData	string	O	A reference to the condition data.
refQosData	string	O	A reference to the QoSData policy type decision type.
refTcData	string	O	A reference to the TrafficControlData policy decision type.
refUmData	string	O	A reference to UsageMonitoringData policy decision type.
type	ENUM	O	

Table 2-286 FlowInfos

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
ethFlowDescription	ethFlowDescription	O	Ethernet Flow Description Information
flowDescription	string	O	Indicates the details about flow. Enter a description for the flow.
flowDirection	ENUM	O	Indicates the flow direction. Select from the following options: • DOWNLINK • UPLINK • BIDIRECTIONAL • UNSPECIFIED

Table 2-286 (Cont.) FlowInfos

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
flowLabel	string	O	The Ipv6 flow label header field.
name	string	M	Indicates the name for the flow
packFiltId	string	O	An identifier of packet filter
packetFilterUsage	boolean	O	The packet shall be sent to the UE. The default value "FALSE" shall apply, if the attribute is not present and has not been supplied previously
spi	string	O	The security parameter index of the IPSec packet.
tosTrafficClass	string	O	Contains the Ipv4 Type-of-Service and mask field or the Ipv6 Traffic-Class field and mask field.

Table 2-287 ethFlowDescription

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
destMacAddr	string enter a MAC address ,such as'3D-F2-C9-A6-B3-4F'.	O	A string indicating MAC address. Enter a valid MAC address. For example, 3D-F2-C9-A6-B3-4F
ethType	string	O	A two-octet string that represents the Ethertype, in hexadecimal representation. Each character in the string shall take a value of "0" to "9" or "A" to "F" and shall represent 4 bits. The most significant character representing the 4 most significant bits of the ethType shall appear first in the string, and the character representing the 4 least significant bits of the ethType shall appear last in the string.

Table 2-287 (Cont.) ethFlowDescription

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
fDesc	string	O	Contains the flow description for the Uplink or Downlink IP flow. It shall be present when the Ethertype is IP.
fDir	ENUM	O	Indicates the packet filter direction. Select from the following options: • DOWNLINK • UPLINK • BIDIRECTIONAL • UNSPECIFIED
sourceMacAddr	string enter a MAC address ,such as'3D-F2-C9-A6-B3-4F'	O	Enter a source MAC Address. For example, 3D-F2-C9- A6-B3-4F
vlanTags	string	O	Customer-VLAN and/or Service-VLAN tags containing the VID, PCP/DEI fields. Each field is encoded as a two-octet string in hexadecimal representation. Each character in the string shall take a value of "0" to "9" or "A" to "F" and shall represent 4 bits. The most significant character representing the 4 most significant bits of the VID or PCF/DEI field shall appear first in the string, and the character representing the 4 least significant bits of the VID or PCF/DEI field shall appear last in the string.

Sample Request body structure for POST and PUT operations:

```
{
  "afSigProtocol": "NO_INFORMATION",
  "appId": "string",
  "appReloc": true,
  "contVer": "string",
  "description": "string",
  "flowInfos": [
```

```

    {
      "ethFlowDescription": {
        "destMacAddr": "string",
        "ethType": "string",
        "fDesc": "string",
        "fDir": "BIDIRECTIONAL",
        "fdesc": "string",
        "fdir": "BIDIRECTIONAL",
        "sourceMacAddr": "string",
        "vlanTags": [
          "string"
        ]
      },
      "flowDescription": "string",
      "flowDirection": "BIDIRECTIONAL",
      "flowLabel": "string",
      "name": "string",
      "packFiltId": "string",
      "packetFilterUsage": true,
      "spi": "string",
      "tosTrafficClass": "string"
    }
  ],
  "name": "string",
  "pccRuleId": "string",
  "precedence": "string",
  "refChgData": [
    "string"
  ],
  "refCondData": "string",
  "refQosData": [
    "string"
  ],
  "refTcData": [
    "string"
  ],
  "refUmData": [
    "string"
  ],
  "type": "DYNAMIC"
}

```

Sample Response body structure for GET, POST, and PUT operations:

```

{
  "afSigProtocol": "NO_INFORMATION",
  "appId": "string",
  "appReloc": true,
  "contVer": "string",
  "description": "string",
  "flowInfos": [
    {
      "ethFlowDescription": {
        "destMacAddr": "string",
        "ethType": "string",

```

```

        "fDesc": "string",
        "fDir": "BIDIRECTIONAL",
        "fdesc": "string",
        "fdir": "BIDIRECTIONAL",
        "sourceMacAddr": "string",
        "vlanTags": [
            "string"
        ]
    },
    "flowDescription": "string",
    "flowDirection": "BIDIRECTIONAL",
    "flowLabel": "string",
    "name": "string",
    "packFiltId": "string",
    "packetFilterUsage": true,
    "spi": "string",
    "tosTrafficClass": "string"
}
],
"name": "string",
"pccRuleId": "string",
"precedence": "string",
"refChgData": [
    "string"
],
"refCondData": "string",
"refQosData": [
    "string"
],
"refTcData": [
    "string"
],
"refUmData": [
    "string"
],
"type": "DYNAMIC"
}

```

Delete PCC Rule

Table 2-288 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
PCCRuleName	string	M	PCC Rule Name

Export/Import PCC Rule s

Table 2-289 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of PCC Rule. For more information, see Get, Create, and Update PCC Rules .
key	string		Indicates the ID
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "afSigProtocol": "NO_INFORMATION",
      "appId": "string",
      "appReloc": true,
      "contVer": "string",
      "description": "string",
      "flowInfos": [
        {
          "ethFlowDescription": {
            "destMacAddr": "string",
            "ethType": "string",
            "fDesc": "string",
            "fDir": "BIDIRECTIONAL",
            "fdesc": "string",
            "fdir": "BIDIRECTIONAL",
            "sourceMacAddr": "string",
            "vlanTags": [
              "string"
            ]
          },
          "flowDescription": "string",
          "flowDirection": "BIDIRECTIONAL",
          "flowLabel": "string",

```

```

        "name": "string",
        "packFiltId": "string",
        "packetFilterUsage": true,
        "spi": "string",
        "toTrafficClass": "string"
    }
],
"name": "string",
"pccRuleId": "string",
"precedence": "string",
"refChgData": [
    "string"
],
"refCondData": "string",
"refQosData": [
    "string"
],
"refTcData": [
    "string"
],
"refUmData": [
    "string"
],
"type": "DYNAMIC"
}
],
"key": "string",
"sourceVersion": "string",
"topic": "string"
}

```

2.57 PCC Rule Profile

Table 2-290 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create PCC Rule Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/pccruleprofiles	See Table A-3
Export PCC Rule Profiles	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/pccruleprofiles/export	See Table A-1
Import PCC Rule Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/pccruleprofiles/import	See Table A-3
Get PCC Rule Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/pccruleprofiles/{pccRuleProfileName}	See Table A-1

Table 2-290 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Update PCC Rule Profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/pccruleprofiles/{pccRuleProfileName}	See Table A-2
Delete PCC Rule Profile	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/pccruleprofiles/{pccRuleProfileName}	See Table A-4

Get, Create, and Update PCC Rule Profile

Table 2-291 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)aints	Description
afSigProtocol	ENUM	O	Specifies the protocol used for signaling between the UE and the AF.
qosFlowUsage	ENUM	O	Indicates the QoS flow usage. The default value is not applicable for this field. Users can select GENERAL or IMS_SIG from the drop down list as per the requirement.
appld	string	O	A reference to the application detection filter configured at the UPF.
appReloc	boolean	O	Specifies application relocation possibility.
contVer	string	O	Specifies the content version of the PCC rule.
description	string	O	Description of PCC Rule Profile.
flowInfos	FlowInfos	O	An array of IP flow packet filter information.
id	string	M	Unique identifier of PCC Rule Profile
name	string	M	Specifies the name of PCC Rule Profile.

Table 2-291 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
precedence	string		Determines the order in which this PCC rule is applied relative to other PCC rules within the same PDU session. It shall be included if the flowInfos attribute is included or may be included if the appld attribute is included when the PCF initially provisions the PCC rule.
refChgData	string		A reference to the ChargingData policy decision type.
refCondData	string		A reference to the condition data.
refQosData	string		A reference to the QoSData policy type decision type.
refTcData	string		A reference to the TrafficControlData policy decision type.
refUmData	string		A reference to UsageMonitoringData policy decision type.
type	ENUM		Possible values are: - DYNAMIC - PREDEFINED

Table 2-292 FlowInfos

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
ethFlowDescription	ethFlowDescription		Defines a packet filter for an Ethernet flow.
flowDescription	string		Specifies the packet filters of the IP flow(s).
flowDirection	ENUM		Indicates the direction/directions that a filter is applicable, downlink only, uplink only or both down- and uplink (bidirectional).
flowLabel	string		Ipv6 flow label header field.
name	string	M	
packFiltId	string		An identifier of packet filter.

Table 2-292 (Cont.) FlowInfos

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
packetFilterUsage	boolean		The packet shall be sent to the UE. The default value FALSE shall apply, if the attribute is not present and has not been supplied previously.
spi	string		Specifies the security parameter index of the IPSec packet.
tosTrafficClass	string		Specifies the Ipv4 Type-of-Service and mask field or the Ipv6 Traffic-Class field and mask field.

Table 2-293 ethFlowDescription

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
destMacAddr	string enter a MAC address ,such as'3D-F2-C9-A6-B3-4F'.		A string indicating MAC address. Enter a valid MAC address. For example, 3D-F2-C9-A6-B3-4F
ethType	string		A two-octet string that represents the Ethertype, in hexadecimal representation. Each character in the string shall take a value of "0" to "9" or "A" to "F" and shall represent 4 bits. The most significant character representing the 4 most significant bits of the ethType shall appear first in the string, and the character representing the 4 least significant bits of the ethType shall appear last in the string.
fDesc	string		Indicates the details about flow. Enter a description for the flow.

Table 2-293 (Cont.) ethFlowDescription

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
fDir	ENUM		Indicates the flow direction. Select from the following options: • DOWNLINK • UPLINK • BIDIRECTIONAL • UNSPECIFIED
sourceMacAddr	string enter a MAC address ,such as'3D-F2-C9-A6-B3-4F'		Enter a MAC Address. For example, 3D-F2-C9-A6-B3-4F
vlanTags	string		Customer-VLAN and/or Service-VLAN tags containing the VID, PCP/DEI fields. Each field is encoded as a two-octet string in hexadecimal representation. Each character in the string shall take a value of "0" to "9" or "A" to "F" and shall represent 4 bits. The most significant character representing the 4 most significant bits of the VID or PCF/DEI field shall appear first in the string, and the character representing the 4 least significant bits of the VID or PCF/DEI field shall appear last in the string.

Sample Request body structure for POST and PUT operations:

```
{
  "afSigProtocol": "NO_INFORMATION",
  "appId": "string",
  "appReloc": true,
  "contVer": "string",
  "description": "string",
  "flowInfos": [
    {
      "ethFlowDescription": {
        "destMacAddr": "string",
        "ethType": "string",
        "fDesc": "string",
        "fDir": "BIDIRECTIONAL",
```

```

        "fdesc": "string",
        "fdir": "BIDIRECTIONAL",
        "sourceMacAddr": "string",
        "vlanTags": [
            "string"
        ]
    },
    "flowDescription": "string",
    "flowDirection": "BIDIRECTIONAL",
    "flowLabel": "string",
    "name": "string",
    "packFiltId": "string",
    "packetFilterUsage": true,
    "spi": "string",
    "tosTrafficClass": "string"
}
],
"id": "string",
"name": "string",
"precedence": "string",
"refChgData": [
    "string"
],
"refCondData": "string",
"refQosData": [
    "string"
],
"refTcData": [
    "string"
],
"refUmData": [
    "string"
],
"type": "DYNAMIC"
}

```

Sample Response body structure for GET, POST, and PUT operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "afSigProtocol": "NO_INFORMATION",
      "appId": "string",
      "appReloc": true,
      "contVer": "string",
      "description": "string",
      "flowInfos": [

```

```

        {
            "ethFlowDescription": {
                "destMacAddr": "string",
                "ethType": "string",
                "fDesc": "string",
                "fDir": "BIDIRECTIONAL",
                "fdesc": "string",
                "fdir": "BIDIRECTIONAL",
                "sourceMacAddr": "string",
                "vlanTags": [
                    "string"
                ]
            },
            "flowDescription": "string",
            "flowDirection": "BIDIRECTIONAL",
            "flowLabel": "string",
            "name": "string",
            "packFiltId": "string",
            "packetFilterUsage": true,
            "spi": "string",
            "tosTrafficClass": "string"
        }
    ],
    "id": "string",
    "name": "string",
    "precedence": "string",
    "refChgData": [
        "string"
    ],
    "refCondData": "string",
    "refQosData": [
        "string"
    ],
    "refTcData": [
        "string"
    ],
    "refUmData": [
        "string"
    ],
    "type": "DYNAMIC"
}
},
"key": "string",
"sourceVersion": "string",
"topic": "string"
}

```

Delete PCC Rule Profile

Table 2-294 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
PCCRuleProfileName	string	M	PCC Rule Profile Name

Export/Import PCC Rule Profile

Table 2-295 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of PCC Rule Profile. For more information, see Get, Create, and Update PCC Rule Profile .
key	string		Indicates the ID
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "afSigProtocol": "NO_INFORMATION",
      "appId": "string",
      "appReloc": true,
      "contVer": "string",
      "description": "string",
      "flowInfos": [
        {
          "ethFlowDescription": {
            "destMacAddr": "string",
            "ethType": "string",
            "fDesc": "string",

```

```

        "fDir": "BIDIRECTIONAL",
        "fdesc": "string",
        "fdir": "BIDIRECTIONAL",
        "sourceMacAddr": "string",
        "vlanTags": [
            "string"
        ]
    },
    "flowDescription": "string",
    "flowDirection": "BIDIRECTIONAL",
    "flowLabel": "string",
    "name": "string",
    "packFiltId": "string",
    "packetFilterUsage": true,
    "spi": "string",
    "tosTrafficClass": "string"
}
],
"id": "string",
"name": "string",
"precedence": "string",
"refChgData": [
    "string"
],
"refCondData": "string",
"refQosData": [
    "string"
],
"refTcData": [
    "string"
],
"refUmData": [
    "string"
],
"type": "DYNAMIC"
}
],
"key": "string",
"sourceVersion": "string",
"topic": "string"
}

```

2.58 Condition Data

Table 2-296 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Condition Data	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/conditiondata	See Table A-3

Table 2-296 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export Condition Data	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/conditiondata/export	See Table A-1
Import Condition Data	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/conditiondata/import	See Table A-3
Get Condition Data	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/conditiondata/{conditionDataName}	See Table A-1
Update Condition Data	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/conditiondata/{conditionDataName}	See Table A-2
Delete Condition Data	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/conditiondata/{conditionDataName}	See Table A-4

Get, Create, and Update Condition Data**Table 2-297 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)aints	Description
activationTime	string, example : YYYY-MM-DDTHH:MM:SS	O	The time when the decision data shall be activated.
condId	string	O	Specifies the condition ID.
deactivationTime	string example : YYYY-MM-DDTHH:MM:SS	O	The time when the decision data shall be deactivated.
description	string	O	The description of the Condition Data policy data.
name	string	M	The name of the Condition Data policy data.

Sample Request body structure for POST and PUT operations:

```
{
  "activationTime": "YYYY-MM-DDTHH:MM:SS",
  "condId": "string",
  "deactivationTime": "YYYY-MM-DDTHH:MM:SS",
```

```

    "description": "string",
    "name": "string"
  }

```

Sample Response body structure for GET, POST, and PUT operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "activationTime": "YYYY-MM-DDTHH:MM:SS",
      "condId": "string",
      "deactivationTime": "YYYY-MM-DDTHH:MM:SS",
      "description": "string",
      "name": "string"
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}

```

Delete Condition Data

Table 2-298 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
conditionDataName	string	M	The name of the Condition Data policy data.

Export/Import Condition Data

Table 2-299 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of condition data. For more information, see Get, Create, and Update Condition Data .
key	string		Indicates the ID

Table 2-299 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "activationTime": "YYYY-MM-DDTHH:MM:SS",
      "condId": "string",
      "deactivationTime": "YYYY-MM-DDTHH:MM:SS",
      "description": "string",
      "name": "string"
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}
```

2.59 Charging Data

Table 2-300 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Charging Data	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/chargingdata	See Table A-3
Export Charging Data	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/chargingdata/export	See Table A-1

Table 2-300 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Import Charging Data	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/chargingdata/import	See Table A-3
Get Charging Data	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/chargingdata/{chargingDataName}	See Table A-1
Update Condition Data	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/chargingdata/{chargingDataName}	See Table A-2
Delete Charging Data	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfsm/chargingdata/{chargingDataName}	See Table A-4

Get, Create, and Update Charging Data

Table 2-301 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)aints	Description
afChargingIdentifiercgiList	integer (\$int64), Enter a value between 0 and 4294967295	O	Univocally identifies the charging control policy data within a PDU session.
appSvcProvId	string	O	Indicates the application service provider identity.
chgId	string	M	Specifies the charging id.
description	string	O	The description of the Charging Data.

Table 2-301 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
meteringMethod	ENUM	O	The following options are available • DURATION • VOLUME • DURATION_VOLUME • EVENT Defines what parameters shall be metered for offline charging. If the attribute is not present but it has been supplied previously, the previous information remains valid. If the attribute is not present and it has not been supplied previously or the attribute has been supplied previously but the attribute is set to NULL, the metering method pre-configured at the SMF is applicable as default metering method.
name	string	M	The name of the Charging Data.
offline	boolean	O	Indicates the offline charging is applicable to the PDU session or PCC rule. The default value "FALSE" shall apply, if the attribute is not present and has not been supplied previously. (NOTE)
online	boolean	O	Indicates the online charging is applicable to the PDU session or PCC rule. The default value "FALSE" shall apply, if the attribute is not present and has not been supplied previously. (NOTE)
ratingGroup	integer (\$int64), Enter a value between 0 and 4294967295	O	The charging key for the PCC rule used for rating purposes.

Table 2-301 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
reportingLevel	ENUM	O	The following options are available: - SER_ID_LEVEL - RAT_GR_LEVEL - SPON_CON_LEVEL Defines on what level the SMF reports the usage for the related PCC rule. If the attribute is not present but it has been supplied previously, the previous information remains valid. If the attribute is not present and it has not been supplied previously or the attribute has been supplied previously but it is set to NULL, the reporting level pre-configured at the SMF is applicable as default reporting level.
sdfHandl	boolean		
serviceId	integer (\$int64), Enter a value between 0 and 4294967295	O	Indicates the identifier of the service or service component the service data flow in a PCC rule relates to.
sponsorId	string	O	Indicates the sponsor identity.

Sample Request body structure for POST and PUT operations:

```
{
  "afChargingIdentifier": 0,
  "appSvcProvId": "string",
  "chgId": "string",
  "description": "string",
  "meteringMethod": "DURATION",
  "name": "string",
  "offline": true,
  "online": true,
  "ratingGroup": 0,
  "reportingLevel": "RAT_GR_LEVEL",
  "sdfHandl": true,
  "serviceId": 0,
  "sponsorId": "string"
}
```

Sample Response body structure for GET, POST, and PUT operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "afChargingIdentifier": 0,
      "appSvcProvId": "string",
      "chgId": "string",
      "description": "string",
      "meteringMethod": "DURATION",
      "name": "string",
      "offline": true,
      "online": true,
      "ratingGroup": 0,
      "reportingLevel": "RAT_GR_LEVEL",
      "sdfHandl": true,
      "serviceId": 0,
      "sponsorId": "string"
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}

```

Delete Charging Data**Table 2-302 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
chargingDataName	string	M	Charging Data Name

Export/Import Charging Data**Table 2-303 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of charging data. For more information, see Get, Create, and Update Charging Data .

Table 2-303 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
key	string		Indicates the ID
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "afChargingIdentifier": 0,
      "appSvcProvId": "string",
      "chgId": "string",
      "description": "string",
      "meteringMethod": "DURATION",
      "name": "string",
      "offline": true,
      "online": true,
      "ratingGroup": 0,
      "reportingLevel": "RAT_GR_LEVEL",
      "sdfHandl": true,
      "serviceId": 0,
      "sponsorId": "string"
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}

```

2.60 Service Area Restriction

Table 2-304 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Service Area Restriction	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfam/servicearearestrictions	See Table A-3
Export All Service Area Restrictions	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfam/servicearearestrictions/export	See Table A-1
Import All Service Area Restrictions	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfam/servicearearestrictions/import	See Table A-3
Get Service Area Restriction	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfam/servicearearestrictions/{serviceAreaRestrictionName}	See Table A-1
Update Service Area Restriction	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfam/servicearearestrictions/{serviceAreaRestrictionName}	See Table A-2
Delete Service Area Restriction	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/pcfam/servicearearestrictions/{serviceAreaRestrictionName}	See Table A-4

Get, Create, and Update Service Area Restriction s

Table 2-305 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
areas	ServiceArea RestrictionAr eas	O	A list of Areas. These areas are: - allowed areas if RestrictionType is "ALLOWED_AREAS" - not allowed areas if RestrictionType is "NOT_ALLOWED_AREAS"
description	Number	O	Specifies description of the Service Area Restriction
maxNumOfTAs	boolean	O	Specifies maximum number of TAs
name	string	M	Specifies name of the Service Area Restriction
restrictionType	ENUM	O	Possible values are: - ALLOWED_AREAS - NOT_ALLOWED_AREAS

Table 2-306 ServiceAreaRestrictionAreas

Field Name	Data Type	Description
areaCodes	String	Specifies area codes.
tacs	String	List of Type Allocation Codes. A decimal number between 0 and 65535.

Sample Request body structure for POST/PUT operation:

```
{
  "areas": [
    {
      "areaCodes": "string",
      "tacs": [
        "string"
      ]
    }
  ],
  "description": "string",
  "maxNumOfTAs": 0,
  "name": "string",
  "restrictionType": "ALLOWED_AREAS"
}
```


Sample Response body structure for GET, POST, and PUT operations:

```
[
  {
    "date": "string",
    "errors": [
      {
        "message": "string",
        "name": "string"
      }
    ],
    "exportData": [
      {
        "areas": [
          {
            "areaCodes": "string",
            "tacs": [
              "string"
            ]
          }
        ],
        "description": "string",
        "maxNumOfTAs": 0,
        "name": "string",
        "restrictionType": "ALLOWED_AREAS"
      }
    ],
    "key": "string",
    "sourceVersion": "string",
    "topic": "string"
  }
]
```

Delete Service Area Restriction s**Table 2-307 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
serviceAreaRestrictionName	string	M	Service Area Restriction Name

Export/Import Service Area Restrictions**Table 2-308 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp

Table 2-308 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
exportData	array		Exported list of service area restrictions. For more information, see Get, Create, and Update Service Area Restrictions
key	string		Indicates the ID
sourceVersion	string		System version of product from which data is exported
systemVersion			
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
[
  {
    "date": "string",
    "errors": [
      {
        "message": "string",
        "name": "string"
      }
    ],
    "exportData": [
      {
        "areas": [
          {
            "areaCodes": "string",
            "tacs": [
              "string"
            ]
          }
        ],
        "description": "string",
        "maxNumOfTAs": 0,
        "name": "string",
        "restrictionType": "ALLOWED_AREAS"
      }
    ],
    "key": "string",
    "sourceVersion": "string",
    "topic": "string"
  }
]
```

2.61 PCF Presence Reporting Area

Table 2-309 Supported REST APIs

HTTP Method or Custom Operation	Description	Resource URI	Possible Result Code
POST	Create Presence Reporting Area	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/pras	See Table A-3
GET	Export Presence Reporting Area	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/pras/export	See Table A-1
POST	Import Presence Reporting Area	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/pras/import	See Table A-3
GET	Get Presence Reporting Area	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/pras/{presenceReportingAreaName}	See Table A-1
PUT	Update Presence Reporting Area	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/pras/{presenceReportingAreaName}	See Table A-2
DELETE	Delete Presence Reporting Area	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/pras/{presenceReportingAreaName}	See Table A-4

Get, Create, AND Update Presence Reporting Areas

Table 2-310 Request/Response Body Parameters GET, PUT, and POST operations

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)aints	Description
ecgiList	PresenceReportingAreaEcgiList	O	Represents the list of tracking areas that constitutes the area. This IE shall be present if the subscription or the event report is for tracking UE presence in the tracking areas. For non 3GPP access the TAI shall be the N3GPP TAI.

Table 2-310 (Cont.) Request/Response Body Parameters GET, PUT, and POST operations

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)aints	Description
globalRanNodeIdList	PresenceReportingAreaGlobalRanNodeIdList	O	Represents the list of NG RAN node identifiers that constitutes the area. This IE shall be present if the Area of Interest subscribed is a list of NG RAN node identifiers.
name	string	M	The unique name assigned to the PRA.
praid	String	M	The unique identifying number of the PRA list. The ID must be numeric value between 0 and 16777125.
ncgiList	PresenceReportingAreaNcgiList	O	Represents the list of NR cell Ids that constitutes the area. This IE shall be present if the Area of Interest subscribed is a list of NR cell Ids.
presenceState	ENUM	O	Indicates whether the UE is inside or outside of the area of interest (e.g presence reporting area or the LADN area), or if the presence reporting area is inactive in the serving node. Select any one of the following values: • IN_AREA : Indicates that the UE is inside or enters the presence reporting area. • OUT_OF_AREA : Indicates that the UE is outside or leaves the presence reporting area. • UNKNOWN : Indicates it is unknown whether the UE is in the presence reporting area or not. • INACTIVE : Indicates that the presence reporting area is inactive in the serving node.

Table 2-310 (Cont.) Request/Response Body Parameters GET, PUT, and POST operations

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
trackingAreaList	PresenceReportingAreaTrackingAreaList	O	Represents the list of tracking areas that constitutes the area. This IE shall be present if the subscription or the event report is for tracking UE presence in the tracking areas. For non 3GPP access the TAI shall be the N3GPP TAI.

Table 2-311 PresenceReportingAreaEcgiList

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
ecgiList. eutraCellId	String, enter a 7 digit hexadecimal value	M	28-bit string identifying an E-UTRA Cell Id as specified in hexadecimal representation. Each character in the string shall take a value of "0" to "9" or "A" to "F" and shall represent 4 bits. The most significant character representing the 4 most significant bits of the Cell Id shall appear first in the string, and the character representing the 4 least significant bit of the Cell Id shall appear last in the string. Pattern: '[A-Fa-f0-9]{7}\$' Example: An E-UTRA Cell Id 0x5BD6007 shall be encoded as "5BD6007".
ecgiList. plmnId	PlmnId	M	PLMN Identity

Table 2-312 PresenceReportingAreaGlobalRanNodeIdList

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
globalRanNodeIdList.gNbId	GNbId		This field is included if the RAN Node Id represents a gNB. When present, this field contains the identifier of the gNB.
globalRanNodeIdList.n3IwfId	string		This field is included if the RAN node belongs to non 3GPP access (i.e a N3IWF). If included, this field contains the FQDN of the N3IWF.
globalRanNodeIdList.ngenBId	string		This field is included if the RAN Node Id represents a NG-eNB. When present, this field contains the identifier of an NG-eNB.
globalRanNodeIdList.plmnId	PlmnId	M	Indicates the identity of the PLMN that the RAN node belongs to.

Table 2-313 PlmnId

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
PlmnId.mcc	String	M	Specifies a Mobile Country Code of the PLMN. enter a 2 or 3 digit number.
PlmnId.mnc	String	M	Specifies a Mobile Network Code of the PLMN. enter a 2 or 3 digit number.

Table 2-314 PresenceReportingAreaNcgiList

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
ncgiList.nrCellId	String, enter a 9 digit hexadecimal value	M	36-bit string identifying an NR Cell Id as specified in hexadecimal representation. Each character in the string shall take a value of "0" to "9" or "A" to "F" and shall represent 4 bits. The most significant character representing the 4 most significant bits of the Cell Id shall appear first in the string, and the character representing the 4 least significant bit of the Cell Id shall appear last in the string. Pattern: '[A-Fa-f0-9]{9}\$' Example: An NR Cell Id 0x225BD6007 shall be encoded as "225BD6007".
ncgiList.plmnlId	PlmnlId	M	PLMN Identity

Table 2-315 PresenceReportingAreaTrackingAreaList

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
trackingAreaList.plmnlId	PlmnlId		PLMN Identity

Table 2-315 (Cont.) PresenceReportingAreaTrackingAreaList

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
trackingAreaList.tac	string, enter a 4 or 6 digit hexadecimal value		28-bit string identifying an E-UTRA Cell Id as specified, in hexadecimal representation. Each character in the string shall take a value of "0" to "9" or "A" to "F" and shall represent 4 bits. The most significant character representing the 4 most significant bits of the Cell Id shall appear first in the string, and the character representing the 4 least significant bit of the Cell Id shall appear last in the string. Pattern: '^[A-Fa-f0-9] {7}\$' Example: An E-UTRA Cell Id 0x5BD6007 shall be encoded as "5BD6007".

Sample Request body structure for POST and PUT operations:

```
{
  "ecgiList": [
    {
      "eutraCellId": "string",
      "plmnId": {
        "mcc": "string",
        "mnc": "string"
      }
    }
  ],
  "globalRanNodeIdList": [
    {
      "gNbId": {
        "bitLength": 0,
        "gNbValue": "string"
      },
      "n3IwfId": "string",
      "ngeNbId": "string",
      "plmnId": {
        "mcc": "string",
        "mnc": "string"
      }
    }
  ]
}
```



```

    ],
    "name": "string",
    "ncgiList": [
      {
        "nrCellId": "string",
        "plmnId": {
          "mcc": "string",
          "mnc": "string"
        }
      }
    ],
    "praId": "string",
    "presenceState": "INACTIVE",
    "trackingAreaList": [
      {
        "plmnId": {
          "mcc": "string",
          "mnc": "string"
        },
        "tac": "string"
      }
    ]
  ]
}

```

Sample Response body structure for GET, POST, and PUT operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "ecgiList": [
        {
          "eutraCellId": "string",
          "plmnId": {
            "mcc": "string",
            "mnc": "string"
          }
        }
      ],
      "globalRanNodeIdList": [
        {
          "gNbId": {
            "bitLength": 0,
            "gNbValue": "string"
          },
          "n3IwfId": "string",
          "ngeNbId": "string",
          "plmnId": {
            "mcc": "string",

```

```

        "mnc": "string"
      }
    },
    "name": "string",
    "ncgiList": [
      {
        "nrCellId": "string",
        "plmnId": {
          "mcc": "string",
          "mnc": "string"
        }
      }
    ],
    "praId": "string",
    "presenceState": "INACTIVE",
    "trackingAreaList": [
      {
        "plmnId": {
          "mcc": "string",
          "mnc": "string"
        },
        "tac": "string"
      }
    ]
  },
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}

```

Delete Presence Reporting Areas

Table 2-316 Request/Response Body Parameters for DELETE operation

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
presenceReportingAreaName	string	M	Presence Reporting Area Name

Export/Import Presence Reporting Areas

Table 2-317 Request/Response Body Parameters for Export/Import operations

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp

Table 2-317 (Cont.) Request/Response Body Parameters for Export/Import operations

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
exportData	array		Exported list of presence reporting area. For more information, see Get, Create, AND Update Presence Reporting Areas .
key	string		Indicates the ID
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "ecgiList": [
        {
          "eutraCellId": "string",
          "plmnId": {
            "mcc": "string",
            "mnc": "string"
          }
        }
      ],
      "globalRanNodeIdList": [
        {
          "gNbId": {
            "bitLength": 0,
            "gNbValue": "string"
          },
          "n3IwfId": "string",
          "ngeNbId": "string",
          "plmnId": {
            "mcc": "string",
            "mnc": "string"
          }
        }
      ],
      "name": "string",
```

```

    "ncgiList": [
      {
        "nrCellId": "string",
        "plmnId": {
          "mcc": "string",
          "mnc": "string"
        }
      }
    ],
    "praId": "string",
    "presenceState": "INACTIVE",
    "trackingAreaList": [
      {
        "plmnId": {
          "mcc": "string",
          "mnc": "string"
        },
        "tac": "string"
      }
    ]
  }
},
"key": "string",
"sourceVersion": "string",
"topic": "string"
}

```

2.62 Policy Table

Table 2-318 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Policy Tables	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/policytables	See Table A-1
Create Policy Tables	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/policytables	See Table A-3
Export Policy Tables	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/policytables/export	See Table A-1
Import Policy Tables	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/policytables/import	See Table A-3

Table 2-318 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Delete Policy Table	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/policytables/{serviceName}/{policyTableName}	See Table A-4

Get and Create Policy Table s

Table 2-319 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
columns	array	O	Specifies the column of a policy table.
name	String	O	Specifies the name of a policy table.
description	name	O	Specifies the description of a policy table.
rows	array	O	Specifies the rows of a policy table.

Sample Request body structure for POST operation:

```
[
  {
    "columns": [
      {
        "dataType": "accessType",
        "isKey": true,
        "name": "string"
      }
    ],
    "description": "string",
    "name": "string",
    "rows": [
      {}
    ],
    "serviceName": "string",
    "serviceType": "string"
  }
]
```

Sample Response body structure for GET and POST operations:

```
{
  "date": "string",
  "errors": [
```

```

    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "columns": [
        {
          "dataType": "accessType",
          "isKey": true,
          "name": "string"
        }
      ],
      "description": "string",
      "name": "string",
      "rows": [
        {}
      ],
      "serviceName": "string"
    }
  ],
  "sourceVersion": "string",
  "topic": "string"
}

```

Delete Policy Tables

Table 2-320 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
policyTableName	string	M	Policy Table Name
serviceName	string	M	Service Name

Export and Import Policy Tables

The following table describes the request and response body parameters for Import and Export operations:

Table 2-321 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors:message	string		Error message.
errors:name	string		Error name.
exportData	array		Exported list of policy tables. For more information, see Get and Create Policy Tables .

Table 2-321 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Supported Actions for Importing Policy Tables

The following table describes the actions supported by Policy when the user imports Policy Tables:

Table 2-322 Supported Actions for Importing Policy Tables

Action	Description
ignore	On selecting the <code>ignore</code> option, no changes are made to the existing Policy Table. The Policy Table in the imported file is ignored or skipped. No changes are made to the UUIDs and existing policies remain unaffected with this option.
retain	On selecting the <code>retain</code> option, no changes are made to the existing Policy Table. The Policy Table in the imported file is ignored or skipped. No changes are made to the UUIDs and existing policies remain unaffected with this option.
replace	On selecting the <code>replace</code> option, the existing Policy Table is completely replaced with the Policy table in the imported file. Since UUIDs are re-generated for rows and columns, the user needs to update the existing policies that use the Policy Table being replaced with the new one.
merge	On selecting the Merge option, rows of the existing Policy Table are merged with the rows of the Policy table in the imported file only if the schema for key and non-key columns is same for both the Policy Tables. All rows of the existing table with conflict are replaced with the new rows from the imported table. Note: Two rows are considered to be in conflict when they have same values for the Key columns. In case of a conflict, the rows of the existing Policy Table are replaced with the rows of the new Policy Table. In this case, the UUIDs remain unaffected and do not impact the existing policies.

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
```

```

        "message": "string",
        "name": "string"
    }
],
"exportData": [
    {
        "columns": [
            {
                "dataType": "accessType",
                "isKey": true,
                "name": "string"
            }
        ],
        "description": "string",
        "name": "string",
        "rows": [
            {}
        ],
        "serviceName": "string"
    }
],
"sourceVersion": "string",
"topic": "string"
}

```

2.63 Policy Counter Id

Table 2-323 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Policy Control Id	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/policycounterids	See Table A-3
Export Policy Control Id	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/policycounterids/export	See Table A-1
Import Policy Control Id	POST	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/policycounterids/import	See Table A-3
Get Policy Control Id	GET	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/policycounterids/{policyCounterIdName}	See Table A-1
Update Policy Control Id	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/policycounterids/{policyCounterIdName}	See Table A-2

Table 2-323 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Delete Policy Control Id	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/common/policycounterids/{policyCounterIdName}	See Table A-4

Get, Create, and Update Policy Counter Id s**Table 2-324 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)aints	Description
defaultStatus	string	O	Specifies the default status of Policy Counter Id.
desc	string	O	Specifies the description of Policy Counter Id.
id	string	O	Specifies the ID of Policy Counter Id.
name	string	M	Specifies the name of Policy Counter Id.

Sample Request body structure for POST and PUT operations:

```
[
  {
    "columns": [
      {
        "dataType": "accessType",
        "isKey": true,
        "name": "string"
      }
    ],
    "description": "string",
    "name": "string",
    "rows": [
      {}
    ],
    "serviceName": "string",
    "serviceType": "string"
  }
]
```

Sample Response body structure for GET, POST, and PUT operations:

```
{
  "date": "string",
  "errors": [
    {
```

```

        "message": "string",
        "name": "string"
    }
],
"exportData": [
    {
        "columns": [
            {
                "dataType": "accessType",
                "isKey": true,
                "name": "string"
            }
        ],
        "description": "string",
        "name": "string",
        "rows": [
            {}
        ],
        "serviceName": "string"
    }
],
"sourceVersion": "string",
"topic": "string"
}

```

Delete Policy Counter Id s

Table 2-325 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
policyControlIdName	string	M	Policy Counter Id's Name

Export/Import Policy Counter Id s

Table 2-326 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of policy control id. For more information, see Get, Create, and Update Policy Counter Id s .
key	string		Indicates the ID
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "columns": [
        {
          "dataType": "accessType",
          "isKey": true,
          "name": "string"
        }
      ],
      "description": "string",
      "name": "string",
      "rows": [
        {}
      ],
      "serviceName": "string"
    }
  ],
  "sourceVersion": "string",
  "topic": "string"
}

```

2.64 Diameter Settings

This section describes the available service URIs to retrieve and update diameter settings.

Table 2-327 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Diameter Settings	GET	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/settings	See Table A-1
Update Diameter Settings	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/settings	See Table A-2
Export Diameter Settings	GET	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/settings/export	See Table A-1
Import Diameter Settings	POST	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/settings/import	See Table A-3

Get and Update Operations

This section describes the body parameters for APIs for diameter settings.

Table 2-328 Request and Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
congestionControl	DiamSettingsCongestionControl	O	Specifies the congestion control configurations.
overloadControl	DiamSettingsOverloadControl	O	Specifies the overload control configurations.
timer	DiamSettingsTimer	O	Specifies the timer configurations for Diameter Gateway.
transport	DiamSettingsTransport	O	Specifies the transport protocol configurations for Diameter Gateway.
topologyhiding	DiamSettingTopologyhiding	O	Specifies the topology hiding configurations for Diameter Gateway.
messageTimers	DiamSettingsMessageTimers	O	Specifies the request timer configurations for Diameter applications.
messagePriority	DiameterSettingsMessagePriority	O	Specifies the message priority profile.
advancedSettings	DiamAdvancedSettings	O	Specifies the list of key/value pair.

Table 2-329 DiamSettingsCongestionControl

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
congestionLoadSheddingProfile	string	O	Specifies the load shedding profile name for congestion control.

Table 2-330 DiamSettingsOverloadControl

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
overloadLoadSheddingProfile	string	Optional	Specifies the load shedding profile name for overload control.

Table 2-331 messagePriority

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
messagePriorityProfile	string	Optional	Specifies the message priority profile name for overload control and congestion control.

Table 2-332 DiamSettingsTimer

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
connectionTimeout	Number	M	Defines the connection timeout interval in seconds. The default value is 3 seconds.
reconnectDelay	Number	M	Defines the time frame to delay before attempting to reconnect after a connection failure in seconds. The default value is 3 seconds.
responseTimeout	Number	M	Defines the response timeout interval in milliseconds. The default value is 5000 ms.
watchdogInterval	Number	M	Defines the watchdog interval in seconds. The default value is 6 seconds.

Table 2-333 DiamSettingsTransport

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
protocol	string, Enum: Array[]	O	Specifies the Diameter protocol. The values: [TCP, SCTP].

Table 2-334 DiamSettingsMessageTimers

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
applId	integer	O	Specifies the diameter application ID for which topology hiding feature is to be enabled. Example: 16777236
appResponseTimeoutValue	integer	O	Specifies the application response timeout value in milliseconds. Minimum: 3 Maximum: 2147483647 Example: 5000
cmdCodeResponseTimeoutValueMap	Map(String:String)	O	Specifies Command Code Response Timeout for AAR, STR, RAR and ASR.

Table 2-335 DiamAdvancedSettings

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
key	string	O	Specifies the key name.
value	string	O	Specifies the value of the key.

Sample Request body structure for GET and PUT operations:

```
{
  "timer": {
    "reconnectDelay": "3",
    "responseTimeout": "5000",
    "connectionTimeout": "3",
    "watchdogInterval": "6"
  },
  "transport": {
    "protocol": "TCP"
  },
  "congestionControl": {
    "congestionLoadSheddingProfile": "string",
  },
  "overloadControl": {
    "overloadLoadSheddingProfile": "string",
  },
  "messagePriority": {
    "messagePriorityProfile": "string"
  },
  "topologyhiding": {
    "EnableTopologyHiding": true,

```

```

    "AppsToHide": [
      "Gx"
    ]
  },
  "messageTimers": [
    {
      "appId": 16777236,
      "appResponseTimeoutValue": 5000,
      "cmdCodeResponseTimeoutValueMap": {
        "258": 5000,
        "265": 5000,
        "272": 5000,
        "274": 5000,
        "275": 5000,
        "8388635": 5000,
        "8388636": 5000,
        "8388637": 5000
      }
    }
  ],
  "advancedSettings": [
    {
      "key": "string",
      "value": "string"
    }
  ]
}

```

Export and Import Diameter Settings

The following table describes the request and response parameters for export and import operations:

Table 2-336 Request and Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string	Optional	Specifies the current timestamp.
errors.message	string	Optional	The reason of the failure.
error.name	string	Optional	Name of the components that the user is unable to export or import successfully.
exportData	array	Mandatory	Exported list of diameter settings. For more information, see Get and Update Operations .
sourceVersion	string	Optional	System version of product from which data is exported.

Table 2-336 (Cont.) Request and Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
topic	string	Mandatory	Topic of each managed object.

Sample Request Body structure for Import/Export operations:

```
{
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": {
    "timer": {
      "reconnectDelay": "3",
      "responseTimeout": "5000",
      "connectionTimeout": "3",
      "watchdogInterval": "6"
    },
    "transport": {
      "protocol": "TCP"
    },
    "congestionControl": {
      "congestionLoadSheddingProfile": "string",
    },
    "overloadControl": {
      "overloadLoadSheddingProfile": "string",
    },
    "messagePriority": {
      "messagePriorityProfile": "string"
    },
    "topologyhiding": {
      "EnableTopologyHiding": true,
      "AppsToHide": [
        "Gx"
      ]
    },
    "messageTimers": [
      {
        "appId": 16777236,
        "appResponseTimeoutValue": 5000,
        "cmdCodeResponseTimeoutValueMap": {
          "258": 5000,
          "265": 5000,
          "272": 5000,
          "274": 5000,
          "275": 5000,
          "8388635": 5000,
          "8388636": 5000,
          "8388637": 5000
        }
      }
    ]
  }
}
```



```

    ],
    "advancedSettings": [
      {
        "key": "string",
        "value": "string"
      }
    ],
    "errors": [
      {
        "name": "string",
        "message": "string"
      }
    ]
  }
}

```

2.65 Diameter Routing Table

Table 2-337 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export Diameter Routing Table	GET	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/routingTable/export	See Table A-1
Import Diameter Routing Table	POST	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/routingTable/import	See Table A-3
Get Diameter Routing Table	GET	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/routingTable	See Table A-1
Update Diameter Routing Table	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/routingTable	See Table A-2

Get and Update Operations

Table 2-338 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
defaultRoute			
routeTable			

Table 2-339 defaultRoute

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
serverID	string	O	

Table 2-340 routeTable

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
appIDs			
hosts	string		
name	string	O	
priority	string	O	
realms	string		
type	Realm		

Sample Request body structure for PUT operations:

```

"defaultRoute": {
  "serverId": "string"
},
"routeTable": [
  {
    "appIds": [
      "All"
    ],
    "hosts": [
      "string"
    ],
    "name": "string",
    "priority": "string",
    "realms": [
      "string"
    ],
    "serverIds": [
      "string"
    ],
    "type": "Host"
  }
]

```

Sample Response body structure for GET and PUT operations:

```

{
  "defaultRoute": {
    "serverId": "string"
  },
  "routeTable": [
    {
      "appIds": [
        "All"
      ],
      "hosts": [
        "string"
      ],

```

```

    "name": "string",
    "priority": "string",
    "realms": [
      "string"
    ],
    "serverIds": [
      "string"
    ],
    "type": "Host"
  }
]
}

```

Export/Import Diameter Routing Table

Table 2-341 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of diameter routing table. For more information, see Get and Update Operations .
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "exportData": {
    "defaultRoute": {
      "serverId": "string"
    },
    "routeTable": [
      {
        "appIds": [
          "All"
        ],
        "hosts": [
          "string"
        ],
        "name": "string",
        "priority": "string",
        "realms": [
          "string"
        ],
        "serverIds": [
          "string"
        ]
      }
    ]
  }
}

```

```

    ],
    "type": "Host"
  }
]
},
"sourceVersion": "string",
"topic": "string"
}

```

2.66 Data Sources

Table 2-342 Supported REST APIs

Create Data Sources	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Data Sources	GET	{apiRoot}/oc-cnpolicy-configuration/v1/datasources/{datasourceName}	See Table A-1
Update Data Sources	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/datasources/{datasourceName}	See Table A-2
Delete Data Source	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/datasources/{datasourceName}	See Table A-4
Create Data Sources	POST	{apiRoot}/oc-cnpolicy-configuration/v1/datasources	See Table A-3
Import Data Sources	POST	{apiRoot}/oc-cnpolicy-configuration/v1/datasources/import	See Table A-3
Export Data Sources	GET	{apiRoot}/oc-cnpolicy-configuration/v1/datasources/export	See Table A-1

Get, Create, and Update Data Sources

Table 2-343 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
name	string	M	Data Source Name
description	string	O	Details about the data source.
type	string	O	Type of data source. Possible values are: Enum:[LDAP, Sy]
admin_state	boolean	O	when value is set to true, datasource (Sy) interaction takes place. Default Value: true

Table 2-343 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
realm	string	O	Defines the realm of the primary and optional secondary servers to connect (required).
enable_subscription	boolean	O	Indicates whether MPE needs to subscribe to notifications from SH. Default Value: true
use_notif_eff	boolean	O	Specifies the User Data Request / Answer will allow multiple data references, Service Indications, and Identity Sets. The User Data Answer will be able to combine DataReference items resulting in the User Data Answer contents including a single XML document with the separate XML sections populated.
ocs_from_peer_nodes	boolean	O	Selecting diameter peer nodes as primary, secondary, tertiary, and quaternary servers for Sy data source type.
refPeerNodePrimary	string	O	Primary diameter peer node server.
refPeerNodeSecondary	string	O	Secondary diameter peer node server.
refPeerNodeTertiary	string	O	Tertiary diameter peer node server.
refPeerNodeQuaternary	string	O	Quaternary diameter peer node server.
timer_profile	string	-	-
read_connection	string	O	Number of read connections established with data source. Possible values are: Enum:[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
primary_server	PrimaryServer	M	Primary data source server. The LDAP connection will be established with primary data source.
secondary_server	CommonServer	O	Secondary data source server. If Primary server is not reachable, then LDAP connection will be established with secondary (if available).
tertiary_server	CommonServer	O	Tertiary data source server. If primary and secondary are not reachable, then LDAP connection will be established with tertiary (if available) .

Table 2-343 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
quaternary_server	CommonServer	O	Quaternary data source server. If primary , secondary and tertiary are not reachable then LDAP connection will be established with tertiary (if available) .
search_criteria	SearchCriteria	O	The criteria on which the data source search will be performed.
search_filter	SearchFilter	O	The search filter during the data source search.
ldap_retry	LdapRetry	O	The retry configuration for LDAP requests.

Table 2-344 PrimaryServer

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
identity	string	M	Primary server identity.
addr	string	M	Load balancer IP of Diameter gateway.
port	string	M	Primary server Port. Possible values are: Enter a range in [0-65535] number.

Table 2-345 CommonServer

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
identity	string	O	Common server identity.
addr	string	O	Load balancer IP of Diameter gateway.
port	string	M	Common server Port. Possible values are: Enter a range in [0-65535] number.

Table 2-346 SearchCriteria

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
rootDN	string	O	-
baseDN	string	O	-

Table 2-346 (Cont.) SearchCriteria

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
type	string	O	Possible values are: Enum:[NAI, MSISDN, IMSI]

Table 2-347 SearchFilter

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
id_filters_type	string	O	Possible values are: Enum:[NAI, MSISDN, IMSI]

Table 2-348 LdapRetry

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
retry_enabled	Boolean	O	Possible values are: True, False.
max_retry_count	Integer	O	Possible values are: 1, 2.
retry_on_error_timeout	List of Integers	O	Possible values are: Positive Integers

Sample Request body structure for GET, POST, and PUT operations:

```
{
  "name": "string",
  "description": "string",
  "type": "LDAP",
  "admin_state": true,
  "realm": "string",
  "enable_subscription": true,
  "use_notif_eff": true,
  "ocs_from_peer_nodes": true,
  "refPeerNodePrimary": "string",
  "refPeerNodeSecondary": "string",
  "refPeerNodeTertiary": "string",
  "refPeerNodeQuaternary": "string",
  "sh_profile": "v1",
  "timer_profile": "string",
  "read_connection": "1",
  "primary_server": {
    "identity": "string",
    "addr": "string",
    "port": "string"
  }
}
```

```

    },
    "secondary_server": {
      "identity": "string",
      "addr": "string",
      "port": "string"
    },
    "tertiary_server": {
      "identity": "string",
      "addr": "string",
      "port": "string"
    },
    "quaternary_server": {
      "identity": "string",
      "addr": "string",
      "port": "string"
    },
    "search_criteria": {
      "rootDN": "string",
      "baseDN": "string",
      "type": "NAI"
    },
    "search_filter": {
      "id_filters_type": "NAI"
    }
  }
  "ldap_retry": {
    "retry_enabled": true,
    "max_retry_count": 0,
    "retry_on_error_timeout": [0]
  }
}

```

Delete Data Sources

Table 2-349 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
Data Source Name	string	M	Data Source Name

Export/Import Data Sources

Table 2-350 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string	-	Current timestamp
exportData	array	-	Exported list of data sources. For more information, see Get, Create, and Update Data Sources .
key	string	-	Indicates the ID

Table 2-350 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
sourceVersion	string	-	System version of the product from which data is exported
systemVersion	string	-	
topic	string	-	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "systemVersion": "string",
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": [
    {
      "name": "string",
      "description": "string",
      "type": "LDAP",
      "admin_state": true,
      "realm": "string",
      "enable_subscription": true,
      "use_notif_eff": true,
      "ocs_from_peer_nodes": true,
      "refPeerNodePrimary": "string",
      "refPeerNodeSecondary": "string",
      "refPeerNodeTertiary": "string",
      "refPeerNodeQuaternary": "string",
      "sh_profile": "v1",
      "timer_profile": "string",
      "read_connection": "1",
      "primary_server": {
        "identity": "string",
        "addr": "string",
        "port": "string"
      },
      "secondary_server": {
        "identity": "string",
        "addr": "string",
        "port": "string"
      },
      "tertiary_server": {
        "identity": "string",
        "addr": "string",
        "port": "string"
      },
      "quaternary_server": {
        "identity": "string",

```

```

        "addr": "string",
        "port": "string"
    },
    "search_criteria": {
        "rootDN": "string",
        "baseDN": "string",
        "type": "NAI"
    },
    "search_filter": {
        "id_filters_type": "NAI"
    }
}
],
"errors": [
    {
        "name": "string",
        "message": "string"
    }
]
}

```

2.67 Bulk Import Export Controller

Table 2-351 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Bulk Import	POST	{apiRoot}/oc-cnpolicy-configuration/v1/administration/import	200: OK 201: Created 401: Unauthorized 403: Forbidden 404: Not Found
Import Status	GET	{apiRoot}/oc-cnpolicy-configuration/v1/administration/import/{importResourceId}/status	200: OK 401: Unauthorized 403: Forbidden 404: Not Found
Import Report	GET	{apiRoot}/oc-cnpolicy-configuration/v1/administration/import/{importResourceId}/report	200: OK 401: Unauthorized 403: Forbidden 404: Not Found
Import Resource Ids	GET	{apiRoot}/oc-cnpolicy-configuration/v1/administration/import	200: OK 401: Unauthorized 403: Forbidden 404: Not Found
Bulk Export	POST	{apiRoot}/oc-cnpolicy-configuration/v1/administration/export	200: OK 201: Created 401: Unauthorized 403: Forbidden 404: Not Found

Table 2-351 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export Status for Policy	GET	{apiRoot}/oc-cnpolicy-configuration/v1/administration/export/{exportResourceId}/status	200: OK 401: Unauthorized 403: Forbidden 404: Not Found
Export Report for Policy	GET	{apiRoot}/oc-cnpolicy-configuration/v1/administration/export/{exportResourceId}/report	200: OK 401: Unauthorized 403: Forbidden 404: Not Found
Download Exported File	GET	{apiRoot}/oc-cnpolicy-configuration/v1/administration/export/{exportResourceId}/download	200: OK 401: Unauthorized 403: Forbidden 404: Not Found
Export Resource Ids	GET	{apiRoot}/oc-cnpolicy-configuration/v1/administration/export	200: OK 401: Unauthorized 403: Forbidden 404: Not Found

Note

The **Bulk Import/Export** APIs return a ResourceId in response to the POST request. The ResourceId is the background task id for the POST operations. This id can be used to track the import or export requests, and download the export data. For example, the POST API for bulk export operation takes MO name as input. The response of this API contains the resource id of the file created for export. You can use this resource Id to download the export data at any point of time.

Below are the status displayed by Bulk import/export:

- **IN_PROGRESS**: The import/export is running.
- **DONE**: The import/export is finished. Following are the possible status if the import/export is in DONE status:
 - **SUCCESS** : The import/export is successful
 - **FAILED** : The import/export is failed
 - **PARTIAL_SUCCESS** : The import/export is partially successful

2.68 Consistent Logging Level

Table 2-352 Supported REST APIs - Consistent Logging Level

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get All (Export) Consistent Logging Level	GET	/oc-cnpolicy-configuration/v1/conLoggingLevelConfig/export/{serviceType}	See Table A-1
Import Consistent Logging Level	POST	/oc-cnpolicy-configuration/v1/conLoggingLevelConfig/import/{serviceType}	See Table A-3
Get Consistent Logging Level	GET	/oc-cnpolicy-configuration/v1/conLoggingLevelConfig/{serviceType}	See Table A-1
Update Consistent Logging Level	PUT	/oc-cnpolicy-configuration/v1/conLoggingLevelConfig/{serviceType}	See Table A-2

Get and Update Consistent Logging Level

Table 2-353 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
appLogLevel	String	M	Defines the application's root log level.
packageLogLevel: logLevelForPackage	String	O	Defines the log level for the package.
packageLogLevel:package packageName	String	O	Defines the package name.
serviceType	String	M	Specifies the following supported service types: • PCRF Core • PCF Session Management • PCF Access and Mobility • PCF UE Policy • PCF User Connector • NRF Discovery Client • NRF Management Client • Policy DS

Sample Request body for Consistent Logging Level PUT operation:

```
{
  "appLogLevel": "DEBUG",
  "packageLogLevel": [
```

```

    {
      "logLevelForPackage": "DEBUG",
      "packageName": "string"
    }
  ]
}

```

Sample Response body structure for Consistent Logging Level GET and PUT operation:

```

{
  "appLogLevel": "DEBUG",
  "packageLogLevel": [
    {
      "logLevelForPackage": "DEBUG",
      "packageName": "string"
    }
  ]
}

```

Import and Export Consistent Logging Level

Table 2-354 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of Consistent Logging Level. For more information, see Get and Update Consistent Logging Level .
key	string		Indicates the ID
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Consistent Logging Level Import and Export operations:

```

{
  "date": "string",
  "exportData": {
    "appLogLevel": "DEBUG",
    "packageLogLevel": [
      {
        "logLevelForPackage": "DEBUG",
        "packageName": "string"
      }
    ]
  },
}

```

```

    "key": "string",
    "sourceVersion": "string",
    "topic": "string"
  }

```

2.69 Load Shedding Profile

This section describes the available service URIs to create and configure load shedding profiles for CNC Policy.

Table 2-355 Supported REST APIs - Load Shedding Profile

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Load Shedding Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/loadsheddingprofiles	See Table A-3
Get Load Shedding Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/loadsheddingprofiles/{loadsheddingName}	See Table A-1
Update Load Shedding Profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/loadsheddingprofiles/{loadsheddingName}	See Table A-2
Export Load Shedding Profiles	GET	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/loadsheddingprofiles/export	See Table A-1
Import Load Shedding Profiles	POST	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/loadsheddingprofiles/import	See Table A-3
Delete Load Shedding Profile	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/loadsheddingprofiles/{loadsheddingName}	See Table A-4

Get, Create, and Update Load Shedding Profile

The following table describes the request and response body parameters used in APIs for load shedding profiles.

Table 2-356 Request and Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
loadSheddingRules	CongestionLoadSheddingRules	Optional	Specifies the list of configured Congestion Load Shedding Rules.
name	string	Mandatory	Specifies the unique name of the load shedding profile.
overloadLoadSheddingRules	OverloadLoadSheddingRules	Optional	Specifies the list of configured Overload Load Shedding Rules.
type	Enum The supported values are: - Overload Control - congestion	Optional	Specifies the type of load shedding profile. The load shedding profile can be one of the following types: - Congestion Control - Overload Control

Table 2-357 CongestionLoadSheddingRules

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
ansWithResultCode	Enum The supported values are: - DIAMETER_TO_O_BUSY - DIAMETER_UNABLE_TO_COMPLY - DIAMETER_UNABLE_TO_DELIVER - EXPERIMENTAL_RESULT_CODE	Optional	Specifies the result code, returned in the answer response, when request message is rejected as part of congestion control.
discardPriority	integer	Mandatory	Specifies the discard priority for the congestion load shedding rule. The discard priority value can be a number from 0 to 15. Any request message with equal or lower priority is rejected.
resultCode	integer	Conditional	Note: Specify a value for this parameter when you choose EXPERIMENTAL_RESULT_CODE value for the ansWithResultCode parameter. Specifies the custom result code, which is returned in the answer response when service request is rejected due to congestion control.

Table 2-357 (Cont.) CongestionLoadSheddingRules

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
state	Enum The supported values are: • CONGESTED • DANGER_OF_CONGESTION	Optional	Specifies the type of state for which you are defining the rule.
vendorId	integer	Conditional	Note: Specify a value for this parameter when you choose EXPERIMENTAL_RESULT_CODE value for the ansWithResultCode parameter. Specifies the vendor ID, which is returned in the answer response when service request is rejected due to congestion control.

Table 2-358 OverloadLoadSheddingRules

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
ansWithResultCode	Enum The supported values are: • DIAMETER_TOO_BUSY • DIAMETER_UNABLE_TO_COMPLY • DIAMETER_UNABLE_TO_DELIVER • EXPERIMENTAL_RESULT_CODE	Optional	Specifies the result code, returned in the answer response, when request message is rejected as part of overload control.
discardPriority	integer	Mandatory	Specifies the discard priority for the overload shedding rule. The discard priority value can be a number from 0 to 15. Any request message with equal or lower priority is rejected.
level	Enum The supported values are: • L1 • L2 • L3 • L4	Mandatory	Specifies the name of the level. The name specified in this parameter must match the level name in Ingress Gateway's ocdiscardpolicies.

Table 2-358 (Cont.) OverloadLoadSheddingRules

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
resultCode	integer	Conditional	Note: Specify a value for this parameter when you choose EXPERIMENTAL_RESULT_CODE value for the ansWithResultCode parameter. Specifies the custom result code, which is returned in the answer response when service request is rejected due to overload control. .
vendorId	integer	Conditional	Note: Specify a value for this parameter when you choose EXPERIMENTAL_RESULT_CODE value for the ansWithResultCode parameter. Specifies the vendor ID, which is returned in the answer response when service request is rejected due to overload control. .

Sample Request body for Load Shedding Profile (PUT and POST operations):

```
{
  "loadSheddingRules": [
    {
      "ansWithResultCode": "DIAMETER_TOO_BUSY",
      "discardPriority": 0,
      "resultCode": 0,
      "state": "CONGESTED",
      "vendorId": 0
    }
  ],
  "name": "string",
  "overloadLoadSheddingRules": [
    {
      "ansWithResultCode": "DIAMETER_TOO_BUSY",
      "discardPriority": 0,
      "level": "L1",
      "resultCode": 0,
      "vendorId": 0
    }
  ],
  "type": "DIAMETER_TOO_BUSY"
}
```

Sample Response body for Load Shedding Profile (PUT, GET, and POST operation):

```

{
  "loadSheddingRules": [
    {
      "ansWithResultCode": "DIAMETER_TOO_BUSY",
      "discardPriority": 0,
      "resultCode": 0,
      "state": "CONGESTED",
      "vendorId": 0
    }
  ],
  "name": "string",
  "overloadLoadSheddingRules": [
    {
      "ansWithResultCode": "DIAMETER_TOO_BUSY",
      "discardPriority": 0,
      "level": "L1",
      "resultCode": 0,
      "vendorId": 0
    }
  ],
  "type": "DIAMETER_TOO_BUSY"
}

```

Import and Export Load Shedding Profile**Table 2-359 Request and Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string	Optional	Specifies the current timestamp.
errors.message	string	Optional	The reason of the failure.
error.name	string	Optional	Name of the components that the user is unable to export or import successfully.
exportData	array	Mandatory	Exported list of Load Shedding Profiles. For more information, see Get, Create, and Update Load Shedding Profile .
key	string	Optional	Indicates the ID of the load shedding profile.
sourceVersion	string	Optional	System version of product from which data is exported.
topic	string	Mandatory	Topic of each managed object.

Sample Request Body structure for Load Shedding Profile Import and Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "loadSheddingRules": [
        {
          "ansWithResultCode": "DIAMETER_T00_BUSY",
          "discardPriority": 0,
          "resultCode": 0,
          "state": "CONGESTED",
          "vendorId": 0
        }
      ],
      "name": "string",
      "overloadLoadSheddingRules": [
        {
          "ansWithResultCode": "DIAMETER_T00_BUSY",
          "discardPriority": 0,
          "level": "L1",
          "resultCode": 0,
          "vendorId": 0
        }
      ],
      "type": "DIAMETER_T00_BUSY"
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}

```

2.70 Message Priority Profile

Table 2-360 Supported REST APIs - Message Priority Profile

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Message Priority Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/messagepriorityprofiles	See Table A-3

Table 2-360 (Cont.) Supported REST APIs - Message Priority Profile

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Message Priority Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/messagepriorityprofiles / {messagepriorityName }	See Table A-1
Update Message Priority Profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/messagepriorityprofiles / {messagepriorityName }	See Table A-2
Export Message Priority Profiles	GET	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/messagepriorityprofiles /export	See Table A-1
Import Message Priority Profiles	POST	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/messagepriorityprofiles /import	See Table A-3
Delete Message Priority Profile	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/messagepriorityprofiles / {messagepriorityName }	See Table A-4

Get, Create, and Update Message Priority Profile**Table 2-361 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	Mandatory	Unique name of the message priority profile.
priorityRules []	array	Optional	Specifies configured message priority rules.
priorityRules [].conditions	conditions	Optional	Specifies the conditions for message priority rule.
priorityRules [].conditions.application	string	Mandatory	Specifies the type of application.
priorityRules [].conditions.message	string	Mandatory	Specifies the type of message for the selected application.

Table 2-361 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
priorityRules [].conditions.preDefinedAVPConditions	array	Optional	Specifies the pre-defined AVP conditions.
enableDRMPPriority	boolean	Optional	When this switch is enabled, the priority for the message rule is assigned from DRMP AVP.
enableOCMessagePriority	boolean	Optional	When this switch is enabled, the priority for the message rule is assigned from OC-Message-Priority header attribute. Note: In case both Use DRMP Priority and Use OC-Message-Priority is enabled, then OC-Message-Priority value is considered. In case both are disabled then the default message priority is considered.
messagePriority	integer	Mandatory	Specifies the priority assigned to the message. It can be a number from 0 to 15.
ruleName	string	Mandatory	Specifies the unique name of the message priority rule.
rulePriority	integer	Mandatory	Specifies the priority assigned to the message priority rule.

Sample Request body for Message Priority Profile PUT operation:

```
{
  "name": "string",
  "priorityRules": [
    {
      "ruleName": "string",
      "messagePriority": 8,
      "rulePriority": 3,
      "enableDRMPPriority": true,
      "enableOCMessagePriority": true,
      "conditions": {
        "application": "Gx",
        "message": "CCR",
        "preDefinedAVPConditions": [
          {
            "conditionName": "CC-Request-Type",
            "conditionOperator": "EQUALS",
            "conditionCSIDValue": [
              "string"
            ],
            "conditionCCRTValue": "UPDATE_REQUEST",
            "conditionRxRTValue": [
              "INITIAL_REQUEST"
            ]
          }
        ]
      }
    }
  ]
}
```

```
[
    {
        "conditionServiceURNIDValue": [
            "string"
        ],
        "conditionMPSIdValue": [
            "string"
        ],
        "conditionMCPTTIdValue": [
            "string"
        ],
        "conditionMCVideoIdValue": [
            "string"
        ],
        "conditionReservPriorityValue": [
            "string"
        ],
        "conditionSNRTypeValue": [
            "ABORT_SESSION_REQUEST"
        ],
        "conditionDRMPValue": [
            "string"
        ],
        "conditionOcmMsgPriorityValue": [
            "string"
        ]
    }
]
```

Sample Response body structure for Message Priority Profile GET and PUT operation:

```
{
  "name": "string",
  "priorityRules": [
    {
      "ruleName": "string",
      "messagePriority": 8,
      "rulePriority": 3,
      "enableDRMPPriority": true,
      "enableOCMessagePriority": true,
      "conditions": {
        "application": "Gx",
        "message": "CCR",
        "preDefinedAVPConditions": [
          {
            "conditionName": "CC-Request-Type",
            "conditionOperator": "EQUALS",
            "conditionCSIDValue": [
              "string"
            ],
            "conditionCCRTValue": "UPDATE_REQUEST",
            "conditionRxRTValue": [
```

```
        "INITIAL_REQUEST"  
    ],  
    "conditionServiceURNIDValue": [  
        "string"  
    ],  
    "conditionMPSIdValue": [  
        "string"  
    ],  
    "conditionMCPTTIdValue": [  
        "string"  
    ],  
    "conditionMCVideoIdValue": [  
        "string"  
    ],  
    "conditionReservPriorityValue": [  
        "string"  
    ],  
    "conditionSNRTypeValue": [  
        "ABORT_SESSION_REQUEST"  
    ],  
    "conditionDRMPValue": [  
        "string"  
    ],  
    "conditionOcmMsgPriorityValue": [  
        "string"  
    ]  
}  
]  
}  
}  
]  
}
```

Import and Export Message Priority Profile

Table 2-362 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors.message	string		The reason of the failure.
errors.name	string		Name of the components that failed to export or import.
exportData	array		Exported list of Message Priority Profile. For more information, see Get, Create, and Update Message Priority Profile .
key	string		Indicates the ID
sourceVersion	string		System version of product from which data is exported

Table 2-362 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
topic	string		Topic of each managed object

Sample Request Body structure for Message Priority Profile Import and Export operations:

```
{
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": [
    {
      "name": "string",
      "priorityRules": [
        {
          "ruleName": "string",
          "messagePriority": 8,
          "rulePriority": 3,
          "enableDRMPPriority": true,
          "enableOCMessagePriority": true,
          "conditions": {
            "application": "Gx",
            "message": "CCR",
            "preDefinedAVPConditions": [
              {
                "conditionName": "CC-Request-Type",
                "conditionOperator": "EQUALS",
                "conditionCSIDValue": [
                  "string"
                ],
                "conditionCCRTValue": "UPDATE_REQUEST",
                "conditionRxRTValue": [
                  "INITIAL_REQUEST"
                ],
                "conditionServiceURNIDValue": [
                  "string"
                ],
                "conditionMPSIdValue": [
                  "string"
                ],
                "conditionMCPTTIdValue": [
                  "string"
                ],
                "conditionMCVideoIdValue": [
                  "string"
                ],
                "conditionReservPriorityValue": [
                  "string"
                ]
              ]
            ]
          }
        }
      ]
    }
  ]
}
```



```

        "conditionSNRTypeValue": [
            "ABORT_SESSION_REQUEST"
        ],
        "conditionDRMPValue": [
            "string"
        ],
        "conditionOcMsgPriorityValue": [
            "string"
        ]
    }
}
]
}
],
"errors": [
    {
        "name": "string",
        "message": "string"
    }
]
}

```

2.71 Congestion Threshold

Table 2-363 Supported REST APIs - Congestion Threshold

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Congestion Threshold	GET	{apiRoot}/oc-cnpolicy-configuration/v1/threshold/{serviceType} {serviceType} available value is "diam-gateway"	See Table A-1
Update Congestion Threshold	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/threshold/{serviceType} {serviceType} available value: "diam-gateway"	See Table A-2
Export Congestion Thresholds	GET	{apiRoot}/oc-cnpolicy-configuration/v1/threshold/export/{serviceType} {serviceType} available value: "diam-gateway"	See Table A-1

Table 2-363 (Cont.) Supported REST APIs - Congestion Threshold

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Import Congestion Thresholds	POST	{apiRoot}/oc-cnpolicy-configuration/v1/threshold/import/{serviceType} {serviceType} available value: "diam-gateway"	See Table A-3

Get and Update Congestion Threshold**Table 2-364 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
stateCalculationInterval	integer	Mandatory	Specifies the interval at which congestion state is calculated.
stateChangeSampleCount	integer	Mandatory	Specifies the continuous sample counts for which calculated state remains the same.
thresholds	Threshold	Mandatory	An array to define threshold values for each resource for a given state,

Table 2-365 Request/Response Body Parameters for Thresholds

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
state	string	Optional	Specifies the congestion state. The state can be in either DANGER_OF_CONGESTION and CONGESTED.
resourceUsageLimit	ResourceUsageLimit	Mandatory	Specifies the resource usage limit for a defined state.

Table 2-366 Request/Response Body Parameters for ResourceUsageLimit

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
cpu	integer	Mandatory	Specifies the threshold value for CPU message. For DANGER_OF_CONGESTION (DOC) state, CPU default value: 60 For CONGESTED state, CPU default value: 80

Table 2-366 (Cont.) Request/Response Body Parameters for ResourceUsageLimit

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
memory	integer	Mandatory	Specifies the threshold value for memory message. Default Value: 60
queue	integer	Mandatory	Specifies the threshold value for number of messages in the queue For DANGER_OF_CONGESTION (DOC) state, Queue count default value: 20 For CONGESTED state, Queue count default value: 50

Sample Request body for Congestion Threshold GET and PUT operation:

```
{
  "stateCalculationInterval": 100,
  "stateChangeSampleCount": 10,
  "thresholds": [
    {
      "state": "CONGESTED",
      "resourceUsageLimit": {
        "cpu": 80,
        "memory": 60,
        "queue": 50
      }
    },
    {
      "state": "DANGER_OF_CONGESTION",
      "resourceUsageLimit": {
        "cpu": 60,
        "memory": 60,
        "queue": 20
      }
    }
  ]
}
```

Import and Export Congestion Threshold

Table 2-367 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp

Table 2-367 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
errors.message			The reason of the failure.
errors.name			Name of the components that failed to export or import.
exportData	array		Exported list of Congestion Threshold. For more information, see Get and Update Congestion Threshold .
key	string		Indicates the ID
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Congestion Threshold Import and Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": {
    "stateCalculationInterval": 100,
    "stateChangeSampleCount": 10,
    "thresholds": [
      {
        "state": "CONGESTED",
        "resourceUsageLimit": {
          "cpu": 80,
          "memory": 80,
          "queue": 50
        }
      },
      {
        "state": "DANGER_OF_CONGESTION",
        "resourceUsageLimit": {
          "cpu": 60,
          "memory": 60,
          "queue": 30
        }
      }
    ]
  }
}
```

```

    },
    "sourceVersion": "string",
    "topic": "string"
  }

```

2.72 Peer Node Sets

(Required) <Enter introductory text here, including the definition and purpose of the concept.>

Table 2-368 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Peer Node Set	POST	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/peernodesets	See Table A-3
Get Peer Node Set	GET	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/peernodesets/{peerNodeSetName}	See Table A-1
Update Peer Node Set	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/peernodesets/{peerNodeSetName}	See Table A-2
Delete Peer Node Set	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/peernodesets/{peerNodeSetName}	See Table A-4

Get, Create, and Update Peer Nodes

Table 2-369 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
description	String	O	Description of the Peer Node Set
name	String	O	Unique Name of the Peer Node Set.
realm	String	O	The realm name, that is, FQDNs to all of that computers that transact diameter traffic.
Primary Server	String	O	The primary server for a TDF client.
Secondary Server	String	O	The Secondary server for a TDF client.
Tertiary Server	String	O	The Tertiary server for a TDF client.
Quaternary Server	String	O	The Quaternary server for a TDF client.

Sample Request body structure for POST and PUT operations:

```
{
  "description": "string",
  "name": "string",
  "realm": "string",
  "refPeerNodePrimary": "string",
  "refPeerNodeQuaternary": "string",
  "refPeerNodeSecondary": "string",
  "refPeerNodeTertiary": "string",
  "type": "tdf"
}
```

Sample Response body structure for GET, POST, and PUT operations:

```
{
  "description": "string",
  "name": "string",
  "realm": "string",
  "refPeerNodePrimary": "string",
  "refPeerNodeQuaternary": "string",
  "refPeerNodeSecondary": "string",
  "refPeerNodeTertiary": "string",
  "type": "tdf"
}
```

2.73 Peer Nodes

Table 2-370 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Peer Node	POST	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/peernodes	See Table A-3
Get All (Export) Peer Nodes	GET	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/peernodes/export	See Table A-1
Import Peer Nodes	POST	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/peernodes/import	See Table A-3
Get Peer Node	GET	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/peernodes/{peernodeName}	See Table A-1
Update Peer Node	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/peernodes/{peernodeName}	See Table A-2

Table 2-370 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Delete Peer Node	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/peernodes/{peernodeName}	See Table A-4

Get, Create, and Update Peer Nodes

Table 2-371 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
diamName	String	O	Unique Name of the Peer Node
dtype	String	O	Defines which type of Diameter Service it should take up. The value can be Application function (af) or diameter routing agent(dra).
host	String	O	The host name. Enter a FQDN, ipv4 or ipv6 address available for establishing diameter transport connections to the peer node.
identity	String	O	An identity to define a node in a realm.
initiateConnection	boolean	O	Set it to True to initiate a connection for this peer node. Default Value: FALSE
port	Number	O	The port number. Enter a number from 0 to 65535.
realm	String	O	The realm name, that is, FQDNs to all of that computers that transact diameter traffic.
reconnectLimit	Number		

Sample Request body structure for POST and PUT operations:

```
{
  "diamName": "string",
  "dtype": "af",
  "host": "string",
  "identity": "string",
  "initiateConnection": true,
  "port": "3868",
  "realm": "string",
  "reconnectLimit": "3"
}
```

Sample Response body structure for GET, POST, and PUT operations:

```
{
  "diamName": "string",
  "dtype": "af",
  "host": "string",
  "identity": "string",
  "initiateConnection": true,
  "port": "3868",
  "realm": "string",
  "reconnectLimit": "3"
}
```

Delete Peer Nodes**DELETE - delete peer node****Table 2-372 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
Peer Node Name	string	M	Peer Node Name

Export/Import Peer Nodes**Table 2-373 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of peer nodes. For more information, see Get, Create, and Update Peer Nodes .
key	string		Indicates the ID
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
[
  {
    "date": "string",
    "errors": [
      {
        "message": "string",
        "name": "string"
      }
    ]
  }
]
```



```

    ],
    "exportData": [
      {
        "diamName": "string",
        "dtype": "af",
        "host": "string",
        "identity": "string",
        "initiateConnection": true,
        "port": "3868",
        "realm": "string",
        "reconnectLimit": "3"
      }
    ],
    "key": "string",
    "sourceVersion": "string",
    "topic": "string"
  }
]

```

2.74 Access and Mobility Service

Table 2-374 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Access and Mobility Service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfam	See Table A-1
Update Access and Mobility Service	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfam	See Table A-2
Export Access and Mobility Management Service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfam/export	See Table A-1
Import Access and Mobility Service	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfam/import	See Table A-3

Get and Update Access and Mobility Service

Table 2-375 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)aints	Description
app	AppConfiguration	O	
system	AMServiceSystemC onfiguration	O	

Table 2-376 AppConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
defaultRfsp	string	O	RFSP (Rat Frequency Selection Priority)
defaultServAreaResCfgl d	string	O	SAR (Service Area Restriction)
defaultTriggers	ENUM	O	

Table 2-377 AMServiceSystemConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
amfNotificationRetryProfile	string	O	Specifies the retry profile configuration for Access and Mobility service.
amNfCommProfile	string	O	Specifies the NF communication profile used by AMF.
enableHttp2Client	boolean	O	Enables http2 client. Default Value: TRUE
isSubscribe	boolean	O	Indicates whether service is subscribed. Default Value: TRUE
isValidateUser	boolean	O	Determines if user validate is enabled. HTTP 400 with cause USER_UNKNOWN returns, if this is enabled and user not found in UDR. Default Value: FALSE
logList	AMServiceSystemConfigurationLogList	O	
rootLogLevel	string, ENUM	M	Indicates the log level of PCF Session Management (SM) service. Default Value: WARN
usePolicyService	boolean	O	If selected, uses the policy service. Component tracing is used to evaluate system process latency in detail level. Default Value: TRUE
useUserPolicy	boolean	O	If selected uses the user service. Default Value: TRUE

Table 2-377 (Cont.) AMServiceSystemConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enableLimitingSessionByPerUser	boolean	O	Specifies whether to enable the Limiting the Number of Sessions functionality. Default value: false
maxSessionLimitUser	integer	C	Enables to configure the maximum number of sessions to be limited by the user if Enable Max Session Limit flag is enabled. The value of this parameter ranges between 1 and 2. Default value: 1

Table 2-378 AMServiceSystemConfigurationLogList

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
level	ENUM	O	
name	string	M	

Table 2-379 UserConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
validateUser		O	Determines if user validate is enabled. HTTP 400 with cause USER_UNKNOWN returns, if this is enabled and user not found in UDR. Default Value: FALSE

Table 2-379 (Cont.) UserConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
queryUserOnCreate	boolean	O	Determines if user query from UDR is enabled. When this option is enabled, PDS queries the UDR about the subscriber contained in the UE Association create request by sending a GET request for "ue-policy-set" resource on the nudr-dr service. Default Value: true
subscribeToNotify	boolean	O	When Subscribe to Notify is enabled, Policy subscribes with the UDR to get notified on changes in subscriber profile. Default Value: true
queryUserOnUpdate	boolean	O	Determines if user query from UDR on update is enabled. When this option is enabled, PDS queries the UDR about the subscriber present in the UE Association update request by sending a GET request for "ue-policy-set" resource on the nudr-dr service. Default Value: false
queryUserOnTerminate	boolean	O	Determines if user query from UDR on delete is enabled. When this option is enabled, PCF queries the UDR about the subscriber present in the UE Association delete request by sending a GET request for "ue-policy-set" resource on the nudr-dr service. Default Value: false

Sample Request body structure for POST and PUT operations:

```
{
  "system": {
```

```

        "enableLimitingSessionByPerUser": true,
        "maxSessionLimitUser": 1
    },
    "user": {
        "validateUser": false,
        "queryUserOnCreate": true,
        "subscribeToNotify": true,
        "queryUserOnUpdate": false,
        "queryUserOnTerminate": false
    },
    "policy": {
        "evaluate": true
    },
    "rules": {
        "defaultServAreaResCfgId": "",
        "defaultTriggers": []
    },
    "audit": {
        "enable": true,
        "queryAMF": false,
        "notificationRate": 50,
        "ttl": 1440,
        "maxTtl": 2880,
        "frequency": 10
    }
}

```

Sample Response body structure for GET, POST, and PUT operations:

```

{
  "audit": {
    "enable": true,
    "frequency": 330,
    "maxTtl": 2880,
    "notificationRate": 50,
    "queryAMF": true,
    "ttl": 1440
  },
  "policy": {
    "evaluate": true
  },
  "rules": {
    "defaultRfsp": 3,
    "defaultServAreaResCfgId": "string",
    "defaultTriggers": [
      "LOC_CH"
    ]
  },
  "system": {
    "amNfCommProfile": "string",
    "amfNotificationRetryProfile": "string"
  },
  "user": {
    "queryUserOnCreate": true,
    "queryUserOnTerminate": true,

```

```

    "queryUserOnUpdate": true,
    "subscribeToNotify": true,
    "validateUser": true
  }
}

```

Export/Import Access and Mobility Service

Table 2-380 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors:message	string		
errors:name	string		
exportData	array		Exported list of access and mobility management service. For more information, see Get and Update Access and Mobility Service .
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": {
    "audit": {
      "enable": true,
      "frequency": 330,
      "maxTtl": 2880,
      "notificationRate": 50,
      "queryAMF": true,
      "ttl": 1440
    },
    "policy": {
      "evaluate": true
    },
    "rules": {
      "defaultRfsp": 3,
      "defaultServAreaResCfgId": "string",
      "defaultTriggers": [

```

```

        "LOC_CH"
    ]
},
"system": {
    "amNfCommProfile": "string",
    "amfNotificationRetryProfile": "string"
},
"user": {
    "queryUserOnCreate": true,
    "queryUserOnTerminate": true,
    "queryUserOnUpdate": true,
    "subscribeToNotify": true,
    "validateUser": true
}
},
"sourceVersion": "string",
"topic": "string"
}

```

2.75 Policy Authorization Service

Table 2-381 Supported REST APIs

Description	HTTP Method or Custom Operation	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfpa	Possible Result Code
Get Policy Authorization Service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfpa	See Table A-1
Update Policy Authorization Service	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfpa	See Table A-2
Export All Policy Authorization Service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfpa/export	See Table A-1
Import Policy Authorization Service	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfpa/import	See Table A-3

Get and Update Policy Authorization Service

Table 2-382 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)aints	Description
imsEmergencySession	IMSEmergencySessionPAServiceConfiguration	O	
system	System Configuration	O	

Table 2-383 IMSEmergencySessionPAServiceConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
emergencyServiceURNs	string Any number of values are permitted for Emergency Service URNs	O	Specifies the Uniform Resource Name (URN) values for emergency and other well-known services.
reservationPriorityTypes	ENUM	O	Specifies the IMS Signalling Priority.

Table 2-384 System Configuration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
afDirectReply	boolean	O	Specifies, if reply must be sent to AF before the PCF that sends the policy decision to SMF, after successful session binding.
afNotificationsRetryProfile	string		Specifies the retry profile configuration for Policy Authorization.
afSubsNotifySegment	string example: termination	O	Specifies AF subscription notify uri segment appended to AF subs notify uri. For example, {NotificationUri}/notify. "notify" is the subscription notify uri segment.
afTerminateUriSegment	string example: termination	O	Specifies AF notify to terminate uri segment appended to AF notify uri. For example, {NotificationUri}/ termination. "termination" is the terminate uri segment.
overrideSupportedFeatures	string	O	Defines the supported features that can be configured to override system embedded values. Represent a string separated by comma. For example, "InfluenceOnTrafficRouti ng,SponsoredConnectivi ty". The "" means an empty supported feature set.

Table 2-384 (Cont.) System Configuration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
paNfCommProfile	string	O	Specifies the NF communication profile used by AF.
dataCompressionScheme	string	O	
authorizationLifetime	Long	O	If included implies authorization lifetime feature is to be negotiated, includes a value higher than 0 specifying Authorization Lifetime AVP. Default Value: null
reportPartialFailedEvent			

Sample Request body structure for PUT operations:

```
{
  "imsEmergencySession": {
    "emergencyServiceURNs": [
      "string"
    ],
    "reservationPriorityTypes": [
      "PRIO_1"
    ]
  },
  "system": {
    "afDirectReply": true,
    "overrideSupportedFeatures": "string",
    "afTerminateUriSegment": "terminate",
    "afSubsNotifySegment": "notify",
    "afNotificationsRetryProfile": "string",
    "paNfCommProfile": "string",
    "dataCompressionScheme": "string",
    "authLifetime": true,
    "reportPartialFailedEvent": "INDICATION_OF_LOSS_OF_BEARER"
  }
}
```

Sample Response body structure for GET, POST, and PUT operations:

```
{
  "imsEmergencySession": {
    "emergencyServiceURNs": [
      "string"
    ],
    "reservationPriorityTypes": [
      "PRIO_1"
    ]
  }
}
```

```

    ]
  },
  "system": {
    "afDirectReply": true,
    "overrideSupportedFeatures": "string",
    "afTerminateUriSegment": "terminate",
    "afSubsNotifySegment": "notify",
    "afNotificationsRetryProfile": "string",
    "paNfCommProfile": "string",
    "dataCompressionScheme": "string",
    "authLifetime": true,
    "reportPartialFailedEvent": "INDICATION_OF_LOSS_OF_BEARER"
  }
}

```

Export/Import Policy Authorization Service

Table 2-385 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of policy authorization service. For more information, see Get and Update Policy Authorization Service .
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": {
    "imsEmergencySession": {
      "emergencyServiceURNs": [
        "string"
      ],
      "reservationPriorityTypes": [
        "PRIO_1"
      ]
    },
    "system": {

```

```

    "afDirectReply": true,
    "afNotificationsRetryProfile": "string",
    "afSubsNotifySegment": "notify",
    "afTerminateUriSegment": "terminate",
    "overrideSupportedFeatures": "string",
    "paNfCommProfile": "string",
    "reportPartialFailedEvent": "INDICATION_OF_FAILED_RESOURCES_ALLOCATION"
  }
},
"sourceVersion": "string",
"topic": "string"
}

```

Audit Authorization Service

Table 2-386 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enable	boolean	O	Specifies whether to enable or disable the stale Rx session audit and deletion. When this parameters is enabled, SM Service registers with Audit service for monitoring Rx sessions. Default Value: false
ttl	integer	O	Specifies the Time To Live (TTL) of Rx sessions. Range: 0-21600 Default Value: 1440
maxTtl	integer	O	Specifies the maximum Time To Live (TTL) of Rx sessions. Default Value: 4320 Range: 0-21600
notificationRate	integer	O	Maximum amount of app session cleanup requests per second. Default Value: 50
frequency	integer	O	Specifies how long the Audit Service waits for next audit cycle. Default Value: 10

Table 2-386 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
nullAsStale	boolean	O	If EXPIRY_TIMESTAMP or SITEID contains NULL value, (legacy stale records after upgrade) they will be considered in the next audit cycle as TTL expired. Default Value: false

Sample Request Body structure for GET/PUT operations:

```
{
  "system": {
    "afDirectReply": true,
    "overrideSupportedFeatures": "string",
    "afTerminateUriSegment": "terminate",
    "afSubsNotifySegment": "notify",
    "afNotificationsRetryProfile": "string",
    "paNfCommProfile": "string",
    "dataCompressionScheme": "string",
    "authLifetime": true,
    "reportPartialFailedEvent": "INDICATION_OF_LOSS_OF_BEARER"
  },
  "imsEmergencySession": {
    "Any number of values are permitted for Emergency Service URNs": [
      "string"
    ],
    "reservationPriorityTypes": [
      "PRIO_1"
    ]
  },
  "nwdaf": {
    "enableNwdafData": true
  },
  "audit": {
    "enable": true,
    "ttl": 1440,
    "maxTtl": 4320,
    "notificationRate": 50,
    "frequency": 10,
    "nullAsStale": true
  },
  "advancedSettings": [
    {
      "key": "string",
      "value": "string"
    }
  ]
}
```

```

}
}

```

2.76 UE Policy

Table 2-387 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get UE Policy Service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfue	See Table A-1
Update UE Policy Service	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfue	See Table A-2
Export All UE Policy Service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfue/export	See Table A-1
Import UE Policy Service	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfue/import	See Table A-3

Get and Update UE Policy

Table 2-388 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)aints	Description
amf	AMFConfiguration	O	
system	UEPolicyServiceSystemConfiguration	O	
user	UserUEPolicyServiceConfiguration	O	
homePLMN	HomePLMNConfiguration	O	
n1MsgTransferSettings	N1MessageTransferSettingsConfiguration	O	
timerSettings	TimerSettingsConfiguration	O	
n1MsgRetransmissionSettings	N1MessageRetransmissionSettingsConfiguration	O	
audit	AuditConfiguration	O	

Table 2-389 AMFConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enableHttp11Client	boolean	O	
naSMsgTransferMaxSize	integer (\$int32)	O	Enter a range in [0-65535] number
amf.ueAMFCommProfile	string	O	Specifies the NF communication profile used by AMF.
amf.ueNASCommProfile	string	O	Specifies the NF communication profile used by NAS.
amf.ueAMFRetryProfileNotification	string	O	
amf.ueNASRetryProfileInitial	string	O	
amf.ueNASRetryProfileSubs	string	O	
amf.ueAMFDiscoveryCriteria	string	O	
amf.sendSbiBhForN1N2TransferReq	String	O	Indicates when to send the SBI binding header for N1N2Transfer request. The options can be: • When binding information changes: Sends the binding header in the HTTP request only whenever there is a change in the binding information. • Always: Sends the binding header in all the N1N2Transfer requests. • Never: Never includes the binding header in any N1N2Transfer request. Default value: When binding information changes Note: This configuration will override the values being set towards NF Communication Profile under NAS (The NF Communication Profile for NAS is mandatory to be set in UE service configuration).

Table 2-389 (Cont.) AMFConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
amf.sendRoutingBhForN1N2TransferReq	String	O	Indicates when to send the routing binding header for N1N2Transfer request. The options can be: • Always: Sends the routing binding header in all the N1N2Transfer requests. • Never: Never sends the routing binding header in any N1N2Transfer request. Default value: There is no default value configured for this field. Note: • This configuration will override the values being set towards NF Communication Profile under NAS (The NF Communication Profile for NAS is mandatory to be set in UE service configuration). • To rollback the value of the parameter from "ALWAYS"/"NEVER" to default value, click Please Select.

Table 2-389 (Cont.) AMFConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
amf.sendDiscHeaderFor N1N2TransferReq	String	O	Indicates whether to send the discovery header for N1N2Transfer request when the routing binding information is not present. The options can be: • Always: Sends the discovery header in all the N1N2Transfer requests when the routing binding header is not included. • Never: Never sends the discovery header in any N1N2Transfer request. Default value: There is no default value configured for this field. Note: • This configuration will override the values being set towards NF Communication Profile under NAS (The NF Communication Profile for NAS is mandatory to be set in UE service configuration). • To rollback the value of the parameter from "ALWAYS"/"NEVER" to default value, click Please Select.
amf.enableConsolidation	Boolean	O	Specifies whether to enable consolidation of policy decisions for a UE. When enabled, multiple sequenced policy decisions are consolidated as part of the next UE Policy Management Procedure. Default value: False

Table 2-390 UEPolicyServiceSystemConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
loglevel	String, ENUM	O	Indicates the log level of PCF Session Management (SM) service. Default Value: WARN
notifUriRoot	string	O	
enableLimitingSessionByPerUser	boolean	O	Specifies whether to enable the Limiting the Number of Sessions functionality. Default value: false
maxSessionLimitUser	integer	C	Enables to configure the maximum number of sessions to be limited by the user if Enable Max Session Limit flag is enabled. The value of this parameter ranges between 1 and 2. Default value: 1

Table 2-391 UserUEPolicyServiceConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
asyncChfQueryEnabled	Boolean	O	When this button is enabled, PCF interacts with CHF in Asynchronous mode.
chfQueryEnabled	Boolean	O	If this switch is enabled, PCF fetches policy counters from CHF.
isChfQueryEnabled	Boolean	O	If this switch is enabled, PCF fetches policy counters from CHF.
queryUser	boolean	O	Determines if user query from UDR is enabled. Default Value: TRUE
validateUser	boolean	O	Determines if user validate is enabled. HTTP 400 with cause USER_UNKNOWN returns, if this is enabled and user not found in UDR. Default Value: FALSE

Table 2-391 (Cont.) UserUEPolicyServiceConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
queryUserOnCreate	boolean	O	Determines if user query from UDR is enabled. When this option is enabled, PDS queries the UDR about the subscriber contained in the UE Association create request by sending a GET request for "ue-policy-set" resource on the nudr-dr service. Default Value: true
subscribeToNotify	boolean	O	When Subscribe to Notify is enabled, Policy subscribes with the UDR to get notified on changes in subscriber profile. Default Value: true
queryUserOnUpdate	boolean	O	Determines if user query from UDR on update is enabled. When this option is enabled, PDS queries the UDR about the subscriber present in the UE Association update request by sending a GET request for "ue-policy-set" resource on the nudr-dr service. Default Value: false
queryUserOnTerminate	boolean	O	Determines if user query from UDR on delete is enabled. When this option is enabled, PCF queries the UDR about the subscriber present in the UE Association delete request by sending a GET request for "ue-policy-set" resource on the nudr-dr service. Default Value: false
uePolicyDataEnabled	Boolean	O	If this switch is enabled, PCF fetches UEPolicyData from nUDR.

Table 2-392 HomePLMNConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
mcc	Number	O	The Mobile Country Code and Mobile Network Code of the Home PLMN. Default Value: NA
mnc	Number	O	The Mobile Country Code and Mobile Network Code of the Home PLMN. Default Value: NA

Table 2-393 N1MessageTransferSettings

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
n1MsgMaxSize	Number	O	Maximum number of URSP Rules to be encoded in a single UE Policy Section (UPSI) container. Default Value: 2000
uePolicySectionMaxSize	Number	O	The maximum size in bytes of a "MANAGE UE POLICY COMMAND" after encoding to send out to AMF for delivery to UE. Default Value: 2000
maxNoOfURSPRules	Number	O	Maximum number of URSP Rules to be encoded in a single UE Policy Section (UPSI) container. Default Value: 4

Table 2-393 (Cont.) N1MessageTransferSettings

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
upscStart	Number	O	This fields indicate the range of UPSC allocation by PCF and can be used to maintain a dedicated range of UPSCs used by PCF generated UPSIs. Configuring these fields avoids the conflict of UPSCs between the UE built-in UPSC and the PCF delivered UPSC. Note: If the UPSI based policy action is also used for non-fragmented URSP delivery, then the range of UPSCs used by that method should be outside the range configured here. Default Value: Start: 0
upscEnd	Number	O	This fields indicate the range of UPSC allocation by PCF and can be used to maintain a dedicated range of UPSCs used by PCF generated UPSIs. Configuring these fields avoids the conflict of UPSCs between the UE built-in UPSC and the PCF delivered UPSC. Note: If the UPSI based policy action is also used for non-fragmented URSP delivery, then the range of UPSCs used by that method should be outside the range configured here. Default Value: End: 65535

Table 2-394 TimerSettings

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
T 3501 Timer Duration	Number	O	If it's value is zero, T 3501 Timer handling functionality will be disabled. If a non-zero value is configured, then the timer will be initiated after every N1 transfer received successfully from AMF from the N1 Notify. Default Value: 5000
backOffTimerDuration	Number	O	The action to be taken by PCF when the AMF notifies the PCF that it could not deliver the "MANAGE UE POLICY COMMAND" message to UE. Default Value: 15000

Table 2-395 N1MessageRetransmissionSettings

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
On T 3501 Timer Expiry	Enumeration	O	The action to be taken by PCF when N1 notification is not received within configured duration defined in T 3501 Timer Duration. Default Value: Abort N1 Delivery

Table 2-395 (Cont.) N1MessageRetransmissionSettings

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
onTransactionFailureNotification	Number	O	The action to be taken by PCF when the AMF notifies the PCF that it could not deliver the "MANAGE UE POLICY COMMAND" message to UE. Default Value: Abort The value for the Skip Fragment label must be "SKIP". The value for the Re-Transmit N1 Message label must be "RETRANSMIT". The value for the Abort N1 Delivery label must be "ABORT".
onUEPolicyCommandReject	Enumeration	O	The action to be taken by PCF when the UE notifies the PCF that it could not process the "MANAGE UE POLICY COMMAND" message. Default Value: Abort The value for the Skip Fragment label must be "SKIP". The value for the Re-Transmit N1 Message label must be "RETRANSMIT". The value for the Abort N1 Delivery label must be "ABORT".

Table 2-395 (Cont.) N1MessageRetransmissionSettings

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
maxNoOfRetransmissions	Enumeration	O	Maximum number of re-transmissions to be attempted (excluding the initial attempt) after which UE service shall not try further to re-send the same fragment to AMF Default Value: 2 The value of the drop down items are as follows: • Re-Transmit N1 Message-RETRANSMIT • Skip Fragment-SKIP • Abort N1 Delivery-ABORT
reTransmissionFailureBehavior	Enumeration	O	The behavior of PCF UE service if the N1 message is not delivered to the UE after a maximum number of re-transmissions have been tried. Default Value: Abort The value for the Skip Fragment label must be "SKIP". The value for the Abort N1 Delivery label must be "ABORT".
allowT3501RetransmissionConsolidation	Boolean	O	Specifies whether to enable consolidation of UE policy decisions for re-transmission on T3501 expiration. When disabled, no consolidation is performed and sequenced policy decisions are processed after the current UE policy management procedure or re-transmission completes. Default value: False

Table 2-396 AuditConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enable	boolean	O	If this flag is enabled, UE service registers with Audit service for auditing the records in UEPolicyAssociation table. Once the registration is successful, a record for UE service is created in the AuditRegistration table. Default Value: False
query AMF	boolean	O	If this flag is enabled, the UE service sends the stale session notification received from Audit service to AMF to check if the session is present in AMF. Default Value: False
notificationRate	integer	M	Defines the maximum number of stale records, which Audit Service notifies to UE service in one second. Value of this parameter ranges between 20 and 700. Default Value: 50
ttl	integer	M	Defines the age of the UE Policy Association, after which a record is considered to be stale on PCF and the AMF is queried (if query AMF is set to TRUE) for presence of such associations. Value of this parameter ranges between 1 and 10080. Default Value: 1440

Table 2-396 (Cont.) AuditConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
maxTtl	integer	M	Defines the maximum age of a UE Policy Association, after which a record is considered as stale and is purged from PCF UE database without sending further queries to AMF. Value of this parameter ranges between 1 and 20160. Default Value: 2880
frequency	integer	M	Defines the time when next audit for the UE service table is done after delta time if auditing this table has been finished before this specified time. Value of this parameter ranges between 1 and 1440. Default Value: 10

Sample Request body structure for PUT operations:

```
{
  "amf": {
    "ueAMFCommProfile": "string",
    "ueAMFRetryProfileNotification": "string",
    "ueNASCommProfile": "string",
    "ueNASRetryProfileInitial": "string",
    "ueNASRetryProfileSubs": "string"
  },
  "audit": {
    "enable": true,
    "frequency": 5,
    "maxTtl": 2880,
    "notificationRate": 50,
    "queryAMF": true,
    "ttl": 1440
  },
  "homePLMN": {
    "mcc": 0,
    "mnc": 0
  },
  "n1MsgRetransmissionSettings": {
    "maxNoOfRetransmissions": 2,
    "onT3501TimerExpiry": "ABORT",
    "onTransactionFailureNotification": "ABORT",

```

```

    "onUEPolicyCommandReject": "ABORT",
    "reTransmissionFailureBehavior": "ABORT"
  },
  "n1MsgTransferSettings": {
    "maxNoOfURSPRules": 4,
    "n1MsgMaxSize": 2000,
    "uePolicySectionMaxSize": 2000,
    "upscEnd": 65535,
    "upscStart": 0
  },
  "system": {
    "enableLimitingSessionByPerUser": true,
    "maxSessionLimitUser": 1,
    "notifUriRoot": "string"
  },
  "timerSettings": {
    "backOffTimerDuration": 15000,
    "t3501TimerDuration": 5000
  },
  "user": {
    "asyncChfQueryEnabled": true,
    "chfQueryEnabled": true,
    "isChfQueryEnabled": true,
    "queryUserOnCreate": true,
    "queryUserOnTerminate": true,
    "queryUserOnUpdate": true,
    "subscribeToNotify": true,
    "uePolicyDataEnabled": true,
    "validateUser": true
  }
}

```

Sample Response body structure for GET and PUT operations:

```

{
  "system": {
    "enableLimitingSessionByPerUser": true,
    "maxSessionLimitUser": 1
  },
  "user": {
    "validateUser": false,
    "queryUserOnCreate": false,
    "subscribeToNotify": false,
    "queryUserOnUpdate": false,
    "queryUserOnTerminate": false
  },
  "homePLMN": {
    "mcc": "0",
    "mnc": "0"
  },
  "n1MsgTransferSettings": {
    "n1MsgMaxSize": 2000,
    "uePolicySectionMaxSize": 2000,
    "maxNoOfURSPRules": 4,
    "upscStart": 0,

```

```

        "upscEnd": 65535
    },
    "timerSettings": {
        "backOffTimerDuration": 15000
        "t3501TimerDuration": 5000
    },
    "n1MsgRetransmissionSettings": {
        "onTransactionFailureNotification": "ABORT",
        "onT3501TimerExpiry": "ABORT",
        "onUEPolicyCommandReject": "ABORT",
        "maxNoOfRetransmissions": 2,
        "reTransmissionFailureBehavior": "ABORT"
    },
    "audit": {
        "enable": false,
        "queryAMF": false,
        "notificationRate": 50,
        "ttl": 1440,
        "maxTtl": 2880,
        "frequency": 10
    }
}

```

Export/Import UE Policy

Table 2-397 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of UE policy service. For more information, see Get and Update UE Policy
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "amf": {
    "ueAMFCommProfile": "string",
    "ueAMFRetryProfileNotification": "string",
    "ueNASCommProfile": "string",
    "ueNASRetryProfileInitial": "string",
    "ueNASRetryProfileSubs": "string"
  },
  "audit": {
    "enable": true,
    "frequency": 5,
    "maxTtl": 2880,

```

```

        "notificationRate": 50,
        "queryAMF": true,
        "ttl": 1440
    },
    "homePLMN": {
        "mcc": 0,
        "mnc": 0
    },
    "n1MsgRetransmissionSettings": {
        "maxNoOfRetransmissions": 2,
        "onT3501TimerExpiry": "ABORT",
        "onTransactionFailureNotification": "ABORT",
        "onUEPolicyCommandReject": "ABORT",
        "reTransmissionFailureBehavior": "ABORT"
    },
    "n1MsgTransferSettings": {
        "maxNoOfURSPRules": 4,
        "n1MsgMaxSize": 2000,
        "uePolicySectionMaxSize": 2000,
        "upscEnd": 65535,
        "upscStart": 0
    },
    "system": {
        "enableLimitingSessionByPerUser": true,
        "maxSessionLimitUser": 1,
        "notifUriRoot": "string"
    },
    "timerSettings": {
        "backOffTimerDuration": 15000,
        "t3501TimerDuration": 5000
    },
    "user": {
        "asyncChfQueryEnabled": true,
        "chfQueryEnabled": true,
        "isChfQueryEnabled": true,
        "queryUserOnCreate": true,
        "queryUserOnTerminate": true,
        "queryUserOnUpdate": true,
        "subscribeToNotify": true,
        "uePolicyDataEnabled": true,
        "validateUser": true
    }
}

```

2.77 PCRF Core Service

Table 2-398 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get PCRF Core Service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/settings	See Table A-1

Table 2-398 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Update PCRF Core Service	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/settings	See Table A-2
Export PCRF Core Service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/settings/export	See Table A-1
Import PCRF Core Service	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/settings/import	See Table A-3

Get and Update Core Service**Table 2-399 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
advancedSettings	AdvanceSettingsConfiguration	O	
user	UserConfiguration	O	
mcptt	MCPTTConfiguration	O	
audit	AuditConfiguration	O	
usageMonService	UsageMonServiceConfiguration	O	
pendingTransaction	pendingTransactionConfiguration	O	

Table 2-400 AdvancedSettings

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
key	string	O	
value	string	O	

For more information on the Advanced Settings "Keys" and "Values", see PCRF Core Service Configurations "**Settings**" section of "Configuring Policy Using CNC Console" in *Oracle Communications Cloud Native Core, Converged Policy User Guide*.

Table 2-401 UserConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enableSubscriberVariables	boolean	O	If this switch is enabled, PCRF Core controls the querying and saving of remote subscriber state variables (SSV) on PDS. When CCR message is received by PCRF Core, then it queries PDS to fetch SSV for the user, instead of retrieving it locally. By default, the switch remains disabled.
ldapData.enable	boolean	O	If this is true, PCRF-Core fetches user profile from LDAP through PDS.
ocsSpendingLimit.enable	boolean	O	If this is true, PCRF-Core fetches user profile from 4G OCS.
ocsSpendingLimit.asyncQuery	boolean	O	When this switch is enabled, PCRF Core performs on-demand lookup of Policy Counters for a subscriber.
ocsSpendingLimit.forceLookup	boolean	O	When this switch is enabled, PCRF Core forces OCS lookup for Policy counters for a subscriber.
smPolicyData.enable	boolean	O	If this value is true, PCRF-Core fetches SMPolicyData from nUDR.
smPolicyData.queryOnDelete	boolean	O	Determines if user query from UDR on delete is enabled. When this option is true, PCRF Core queries the UDR about the subscriber present in the SM Association delete request by sending a GET request for "SmPolicyData" resource on the nudr-dr service.
smPolicyData.queryOnReauth	boolean	O	Determines if user query from UDR on reauth is enabled. When this option is true, PCRF Core queries the UDR about the subscriber, when it receives a Reauthorization request, such as Rx or Policy Authorization request by sending a GET request for "SmPolicyData" resource on the nudr-dr service.
smPolicyData.queryOnUpdate	boolean	O	Determines if user query from UDR on update is enabled. When this value is true, PCRF Core queries the UDR about the subscriber present in the SM Association update request by sending a GET request for "SmPolicyData" resource on the nudr-dr service. Note: The PDS caches the subscriber profile when the "Subscribe To Notify" option is enabled, in that case, the PCRF core may not always reach the UDR when the subscriber profile is found in the local cache.

Table 2-401 (Cont.) UserConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
smPolicyData.subscribeToNotify	boolean	O	When this value is true, the PCRF Core subscribes with UDR to get notified for any changes in subscriber profile.
validateUser	boolean	O	If the User profile, for any of the User Data types given under the User Data Types group, is fetched successfully, the user is considered to be a known user. However, if the user profile lookup has failed on all the configured data sources, the user profile is marked as Unknown. If this value is true and user is marked as Unknown, the session creation requests are rejected. If this value is false and user is marked as Unknown, the session creation requests are handled and sessions are created successfully.
smPolicyData.autoEnrollment	boolean	O	To specify whether to enable or disable the autoprovisioning of the subscriber profile at UDR when the subscriber profile is not available.
smPolicyData.default.snsai	string	O	To configure a default S-NSSAI, which will be used when a subscriber is auto-enrolled on the UDR. This parameter is applicable only when Auto-Enrollment on UDR is set to true. The value configured here must match the Default S-NSSAI configured on UDR.
operatorSpecificData.enable	boolean	O	If this switch is enabled, PCRF fetches OperatorSpecificData (imported using Custom Schema) from nUDR.
operatorSpecificData.subscribeToNotify	boolean	O	When this switch is enabled, PCRF Core subscribes to get notified of any changes in the profile. Default Value: true

Table 2-402 MCPTT

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
defaultBearerARP			
Priority Level: enter a range in minutes from [1-15]	integer	O	Indicates the priority level. It ranges between 1-15. Default Value: 1

Table 2-402 (Cont.) MCPTT

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
Preemption Capability: enter a from [PREEMPTION_CAPABILITY_ENABLED or PREEMPTION_CAPABILITY_DISABLED]	Array	O	Indicates if the preemption capability is enabled or disabled. It can take the following values: - PREEMPTION_CAPABILITY_ENABLED - PREEMPTION_CAPABILITY_DISABLED Default Value: PREEMPTION_CAPABILITY_ENABLED
Preemption Vulnerability: enter a from [PREEMPTION_VULNERABILITY_ENABLED or PREEMPTION_VULNERABILITY_DISABLED]	Array	O	Indicates if the preemption vulnerability is enabled or disabled. It can take the following values: - PREEMPTION_VULNERABILITY_ENABLED - PREEMPTION_VULNERABILITY_DISABLED Default Value: PREEMPTION_VULNERABILITY_DISABLED
defaultPreemption Control			
Default Preemption Control Info: enter a from [LEAST_RECENT_ADDED_FLOW or MOST_RECENT_ADDED_FLOW or HIGHEST_BANDWIDTH_FLOW]	Array	O	Includes the Default Preemption Control information: - LEAST_RECENT_ADDED_FLOW - MOST_RECENT_ADDED_FLOW - HIGHEST_BANDWIDTH_FLOW Default Value: LEAST_RECENT_ADDED_FLOW

Table 2-403 AuditConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enable	boolean	M	Determines whether to send registration request to Audit service or not. By default, this switch is enabled.
frequency	integer		Defines the frequency by which Audit service notifies to PCRF Core service in one second.
gxSessionMaxTtl	integer		Defines the maximum age of a Gx session after which a record is purged from PCRF Core database (Gx Session table) without sending further queries to PGW.

Table 2-403 (Cont.) AuditConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
gxSessionTtl	integer		Defines the age of a Gx session after which a record is considered to be stale on PCRF Core and the PGW is queried for presence of such associations.
notificationRate: enter a range in sec from [20-700]	integer		Defines the number of stale records which Audit service notifies to PCRF Core service in one second. Default Value: 50
rxSessionMaxTtl	integer		Defines the maximum age of an Rx session after which a record is purged from PCRF Core database (Rx Session table) without sending further queries to PGW.
rxSessionTtl	integer		Defines the age of an Rx session after which a record is considered to be stale on PCRF Core and the PGW is queried for presence of such associations.
sessionMaxTtl	integer		

Table 2-404 UsageMonServiceConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enable	boolean		Specifies whether to enable or disable Usage Monitoring service for PCRF. By default, this switch is disabled.
apnList	List [string]		Specifies the list of APNs for which usage monitoring is enabled. If you leave this field empty, Usage Monitoring is enabled for all APNs.
attributeForwarding			
interfaceType	string		Indicates the interface type for which the profile applies.
messageType	string		Indicates the message type for which the profile applies
forwardingProfile	string		Refers to the configured attribute forwarding Profile.

Table 2-405 pendingTransactionConfiguration

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
enabled	boolean		Specifies whether to enable or disable pending transaction service for PCRF. By default, this switch is disabled.
rarRetryBackoff	Integer		Specifies the time gap between the consecutive retry RAR messages when PGW is sending error response with cause of DIAMETER_PENDING_TRANSACTION and RAR message is triggered by PDS/AF/PRE.
rarRetryCount	Integer		Specifies the count for RAR messages when P-GW is sending error response with cause of DIAMETER_PENDING_TRANSACTION and RAR message is triggered by Notification message from PDS/AF/PRE
userNotifyReauthErrorHandling	List [string]		Specifies if an RAR initiated by User Notification message need to be discarded or retried when it is responded by P-GW with an error of DIAMETER_PENDING_TRANSACTION.
afReauthErrorHandling	List [string]		Specifies if an RAR initiated by AF message should be discarded or retried when it is responded by P-GW with an error of DIAMETER_PENDING_TRANSACTION.
reauthErrorHandling	List [string]		Specifies if an RAR initiated by any message should be discarded or retried when it is responded by P-GW with an error of DIAMETER_PENDING_TRANSACTION.

Sample Request body structure for GET and PUT operations:

```
{
  "advancedSettings": [
    {
      "key": "string",
      "value": "string"
    }
  ],
  "user": {
    "validateUser": true,
    "enableSubscriberVariables": false,
    "smPolicyData.enable": false,
    "ldapData.enable": true,
    "ocsSpendingLimit.enable": false,
    "ocsSpendingLimit.forceLookupOnUpdate": false,
    "smPolicyData.subscribeToNotify": true,
    "smPolicyData.queryOnUpdate": false,
    "smPolicyData.queryOnDelete": false,
  }
}
```

```

        "smPolicyData.queryOnReauth": false,
        "smPolicyData.autoEnrollment": true,
        "smPolicyData.default.snssai": "string",
        "ocsSpendingLimit.asyncQuery": false,
        "operatorSpecificData.enable": true,
        "operatorSpecificData.subscribeToNotify": true
    },
    "mcptt": {
        "defaultBearerARP": {
            "enter a range in minutes from [1-15]": 1,
            "enter a from [PREEMPTION_CAPABILITY_ENABLED or
PREEMPTION_CAPABILITY_DISABLED]": "PREEMPTION_CAPABILITY_ENABLED",
            "enter a from [PREEMPTION_VULNERABILITY_ENABLED or
PREEMPTION_VULNERABILITY_DISABLED]": "PREEMPTION_VULNERABILITY_DISABLED"
        },
        "defaultPreemptionControl": {
            "enter a from [LEAST_RECENT_ADDED_FLOW or MOST_RECENT_ADDED_FLOW or
HIGHEST_BANDWIDTH_FLOW ]": "LEAST_RECENT_ADDED_FLOW"
        }
    },
    "audit": {
        "enable": true,
        "enter a range in sec from [20-700]": 50,
        "enter a range in minutes from [1-10080]": 1440,
        "gxSessionMaxTtl": 0,
        "enter a range from [0-255]": 5,
        "enter a range in minutes from [1-20160]": 2880,
        "enter a range in minutes from [1-1440]": 330
    },
    "usageMonService": {
        "enable": true,
        "apnList": [
            "string"
        ],
        "attributeForwarding": [
            {
                "interfaceType": "TGPP_GX",
                "messageType": "CCR_INITIAL",
                "forwardingProfile": "string"
            }
        ],
        "pendingTransaction": {
            "enabled": true,
            "rarRetryBackoff": "800",
            "rarRetryCount": "2",
            "userNotifyReauthErrorHandling": 1,
            "afReauthErrorHandling": 1,
            "reauthErrorHandling": 1,
            "waitGxUpdateBeforeRejectDuration": 0,
            "skipPolicyOnReauthRetry": true
        }
    }
}

```

Export/Import Core Service

Table 2-406 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of core service. For more information, see Get and Update UE Policy
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": {
    "advancedSettings": [
      {
        "key": "string",
        "value": "string"
      }
    ],
    "user": {
      "validateUser": true,
      "enableSubscriberVariables": false,
      "smPolicyData.enable": false,
      "ldapData.enable": true,
      "ocsSpendingLimit.enable": false,
      "ocsSpendingLimit.forceLookupOnUpdate": false,
      "smPolicyData.subscribeToNotify": true,
      "smPolicyData.queryOnUpdate": false,
      "smPolicyData.queryOnDelete": false,
      "smPolicyData.queryOnReauth": false,
      "smPolicyData.autoEnrollment": true,
      "smPolicyData.default.snsai": "string",
      "ocsSpendingLimit.asyncQuery": false,
      "operatorSpecificData.enable": true,
      "operatorSpecificData.subscribeToNotify": true
    },
    "mcptt": {
      "defaultBearerARP": {
        "enter a range in minutes from [1-15]": 1,
        "enter a from [PREEMPTION_CAPABILITY_ENABLED or PREEMPTION_CAPABILITY_DISABLED]": "PREEMPTION_CAPABILITY_ENABLED",

```

```

        "enter a from [PREEMPTION_VULNERABILITY_ENABLED or
        PREEMPTION_VULNERABILITY_DISABLED]": "PREEMPTION_VULNERABILITY_DISABLED"
    },
    "defaultPreemptionControl": {
        "enter a from [LEAST_RECENT_ADDED_FLOW or MOST_RECENT_ADDED_FLOW or
        HIGHEST_BANDWIDTH_FLOW ]": "LEAST_RECENT_ADDED_FLOW"
    }
},
"audit": {
    "sessionMaxTtl": 0,
    "enable": true,
    "enter a range in sec from [20-700]": 50,
    "enter a range in minutes from [1-10080]": 1440,
    "gxSessionMaxTtl": 0,
    "enter a range from [0-255]": 5,
    "enter a range in minutes from [1-20160]": 2880,
    "enter a range in minutes from [1-1440]": 330
},
"usageMonService": {
    "enable": true,
    "apnList": [
        "string"
    ],
    "attributeForwarding": [
        {
            "interfaceType": "TGPP_GX",
            "messageType": "CCR_INITIAL",
            "forwardingProfile": "string"
        }
    ]
}
}
}
}
}

```

2.78 Serving Gateway

Table 2-407 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Serving Gateway	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/sgws	See Table A-3
Export Serving Gateway	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/sgws/export	See Table A-1
Import Serving Gateway	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/sgws/import	See Table A-3

Table 2-407 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Serving Gateway	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/sgws / {servingGatewayName }	See Table A-1
Update Serving Gateway	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/sgws / {servingGatewayName }	See Table A-2
Delete Serving Gateway	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/sgws / {servingGatewayName }	See Table A-4

Create, Get, and Update Serving Gateway**Table 2-408 Data structures supported by the POST, GET, and PUT Response Body**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
description	string		
mccMnc	string		
name	string	M	
sgwIpAddress	array		

Sample Request Body structure for POST and PUT operations:

```
{
  "description": "string",
  "mccMnc": "string",
  "name": "string",
  "sgwIpAddress": [
    "string"
  ]
}
```

Sample Response Body structure for GET, POST and PUT operations:

```
{
  "description": "string",
  "mccMnc": "string",
  "name": "string",
  "sgwIpAddress": [
```

```

    "string"
  ]
}

```

Export/Import Serving Gateway

Table 2-409 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of serving gateway. For more information, see Table 2-408 .
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "description": "string",
      "mccMnc": "string",
      "name": "string",
      "sgwIpAddress": [
        "string"
      ]
    }
  ],
  "key": "string",
  "sourceVersion": "string",
  "topic": "string"
}

```

Delete Serving Gateway**Table 2-410 Request/Response Body Parameters**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
servingGatewayName	string	M	Serving Gateway Name

2.79 Network for PGW

Table 2-411 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Network PGW	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/network/pgws	See Table A-3
Export Network PGW	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/network/pgws/export	See Table A-1
Import Network PGW	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/network/pgws/import	See Table A-3
Get Network PGW	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/network/pgws/{networkPGWName}	See Table A-1
Update Network PGW	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/network/pgws/{networkPGWName}	See Table A-2
Delete Network PGW	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/network/pgws/{networkPGWName}	See Table A-4

Create, Get, and Update Network for PGW**Table 2-412 Data structures supported by the POST, GET, and PUT Response Body**

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
backupHostName		O	
capabilities	array	O	

Table 2-412 (Cont.) Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
capacity	string	O	
description	string	O	
diameterRealm	string	O	
fqdn	string	O	
hostName	string	O	
ipDomainId	string	O	
name	string	M	
neDiameterId	array	O	

Sample Request Body structure for POST and PUT operations:

```
{
  "backupHostName": "string",
  "capabilities": [
    "string"
  ],
  "capacity": "string",
  "description": "string",
  "diameterRealm": "string",
  "fqdn": "string",
  "hostName": "string",
  "ipDomainId": "string",
  "name": "string",
  "neDiameterId": [
    "string"
  ]
}
```

Sample Response Body structure for GET, POST and PUT operations:

```
{
  "backupHostName": "string",
  "capabilities": [
    "string"
  ],
  "capacity": "string",
  "description": "string",
  "diameterRealm": "string",
  "fqdn": "string",
  "hostName": "string",
  "ipDomainId": "string",
  "name": "string",
  "neDiameterId": [
    "string"
  ]
}
```

Export/Import Network for PGW

Table 2-413 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of network for PGW. For more information, see Table 2-412 .
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "backupHostName": "string",
      "capabilities": [
        "string"
      ],
      "capacity": "string",
      "description": "string",
      "diameterRealm": "string",
      "fqdn": "string",
      "hostName": "string",
      "ipDomainId": "string",
      "name": "string",
      "neDiameterId": [
        "string"
      ]
    }
  ],
  "key": "string",
  "sourceVersion": "string",
}
```

```
"topic": "string"
}
```

Delete Network for PGW

Table 2-414 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
networkPGWName	string	M	Network PGW Name

2.80 Network for GGSN

Table 2-415 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Network GGSN	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/network/ggsns	See Table A-3
Export Network GGSN	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/network/ggsns/export	See Table A-1
Import Network GGSN	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/network/ggsns/import	See Table A-3
Get Network GGSN	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/network/ggsns/{networkGGSNName}	See Table A-1
Update Network GGSN	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/network/ggsns/{networkGGSNName}	See Table A-2
Delete Network GGSN	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcrfcore/network/ggsns/{networkGGSNName}	See Table A-4

Create, Get, and Update Network for GGSN

Table 2-416 Data structures supported by the POST, GET, and PUT Response Body

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
backupHostName		O	
capabilities	array	O	
capacity	string	O	
description	string	O	
diameterRealm	string	O	
hostName	string	O	
ipDomainId	string	O	
name	string	M	
neDiameterId	array	O	

Sample Request Body structure for POST and PUT operations:

```
{
  "backupHostName": "string",
  "capabilities": [
    "string"
  ],
  "capacity": "string",
  "description": "string",
  "diameterRealm": "string",
  "hostName": "string",
  "ipDomainId": "string",
  "name": "string",
  "neDiameterId": [
    "string"
  ]
}
```

Sample Response Body structure for GET, POST and PUT operations:

```
{
  "backupHostName": "string",
  "capabilities": [
    "string"
  ],
  "capacity": "string",
  "description": "string",
  "diameterRealm": "string",
  "hostName": "string",
  "ipDomainId": "string",
  "name": "string",
  "neDiameterId": [
    "string"
  ]
}
```

```

    ]
  }

```

Export/Import Network for GGSN

Table 2-417 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors	array		
errors:message	string		
errors:name	string		
exportData	array	M	Exported list of network for GGSN. For more information, see Table 2-416 .
key	string		Indicates the ID
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```

{
  "date": "string",
  "errors": [
    {
      "message": "string",
      "name": "string"
    }
  ],
  "exportData": [
    {
      "backupHostName": "string",
      "capabilities": [
        "string"
      ],
      "capacity": "string",
      "description": "string",
      "diameterRealm": "string",
      "hostname": "string",
      "ipDomainId": "string",
      "name": "string",
      "neDiameterId": [
        "string"
      ]
    }
  ],
  "key": "string",
  "sourceVersion": "string",

```

```
"topic": "string"
}
```

Delete Network for GGSN

Table 2-418 Request/Response Body Parameters

Field Name	Data Type	Constraints	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
networkGGSNName	string		M	Network GGSN Name

2.81 Audit Service

Table 2-419 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Audit Service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/audit	See Table A-1
Update Audit Service	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/audit	See Table A-2
Export Audit Service Configuration	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/audit/export	See Table A-1
Import Audit Service Configuration	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/audit/import	See Table A-3

Get and Update Audit Services

Table 2-420 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
auditEnabled	boolean	O	Determines whether to send registration request to Audit service or not. Default Value: True
logLevel	String	O	Indicates the log level of PCF Session Management (SM) service.

Table 2-420 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
forcedDeletion.minAttempts BeforeForceDelete	integer	O	Specifies the minimum number of consecutive failed audit attempts until maxTTL / forceTTL is reached. If maxTTL is reached and audit_attempts + 1 >= Minimum Audit Attempts for maxTTL, Audit service sends notification to SM service with maxTTL flag set to true. SM Service sends DELETE request to PDS and Binding Service. Range: 0-99 Default Value: 0 Note: If maxTTL is not reached and if audit attempts are reached, the number of audit attempts are incremented until maxTTL is reached.

Sample Request body structure for PUT operation:

```
{
  "auditEnabled": true,
  "forcedDeletion": {
    "minAttemptsBeforeForceDelete": 5
  }
}
```

Sample Response body structure for GET, POST, and PUT operations:

```
{
  "auditEnabled": true,
  "forcedDeletion": {
    "minAttemptsBeforeForceDelete": 5
  }
}
```

Export/Import Audit Services

Table 2-421 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array		Exported list of policy audit service. For more information, see Get and Update Audit Services .
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "topic": "common.audit-service.cfg",
  "sourceVersion": "24.3.0-rc.11",
  "date": "2024-10-28T06:05:29Z",
  "exportData": {
    "auditEnabled": true,
    "forcedDeletion": {
      "minAttemptsBeforeForceDelete": 35
    }
  }
}
```

Audits Scheduled REST API

Note

The "Audits Scheduled REST API" must be accessed through Audit port.

Table 2-422 Services Audits Scheduled API description:

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Audit Service Fetch	GET	{apiRoot}/audits/{serviceName}	See Table A-1
Get Audit Table Data for CM GUI	GET	{apiRoot}/audit?serviceName={serviceName}&tableName={tableName}	See Table A-1
Get Statistics for a table	GET	{apiRoot}/audits/stats/{serviceName}	See Table A-1

Table 2-422 (Cont.) Services Audits Scheduled API description:

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Operation Name for Audit	PUT	{apiRoot}/audit/{operationName}	See Table A-2
Audit Service Registration	PUT	{apiRoot}/audits/{serviceName}	See Table A-2
Audit Service Deregistration	DELETE	{apiRoot}/audits/{serviceName}	See Table A-4
GET Audit for all services	GET	{apiRoot}/audit	See Table A-1

Table 2-423 Request/Response Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
serviceName	string	M	Identifier of the requestor NF service, e.g. pcf-sm
operationName	string	M	Operation name for audit , e.g. NOW/ PAUSE/RESUME
tableName	string	M	Table name thats need to be audited.

2.82 Binding Service

Table 2-424 Supported REST APIs - Binding Service

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get Binding Service	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/binding	See Table A-1
Update Binding Service	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/binding	See Table A-2
Export Binding Services	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/binding/export	See Table A-1
Import Binding Services	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/binding/import	See Table A-3

Get and Update Binding Service

Table 2-425 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
abortOnBindingError	boolean	O	Determines if PCF (SM service) should abort terminate session when binding error is received.
bindingOperationEnabled	boolean	O	This determines if binding operation (register and deregister) to the BSF is enabled. Default Value: TRUE
bsfEnabled	boolean	O	Determines if BSF is enabled or disabled.
bsfNfCommProfile	String	O	Specifies the NF communication profile used by BSF.
bsfRetryProfileForInitMsgs	string	O	Retry Profile to be used when PCF fails to send a create message to a producer node .
bsfRetryProfileForSubscribeMsgs	string	O	Retry Profile to be used when PCF fails to send an in-session message to a producer node.
defaultBindingOperationMode	Enum	O	Allows users to configure binding operation mode as synchronous or asynchronous.
enableApnFilterBySnssai	boolean	O	This parameter can be used to enable or disable limiting of number of bindings at DNN + SNSSAI + IP domain level at Binding service.
enableSessionLimitByUser	boolean	O	This parameter can be used to enable or disable user level limiting for bindings at Binding service.
maxSessionLimitByApn	integer	O	This parameter can be used to specify the maximum session limit for DNN + SNSSAI + IP domain level.
maxSessionLimitByUser	integer	O	This parameter can be used to specify the maximum session limit for a particular user.
useHttp2	boolean	O	Determines if using http/2 to communicate with BSF. Otherwise use http/1.1. Default Value: TRUE
useLocalConfiguredBSFAlways	boolean	O	Whether to use local configured BSF without Always discovering. Default Value: FALSE
useLocalConfiguredBSFWhenNotDiscovered	boolean	O	Whether to use local configured (if having) BSF when not discovered or discover failed. Default Value: FALSE

Table 2-425 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enableVSAInRegisterRequest	boolean	O	Determines if PCF sends Vendor-Specific-Attribute in the Binding Create or Register request. By default, the value is set to false.
vendorID	integer	O	Note: This field becomes active only when Enable Vendor Specific Attribute in Register Request switch is enabled. Specifies the Vendor ID that is mapped to the vendorId in the Vendor-Specific-Attribute.
dataCompressionScheme			Specifies the data compression scheme used by Binding Service. Following are the allowed values for this field: • Disabled • Zlib_Compressed By default, this value remains disabled.
audit	BindingAuditConfiguration	O	Provide Binding Audit Configuration details.
maxSessionCleanupMode	String Enum:[Local, Remote]	O	Binding service uses this flag to send request to SM service for either local or remote session clean up. The allowed values for this flag are: • Local • Remote On choosing the flag to Local, PCF deletes the session locally and does not send notify terminate request toward SMF. Default Value: Local
maxSessionForceDeleteOnExpiryOfWaitTimer	integer	O	On Max Session Cleanup Mode set to Remote this toggle flag appears. It makes forceDeleteOnExpiryOfWaitTimer flag to true or false which is used in SM service request for remote cleanup. Default Value: false

Table 2-425 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
maxSessionForceDeleteOnError	boolean	O	On Max Session Cleanup Mode set to Remote this toggle flag appears. It makes forceDeleteOnError flag to true or false which is used in SM service request for remote cleanup. On SM service notify terminate request failure and based on forceDeleteOnError flag, the session with 4xx and 5xx response status codes are deleted except for the 404 status code. Default Value: false
advancedSettings	AdvanceSettings	O	

Table 2-426 BindingAuditConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enable	boolean	O	Determines whether to send registration request to Audit service or not. Default Value: True
enter a range in sec from [20-700]	integer	M	Defines the number of stale records which Audit service notifies to Binding service in one second. The allowed value ranges 20 to 700 seconds. Default Value: 50
enter a range in minutes from [1-10080]	integer	M	Defines the binding age in minutes, of the binding entry after which Binding service deletes the stale sessions. Range: 1-10080

Table 2-426 (Cont.) BindingAuditConfiguration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
minAuditAttempts	integer	M	Specifies the minimum number of consecutive failed audit attempts until maxTTL / forceTTL is reached. If maxTTL is reached and audit_attempts + 1 >= Minimum Audit Attempts for maxTTL, Audit service sends notification to Binding Service with maxTTL flag set to <i>true</i>. Binding Service deletes the corresponding contextbinding information from its database. Range: 0-255 Default Value: 0 Note: If maxTTL is not reached and if audit attempts are reached, the number of audit attempts are incremented until maxTTL is reached.
enter a range in minutes from [1-1440]	integer		Minimum audit passes interval in minutes. Range: 1-1440
revalidateEnable	boolean	O	Determines whether to revalidate the binding session details with BSF. When this field is enabled, Binding service sends a request for revalidating the binding session records for valid PDU sessions in BSF. Default value: False
bsfRetryProfRevalid	string	O	Specifies the retry profile for revalidating the session binding records with BSF.

Table 2-427 AdvancedSettings

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
key	string	O	Specifies the key name.
value	string	O	Specifies the value of the key.

For more information on the Advanced Settings "Keys" and "Values", see "Binding Service" section of "Configuring Policy Using CNC Console" in *Oracle Communications Cloud Native Core, Converged Policy User Guide*.

Sample Response body structure for Binding Service GET and PUT operation:

```
{
  "bsfEnabled": true,
  "useLocalConfiguredBsfAlways": false,
  "useLocalConfiguredBsfWhenNotDiscovered": true,
  "useHttp2": true,
  "abortOnBsfError": false,
  "maxSessionLimitByUser": 10,
  "maxSessionLimitByApn": 2,
  "enableSessionLimitByUser": true,
  "enableApnFilterBySnssai": true,
  "enableVSAInRegisterRequest": false,
  "dataCompressionScheme": "0",
  "audit": {
    "enable": true,
    "enter a range in sec from [20-700]": 50,
    "enter a range in minutes from [1-10080]": 7200,
    "minAuditAttempts": 5,
    "enter a range in minutes from [1-1440]": 330
    "revalidateEnable": false,
    "bsfRetryProfRevalid": "string"
  },
  "maxSessionCleanupMode": "Local",
  "maxSessionForceDeleteOnExpiryOfWaitTimer": false,
  "maxSessionForceDeleteOnError": false,
  "advancedSettings": [
    {
      "key": "string",
      "value": "string"
    }
  ]
}
```

Import and Export Binding Service

Table 2-428 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
errors.message			The reason of the failure.
errors.name			Name of the components that failed to export or import.
exportData	array		Exported list of Binding Service. For more information, see Get and Update Binding Service .
key	string		Indicates the ID
sourceVersion	string		System version of product from which data is exported
topic	string		Topic of each managed object

Sample Request Body structure for Binding Service Import and Export operations:

```
{
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "errors": [
    {
      "name": "string",
      "message": "string"
    }
  ],
  "exportData": {
    "bsfRetryProfileForInitMsgs": "string",
    "bsfEnabled": true,
    "useLocalConfiguredBsfAlways": true,
    "useLocalConfiguredBsfWhenNotDiscovered": true,
    "useHttp2": true,
    "abortOnBsfError": true,
    "bsfRetryProfileForSubsqMsgs": "string",
    "enter a range in number from [1-100]": 2,
    "enableSessionLimitByUser": true,
    "enableApnFilterBySnssai": true,
    "bindingServiceNfCommProfile": "string",
    "enableVSAInRegisterRequest": true,
    "enter a 6 digit Vendor ID": "000111",
    "dataCompressionScheme": "string",
    "audit": {
      "enable": true,
      "enter a range in sec from [20-700]": 50,

```

```

        "enter a range in minutes from [1-10080]": 7200,
        "minAuditAttempts": 5,
        "enter a range in minutes from [1-1440]": 330
    },
    "maxSessionCleanupMode": "Local",
    "maxSessionForceDeleteOnExpiryOfWaitTimer": true,
    "maxSessionForceDeleteOnError": true,
    "advancedSettings": [
        {
            "key": "string",
            "value": "string"
        }
    ]
}
}
}

```

2.83 NF Communication Profiles

This section describes the service URIs available to create and configure NF communication profiles for CNC Policy.

Table 2-429 Policy NF Communication Profiles APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create NF Communication Profile	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/nfcommprofiles	See Table A-3
Get NF Communication Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/nfcommprofiles/{nfCommunicationProfileName}	See Table A-1
Update NF Communication Profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/nfcommprofiles/{nfCommunicationProfileName}	See Table A-2
Export NF Communication Profiles	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/nfcommprofiles/export	See Table A-1
Import NF Communication Profiles	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/nfcommprofiles/import	See Table A-3
Delete NF Communication Profile	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/nfcommprofiles/{nfCommunicationProfileName}	See Table A-4

Get, Create, and Update NF Communication Profile

This section describes the request and response parameters used in NF communication profile APIs.

Table 2-430 Request and Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
nfCommunicationProfileName	string	M	The unique name for the NF communication profile. This name is used to refer to the profile in other service configuration screen, such as SM Service, User Connector, and so on. The name can only contain the characters A–Z, a–z, 0–9, period (.), hyphen (-), and underline (_). The maximum length is 255 characters.
policyNfCommunicationModel	String	O	Indicates the communication model, in which the Policy NF is deployed. Provide any of the following values: • CUSTOM • Model_B • Model_C • Mode_D Default value: CUSTOM

Table 2-430 (Cont.) Request and Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
nfDiscoverySettings.discoveryParameters	DiscoveryParam	M Note: This parameter is mandatory when either of the following attributes is set to true: - sendDiscoveryHeaderInItMsg - sendDiscoveryHeaderSubscriptionMsg	Indicates the discovery parameter to be used in the 3gpp-sbi-discovery-<discovery-parameter>. This parameter is ignored when the "policyNfCommunicationModel" is set to MODEL_B .
nfDiscoverySettings.sendDiscoveryHeaderInItMsg	boolean	O	This value indicates if PCF must include the following 3gpp-sbi-discovery-<discovery-parameter> parameters in SBI messages: - Parameters that create a subscription, such as POST messages - Parameters that do not belong to a subscription, such as GET or PATCH messages Default value: False, for Custom model. This attribute is ignored when "policyNfCommunicationModel" is set to any value other than CUSTOM .

Table 2-430 (Cont.) Request and Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
nfDiscoverySettings.sendDiscoveryHeaderSubsMsg	boolean	O	This value indicates if PCF must include the following 3gpp-sbi-discovery-<discovery-parameter> parameters in SBI messages: - Parameters to update a subscription, such as PUT messages when unable to fill in a 3gpp-sbi-routing-binding header. - Parameters to delete a subscription, such as DELETE messages when unable to fill in a 3gpp-sbi-routing-binding header. Default value: False, for Custom model. This attribute is ignored when "policyNfCommunicationModel" is set to any value other than CUSTOM.
nfDiscoverySettings.sendTargetApiRootHeaderInitMsg	boolean	false	Indicates if PCF must include 3gpp-sbi-target-apiroot header in initial request messages. If the user selects Model D for Policy NF Communication Model, the value for this parameter must be set to false. For other Policy NF Communication Model values, the default value is true.
onDemandDiscoveryCaching.forceDiscovery	String	O	Indicates whether to cache the NF profiles in NRF client or to skip caching and receive the response directly from NRF. Value of this parameter can be 0 or 1. - When the value of OC-Force-Rediscovery parameter is set to 0, it enables the feature and caches the NF profiles details received from NRF in NRF Client. - When the value of OC-Force-Rediscovery parameter is set to 1, it disables the feature and retrieves the NF profiles directly from NRF while responding to the query from the backend services. Default value: 0

Table 2-430 (Cont.) Request and Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
onDemandDiscoveryCaching.retentionPeriod	String	O	Indicates whether to cache the NF profiles in NRF client or to skip caching and receive the response directly from NRF. Value of this parameter can be 0 or 1. — When the value of OC-Force-Rediscovery parameter is set to 0, it enables the feature and caches the NF profiles details received from NRF in NRF Client. — When the value of OC-Force-Rediscovery parameter is set to 1, it disables the feature and retrieves the NF profiles directly from NRF while responding to the query from the backend services. Default value: 0
nfBindingSettings.bindingLevel	boolean	M Note: This parameter is mandatory when the sendBindingHeader parameter is set to true.	Indicates the binding level that must to be included in the 3gpp-sbi-binding header when PCF adds this header in a message to another NF. Provide any of the following values: - NF_SET - NF_INSTANCE
nfBindingSettings.sendBindingHeader	boolean	O	Indicates if PCF includes the 3gpp-sbi-binding header in SBI messages for the subscription creation, modification, or notification requests and responses, as applicable. Default value: False, for Custom model. This attribute is ignored when "policyNfCommunicationModel" is set to any value other than "Custom".

Table 2-430 (Cont.) Request and Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
nfBindingSettings.sendServiceName	boolean	O	Indicates whether to enable or disable the support for sending service name in binding header. Possible values: - true: includes svcname in the Binding Header sent towards NFs such as UDR, AMF, or BSF (customized) except for CHF, which contains the 3GPP defined PCF service name. - false: does not include svcname in the Binding Header. Default value : false
nfBindingSettings.sendRoutingBindingHeader	boolean	O	Indicates if PCF includes the <i>3gpp-sbi-routing-binding</i> header in SBI messages for the subscription creation, modification, or notification requests, as applicable. Default value: False
nfBindingSettings.sendCallbackHeader	boolean	O	Indicates if PCF includes the <i>3gpp-sbi-callback</i> header in SBI messages for the subscription creation, modification, or notification requests, as applicable. Default value: False, for Custom model. This attribute is ignored when "policyNfCommunicationModel" is set to any value other than CUSTOM . For more information, see Table 2-433
nfServerSettings	NFServerSettings	O	Specifies the server header settings for the NF communication profile.
nfServerSettings.sendServerHeader	Boolean	O	Indicates if services Converged Policy microservices include server header while sending an error response.
nfServerSettings.serverHeaderErrorCodes	String	O	Specifies the error codes for which service header is generated. The error codes can be from 100 to 999. Note: If no error is specified, then Converged Policy sends server header for all error responses.
retryAndAlternateRoutingSettings.retryProfileInitMsg	string	O	Specifies the retry or alternate routing options when an SBI message is not delivered successfully in any of the following scenarios: - POST operation to create a subscription - GET or PATCH request not belonging to a subscription

Table 2-430 (Cont.) Request and Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
retryAndAlternateRoutingSettings.retryProfileSubsMsg	string	O	Specifies the retry or alternate routing options when an SBI message that updates, deletes or notifies a subscription is not delivered successfully.
nfCorrelationSettings.sendCorrelationHeader	string	O	Indicates whether to carry subscriber identifier included in SBI messages and can be used for SBI message correlation. Default Value: false
nfCorrelationSettings.allowedCorrelationInfoType	string	O	Displays the types of values that can be included in Correlation-info Header. Currently only SUPI and GPSI are supported.
reattemptSettings	ReattemptSettings	O	Provide Re-attempt Settings details.

Table 2-431 ReattemptSettings

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enableNFServiceOperationReattempt	boolean	O	This is a global flag to enable re-attempt for NF service operations. Default Value: false
nfServiceOperationProfiles	NFServiceOperationProfiles	O	Configure the list of NF Service Operations along with Reattempts Profile.

Table 2-432 NFServiceOperationProfiles

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
nfServiceOperation	string Enum:[]	O	Configure the list of NF Service Operations. The possible values are: - AMFDiscovery - N1N2MessageSubscribe - N1N2MessageTransfer - N1N2TransferFailureNotification
reattemptProfile	NFServiceOperationProfiles	O	Provide the Reattempts Profiles for the selected service operation.

Default Header Values

The following table informs about the default values of Binding headers for each of the supported communication models:

Table 2-433 Default Header Values for Communication Model

Flags	Model B	Model C	Model D	Custom
Send Target Api Root Header in Initial Message	True	True	False	True
Send Discovery Header In Initial Messages	False	False	True	False
Send Discovery Header In Subsequent Messages	False	False	True	False
Send Binding Header	True	True	True	False
Send Routing Binding Header	False	True	True	False
Send Callback Header	False	True	True	False

Sample Request body for NF Communication Profile POST and PUT operations:

```

{
  "nfCommunicationProfileName": "String",
  "policyNfCommunicationModel": "CUSTOM",
  "nfDiscoverySettings": {
    "discoveryParameters": [
      {
        "paramName": "TARGET_NF_SET_ID",
        "paramValue": "string"
      }
    ],
    "sendDiscoveryHeaderInitMsg": false,
    "sendDiscoveryHeaderSubsMsg": false,
    "sendTargetApiRootHeaderInitMsg": false
  },
  "onDemandDiscoveryCaching": {
    "forceDiscovery": 0,
    "retentionPeriod": 10000
  },
  "nfBindingSettings": {
    "bindingLevel": "NF_SET",
    "sendBindingHeader": false,
    "sendRoutingBindingHeader": false,
    "sendCallbackHeader": false,
    "sendServiceName": false
  },
  "nfServerSettings": {
    "sendServerHeader": true,

```

```

        "serverHeaderErrorCodes": [
            0
        ]
    },
    "retryAndAlternateRoutingSettings": {
        "retryProfileInitMsg": "string",
        "retryProfileSubsMsg": "string"
    },
    "nfCorrelationSettings": {
        "sendCorrelationHeader": true,
        "allowedCorrelationInfoIdType": [
            "imsi"
        ]
    },
    "reattemptSettings": {
        "enableNFServiceOperationReattempt": true,
        "nfServiceOperationProfiles": [
            {
                "nfServiceOperation": "AMFDiscovery",
                "reattemptProfile": "string"
            }
        ]
    }
}

```

Sample Response body structure for NF Communication Profile GET, POST, and PUT operation:

```

{
    "nfCommunicationProfileName": "string",
    "policyNfCommunicationModel": "CUSTOM",
    "nfDiscoverySettings": {
        "discoveryParameters": [
            {
                "paramName": "TARGET_NF_SET_ID",
                "paramValue": "string"
            }
        ],
        "sendDiscoveryHeaderInitMsg": false,
        "sendDiscoveryHeaderSubsMsg": false,
        "sendTargetApiRootHeaderInitMsg": false
    },
    "onDemandDiscoveryCaching": {
        "forceDiscovery": 0,
        "retentionPeriod": 10000
    },
    "nfBindingSettings": {
        "bindingLevel": "NF_SET",
        "sendBindingHeader": false,
        "sendRoutingBindingHeader": false,
        "sendCallbackHeader": false
    },
    "nfServerSettings": {
        "sendServerHeader": true,
        "serverHeaderErrorCodes": [

```



```

    0
  ]
},
"retryAndAlternateRoutingSettings": {
  "retryProfileInitMsg": "string",
  "retryProfileSubsMsg": "string"
},
"nfCorrelationSettings": {
  "sendCorrelationHeader": true,
  "allowedCorrelationInfoIdType": [
    "imsi"
  ]
}
}
}

```

Import and Export NF Communication Profile

Table 2-434 Import/Export NF Communication Profile

API Name	Request Type	Request Url	Possible Result Code
Export NF Communication Profiles	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/nfcommprofiles/export	See Table A-1
Import NF Communication Profiles	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/nfcommprofiles/import	See Table A-3

Table 2-435 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
date	string	O	Current timestamp
error.message	string	O	The reason of the failure.
error.name	string	O	Name of the components that failed to export or import.
exportData	array	M	Exported list of NF Communication Profile. For more information, see Get, Create, and Update NF Communication Profile .
key	string	O	Indicates the ID of NF Communication Profile.
sourceVersion	string	O	System version of product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for NF Communication Profile Import and Export operations:

```

{
  "systemVersion": "string",
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": [
    {
      "nfCommunicationProfileName": "String",
      "policyNfCommunicationModel": "CUSTOM",
      "nfDiscoverySettings": {
        "discoveryParameters": [
          {
            "paramName": "TARGET_NF_SET_ID",
            "paramValue": "string"
          }
        ],
        "sendDiscoveryHeaderInitMsg": false,
        "sendDiscoveryHeaderSubsMsg": false,
        "sendTargetApiRootHeaderInitMsg": false
      },
      "onDemandDiscoveryCaching": {
        "ignoreCacheAndForceDiscovery": 0,
        "forceDiscovery": 0,
        "retentionPeriod": 10000
      },
      "nfBindingSettings": {
        "bindingLevel": "NF_SET",
        "sendBindingHeader": false,
        "sendRoutingBindingHeader": false,
        "sendCallbackHeader": false,
        "sendServiceName": false
      },
      "nfServerSettings": {
        "sendServerHeader": true,
        "serverHeaderErrorCodes": [
          0
        ]
      },
      "retryAndAlternateRoutingSettings": {
        "retryProfileInitMsg": "string",
        "retryProfileSubsMsg": "string"
      },
      "nfCorrelationSettings": {
        "sendCorrelationHeader": true,
        "allowedCorrelationInfoIdType": [
          "imsi"
        ]
      },
      "retrySettings": {
        "enableNFServiceOperationRetry": true,
        "nfServiceOperationProfiles": [
          {

```

```

        "nfServiceOperation": "AMFDiscovery",
        "retryProfile": "string"
    }
  ]
}
},
"errors": [
  {
    "name": "string",
    "message": "string"
  }
]
}

```

2.84 PDS Settings

Table 2-436 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export PDS Settings	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pds/pdsSettings/export	See Table A-1
Import PDS Settings	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/pds/pdsSettings/import	See Table A-3
Get PDS Settings	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pds/pdsSettings	See Table A-1
Update PDS Settings	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/pds/pdsSettings	See Table A-2

Get and Update PDS Settings

Table 2-437 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
audit.enable	boolean	O	Specifies whether to send registration request to Audit service or not.
audit.notificationRate	integer	M	Specifies the number of stale records which Audit service notifies to PDS service in one second.

Table 2-437 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
audit.pdsProfileMin AuditPassInterval	integer	M	Specifies the minimum interval (in minutes) between start times of two consecutive audit passes for the pdssubscriber table.
audit.pdsProfileSes sionAge	integer	M	Specifies the age (in minutes) of PDS profile (GPSI-SUPI-NAI mapping) after which the profile is considered to be stale in Policy and PDS subscriber table is queried for presence of such associations.
audit.pdsProfileSes sionMaxAge	integer	M	Specifies the age (in minutes) of PDS profile (GPSI-SUPI-NAI mapping) after which the profile is purged from the database without sending any queries to PDS subscriber table.
audit.subscriberMin AuditPassInterval	integer	M	Specifies the minimum interval (in minutes) between start times of two consecutive audit passes for the pdssubscriber table.
audit.subscriberSes sionAge	integer	M	Specifies the age (in minutes) of PDS subscriber entry after which a record is considered to be stale on Policy and services (SM, AM, UE, and PCRF Core) are queried for presence of such associations.
audit.subscriberSes sionMaxAge	integer	M	Specifies the age (in minutes) of PDS subscriber entry after which a record is purged from the database and no query requests are sent to services for presence of such associations.
common.enableFet chAndResubscribe	boolean	O	If the value for this parameter is set to true, PDS refetches the data and revalidates the subscription when the number of sessions exceeds the configured limit at PDS.
common.enableHtt p2	boolean	O	If the value for this parameter is set to true, the HTTP2 remains enabled. By default, HTTP2 remains disabled.
common.requestTi meout	string	O	If PDS Setting is updated then set the timeout as 3000 for the initial flow to succeed.

Table 2-437 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
common.typeOfSearch	string	O	Specifies the PDS query search for a PdsProfile. By default, Multi-UE ID Search is set. Note: The Type of Search (common.typeOfSearch) and Preference Order (common.preferenceOrder) fields will not be imported or updated through PDS Settings, either via the GUI or REST API. These configurations must be updated using PDS UE ID Configuration. For more information, see PDS UE ID Configuration Settings .
common.preferenceOrder	array	O	If typeOfSearch parameter is set to Preferential Search, then the user can select the search index in order of their preference. Possible values for preferenceOrder are : ["SUPI", "GPSI"], ["GPSI", "SUPI"], ["GPSI"], ["SUPI"]. Note: The Type of Search (common.typeOfSearch) and Preference Order (common.preferenceOrder) fields will not be imported or updated through PDS Settings, either via the GUI or REST API. These configurations must be updated using PDS UE ID Configuration. For more information, see PDS UE ID Configuration Settings .
common.sessionCountPerDnnList	SessionCountPerDnnList	O	If enableFetchAndResubscribe parameter is set to true, user can configure the number of sessions per DNN using this group of parameters.
pcrf_core_base_uri	string	O	Specifies the base URI of the PCRF Core service.
remoteSSVRootPath.amPolicyData	string	M	Specifies the root path of subscriber state variables under amPolicyData.
remoteSSVRootPath.enableEndSessionSSVRemoteToUDR	boolean	O	Specifies if the dynamic write should happen at the time of policy execution or at the end of the last session for a subscriber.
remoteSSVRootPath.operatorSpecificData	string	M	Specifies the path of subscriber state variables under operatorSpecificData.

Table 2-437 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
remoteSSVRootPath.smPolicyData	string	M	Specifies the path of subscriber state variables under SMPolicyData. You can provide multiple paths separated by commas.
remoteSSVRootPath.spendingLimitData	string	M	Specifies the path of subscriber state variables under SpendingLimitData.
remoteSSVRootPath.uePolicySet	string	M	Specifies the path of subscriber state variables under uePolicySet.

Table 2-438 SessionCountPerDnnList

Parameter Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
dnn	string	O	Specifies the Data Network Name. The allowed expression for DNN is <code>^[A-Za-z0-9-]+\$. Spaces and other characters are not allowed. (NA allowed)</code>
maxSessionsCount	integer	O	Specifies the number of sessions after which PDS refetches and revalidates subscriptions. You can enter a number from 1 to 20.
sd	string	O	Specifies the Slice Differentiator Name. The allowed expression for SD is <code>^[A-Fa-f0-9-]+(NA)\$</code> . Spaces and other characters are not allowed.
sst	string	O	Specifies the Slice or Service Type name in the S-NSSAI. You can enter a number from 0 to 255 or NA.

Sample Request body structure for PUT operations:

```
{
  "audit": {
    "enable": true,
    "notificationRate": 50,
    "pdsProfileAge": 4500,
    "pdsProfileMaxAge": 8820,
    "pdsProfileMinAuditPassInterval": 1170,
    "subscriberMinAuditPassInterval": 390,
    "subscriberSessionAge": 1500,
    "subscriberSessionMaxAge": 2940
  },
  "common": {
```

```

    "enableFetchAndResubscribe": true,
    "enableHttp2": true,
    "requestTimeout": "string",
    "typeOfSearch": "Preferential Search",
    "preferenceOrder": [
        "SUPI",
        "GPSI"    ],
    "sessionCountPerDnnList": [
        {
            "dnn": "string",
            "maxSessionsCount": 1,
            "sd": "string",
            "sst": 0
        }
    ]
},
"remoteSSVRootPath": {
    "amPolicyData": [
        "string"
    ],
    "enableEndSessionSSVRemoteToUDR": true,
    "operatorSpecificData": [
        "string"
    ],
    "smPolicyData": [
        "string"
    ],
    "spendingLimitData": [
        "string"
    ],
    "uePolicySet": [
        "string"
    ]
}
}

```

Sample Response body structure for GET and PUT operations:

```

{
    "audit": {
        "enable": true,
        "notificationRate": 50,
        "pdsProfileAge": 4500,
        "pdsProfileMaxAge": 8820,
        "pdsProfileMinAuditPassInterval": 1170,
        "subscriberMinAuditPassInterval": 390,
        "subscriberSessionAge": 1500,
        "subscriberSessionMaxAge": 2940
    },
    "common": {
        "enableFetchAndResubscribe": true,
        "enableHttp2": true,
        "requestTimeout": "string",
        "sessionCountPerDnnList": [
            {

```

```

        "dnn": "string",
        "maxSessionsCount": 1,
        "sd": "string",
        "sst": 0
    }
]
},
"remoteSSVRootPath": {
    "amPolicyData": [
        "string"
    ],
    "enableEndSessionSSVRemoteToUDR": true,
    "operatorSpecificData": [
        "string"
    ],
    "smPolicyData": [
        "string"
    ],
    "spendingLimitData": [
        "string"
    ],
    "uePolicySet": [
        "string"
    ]
}
}
}

```

Sample Response Body structure for PUT and POST operations for SessionCountPerDnnList

```

{
    "remoteSSVRootPath": {},
    "common": {
        "enableHttp2": false,
        "requestTimeout": "1000",
        "enableFetchAndResubscribe": true,
        "sessionCountPerDnnList": [
            {
                "sst": "11",
                "sd": "abc123",
                "dnn": "internet",
                "maxSessionsCount": 1
            }
        ]
    },
    "audit": {
        "enable": true,
        "notificationRate": 50,
        "subscriberSessionAge": 1500,
        "subscriberSessionMaxAge": 2940,
        "subscriberMinAuditPassInterval": 10,
        "pdsProfileAge": 4500,
        "pdsProfileMaxAge": 8820,
        "pdsProfileMinAuditPassInterval": 10
    },
}

```



```
"advancedSettings": []
}
```

Sample Response Body structure for PUT and POST operations for SessionCountPerDnnList (subscription revalidation of uePolicySetData and amPolicyData)

```
{
  "remoteSSVRootPath": {},
  "common": {
    "enableHttp2": false,
    "requestTimeout": "1000",
    "enableFetchAndResubscribe": true,
    "sessionCountPerDnnList": [
      {
        "sst": "NA",
        "sd": "NA",
        "dnn": "NA",
        "maxSessionsCount": 1
      }
    ]
  },
  "audit": {
    "enable": true,
    "notificationRate": 50,
    "subscriberSessionAge": 1500,
    "subscriberSessionMaxAge": 2940,
    "subscriberMinAuditPassInterval": 10,
    "pdsProfileAge": 4500,
    "pdsProfileMaxAge": 8820,
    "pdsProfileMinAuditPassInterval": 10
  },
  "advancedSettings": []
}
```

For more information on the Advanced Settings "Keys" and "Values", see "**PDS settings**" section of "Configuring Policy Using CNC Console" in *Oracle Communications Cloud Native Core, Converged Policy User Guide*.

Export and Import PDS Settings

Table 2-439 Request and Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array	M	Exported list of PDS settings.
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import and Export operations:

```

{
  "date": "string",
  "exportData": {
    "audit": {
      "enable": true,
      "notificationRate": 50,
      "pdsProfileAge": 4500,
      "pdsProfileMaxAge": 8820,
      "pdsProfileMinAuditPassInterval": 1170,
      "subscriberMinAuditPassInterval": 390,
      "subscriberSessionAge": 1500,
      "subscriberSessionMaxAge": 2940
    },
    "common": {
      "enableFetchAndResubscribe": true,
      "enableHttp2": true,
      "requestTimeout": "string",
      "sessionCountPerDnnList": [
        {
          "dnn": "string",
          "maxSessionsCount": 1,
          "sd": "string",
          "sst": 0
        }
      ]
    },
    "remoteSSVRootPath": {
      "amPolicyData": [
        "string"
      ],
      "enableEndSessionSSVRemoteToUDR": true,
      "operatorSpecificData": [
        "string"
      ],
      "smPolicyData": [
        "string"
      ],
      "spendingLimitData": [
        "string"
      ],
      "uePolicySet": [
        "string"
      ]
    }
  },
  "sourceVersion": "string",
  "topic": "string"
}

```

2.85 PDS Workflow

Table 2-440 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export PDS Workflows	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pds/pdsWorkflow/export	See Table A-1
Import PDS Workflows	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/pds/pdsWorkflow/import	See Table A-3
Get PDS Workflows	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/pds/pdsWorkflow	See Table A-1
Update PDS Workflows	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/pds/pdsWorkflow	See Table A-2
Delete PDS Workflow	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/services/pds/pdsWorkflow	See Table A-4

Get and Update PDS Workflows

Table 2-441 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
workflows	boolean		Specifies the PDS workflow.

Table 2-441 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
type	string		Specifies the PDS workflow type. The values can be chosen as: • Default - On selecting this option, the default PDS behavior applies. • Charging Profile selection based on User Profile - On selecting this option, you can configure whether to select user profile from LDAP or UDR. • Charging Profile selection based on Notification - On selecting this option, you can configure to select user profile based on Notification from UDR. • Datasource selection based on PRE - On selecting this option, you can configure to select datasource based on PRE. • Custom - For a custom workflow, contact Oracle Policy engineering team and paste the workflow in JSON format provided by the team.
subtype	string		On selecting the Charging Profile selection based on Notification workflow type, the Profile type can be selected as: • LDAP • UDR

Sample Request/Response body structure for GET and PUT operations:

```
{
  "workflows": {},
  "type": "string",
  "subtype": "string"
}
```

Export/Import PDS Workflows

Table 2-442 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData	array	M	Exported list of PDS Workflows.
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "topic": "string",
  "sourceVersion": "string",
  "date": "string",
  "exportData": {
    "workflows": {},
    "type": "string",
    "subtype": "string"
  }
}
```

2.86 Policy Engine

Table 2-443 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export Policy Engine	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/policyengine/export	See Table A-1
Import Policy Engine	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/policyengine/import	See Table A-3

Export/Import Policy Engine

Table 2-444 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	string		Current timestamp
exportData.loglevel	string		
exportData.supportedServices.relativeUrl	string		
exportData.supportedServices.serviceLabel	string		
exportData.supportedServices.serviceName	string		
sourceVersion	string		System version of the product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "exportData": {
    "logLevel": "WARN",
    "supportedServices": [
      {
        "relativeUrl": "string",
        "serviceLabel": "string",
        "serviceName": "string"
      }
    ]
  },
  "sourceVersion": "string",
  "topic": "string"
}
```

2.87 NWDAF Agent

Table 2-445 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Get NWDAF Agent Service configuration	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/nwdafAgent	See Table A-1
Update NWDAF Agent Service configuration	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/nwdafAgent	See Table A-2

Table 2-445 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Export NWDAF Agent Service configuration	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/nwdafAgent/export	See Table A-1
Import NWDAF Agent Service configuration	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/nwdafAgent/import	See Table A-3
Create Autonomous Subscription	POST	{apiRoot}/oc-cnpolicy-configuration/v1/autonomousSubscription/sliceLoadLevel	See Table A-3
Get Autonomous Subscription	GET	{apiRoot}/oc-cnpolicy-configuration/v1/autonomousSubscription/sliceLoadLevel/{sliceLoad}	See Table A-1
Update Autonomous Subscription	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/autonomousSubscription/sliceLoadLevel/{sliceLoad}	See Table A-2
Delete Autonomous Subscription	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/autonomousSubscription/sliceLoadLevel/{sliceLoad}	See Table A-4
Get All Autonomous Subscription	GET	{apiRoot}/oc-cnpolicy-configuration/v1/autonomousSubscription/sliceLoadLevel/export	See Table A-1
Import Autonomous Subscription	POST	{apiRoot}/oc-cnpolicy-configuration/v1/autonomousSubscription/sliceLoadLevel/import	See Table A-3

Get and Update NWDAF Agent

Table 2-446 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)	Description
advancedSettings	array	M	List of key/value pair

Table 2-447 SmAdvancedSettings

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
key	string	O	Specifies the key name.
value	string	O	Specifies the value of the key.

Sample Request body structure for GET and PUT operations:

```
{
  "advancedSettings": [
    {
      "key": "string",
      "value": "string"
    }
  ]
}
```

Export/Import Session Management Service

Table 2-448 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
date	String	O	Current timestamp
exportData.advancedSettings	array	O	List of key/value pair
exportData.advancedSettings.key	string	O	Specifies the key name
exportData.advancedSettings.value	string	O	Specifies the value of the key
sourceVersion	String	O	Version of the source
systemVersion	String	O	Version of the system
topic	String	M	

Sample Request Body structure for Import/Export operations:

```
{
  "date": "string",
  "exportData": {
    "advancedSettings": [
      {
        "key": "string",
        "value": "string"
      }
    ]
  },
  "sourceVersion": "string",
  "systemVersion": "string",
}
```



```
"topic": "string"
}
```

Slice Load Level

Table 2-449 Get, Put, Post, and Update Slice Load Level

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
immRep	Boolean	O	Indication of immediate reporting
snssai	String	M	Identification of network slice to which the subscription applies.
threshold	Integer	M	Indication of slice load level in percentage

Sample Request body structure for GET and PUT operations:

```
{
  "immRep": true,
  "snssai": "string",
  "threshold": 0
}
```

Export/Import Slice Load Level

Table 2-450 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
Date	string	O	Current timestamp
Errors	array	O	List of errors
Errors.Message	string	O	Error message
Errors.Name	string	O	Name of the error
exportData	array	O	Exported list of session rule profiles.
exportData.immRep	Boolean	O	Indication of immediate reporting
exportData.snssai	String	O	Identification of network slice to which the subscription applies.
exportData.threshold	Integer	O	Indication of slice load level in percentage
sourceVersion	string	O	System version of product from which data is exported
topic	string	M	Topic of each managed object

Sample Request Body structure for Import/Export operations:

```
[
  {
    "date": "string",
    "errors": [
      {
        "message": "string",
        "name": "string"
      }
    ],
    "exportData": [
      {
        "immRep": true,
        "snssai": "string",
        "threshold": 0
      }
    ],
    "sourceVersion": "string",
    "topic": "string"
  }
]
```

2.88 Notifier Service

This section describes the APIs used to configure Notifier Service.

2.88.1 Notifier Configurations

This URI is used to configure the Notifier Service from CNC Console to send SMPP messages to external notification servers.

Table 2-451 Supported REST APIs that can be configured from CNC Console

Description	HTTP Method or Custom Operation	Resource URI
To update Notifier Service configuration	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/notifier For details on Request/Response Body Parameters for PUT notify, see Table 2-452 .
To get individual Notifier Service configuration	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/notifier For details on Request/Response Body Parameters for GET smsGateway, see Table 2-452 .
To export Notifier Service configuration.	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/notifier / export

Table 2-451 (Cont.) Supported REST APIs that can be configured from CNC Console

Description	HTTP Method or Custom Operation	Resource URI
To import Notifier Service configuration.	POST	{apiRoot}/oc-cnpolicy-configuration/v1/services/notifier/import For details on Request/Response Body Parameters for POST smsGateway, see Table 2-452

Table 2-452 Request/Response Body Parameters for Notifier Configurations

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
smppConfiguration.isEnabled	string	M	Enables the Subscriber Notification using SMPP Protocol. Default Value: false
smppConfiguration.sourceAddress	string	O	ESME Source Address. By default this field is empty.
smppConfiguration.defaultSmsGatewayGroup	String	M	All the SMS Gateways that are created in SMS GATEWAY CONFIGURATION page.
smppConfiguration.connectTimeoutMillis	String	M	Indicates the SMS Gateway Connection Timeout in milliseconds. Range: 1-60000 Default Value: 30000
smppConfiguration.responseTimeoutMillis	String	M	Indicates the timeout (in milliseconds) for the response going towards SMS Gateway. Range: 1-60000 Default Value: 10000
smppConfiguration.sourceAddressTON	string	O	Indicates the ESME Source address type of number: - UNKNOWN - INTERNATIONAL - NATIONAL - NETWORK_SPECIFIC - SUBSCRIBER_NUMBER - ALPHANUMERIC - ABBREVIATED Default Value: UNKNOWN

Table 2-452 (Cont.) Request/Response Body Parameters for Notifier Configurations

Field Name	Data Type	Mandatory(M) / Optional(O) Conditional(C)	Description
smppConfiguration.sourceAddrNpi	String	O	ESME Source Address Number Plan Indicator: - UNKNOWN - ISDN (E163/E164) - DATA (X, 121) - TELEX - LAND_MOBILE - NATIONAL - PRIVATE - ERMES - INTERNET - WAP Default Value: UNKNOWN
advancedSettings			To configure the Keys and values for advanced settings.

Sample Request/Response body structure for PUT operation:

```
{
  "smppConfiguration": {
    "isEnabled": true,
    "sourceAddr": "3.3.2.2",
    "defaultSmsGatewayGroup": "gateway1",
    "connectTimeoutMillis": 30000,
    "responseTimeoutMillis": 10000,
    "sourceAddrTon": "UNKNOWN",
    "sourceAddrNpi": "UNKNOWN"
  },
  "advancedSettings": []
}
```

2.88.2 SMS Gateway

This URI is used to configure the SMS Gateway.

Table 2-453 Supported REST APIs to configure SMS Gateway

Description	HTTP Method or Custom Operation	Resource URI
To get the configuration of a particular SMS Gateway.	GET	{apiRoot}/oc-cnpolicy-configuration/v1/smsGateway/{smsGatewayName} Where <smsGatewayName> is the SMS Gateway name.

Table 2-453 (Cont.) Supported REST APIs to configure SMS Gateway

Description	HTTP Method or Custom Operation	Resource URI
To delete the configuration of a particular SMS Gateway.	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/smsGateway/{smsGatewayName} Where <smsGatewayName> is the SMS Gateway name.
To update the configuration of a particular SMS Gateway.	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/smsGateway/{smsGatewayName} Where <smsGatewayName> is the SMS Gateway name. For details on Request/Response Body Parameters for PUT smsGateway, see Table 2-454
To create a new SMS Gateway.	POST	{apiRoot}/oc-cnpolicy-configuration/v1/smsGateway/ For details on Request/Response Body Parameters for POST smsGateway, see Table 2-454
To export the list of all the SMS Gateways.	GET	{apiRoot}/oc-cnpolicy-configuration/v1/smsGateway/{export}
To import the list of all the SMS Gateways.	POST	{apiRoot}/oc-cnpolicy-configuration/v1/smsGateway/{import} For details on Request/Response Body Parameters for POST smsGateway.import, see Table 2-454

Table 2-454 Request/Response Body Parameters for PUT/POST operations on smsGateway

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
description	string	O	Free-form text that identifies the SMS Gateway server within the network. Enter up to 250 characters. By default, the value is left empty.
name		M	Enter the name of the SMS Gateway server. The name can be lower case alphanumeric characters, '-' or '.', and must start and end with an alphanumeric character. By default, the value is left empty.
primarySmscHost		M	Enter the Host Name of the primary SMSC Host server. By default, the value is left empty.

Table 2-454 (Cont.) Request/Response Body Parameters for PUT/POST operations on smsGateway

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
requestDeliveryReceipt		O	Specify the mode of delivery receipt. This field accepts the following integer values: 0 to indicate REQUEST_DELIVERY_RECEIPT_NO 1 to indicate REQUEST_DELIVERY_RECEIPT_SUCCESS_FAILURE 2 to indicate REQUEST_DELIVERY_RECEIPT_FAILURE Default Value: 0
maxByteLength		O	Maximum number of bytes allowed for the message. The length of the message can range between 1 to 254 bytes. Default Value: 140
longMsgMaxByteLength		O	Maximum number of bytes allowed in a long message. The length of the message can range between 1 to 999 bytes. Default Value: 500
longMessageEnabled		M	Enables the long messages. Default Value: true
longMessageDeliveryMethod		M	Specify the long message delivery method. It can take the following integer values: 0 to indicate SEGMENTATION AND REASSEMBLY (SAR) to deliver the long messages in segments 1 to indicate the MESSAGE_PAYLOAD to deliver the long messages in payload Default Value: 0
truncateLongMessages		M	Indicates whether to truncate messages longer than the specified length. Default Value: false
failMaxMessageSize		M	Specifies the maximum length of the message after which the message fails. Default Value: true

Sample Request/Response body structure for PUT smsGateway operation:

```
{
  "description": "testing",
  "name": "test",
  "primarySmscHost": "host_3",
```

```

    "requestDeliveryReceipt": 2,
    "maxByteLength": 140,
    "longMsgMaxByteLength": 500,
    "longMessageEnabled": true,
    "longMessageDeliveryMethod": 0,
    "truncateLongMessages": false,
    "failMaxMessageSize": true
  }

```

Sample Request/Response body structure for POST smsGateWay.import operation:

```

{
  "topic": "common.notifierservice.msggateway",
  "sourceVersion": "1.6.0",
  "date": "2023-03-14T08:01:48Z",
  "exportData": [
    {
      "description": "testing",
      "name": "test",
      "primarySmscHost": "host_3",
      "requestDeliveryReceipt": 2,
      "maxByteLength": 140,
      "longMsgMaxByteLength": 500,
      "longMessageEnabled": true,
      "longMessageDeliveryMethod": 0,
      "truncateLongMessages": false,
      "failMaxMessageSize": true
    }
  ]
}

```

2.88.3 SMSC HOST Info

This URI is used to configure the SMSC Host.

Table 2-455 Supported REST APIs to configure SMS Gateway

Description	HTTP Method or Custom Operation	Resource URI
To get the SMSC Host name.	GET	{apiRoot}/oc-cnpolicy-configuration/v1/smscHostInfo/{smscHostName}
To delete the SMSC Host name.	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/smscHostInfo/{smscHostName}

Table 2-455 (Cont.) Supported REST APIs to configure SMS Gateway

Description	HTTP Method or Custom Operation	Resource URI
To update the configuration of a particular SMSC Host.	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/smscHostInfo/{smscHostName} For details on Request/Response Body Parameters for PUT smscHostInfo.smscHostName, see Table 2-456
To create a new SMSC Host.	POST	{apiRoot}/oc-cnpolicy-configuration/v1/smscHostInfo/{smscHostName} For details on Request/Response Body Parameters for POST smscHostInfo.smscHostName, see Table 2-456
To export the list of all the SMSC Hosts.	GET	{apiRoot}/oc-cnpolicy-configuration/v1/smscHostInfo/{export}
To import the list of all the SMSC Hosts.	POST	{apiRoot}/oc-cnpolicy-configuration/v1/smscHostInfo/{import} For details on Request/Response Body Parameters for POST smsHostInfo.import, see Table 2-456

Table 2-456 Request/Response Body Parameters for PUT/POST smscHostInfo.smscHostName.

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	M	Enter the name of the SMSC Host server. The name can be lower case alphanumeric characters, '-' or '.', and must start and end with an alphanumeric character. By default, the value is left empty.
host	String	M	Enter the Host Name of the SMSC server. The host can be Ipv4, Ipv6 or FQDN with optional port value. By default, the value is left empty.
port	Integer	M	Enter the Port number of the SMSC server. Range: 0-65535 By default, the value is left empty.

Sample Request/Response body structure for PUT/POST operations:

```
{
  "name": "host_2",
  "host": "1.1.1.9",
  "port": 8002
}
```

Sample Request/Response body structure for POST operation to import the details:

```
{
  "topic": "common.notifierservice.smschost",
  "sourceVersion": "1.6.0",
  "date": "2023-03-15T13:21:02Z",
  "exportData": [
    {
      "name": "host_4",
      "host": "1.1.1.7",
      "port": "8000"
    }
  ]
}
```

2.89 Usage Monitoring

This section describes the APIs used to configure Usage Monitoring service.

2.89.1 Usage Monitoring Service

Table 2-457 Supported operations

HTTP Method or Custom Operation	Description	Resource URI
GET	Get Usage Monitoring Service	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfum For details on the Request/Response Body Parameters, see Table 2-458
PUT	Update Usage Monitoring Service	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfum For details on the Request/Response Body Parameters, see Table 2-458
POST	Import Usage Monitoring Service	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfum/import For details on the Request/Response Body Parameters, see Table 2-458

Table 2-457 (Cont.) Supported operations

HTTP Method or Custom Operation	Description	Resource URI
GET	Export Usage Monitoring Service	{apiRoot}/oc-cnpolicy-configuration/v1/services/pcfum/export For details on the Request/Response Body Parameters, see Table 2-458

Table 2-458 Request/Response Body Parameters for GET/PUT/POST operations

Field Name	Data Type	Mandatory(M)/Optional (O)/Conditional (C)	Description
enablePRE	Boolean	M	Indicates whether to enable or disable interaction with PRE for Policy evaluation as per the match list.
dataRolloverProfile	String	O	Indicates the default data rollover profile to use for UDR provided data limits for which rollover is applicable. That is, "Data Rollover" attribute is set to "true" and a separate "Data Rollover Profile" attribute is not provided.
enableQuotaMigration	String	O	Indicates whether 4G to 5G UDR Quota Data Migration is in progress. If so, Policy considers the custom attributes from 4G UDR for quota calculation and update. Default value: false Note: Disabling this flag while 4G to 5G Subscriber Data Migration is incomplete may result in Quota loss. It is recommended to not fallback to 4G PCRF once this flag is disabled as after this, the data provided to 4G PCRF may NOT be up to date.

Table 2-458 (Cont.) Request/Response Body Parameters for GET/PUT/POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
reversePriority	String	O	Indicates the priority consideration order. When this flag is enabled: Higher number indicates lower priority When this flag is disabled: Higher number indicates higher priority Default value: true
enableProRatedQuota	String	O	Indicates whether pro-rated data calculation should be applied to the selected plan at a time of activation or not. Default value: false
enableProRatedQuotaForBillingDayChange	String	O	Indicates whether pro-rated data calculation should be applied to the selected plan at a time of billing day change. Default value: false
minimumVolumeGrant	Integer	M	Enter the minimum grant value (in bytes) that can be approved for volume based usage monitoring. If the grant value published by PRE is less than the value for this field, then Policy considers the minimum grant value out of the two. After deducting the current grant, if the remaining grant value is less than the minimum grant value, then the remaining grant is also added to the current grant. Default value: 2048 Range: 512 - 1048576 (1MB)

Table 2-458 (Cont.) Request/Response Body Parameters for GET/PUT/POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
maximumVolumeGrant	Integer	M	Enter the maximum grant value (in bytes) that can be approved for volume based usage monitoring. If the grant value published by PRE is greater than the value for this field, then Policy considers the maximum grant value out of the two. Default value: 2048 Range: 1024 - 107374182400 (100 GB)
minimumTimeGrant	Integer	M	Enter the minimum grant value (in seconds) that can be approved for time based usage monitoring. If the grant value published by PRE is less than the value for this field, then Policy considers the minimum grant value out of the two. After deducting the current grant, if the remaining grant value is less than the minimum grant value, then the remaining grant is also added to the current grant. Default value: 300 Range: 30 - 3600 (1 hour)
maximumTimeGrant	Integer	M	Enter the maximum grant value (in seconds) that can be approved for time based usage monitoring. If the grant value published by PRE is greater than the value for this field, then Policy considers the maximum grant value out of the two. Default value: 300 Range: 60 - 86400 (1 hour)

Table 2-458 (Cont.) Request/Response Body Parameters for GET/PUT/POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
inactivityTime	Integer	O	Enter the time interval (in seconds) during which if no packets are received for a given monitoring key, PGW or SMF stops measuring the time. Default value: 86400 Range: 0 - 604800 (7 Days)
usageAccumulationStart DateTime	Enumeration	O	Select the start time and date from when the Usage Monitoring service starts counting the usage reset periodicity. The values are: - Plan Start Date and Time: Counted from the plan start date and time as provisioned on the UDR. - Plan Activation Date and Time: Counted from the plan activation date and time as provisioned on the UDR. - Period Start Date and Time: Counted from the period start date and time.
applyBillingDay	String	O	Indicates if the flexible billing cycle option is enabled. The accepted values are: - Current Billing Cycle - Next Billing Cycle Default value: Next Billing Cycle

Table 2-458 (Cont.) Request/Response Body Parameters for GET/PUT/POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
dataCompressionScheme	String	O	Used to configure the data compression in UmContext table. This flag accepts the following values: • Disabled: Indicates that the data will not be compressed and will be stored in the column in uncompressed format. The value of COMPRESSION_SCHEME for that row is set to the default value 0. • MySQL Compressed: Indicates that the data will be compressed using MySQL and will be stored in the column in compressed format. The value of COMPRESSION_SCHEME for that row is set to 1. • Application Compressed: Indicates that the data will be compressed using Zlib and will be stored in the column in compressed format. The value of COMPRESSION_SCHEME for that row is set to 2. Default value: Disabled When accessing the data from UmContext .v, the application determines the compression status based on the value of COMPRESSION_SCHEME and does the decompression accordingly.

Table 2-458 (Cont.) Request/Response Body Parameters for GET/PUT/POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
			For more details on data compression, see <i>Usage Monitoring on Gx Interface in Oracle Communications Cloud Native Core, Converged Policy User Guide</i> .
weekStartDay	Enumeration	O	Enter the starting day of the week. Default value: Sunday
defaultVolumeGrant.grantVolumeSource	Enumeration	O	Note: This field becomes active when you select Grant Unit as Percent. Accepts one of the following values: - Initial Volume: Calculate grant volume from the initial volume. - Used Volume: Calculate grant volume from the used volume. - Remaining Volume: Calculate grant volume from the remaining volume. Default value: Initial Volume
defaultVolumeGrant.grantVolumeUnit	Enumeration	O	Accepts one of the following values: - Percent: Grant volume is calculated as a percentage. - Bytes: Grant volume is calculated as an absolute value. Default value: Percent

Table 2-458 (Cont.) Request/Response Body Parameters for GET/PUT/POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
defaultVolumeGrant.grantVolumeValue	Integer	M	If Grant Unit is Percent: Enter the default Grant Volume in percentage, which is considered when PRE is not invoked or PRE does not return a decision. This value is applied to the Total Volume and divided equally among the Uplink and Downlink Volumes when available. Default value: 10 Range: 1-100 When the grant value is 0 and Grant is not calculated by PRE, then volume based Usage Monitoring is disabled for the session. If Grant Unit is Bytes: Enter the default Grant Volume in Bytes, which is considered when PRE is not invoked or PRE does not return a decision. This value is applied to the Total Volume and divided equally among the Uplink and Downlink Volumes when available. Default value: 2048 Range: 512 - 1048576 (1 MB) When the grant value is 0 and Grant is not calculated by PRE, then volume based Usage Monitoring is disabled for the session.

Table 2-458 (Cont.) Request/Response Body Parameters for GET/PUT/POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
defaultTimeGrant.grantTimeSource	Enumeration	O	Note: This field becomes active when you select Grant Unit as Percent. Accepts one of the following values: - Initial Duration: Calculate grant time from the initial duration. - Used Duration: Calculate grant time from the used duration. - Remaining Duration: Calculate grant time from the remaining duration. Default value: Initial Volume
defaultTimeGrant.grantTimeUnit	Enumeration	O	Accepts one of the following values: - Percent: Grant time is calculated as a percentage. - Seconds: Grant time is calculated as an absolute value. Default value: Percent

Table 2-458 (Cont.) Request/Response Body Parameters for GET/PUT/POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
defaultTimeGrant.grantTimeValue	Integer	M	If Grant Unit is Percent: Enter the default Grant time in percentage, which is considered when PRE is not invoked or PRE does not return a decision. Default value: 10 Range: 1-100 When the grant value is 0 and grant is not calculated by PRE, then time based Usage Monitoring is disabled for the session. If Grant Unit is Seconds: Enter the default Grant time in seconds, which is considered when PRE is not invoked or PRE does not return a decision. Default value: 3600 Range: 30 - 86400 (1 day) When the grant value is 0 and grant is not calculated by PRE, then time based Usage Monitoring is disabled for the session.
defaultUsageLevels.minorUsageLevel	Integer	M	Enter threshold value in percentage indicating minor usage. Default value: 50
defaultUsageLevels.majorUsageLevel	Integer	M	Enter threshold value in percentage indicating major usage. Default value: 75
defaultUsageLevels.criticalUsageLevel	Integer	M	Enter threshold value in percentage indicating critical usage. Default value: 95

Table 2-458 (Cont.) Request/Response Body Parameters for GET/PUT/POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
defaultUsageLevels.exhaustedUsageLevel	Integer	M	Enter threshold value in percentage indicating usage level has exhausted allowed limit. Default value: 100
customAttributeMapping.resetDay	String	O	Enter a string identifying the custom attribute in UDR response that represents the usage reset day. Example: SmPolicyData/umDataLimits/{limitId}/billingDay
customAttributeMapping.dataPlanName	String	O	Maps the custom attribute available in the UDR provided data limit to name. A "name" associated with the data limit can be used in a Selection Profile to select the plan to apply when multiple active plans are found. Default value: SmPolicyData/umDataLimits/{limitId}/name
customAttributeMapping.dataPlanPriority	String	O	Maps the custom attribute available in the UDR provided data limit to priority. A "priority" associated with the data limit would help to select the plan to apply when multiple active plans are found. Possible values allowed in this field in UDR Data Limit are: any integer. Default value: SmPolicyData/umDataLimits/{limitId}/priority

Table 2-458 (Cont.) Request/Response Body Parameters for GET/PUT/POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
customAttributeMapping .dataPlanType	String	O	Maps the custom attribute available in the UDR provided data limit to type. A "type" associated with the data limit would help to order the selection of the plan. Possible values allowed in this field in UDR Data Limit are: "base", "pass", "top-up". A separate configuration would order the selection, for example: Pass > Base Plan > Top-up. Default value: SmPolicyData/ umDataLimits/{limitId}/ type Default value to apply if this mapped attribute is absent: base The Plan Type, Priority within that Plan Type and the Selection Order of Plan Types together decide the order of selection of Data Plans.
customAttributeMapping .dataRollover	String	O	Maps the custom attribute available in the UDR provided data limit to indicate whether rollover is enabled for this data limit. Possible values allowed in this field in UDR Data Limit are: "true" and "false". Default value: SmPolicyData/ umDataLimits/{limitId}/ rollover Default value to apply if this mapped attribute is absent: false

Table 2-458 (Cont.) Request/Response Body Parameters for GET/PUT/POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
conflictResolution.enableEtag	Boolean	O	Indicates if the ETag functionality is enabled or disabled between PDS and UDR. By default, this is disabled. Following scenarios may occur if it is enabled: - When the Usage Monitoring service sends a GET request for the first time, then PDS will fetch latest ETag details from UDR and update it in THE pdssubscriber table. - when the Usage Monitoring service sends PATCH request to PDS, PDS sends the request to UDR using if-match header. UDR matches the ETag of PDS with UDR. If it matches, then UDR replies with the latest ETag that gets updated on PDS. - If the If-Match headers fail, it means ETag on PDS does not match with UDR. UDR replies with 412 error response and based on the response code, Usage Monitoring service sends a force request to PDS to get the latest ETag from UDR and update it on PDS database.
conflictResolution.conflictRetryAttempt	Integer	O	Specifies the number of retry the Usage Monitoring service will do when if-match will fail on UDR. Default value: 5

Table 2-458 (Cont.) Request/Response Body Parameters for GET/PUT/POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
dataLimitSelection	Reference	O	Indicates the data limit selection profile to use while selecting a data limit among more than one active data limits provided by UDR.
audit.enable	Boolean	O	Used to enable or disable the Audit registration for Usage Monitoring service. When this field is enabled, Usage Monitoring sends registration request to Audit service. When this field is disabled, Usage Monitoring sends de-registration request to Audit service. Default value: true
audit.notificationRate	Integer	O	Indicates the number of stale records that Audit service notifies to Usage Monitoring service in one second.
audit.ttl	Integer	O	Indicates the age of a Usage Monitoring session, after which the session is considered to be stale and the PCRF Core service is queried for the presence of such associations. Note: This value should be higher than the Gx session audit.
audit.maxTtl	Integer	O	Indicates the maximum age of a UMPolicyAssociation, after which the session is purged from UMContext database without sending further queries. Note: This value should be higher than the Gx session audit.

Table 2-458 (Cont.) Request/Response Body Parameters for GET/PUT/POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
audit.minAuditAttempts	Integer	O	Indicates the minimum number of queries to PCRF Core service before deleting a session.
audit.frequency	Integer	O	Defines the time when next audit for the Usage Monitoring service table is done after delta time if auditing this table has been finished before this specified time.

Table 2-459 MessageDefaultPriorityUMService

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
enter a range from [0-31]	String	O	Defines the discard message priority for different Usage Monitoring API end points. Allowed Values: 0-31
umCongestionErrorCode	String	O	Configure the response code of the rejected messages by Usage Monitoring due to congestion state. By default, Usage Monitoring service sends 503 as response code. If configured then it shall be 5xx only. Allowed Values: 5xx Default Value: 503

Sample Request/Response body structure for GET operation:

```
{
  "enablePRE": false,
  "enter a range in bytes from [512-1048576]": 2048,
  "enter a range in bytes from [1024-10000000000000]": 2048,
  "enter a range in seconds from [30-3600]": 300,
  "enter a range in seconds from [60-86400]": 300,
  "enter a range in seconds from [0-604800]": 86400,
  "dataRolloverProfile": "string",
```

```

    "enableQuotaMigration": "string",
    "reversePriority": "string",
    "enableProRatedQuota": "string",
    "enableProRatedQuotaForBillingDayChange": "string",
    "UsageAccumulation StartDateTime should be one of PLAN_START,
    PLAN_ACTIVATION, PERIOD_START.": "PLAN_START",
    "Week Start Day should be one of SUNDAY, MONDAY, TUESDAY, WEDNESDAY,
    THURSDAY, FRIDAY or SATURDAY.": "SUNDAY",
    "NEXT_BILLING_CYCLE, CURRENT_BILLING_CYCLE": "NEXT_BILLING_CYCLE",
    "dataCompressionScheme": "0",
    "defaultVolumeGrant": {
        "Grant Volume Source should be one of INITIAL_VOLUME, USED_VOLUME,
        REMAINING VOLUME.": "INITIAL_VOLUME",
        "Grant Volume Source should be one of VOLUME_PERCENT, VOLUME_BYTES.":
        "VOLUME_PERCENT",
        "grantVolumeValue": 0
    },
    "defaultTimeGrant": {
        "Grant Time Source should be one of INITIAL_DURATION, USED_DURATION,
        REMAINING_DURATION.": "INITIAL_DURATION",
        "Grant Time Source should be one of TIME_PERCENT, TIME_BYTES.":
        "TIME_PERCENT",
        "grantTimeValue": 0
    },
    "defaultUsageLevels": {
        "enter a range in Percent from [0-100]": 100
    },
    "customAttributeMapping": {
        "enter a Reset Day, such as 'SmPolicyData/umDataLimits/{limitid}/
        billingDay'.": "string",
        "enter a Data Plan name, such as 'SmPolicyData/umDataLimits/{limitid}/
        name'.": "string",
        "enter a Data Plan Priority, such as 'SmPolicyData/umDataLimits/{limitid}/
        priority'.": "string",
        "enter a Data Plan Type, such as 'SmPolicyData/umDataLimits/{limitid}/
        type'.": "string",
        "enter a Data Rollover, such as 'SmPolicyData/umDataLimits/{limitid}/
        rollover'.": "string",
        "enter a Data Rollover Profile, such as 'SmPolicyData/umDataLimits/
        {limitid}/rolloverProfile'.": "string"
    },
    "conflictResolution": {
        "enableEtag": true,
        "conflictRetryAttempt": 0
    },
    "dataLimitSelection": {
        "selectionRules": [
            {
                "Enter Integer Value": 0,
                "limitIdentifier": "string",
                "conditions": [
                    {
                        "Parameter Name should be SERVING_NODE_LOCATION.":
                        "SERVING_NODE_LOCATION",
                        "Operator should be one of MATCH or EQUAL.": "MATCH",
                        "value": "string"
                    }
                ]
            }
        ]
    }

```



```

        }
      ]
    }
  ],
  "sortingRules": [
    {
      "Enter Integer Value": 0,
      "Sorting Parameter Name should be one of RESET_PERIOD, START_DATE,
      END_DATE.": "RESET_PERIOD",
      "Sorting Order should be one of ASC, DSC.": "ASC"
    }
  ],
  "defaultDataLimitSelectionProfile": "string",
  "defaultDataLimitProfile": "string",
  "defaultDataLimitSortProfile": "string",
  "selectionOrder1": "base",
  "selectionOrder2": "base",
  "selectionOrder3": "base"
},
"audit": {
  "enable": true,
  "enter a range in sec from [20-700]": 50,
  "enter a range in minutes from [1-10080]": 7200,
  "minAuditAttempts": 5,
  "enter a range in minutes from [1-1440]": 330
},
"messageDefaultPriority": {
  "enter a range from [0-31]": "31",
  "umCongestionErrorCode": "503"
},
"advancedSettings": [
  {
    "key": "string",
    "value": "string"
  }
]
}

```

For more information on the Advanced Settings "Keys" and "Values", see "**Configuring Usage Monitoring**" section of "Configuring Policy Using CNC Console" in *Oracle Communications Cloud Native Core, Converged Policy User Guide*.

2.89.2 Attribute Forwarding Profile

Table 2-460 Supported operations

HTTP Method or Custom Operation	Description	Resource URI
GET	Get Attribute Forwarding Profile	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/attributeForwardingProfiles/{attributeForwardingProfileName} where <attributeForwardingProfileName> is the attribute forwarding profile name.
PUT	Update Attribute Forwarding Profile	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/attributeForwardingProfiles/{attributeForwardingProfileName} where <attributeForwardingProfileName> is the attribute forwarding profile name.
DELETE	Delete Attribute Forwarding Profile	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/attributeForwardingProfiles/{attributeForwardingProfileName} where <attributeForwardingProfileName> is the attribute forwarding profile name.
POST	Create Attribute Forwarding Profile	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/attributeForwardingProfiles/ For details on the Request/Response Body Parameters, see Table 2-461 .
POST	Import Attribute Forwarding Profile	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/attributeForwardingProfiles/import For details on the Request/Response Body Parameters, see Table 2-461 .
GET	Export Attribute Forwarding Profile	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/attributeForwardingProfiles/export For details on the Request/Response Body Parameters, see Table 2-461 .

Table 2-461 Request/Response Body Parameters for GET and POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
forwardedAttribute.attributeName	String	C	Name of the attribute.
forwardedAttribute.attributeSource	Enumeration	M	Source of the attribute to be forwarded. Attribute Source provides the following options: - Request Message: The incoming request message such as Gx CCR message or SM Policy Association Create message. - User Data: Data received from different data sources such as UDR and CHF. - Session Data: Data saved in the session (association) previously, such as saved APN/DNN value.
forwardedAttribute.attributeSelection	Enumeration	M	Attribute Selection can be: - Predefined - Custom
forwardedAttribute.predefinedAttributeLocation	String	C	This parameter can be filled when the Attribute Selection is of Predefined type. It indicates the path/location at which this attribute can be found by the source (forwarder) micro-service.
forwardedAttribute.attributeLocation	String	C	This parameter can be filled when the Attribute Selection is of Custom type. It indicates the path/location at which this attribute can be found by the source (forwarder) micro-service.

Sample Request/Response body structure for GET operation:

```
{
  "name": "string",
  "forwardedAttribute": [
    {
      "attributeName": "string",
      "attributeSource": "enter any one value from
[\"REQUEST\", \"UDR\", \"SESSION\"] ",
      "attributeSelection": "enter value from [\"PREDEFINED\", \"CUSTOM\"]",
      "predefinedAttributeLocation": "string",
      "attributeLocation": "string"
    }
  ]
}
```

2.89.3 UM Data Limit Selection Profile

Table 2-462 Supported Operations

HTTP Method or Custom Operation	Description	Resource URI
GET	Get Usage Monitoring Data Limit Selection Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/datalimitselectionprofiles/{umDataLimitSelectionProfileName} where <umDataLimitSelectionProfileName> is the Data Limit Selection profile name.
PUT	Update Usage Monitoring Data Limit Selection Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/datalimitselectionprofiles/{umDataLimitSelectionProfileName} where <umDataLimitSelectionProfileName> is the Data Limit Selection profile name.
DELETE	Delete Usage Monitoring Data Limit Selection Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/datalimitselectionprofiles/{umDataLimitSelectionProfileName} where <umDataLimitSelectionProfileName> is the Data Limit Selection profile name.

Table 2-462 (Cont.) Supported Operations

HTTP Method or Custom Operation	Description	Resource URI
POST	Create Usage Monitoring Data Limit Selection Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/datalimitselectionprofiles For details on the Request/Response Body Parameters, see Table 2-463 .
POST	Import Usage Monitoring Data Limit Selection Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/datalimitselectionprofiles/import For details on the Request/Response Body Parameters, see Table 2-463 .
GET	Export Usage Monitoring Data Limit Selection Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/datalimitselectionprofiles/export For details on the Request/Response Body Parameters, see Table 2-463 .

Table 2-463 Request/Response Body Parameters for GET operation

Field Name	Data Type	Mandatory(M)/Optional (O)/Conditional (C)	Description
name	String	M	Unique name to identify the Data Limit Selection Profile.
selectionRules.type	Enumeration	O	Indicates the selection rules type.
selectionRules.priority	Integer	M	Indicates the selection rule priority.
selectionRules.alwaysMatch	Boolean	M	When this is true, no conditions shall be evaluated. This can be used as a CATCH ALL Selection Rule. Default: False
selectionRules.dataLimitProfile	String	C	Uniquely identifies the UM Data Limit Profile by a name. This field is for configuration purpose only and not transmitted over the network.
selectionRules.limitIdentifier	String	C	Specifies the limit identifier. Multiple limit identifiers may have the same priority.

Table 2-463 (Cont.) Request/Response Body Parameters for GET operation

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
selectionRules.conditions	Object	M	
selectionRules.conditions.parameterType			Indicates the type of parameter on which the condition will be applied. - Forwarded Attribute - An attribute forwarded by the core service, for e.g. Serving Gateway MCCMNC / IP Address, APN etc. - Policy Decision Tag - A Tag applied by the policy.
selectionRules.conditions.attributeName	String	C	This field is displayed when Parameter Type is "Forwarded Attribute".
selectionRules.conditions.operator			Accepts the following values: - Equals - Not Equals - Less Than - Greater Than - Matches
selectionRules.conditions.value	String		Displays the list of configured Match Lists when the Operator is "Matches".

Sample Request/Response body structure for GET operation:

```

{
  "name": "string",
  "selectionRules": [
    {
      "type": "DATA_LIMIT_PROFILE",
      "priority": 0,
      "alwaysMatch": true,
      "dataLimitProfile": "string",
      "limitIdentifier": "string",
      "conditions": [
        {
          "application": "Gx",
          "message": "CCR",
          "preDefinedAVPConditions": [
            {
              "conditionName": "CC-Request-Type",
              "conditionCSIDValue": [

```

"5PuJi0lFdwxZihAhm6NDNp3rY7ikjSQ0zH.x0CSRJcJciVjiGvx7Iom880llacqa4nYh5Hjka8AT6
GH5PX7lEvMEbk?N3H-7.S.-,3GBkb1pSVVDAPUUpkVc6pdLFV0JmRFVj9gsX?
19G200oWAuUz,pte7QohKf*D.ktAh7vnMv, EynrpYPQeH?EUuRKReIKzkf,
YEUMYAUC9gPPdz4j6Y**j?BLP3Xa7CJsQZRUB5PdSBPsn2tsB6a-
sqJFU*dX89.wtQcLY.9AzpdxyzG0FTWxCGvm, 1a?dm?z5w2jrJyKG-
GZbVLzYufX.t,1oVj3QJbMK4Y*vLph?KhAsd7ruIAXTueMkvR940BhHAQuvrjJaIarfiY?
EsIIQSOsRL04,Q-AWRGLoHqn*2QEW3gMnUftB.pK,PvSQenBHhQCXX1LXa06DFScU?k9kZowN.YJj?
0, 0RDkmNRXEBVSw1M8-8EDltiNZC.McRX?6kFUHb?um0PMokL,09zwYjVPlz79CMcV7y-
*o*mbDcjpwQz,5dCwwVMVL.C07oLXnHHeMmovtGtJg0R1Mtb15E7ChzIq?
hd6sXVNs0xIPf8W2anEce3daMbokR,PjRd9Gp?yAest8tbPHqTiT?
6Hby*k6YoTIZ9c20ckZvoBBN,I780p0n5.olzVYArGFC-oc1G5, lID?
nm0FRiMgFswFZUruE1QV26oRPbuIQskynUrL.jwi9ZlBfI6lf.5DGKK.dDizZ0,LYG1?
JmHmlKoOQ.mWN1al.GhPtLkh340aUjcDN?er84neX07yoLFz-TfBL1vd0oR?
6Ss9fLohSegQotbN*n7Ry4tk0zaMaMXE, F0dwTd?
mfoi2KJgq5Soq4CMBJCPJh3*Bjz.I5iX9zJPnCK5sqA2I70qT9zINN?
MS7SBfcEU.65oDMKSLi9pxf, 9J.bxbhlzxS*uL,7zQxMU7-E0.UvSswCvehTx.zSdro?
iPUfjEiYx8aU0n3RUN58S7E*k0Bhdv7Pt?3G9l6gTR.lBb2EgyIpQV*h,XLqE?m*t1YlgeTb,
J9124-LKRRWOP,kfpw*4k?P8wT-cBowa,Dwj*Esm1m23.J0Gw1Ed-TQF*SSoVaEav?-
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Ows44hAWT7JByXr4Af8sfvj48nLiGN, AKmPvd7EYo-N.mOYShwpTs-
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C6BRbywARSHJb6ba4ml20DY.7LIVsKPC6G8G.emPqN29sfXnuXAIi3*SL35CTGQp?q6E-
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U0.o7YvNmkt0x.ciYr7Gj3xq700249ni1SSGauK-QCxCowcUW9Z.I1jfGzu8wpyeZYxQqvKaRhM?
17ua42r6A, XvLzXPbuf0ctdRw*w3s4B2x7Al*wVJ9Ia?5k4xvdPKTGi, UZVg-
ru6HaNWMSl816b5xHTjg068kdRGT1TaS1Zt1XZ.G20huosmClCYURb,
4qGLNr6Ta.95ralc46qHwLHQSwFwTtQnAD13LW.4*7WDQnk,
tyIXQuZ610fA*tNRMQg,iUB0Nvd8LPxmR1M, 5GLY.9.fGiWcl-
mnubYWUOVKxta,Ut5EY8hyPckHzCUL09c54Bx-Vp3s0I0PTJujddv*nNAPG?hhXb-
lB.Ft02LEH4SknKOWT-44rkVkvYzF3msz4oskJPwARCCec1, *nY.qw?WeL,
j*S9zMJHwvpsdPoV.46dW044eIwNyYT7YzQXaSt1q-
f1IRNy0luGC4fPPQg.U0BzVkiqC0IcDI2r8ME09haDGB6EU, XNZAJ.HivrB0tMr3LFvCOKIyN?
tXayw-CCS*PEg,
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5tH0n-F, XtoBTW8j90sZWf36kV6VFxe, qdLVk6SEDSEgGunGEZhvuLLf01L8.?
ADZ0o*OrfCUIzJefu5j4LMjGheNtnjgh4B5,A2LKDqSkT3DkXVbJu5Q8YQhEESjSKCmR,1F8TLHDG4
BAVnq5*anQpC5tK7hHy.I*Pftn4UZuE0j, a, v4zUGHixr.r*St16Xncs3QKFIAU.T,nCt-4uF,
PhRFYU8G4Nc7VHJpvFQExLMA7sQL4ls-nkFtMuBjMX0*6V.?P6Xg, .yJbwc-2P8T-,-
FAlpkvcmBATTv88nK.10uJNuQeglkE4xqs,JryE0c-
SmixRXk3GJfPf,*cN.Zr6n3IlckTnLlnIaQ.ysiquptvniG0r0ZpSjpBVYK?7u.E-
JKWAhvH8nMrZC6nhVpGpmnnvsHzz.qfQ0JIdsdthm6YLuSZ, 1i7jHTDyNSj-
T90.mT3egbaVBr*n8-eZVeUfhavn.yELKjBEPsuygrH93pZnZsLXlxcI4afvV1jw8po0lt,0f,
i7YK68T6dqZ6j*WbK6zgPQ73ARnPP01cN0, XvUUiwH00?9?
Rz4Hp4UCE9gxHnGy,dWaT7*5ibyG,Jq6MZk8PQzR0LJl5mWhiAndpb8rhy8cPemL7PF?
OPyhFDJdI,Dbh1?*zybcqAmBg9-E4PzG0.oSRraGwv11ND-0Y?dhVgaUj6VJpnHk6N, N?
p7AXv.-8mA6JfG-yc15tnHhgyPBCpMBc1S0,yFPLmFHqCTKy4TMwbyD8FvwC6bIYNDZdNLF62?
5Zy5L,qX..0-
ommdbaAPmD9kint6SdjIPrblI2,yw1--71B0eSjY6jGNpNR8FNR91rLMch7oZgetxM*gtK,
1CyvRijp,9p0LA,ESEfBchgXXx1b0KkIV7A55J4mNlcIDaTwZUXqrpiG-sMMG6cxhk6T-
otFghPnd4,A-JAshdlc4.yJP*XuyZHOldrCnf, HhsPiLy?NmixbpEx-6Hf1s6dU7UEpFV?
CFVv3PupWL*bllQk4L454d-zm4xWkaVGwQbtQVqfAY3t4mFxtVCQbvPh2uffhfe,
ZrbXhJTz5IFnm26BTIcpB,FPsCxBP9mNmWT?bySieohK0YR?
Fp7hXIobGruyPKzTkNvFKVVVAmb73V7?sJ7NTLiGSr2L4XIt5saE1p.AKW.P,W1WfcshFbi?
cT3Khh-
wiziCS5fz4nZd2uWnd-1FSd1rcJoIB5vnTkcQjQJ9z29y.MH8K0f6Yq,zAWXxKnF5yXSX8iFpqz4jn

```

J1if?*N6LnCxDTs6Z, -TShlFXHVYol786*39e3o9?425Q,
0CzKiUXp5N7FtBLEbn8pxdL1DDJgK, JmzzXR7RfG.qE8bidWw07PayykvzcvHH3kyfPbY6xMUGLwtH
938qQ3t6t0GGvz15ZCWR?kUC?Kcu10j?YXkA3,R3gxDFWiEb4ITqFSEw, E5RBdIP,
dJM9GxsKtsUZLlLub2005*UAN7c-
BIEczWwGKz0a2zfr7tySHmcxbXRM9Tex3gdv6utZwUCkrVji8pj950UwM07vprAU"
    ],
    "conditionCCRTValue": "UPDATE_REQUEST",
    "conditionRxRTValue": [
        "INITIAL_REQUEST"
    ],
    "conditionServiceURNIDValue": [
        "r,Vnj9p.MZlxvBFiLr*YRHT0xCfC*Y*kGmw-kB-8j1JqfnDcgqkfeKHFN1-
GdHS4fvPx*AX5EagP4Xvx0Q2w*dBJrOpT5V, hF847pVFbHqx*yMYr7svKCj2TC?utLpLemQsq?
Ikm0AINKaYbcr0zyZb3AZX?W-i.dnbl7iY80Wvd2.vL1V-5,NBBoxA-
MTK67f9wQ2HDnNsizzFCD8lqH.T,jMurIbEhksKqTZkiaNwodBq8rTw9tBmRVJGeafW?
BjsKNUoM4*F4R-o?, oi-J*D.Bj?JAv0puz0A2ESszsijiU6A-
z2vHqpecCqzKCUsRLToqsNc893aVA.ew3P0fG,H5P*BMKAhUpwTrtYHw0C3.?-
hbGuJ0SwwmDl6hKgc, 2a*x0i56aFNLcDPndiz,
w3QBy95lwZe0c*TJw.2B7lG9L2um0sE59cToEvuu0SUNLMX4rKaPMqT6*.*VrN*XF,
oUQYzJEEpZSPtmCWU-Ykowuh,jMcmrcRw-nRrBlu7Ci-EDqWW*?wjgbL-
W2ODRfUXW*iIcIFKJwhuW0jk4p10lJYf03m*7THq4GsdjhF-
QNHYv,7jaCi70sg.XPXsqne9d,3J1RL*-dfTT4m8?E.D.eYb4h8y*jqmYhblDv08HSF-
T13eXUq0i0KBEvE--rMN,bo?H09Iy--
wXkBktsx9GB0WZFBcvfGFhUHADsi.lOLRKVBuIVaqQMm6i700feaUpMpFtaiVDw11K??0r8I.r?
stWQ4U,cxKXwGZSZhclPy?XlZQGwgXkyhu1bKm9VXDj5nmAACInhZgk, 3ekMCjB..re2u4?
2Dj0yoCNz0J0SJ0eemy9cUPVJx9y7I0N8YTVthy7wPsPKQSZvmZe-Ba9bQ*k,mExi2kiTTTtVbNid-
m9jZkH0e5bcR?I2ICD7qvUwlbMLRg1*6pw.MwB5wwX0K8bnoA6LFXd0JfzS7Rmz-
l3wIbjjAFg53U,?RXQ8lQ6LyNVfCut-
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eELFhseaZ4bvRWizJeUoc3t4YSo., 3zDXsJ3p8uX7WC?LmYfdo6y, GHoE?
2EVniTNRmeaPL7*gnzv3voUCRCJ64xepuMWQDBa5GGyTfQ4ZB?ekWUNsw"
    ],
    "conditionMPSIdValue": [
        "string"
    ],
    "conditionMCPTTIdValue": [
        "string"
    ],
    "conditionMCVideoIdValue": [
        "string"
    ],
    "conditionReservPriorityValue": [
        "string"
    ],
    "conditionSNRTypeValue": [
        "ABORT_SESSION_REQUEST"
    ]
}
}
}
}
},
"sortingRules": [

```



```

    {
      "index": 0,
      "parameterType": "START_DATE",
      "attributeName": "string",
      "order": "string"
    }
  ]
}

```

2.89.4 UM Data Limit Profile

Table 2-464 Supported operations

HTTP Method or Custom Operation	Description	Resource URI
GET	Get Usage Monitoring Data Limit Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/datalimitprofiles/{umDataLimitProfileName} where <umDataLimitProfileName> is the Data Limit profile name.
PUT	Update Usage Monitoring Data Limit Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/datalimitprofiles/{umDataLimitProfileName} where <umDataLimitProfileName> is the Data Limit profile name.
DELETE	Delete Usage Monitoring Data Limit Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/datalimitprofiles/{umDataLimitProfileName} where <umDataLimitProfileName> is the Data Limit profile name.
POST	Create Usage Monitoring Data Limit Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/datalimitprofiles For details on the Request/Response Body Parameters, see Table 2-465 .
POST	Import Usage Monitoring Data Limit Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/datalimitprofiles/import For details on the Request/Response Body Parameters, see Table 2-465 .
GET	Export Usage Monitoring Data Limit Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/datalimitprofiles/export For details on the Request/Response Body Parameters, see Table 2-465 .

Table 2-465 Request/Response Body Parameters for GET and POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
name	String	M	Uniquely identifies the UM Data Limit Profile by a name. This field is for configuration purpose only and not transmitted over the network.
limitIdentifier	String		Specifies the limit identifier. Multiple limit identifiers may have the same priority.
priority	Integer	O	A Priority to weigh it with other Data Limit Profiles and/or UDR provisioned Data Limits of the same Plan Type. The priority can be used by Policy or Data Limit Selection Profile for choosing among different candidate profiles. The Plan Type, Priority within that Plan Type and the Selection Order of Plan Types together decide the order of selection of Data Plans.
umLevel	Enumeration	M	Indicates the level of the usage monitoring instance (PDU Session level or per Service). Default value: Session Level
profileType	Enumeration	M	Type of the Data Limit Profile. Default value: SUBSCRIBER Note: Striked-out entries are for future.
planType	Enumeration	M	Type of the Plan such as Base, Top-up, and Pass. This help to determine the priority in selecting the plan over other types. The priority is configurable in service configuration screen. Default value: Base

Table 2-465 (Cont.) Request/Response Body Parameters for GET and POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
parentPlan	Reference	O	Identifies a Data Limit Profile as a parent data plan. Any attribute that is not explicitly configured in this plan shall be taken from the parent plan (if present).
usageLimit	Integer	O	Indicates usage limit for this Data Limit Profile. Default value: False
resetPeriod	Enumeration	O	Indicates whether the periodicity is "YEARLY", "MONTHLY", "WEEKLY", "DAILY" or "HOURLY". Default value: Monthly
resetDay			Enter a string identifying the custom attribute in UDR response that represents the usage reset day. Example: SmPolicyData/umDataLimits/{limitId}/billingDay
excessUsageLimit.percentage	Integer	O	Indicates the percentage of base volume/time up to which excess usage is allowed. Range: 100 - 1500 Note: If all the Excess Usage Limit fields are left empty, the grant shall continue indefinitely.
excessUsageLimit.duration	Integer	O	Indicates the length of time in seconds. This is inclusive of the base duration. That is the value in this field indicates the total duration to be consumed including base + excess. Range: 3600 - 31536000 (1 Year) Note: If all the Excess Usage Limit fields are left empty, the grant shall continue indefinitely.

Table 2-465 (Cont.) Request/Response Body Parameters for GET and POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
excessUsageLimit.volumeTotal	Integer	O	Total data octets for both downlink and uplink. This is inclusive of the base total volume. Range: 512 - 1073741824000 (1000 GB) Note: If all the Excess Usage Limit fields are left empty, the grant shall continue indefinitely.
excessUsageLimit.volumeUplink	Integer	O	Uplink data octets. This is inclusive of the base uplink volume. Range: 512 - 1073741824000 (1000 GB) Note: If all the Excess Usage Limit fields are left empty, the grant shall continue indefinitely.
excessUsageLimit.volumeDownlink	Integer	O	Downlink data octets. This is inclusive of the base downlink volume. Range: 512 - 1073741824000 (1000 GB) Note: If all the Excess Usage Limit fields are left empty, the grant shall continue indefinitely.
inactivityTime	Integer	O	Enter the time interval (in seconds) during which if no packets are received for a given monitoring key, PGW or SMF stops measuring the time. Default value: 86400 Range: 0 - 604800 (7 Days)

Table 2-465 (Cont.) Request/Response Body Parameters for GET and POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
dataRolloverProfile	Reference	O	To map the custom attribute available in the UDR provided data limit to a pre-configured rollover profile. See "Data Rollover Profile" for more information. Possible values allowed in this field in UDR Data Limit are: A "Data Rollover Profile" name pre-configured on Policy. Default value: SmPolicyData/ umDataLimits/{limitId}/ rolloverProfile
reversePriority	Boolean	O	Indicates the priority consideration order. When this flag is enabled: Higher number indicates lower priority When this flag is disabled: Higher number indicates higher priority Default value: true
allowExcessUsage	Boolean	O	Indicates whether or not excess usage is allowed for this Data Limit Profile. When Excess Usage is allowed, Usage Monitoring shall continue to grant and accumulate usage even after consuming 100% of allocated volume/time. The QoS, Charging etc. parameters can be controlled at PCRF Core Policy on account of the consumed usage. Default value: False

Sample Request/Response body structure for GET operation:

```
{
  "name": "string",
  "limitIdentifier": "string",
  "monitoringKey": "string",
  "priority": "string",
  "umLevel": "SESSION_LEVEL",
  "profileType": "SUBSCRIBER",
```

```

"planType": "BASE",
"parentPlan": "string",
"usageLimit": {
  "Enter in range [3600-2592000]": 3600,
  "Enter in range [512-107374182400]": 512
},
"resetPeriod": {
  "period": "MONTHLY",
  "Enter a number": 3
},
"resetDay": {
  "type": "FIRST_DAY",
  "day": 0,
  "Enter time in HH:MM:SS format": "00:00:00"
},
"excessUsageLimit": {
  "percentage": 1000,
  "duration": 2592000,
  "volumeTotal": 107374182400,
  "volumeUplink": 107374182400,
  "volumeDownlink": 107374182400
},
"inactivityTime": "string",
"dataRolloverProfile": "string",
"enableQuotaMigration": true,
"reversePriority": true,
"allowExcessUsage": true
}

```

2.89.5 Data Limit Sorting Profile

Table 2-466 Supported operations

HTTP Method or Custom Operation	Description	Resource URI
GET	Get Data Limit Sorting Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/dataLimitSortingProfiles/{dataLimitSortingProfileName} where <dataLimitSortingProfileName> is the Data Limit Sorting profile name.
PUT	Update Data Limit Sorting Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/dataLimitSortingProfiles/{dataLimitSortingProfileName} where <dataLimitSortingProfileName> is the Data Limit Sorting profile name.

Table 2-466 (Cont.) Supported operations

HTTP Method or Custom Operation	Description	Resource URI
DELETE	Delete Data Limit Sorting Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/dataLimitSortingProfiles/{dataLimitSortingProfileName} where <dataLimitSortingProfileName> is the Data Limit Sorting profile name.
POST	Create Data Limit Sorting Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/dataLimitSortingProfiles For details on the Request/Response Body Parameters, see Table 2-467 .
POST	Import Data Limit Sorting Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/dataLimitSortingProfiles/import For details on the Request/Response Body Parameters, see Table 2-467 .
GET	Export Data Limit Sorting Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/dataLimitSortingProfiles/export For details on the Request/Response Body Parameters, see Table 2-467 .

Table 2-467 Request/Response Body Parameters for GET and POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
name	String	M	Name of the Data Limit Sorting Profile
sortingRules.index	Integer	M	Specifies the index. The sorting rules are applied in the order of index.
sortingRules.parameterType			Specifies the type of the parameter.
sortingRules.attributeName	String	C	Specifies the name of the attribute.
sortingRules.order	String	O	Specifies the order.

Sample Request/Response body structure for GET operation:

```

{
  "name": "string",
  "sortingRules": [
    {
      "index": 0,
      "parameterType": "START_DATE",
      "attributeName": "string",
      "order": "string"
    }
  ]
}

```

2.89.6 Data Rollover Profile

Table 2-468 Supported operations

HTTP Method or Custom Operation	Description	Resource URI
GET	Get Data Rollover Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/dataRolloverProfiles/{dataRolloverProfileName} where <dataRolloverProfileName> is the Data Rollover profile name.
PUT	Update Data Rollover Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/dataRolloverProfiles/{dataRolloverProfileName} where <dataRolloverProfileName> is the Data Rollover profile name.
DELETE	Delete Data Rollover Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/dataRolloverProfiles/{dataRolloverProfileName} where <dataRolloverProfileName> is the Data Rollover profile name.
POST	Create Data Rollover Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/dataRolloverProfile For details on the Request/Response Body Parameters, see Table 2-469 .
POST	Import Data Rollover Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/dataRolloverProfiles/import For details on the Request/Response Body Parameters, see Table 2-469 .

Table 2-468 (Cont.) Supported operations

HTTP Method or Custom Operation	Description	Resource URI
GET	Export Data Rollover Profile	{apiRoot}/oc-cnpolicy-configuration/v1/policydata/usagemon/dataRolloverProfiles/export For details on the Request/Response Body Parameters, see Table 2-469 .

Table 2-469 Request/Response Body Parameters for GET and POST operations

Field Name	Data Type	Mandatory(M)/Optional (O)/Conditional (C)	Description
name	String	M	Uniquely identifies the Data Rollover Profile by a name.
dataRolloverEnabled	Boolean	M	Indicates whether to enable or disable the data rollover.
rolloverDataConsumption	Enumeration	M	Indicates when to consume the rollover data.
maximumNumberOfRollovers	Integer	M	Indicates how many cycles the data plan can rollover. A value of 0 means there is not limit to the number of cycles the left over data can rollover. Range: 0 to 24 Default value: 0 (No limit)
dataRolloverPercentage	Integer	M	This field indicates the percentage of left over data volume/time to rollover to the next cycle. Range: 0 to 100 Default value: 100.
rolloverCap	Boolean	M	Indicates whether to enable or disable a cap (maximum limit) on the total data volume/time to be allotted for the next billing cycle or period. The maximum cap shall be applied on the total of base plan volume/time and total accumulated rolled over volume/time.

Table 2-469 (Cont.) Request/Response Body Parameters for GET and POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
maximunRolloverThresh old.baseDataPercentage	Integer	O	Indicates the percentage of base plan data volume/time that is allowed as rollover data volume/time. Range: 0 to 100
maximunRolloverThresh old.maximunDurationThreshold	Integer	O	Indicates the length of time in seconds. Range: 3600 - 2592000 (30 Days)
maximunRolloverThresh old.maximunVolumeTotal Threshold	Integer	O	Total data octets for both downlink and uplink. Range: 512 - 107374182400 (100 GB)
maximunRolloverThresh old.maximunVolumeUplinkThreshold	Integer	O	Uplink data octets. Range: 512 - 107374182400 (100 GB)
maximunRolloverThresh old.maximunVolumeDownlinkThreshold	Integer	O	Downlink data octets. Range: 512 - 107374182400 (100 GB)
minimunRolloverThresho ld.minimunDurationThreshold	Integer	O	Indicates the length of time in seconds. The remaining duration if applicable shall be rolled over to the next period if it is greater than the threshold value configured here. Range: 0 - 2592000 (30 Days)
minimunRolloverThresho ld.minimunVolumeTotalThreshold	Integer	O	Total data octets for both downlink and uplink. The remaining total volume if applicable shall be rolled over to the next period if it is greater than the threshold value configured here. Range: 0 - 107374182400 (100 GB)
minimunRolloverThresho ld.minimunVolumeUplink Threshold	Integer	O	Uplink data octets. The remaining uplink volume if applicable shall be rolled over to the next period if it is greater than the threshold value configured here. Range: 0 - 107374182400 (100 GB)

Table 2-469 (Cont.) Request/Response Body Parameters for GET and POST operations

Field Name	Data Type	Mandatory(M)/ Optional (O)/ Conditional (C)	Description
minimunRolloverThresho ld.minimunVolumeDownli nkThreshold	Integer	O	Downlink data octets. The remaining downlink volume if applicable shall be rolled over to the next period if it is greater than the threshold value configured here. Range: 0 - 107374182400 (100 GB)
rolloverCapSettings.dura tion	Integer	C	Indicates the length of time in seconds. Range: 3600 - 2592000 (30 Days)
rolloverCapSettings.vol umeTotal	Integer	C	Total data octets for both downlink and uplink. Range: 512 - 107374182400 (100 GB)
rolloverCapSettings.vol umeUplink	Integer	C	Uplink data octets. Range: 512 - 107374182400 (100 GB)
rolloverCapSettings.vol umeDownlink	Integer	C	Downlink data octets. Range: 512 - 107374182400 (100 GB)

Sample Request/Response body structure for GET operation:

```
{
  "name": "string",
  "dataRolloverEnabled": true,
  "rolloverDataConsumption": "BEFORE_PARENT_PLAN",
  "maximumNumberOfRollovers": 0,
  "dataRolloverPercentage": 0,
  "rolloverCap": true,
  "maximunRolloverThreshold": {
    "baseDataPercentage": 100,
    "maximunDurationThreshold": 2592000,
    "maximunVolumeTotalThreshold": 107374182400,
    "maximunVolumeUplinkThreshold": 107374182400,
    "maximunVolumeDownlinkThreshold": 107374182400
  },
  "minimunRolloverThreshold": {
    "minimunDurationThreshold": 2592000,
    "minimunVolumeTotalThreshold": 107374182400,
    "minimunVolumeUplinkThreshold": 107374182400,
    "minimunVolumeDownlinkThreshold": 107374182400
  },
  "rolloverCapSettings": {
    "duration": 2592000,
```

```

    "volumeTotal": 107374182400,
    "volumeUplink": 107374182400,
    "volumeDownlink": 107374182400
  }
}

```

2.90 Acquire lock

Table 2-470 Supported operations:

HTTP Method or Custom Operation	Description	Resource URI
POST	To acquire locks for multiple keys	{apiRoot}/v1/locks For Bulwark service: http://{BULWARK_HOST}: {BULWARK_PORT}/v1/locks

Sample cURL command for POST operation:

```

curl --location 'http://localhost:8080/v1/locks' \
--header 'oc-origination-request-timestamp: 1718017076394' \
--header 'Content-Type: application/json' \
--data '{
  "keys": [
    {
      "key": "imsi-4500810000000030"
    },
    {
      "key": "imsi-4500810000000031"
    }
  ],
  "leaseDuration": 2500,
  "lockWaitTimeout": 4000,
  "serviceInfo": {
    "serviceName": "postman",
    "serviceID": "postman",
    "contextInfo": "{\"msgType\":\"MSGTYPE_CREATE\"}"
  }
}'

```

Table 2-471 Request/Response Body Parameters for POST operation:

Field Name	Data Type	Mandatory (M)/ Optional (O)/ Conditional (C)	Description
keys	Array	M	Indicates the key for which the lock is requested

Table 2-471 (Cont.) Request/Response Body Parameters for POST operation:

Field Name	Data Type	Mandatory (M)/ Optional (O)/ Conditional (C)	Description
leaseDuration	Long	M	Duration in milliseconds for which lock is kept once the acquisition is successful. After this duration, the lock will be released automatically. This is used as default global leaseDuration, if key specific leaseDuration is not provided. Either overall leaseDuration OR key-specific leaseDuration must be present in a request. In case of this field is missing, overall leaseDuration will be considered for a given key. Note: It can be `0` for the requests where they do not want to release lock timeout. It means the lock will be there indefinitely until explicitly released.

Table 2-471 (Cont.) Request/Response Body Parameters for POST operation:

Field Name	Data Type	Mandatory (M)/ Optional (O)/ Conditional (C)	Description
lockWaitTimeout	Long	C	Duration in milliseconds for which consumer service will wait for the response to get a lock. The same duration would be used by Bulwark to poll for the lock if a lock is not available. This parameter is used as default global lockWaitTimeout, if key specific lockWaitTimeout is not provided. Either overall lockWaitTimeout OR key-specific lockWaitTimeout must be present in a request. In case of this field is missing, overall lockWaitTimeout will be considered for a given key. Note: It can be `0` for the requests where they do not want to wait for lock and respond immediately.
serviceInfo	Array	M	Contains the details of the service requesting the lock, such as service name, service ID, and context.

Table 2-472 Parameters for keys description

Field Name	Data Type	Mandatory (M)/ Optional (O)/ Conditional	Description
keys.key	String	M	Key for which consumer-service is requesting a lock

Table 2-472 (Cont.) Parameters for keys description

Field Name	Data Type	Mandatory (M)/ Optional (O)/ Conditional	Description
keys.leaseDuration	Long	C	Duration in milliseconds for which lock is kept once the acquisition is successful. After this duration, the lock will be released automatically. Either overall leaseDuration OR key-specific leaseDuration must be present in a request. In case of this field is missing, overall leaseDuration will be considered for a given key. Note: It can be `0` for the requests where they do not want to release lock timeout. It means the lock will be there indefinitely until explicitly released.
keys.lockWaitTimeout	Long	Conditional	Duration in milliseconds for which consumer service will wait for the response to get a lock. The same duration would be used by Bulwark to poll for the lock if a lock is not available. Either overall lockWaitTimeout OR key-specific lockWaitTimeout must be present in a request. In case of this field is missing, overall lockWaitTimeout will be considered for a given key. Note: It can be `0` for the requests where they do not want to wait for lock and respond immediately.

Table 2-473 Parameters for service name

Field name	Data Type	Mandatory (M)/ Optional (O)/ Conditional (C)	Description
serviceInfo.serviceName	String	M	Service name from which request is sent [SM-Service, AM-Service, UE Policy Service]
serviceInfo.serviceId	String	M	POD-ID of service from which request is sent
serviceInfo.context	String	O	Client's context information kept with a bulwark.

Sample request body structure for GET operation:

```
{
  "keys": [
    {
      "key": "key-1",
      "leaseDuration": 5000,
      "lockWaitTimeout": 1000
    },
    {
      "key": "key-2",
      "leaseDuration": 3000,
      "lockWaitTimeout": 2000
    },
    {
      "key": "key-3",
      "leaseDuration": 2000,
      "lockWaitTimeout": 3000
    }
  ],
  "leaseDuration": 6000,
  "lockWaitTimeout": 3000,
  "serviceInfo": {
    "serviceName": "PCF_SM",
    "serviceID": "pcf-sm-pod1"
    "context": "{\"user1\": \"imsi-1\"}"
  }
}
```


2.91 Release Lock

Table 2-474 Supported operations

HTTP Method or Custom Operation	Description	Resource URI
DELETE	To release the lock with key and lockID.	{apiRoot}/v1/locks/{lockID}?reqParam={unlockRequestBody}

Sample cURL command for DELETE operation:

```
curl --location --request DELETE 'http://localhost:8080/v1/locks/2a7d69f4-4364-4f6d-af72-0702cb769076?reqParam=%7B%22keys%22%3A%5B%22imsi-450081000000030%22%2C%22imsi-450081000000031%22%5D%2C%22serviceInfo%22%3A%7B%22serviceName%22%3A%22nata%22%2C%22serviceID%22%3A%22localhost%22%2C%22contextInfo%22%3A%22%7B%5C%22msgType%5C%22%3A%5C%22MSGTYPE_CREATE%5C%22%7D%22%7D%7D%0A'
```

Sample request body structure for DELETE operation:

```
{
  "keys": ["key-1", "key-2", "key-3"],
  "serviceInfo": {
    "serviceName": "PCF_SM",
    "serviceID": "pcf-sm-pod1"
  }
}
```

2.92 Server Retry on already locked keys

Table 2-475 Supported operations

HTTP Method or Custom Operation	Description	Resource URI
PUT	Used to enable / disable the server side retry for already locked keys.	{apiRoot}/nf-common-component/v1/bulwark/settings

Table 2-476 Request/Response Body Parameters for PUT operation:

Field Name	Data Type	Mandatory (M)/Optional (O)/Conditional (C)	Description
enabled	Boolean	M	Indicates whether to enable server retry on already locked keys. Default value: false

Table 2-476 (Cont.) Request/Response Body Parameters for PUT operation:

Field Name	Data Type	Mandatory (M)/ Optional (O)/ Conditional (C)	Description
maxPendingLockRequestsPerKey	Integer	M	Indicates the maximum number of pending lock requests allowed per key. Range: 1 to 10 Default value: 5

Sample request body structure for PUT operation:

```
{
  "serverRetryOnAlreadyLocked": {
    "enabled": true,
    "maxPendingLockRequestsPerKey": 5
  }
}
```

2.93 Rx Reauth Profiles

Table 2-477 Supported REST APIs - Rx Reauth Profiles

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Create Rx Reauth Profile	POST	/oc-cnpolicy-configuration/v1/services/common/rx-reauth-profiles	See Table A-3
Get Rx Reauth Profile	GET	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/rx-reauth-profiles/{rxReauthProfileName}	See Table A-1
Update Rx Reauth Profile	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/rx-reauth-profiles/{rxReauthProfileName}	See Table A-2
Export Rx Reauth Profile	GET	/oc-cnpolicy-configuration/v1/services/common/rx-reauth-profiles/export	See Table A-1
Import Rx Reauth Profile	POST	/oc-cnpolicy-configuration/v1/services/common/rx-reauth-profiles/import	See Table A-3

Table 2-477 (Cont.) Supported REST APIs - Rx Reauth Profiles

Description	HTTP Method or Custom Operation	Resource URI	Possible Result Code
Delete Rx Reauth Profile	DELETE	{apiRoot}/oc-cnpolicy-configuration/v1/services/common/rx-reauth-profiles/{rxReauthProfileName}	See Table A-4

Get, Create, and Update Rx Reauth Profile

This section describes the request and response parameters used in NF communication profile APIs.

Table 2-478 Request and Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
Name	string	O	-
Settings	-	O	-
mediaType	string	O	Enter the name of the media type. Allowed Values: ALL, AUDIO, DATA, APPLICATION, VIDEO, CONTROL, TEXT, MESSAGE, NOMEDIATYPE, OTHER Default Value: All
precedence	integer	O	When the Notify-Update triggered by Rx request towards SMF fails and the request comes with multiple media components then use this precedence value to determine which of these will determine the final Reauth Action. Allowed Values: 1-99 Default Value: Null
acceptAllErrors	boolean	O	When the Notify-Update triggered by Rx request towards SMF fails with any error code or cause and this field is set as True, then we would say that the ErrorCode and ErrorCause matched successfully. Allowed Values: False Default Value: True, False

Table 2-478 (Cont.) Request and Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
errors	boolean	O	When the Notify-Update triggered by Rx request towards SMF fails with any error code or cause and the Accept All Errors field is set as False, check the Table 2-479 example table and match the ErrorCode and ErrorCause of the failure. Note: If the ErrorCode is configured and ErrorCause is left empty, PCF will compare only the ErrorCode and allow any ErrorCause for that specific error to match. Default Value: Empty List
exceptions	string	O	When the Notify-Update triggered by Rx Request towards SMF fails with any exception, then match the exception of the failure. Default Value: Empty List
reauthAction	string	O	Given that all following conditions for current setting are met: 1. MediaType specified matches 2. Error matched successfully or Exception matches successfully Then PCF can take the Reauth Action. Allowed Values: SEND_ASR, SUPPRESS_ASR, SEND_RAR Default Value: SEND_ASR

Table 2-479 ErrorCode and ErrorCause Combination

Configuration	ErrorCode	ErrorCause	Expectation
Nothing configured	5xx/4xx	NA	No match
{"error code": 503, "error cause": ""}	503	...	Match
	503	SERVICE_UNAVAILABLE	Match
	503	CUSTOM_503	Match
	404	...	No match
{ "error code": 503, "error cause": "SERVICE_UNAVAILABLE",	503	...	Match
	503	SERVICE_UNAVAILABLE	Match

Table 2-479 (Cont.) ErrorCode and ErrorCause Combination

Configuration	ErrorCode	ErrorCause	Expectation
"error code": 503, "error cause": "NF_CONGESTED", "error code": 503, "error cause": "CUSTOM_503", "error code": 404, "error cause": "NOT_FOUND", }	404	...	Match
{ "error code": 503, "error cause": "SERVICE_UNAVAILA BLE", "error code": 404, "error cause": "NOT_FOUND", "error code": 503, "error cause": "", }	503	SERVICE_UNAVAILABL E	Match
	503	CUSTOM_503	Match
	404	NOT_FOUND	Match

Sample Request body for Rx Reauth Profile POST and PUT operations:

```
{
  "name": "string",
  "settings": [
    {
      "mediaType": "ALL",
      "precedence": 99,
      "acceptAllErrors": true,
      "errors": [
        {
          "errorCode": 999,
          "errorCause": "string"
        }
      ],
      "exceptions": [
        {
          "exception": "TIMEOUT_EXCEPTION"
        }
      ]
    }
  ]
}
```

```

    }
  ],
  "reauthAction": "SEND_ASR"
}
]
}

```

Sample Response body structure for Rx Reauth Profile GET, POST, and PUT operation:

```

{
  "name": "string",
  "settings": [
    {
      "mediaType": "ALL",
      "precedence": 99,
      "acceptAllErrors": true,
      "errors": [
        {
          "errorCode": 999,
          "errorCause": "string"
        }
      ],
      "exceptions": [
        {
          "exception": "TIMEOUT_EXCEPTION"
        }
      ],
      "reauthAction": "SEND_ASR"
    }
  ]
}

```

Sample Request Body structure for Rx Reauth Profile Import and Export operations:

```

{
  "name": "string",
  "settings": [
    {
      "mediaType": "ALL",
      "precedence": 99,
      "acceptAllErrors": true,
      "errors": [
        {
          "errorCode": 999,
          "errorCause": "string"
        }
      ],
      "exceptions": [
        {
          "exception": "TIMEOUT_EXCEPTION"
        }
      ],
      "reauthAction": "SEND_ASR"
    }
  ]
}

```

```
}  
]  
}
```

2.94 Diameter Connector

The Diameter Connector API allows to configure Diameter Connector.

Table 2-480 Supported REST APIs

HTTP Method or Custom Operation	Description	Resource URI
GET	Get Diameter Connector service	oc-cnpolicy-configuration/v1/services/diamConnector
PUT	Update Diameter Connector service	oc-cnpolicy-configuration/v1/services/diamConnector
POST	Import Diameter Connector service	oc-cnpolicy-configuration/v1/services/diamConnector/import
GET	Export Diameter Connector service	oc-cnpolicy-configuration/v1/services/diamConnector/export

Table 2-481 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
general	object	O	Allows to configure Diameter Connector.
staleRequestCleanup	object	O	Allows to configure stale request cleanup for Diameter Connector.

Table 2-482 General Configuration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
ratTypeNRRedCapEnabled	boolean	O	When this parameter is enabled and if the RAT Type in the PDU session is NR_REDCAP, PCF sends the RATType AVP with value NR_REDCAP to P-CSCF in AAA and RAR messages. When this parameter is disabled and Rx session is established for the RedCap devices for which the RAT Type of the PDU session is NR_REDCAP: - Policy accepts the session and sends AAA and RAR messages to P-CSCF without RATType AVP. - Policy increments diam_avp_dropped metric. Default value: false

Table 2-483 staleRequestCleanup Configuration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enableLateArrival	boolean	O	Indicates whether to validate an incoming request if it is stale during arrival. Enable this field to stop processing the incoming requests to Diameter Connector if it already stale. Default value: false

Table 2-483 (Cont.) staleRequestCleanup Configuration

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enableLateProcessing	boolean	O	Indicates whether to validate a request at Diameter Connector if it is stale during processing. Enable this field to stop processing the requests at Diameter Connector if it becomes stale during processing. Default value: false
sbiTimerEnabled	boolean	O	Indicates whether to handle HTTP SBI headers that are attached to incoming request. Default value: false
skipLateProcessingForTerminate	boolean	O	Indicates whether to skip validating requests of type DELETE if the request becomes stale during arrival and processing. Default value: false

Sample Request/Response parameters for GET operation:

```
{
  "general": {
    "ratTypeNRRedCapEnabled": false
  },
  "staleRequestCleanup": {
    "enableLateArrival": false,
    "enableLateProcessing": false,
    "skipLateProcessingForTerminate": false,
    "sbiTimerEnabled": false
  }
}
```

cURL Commands

The following is a sample cURL command for GET operation:

```
curl -X 'GET' \ 'http://100.77.63.77:30331/oc-cnpolicy-configuration/v1/
services/diamConnector' \ -H 'accept: application/json'
```

2.95 PDS UE ID Configuration Settings

The PDS UE ID Configuration Settings API allows to configure UE ID based query on PolicyDS database.

Table 2-484 Supported REST APIs

HTTP Method or Custom Operation	Description	Resource URI
GET	Get PDS UE ID Configuration settings	oc-cnpolicy-configuration/v1/services/pds/pdsUEIdConfiguration
PUT	Update PDS UE ID Configuration settings	oc-cnpolicy-configuration/v1/services/pds/pdsUEIdConfiguration
POST	Import PDS UE ID Configuration settings	oc-cnpolicy-configuration/v1/services/pds/pdsUEIdConfiguration/import
GET	Export PDS UE ID Configuration settings	oc-cnpolicy-configuration/v1/services/pds/pdsUEIdConfiguration/export

Table 2-485 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
typeOfSearch	string	O	Indicates the type of query to be performed on the PolicyDS database. This field provides a dropdown list with the following options: - Multi_UE_ID_SEARCH: Specifies a key preference for PDS search query used to look up for a Pdsprofile record. When Multi-UE ID Search is selected the search query uses OR criteria and the search time will be higher. - PREFERENTIAL_SEARCH: When Preferential Search is selected, Preference Order field is displayed. It allows to query based on preferred primary key. - SINGLE_UE_ID_PREFERENTIAL_SEARCH: Specifies a key preference for PDS search query used to look up for a PDSSubscriber record.

Table 2-485 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
preferenceOrder	string	O	This parameter must be configured when typeOfSearch parameter is configured as PREFERENTIAL_SEARCH. The value of preferenceOrder parameter specifies the preferred order of keys used for querying the database. - SUPI: Query based on SUPI value. It is mandatory to provide a valid SUPI value. - GPSI: Query based on GPSI value. It is mandatory to provide a valid GPSI value. - SUPI, GPSI: Query on SUPI first and then on GPSI. It is mandatory to provide at least a valid SUPI or GPSI value. - GPSI, SUPI: Query on GPSI first and then on SUPI. It is mandatory to provide at least a valid SUPI or GPSI value.
primaryKeyCombination	string	O	Specifies the required primary key combination. The primary key combination can be SUPI,GPSI or SUPI/GPSI. On selecting the required primary key combination, the requests to PDS is expected to mandatorily contain that ID. Otherwise, the request is rejected with 400 HTTP error code.

Table 2-485 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
migrationInProgress	boolean	O	The Migration In Progress flag is applicable only when switching between MULTI_UE_ID_SEARCH/PREFERENTIAL_SEARCH and SINGLE_UE_ID_PREFERENTIAL_SEARCH. This flag is enabled when the records are being migrated from PDSPProfile to PDSSubscriber. This flag can be disabled once the migration of all the records are complete. The expectation is that all records must be migrated to updated format. While disabling Migration In Progress, Policy console displays the following warning: "Migration should be disabled only when all the records have been migrated. Are you sure you want to disable it?" If Migration In Progress flag is disabled while the migration of records is still in progress, the non-migrated records will go stale and can be cleaned up by Audit. Note In case of multi-site deployment: • Migration In Progress flag can be disabled for a site only if migration is enabled in all the sites with the updated configuration. Otherwise, migration cannot be disabled.

Table 2-485 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
			• Migration should be disabled in all the sites almost simultaneously to avoid stale subscriptions being left in PDS. • Migration from Single to Single with different Primary Key combinations should be done in all sites almost simultaneously to avoid stale subscription being left in PDS
skipValidation	boolean	O	This section is used to verify the migration status at each site.

Sample Request/Response parameters for PUT operation:

```
{
  "typeOfSearch": "string",
  "preferenceOrder": [
    "string"
  ],
  "primaryKeyCombination": "string",
  "migrationInProgress": true,
  "skipValidation": true
}
```

cURL Commands

The following is a sample cURL command for PUT operation:

```
curl -X 'PUT' \
  'http://<host>:<port>/oc-cnpolicy-configuration/v1/services/pds/
  pdsUEIdConfiguration' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
    "typeOfSearch": "string",
    "preferenceOrder": [
      "string"
    ],
    "primaryKeyCombination": "string",
    "migrationInProgress": true,
```

```
    "skipValidation": true  
  }'
```

3

Common Services REST Specifications

This chapter provides information about the REST specifications for Common Services used in Oracle Communications Cloud Native Core Converged Policy. You can use the following APIs to update configurations related to the Overload Control feature.

3.1 OAuth Validator REST API Configuration

This REST API configuration is required for enabling access token validation using NRF Instance ID and key-ID (K-ID).

Before this configuration, perform the prerequisite steps and helm configuration explained in "Configuring Secrets to Enable Access Token " section in *Oracle Communications Cloud Native Core, Converged Policy Installation, Upgrade and Fault Recovery Guide*.

After the Helm configuration, send the REST requests to Ingress Gateway to use configured public key certificates. Using REST-based configuration, you can distinguish between the certificates configured on different NRFs and can use these certificates to validate the token received from a specific NRF.

This REST API configuration is required for enabling access token validation using NRF Instance ID and key-ID (K-ID). This URI can be used to update oauth configuration that is used for validating token sent in request to Ingress Gateway. By default, the `instanceIdlist` and `keyIdList` are null and validation mode is `INSTANCEID_ONLY`.

Table 3-1 OAuth Validator Configuration

Description	HT TP Me tho d or Cu sto m Op era tio n	Resource URI	Content Type
Update or Add oauth configuration that will be used for validating token sent in request to Ingress Gateway. Note: By default, instanceIdList, keyIdList are null and validation mode is INSTANCEID_ONLY. This configuration is only applicable when oauth feature is enabled via Helm chart.	PUT	/{nfType}/nf-common-component/v1/{serviceName}/oauthvalidatorconfiguration Example: http://10.75.152.236:8000/pcf/nf-common-component/v1/igw/oauthValidatorConfiguration	application/json

Sample JSON:

```
"oauthValidatorConfiguration": {
  "type": "object",
  "description": "Validator configurations for OAuth",
  "properties": {
    "keyIdList": {
      "type": ["array", "null"],
      "uniqueItems": true,
      "maxItems": 150,
      "description": "Array containing KID based configuration",
      "items": {
        "anyOf": [
```

```

        {
            "type": "object",
            "properties": {
                "keyId": {"type": "string", "minLength": 1, "maxLength":
36, "pattern": "[a-zA-Z0-9]"},
                "kSecretName": {"type": "string"},
                "certName": {"type": "string"},
                "certAlgorithm": {"type": "string"}
            },
            "required": [
                "keyId",
                "kSecretName",
                "certName",
                "certAlgorithm"
            ]
        }
    ],
    },
    "instanceIdList": {
        "type": ["array", "null"],
        "uniqueItems": true,
        "maxItems": 150,
        "description": "Array containing Instance Id based configuration",
        "items": {
            "anyOf": [
                {
                    "type": "object",
                    "properties": {
                        "instanceId": {"type": "string"},
                        "kSecretName": {"type": "string"},
                        "certName": {"type": "string"},
                        "certAlgorithm": {"type": "string"}
                    },
                    "required": [
                        "instanceId",
                        "kSecretName",
                        "certName",
                        "certAlgorithm"
                    ]
                }
            ]
        }
    },
    "oauthValidationMode": {
        "type": "string",
        "enum": [
            "KID_ONLY",
            "INSTANCEID_ONLY",
            "KID_PREFERRED"
        ],
        "description": "Mode of validation"
    }
}

```

3.2 CCA Header Validation

Table 3-2 CCA Header Validation APIs

API Description	HTTP Method or Custom Operation	Resource URI	Description	Possible Result Code
GET CCA header information.	GET	{apiRoot}/ {nfType}/nf- common- component/v1/igw/ ccaheader Content Type: application/json	Gets the details stored in DB for property ccaheader.	See Table A-1
Update the CCA details using PUT.	PUT	{apiRoot}/ {nfType}/nf- common- component/v1/igw/ ccaheader Content Type: application/json	Replaces the existing values with the new value sent.	See Table A-2
Update the CCA details using PATCH.	PATCH	{apiRoot}/ {nfType}/nf- common- component/v1/igw/ ccaheader Content Type: application/json	Updates the value of the parameters modified.	See Table A-2

Get and Update Operations

Table 3-3 Request/Response Body Parameters

Attribute Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
enabled	boolean	M	Indicates if the CCA validation feature flag is enabled or disabled. Note: This is a read-only parameter. If you want to enable this feature, use <code>metadata.ccaHeaderValidation.enabled</code> parameter in <code>routesConfig</code> for <code>accesstoken_mapping</code> id in Helm. Constraints: true, false Default Value: false
minExpiryTime	integer	NA	Indicates the minimum time of expiry for the CA Root certificate. Default Value: 0
maxTokenAge	integer	M	Indicates the maximum token age allowed. Note: It skips the check if the value is 0. Constraints: 0 - 86400 seconds Default Value: 0

Table 3-3 (Cont.) Request/Response Body Parameters

Attribute Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
role	string	M	Indicates the CCA token validator role to match the audience claim in the header. Note: This is a read-only parameter. Default Value: NRF
subKey	string	M	Indicates if the certificate extension name to be read in the public key certificate received in CCA request. Note: This is a read-only parameter. Default Value: subjectAltName
validationRule	string	M	Indicates the CCA validation rule. - strict: NRF validation rules are applied. - relaxed: "Issued At" validation is not mandatory. Validation rules are applied to Producer NF. Constraints: strict, relaxed Default Value: strict
k8SecretName	string	M	Indicates the name of the Kubernetes secret in which the CA bundle is present. Note: After fresh installation, these attributes must be configured with appropriate values as per the system requirement using the Rest API as these values are sample ones. Example k8SecretName: ocnrfacesstoken-secret
k8NameSpace	string	M	Indicates the Kubernetes namespace in which CA bundle is present. Note: After fresh installation, these attributes must be configured with appropriate values as per the system requirement using the Rest API as these values are sample ones. Example k8NameSpace: b2-gate-zeta-13775736-pcf1
fileName	string	M	Indicates the name of the CA bundle file used for CCA. This is the file generated by certificate and key generation steps. Note: After fresh installation, these attributes must be configured with appropriate values as per the system requirement using the Rest API as these values are sample ones. Example: fileName: caroot.cer

Sample Body Request:

```

"role": "NRF",
"subKey": "subjectAltName",
"enabled": true,
"fileName": "caroot.cer",
"k8NameSpace": "b2-gate-zeta-13775736-pcf1",

```

```
"maxTokenAge":10,
"k8SecretName":"ocnrfacesstoken-secret",
"minExpiryTime":1000,
"validationRule":"strict"
```

3.3 Egress Gateway for SCP Health

Peer Configuration

Table 3-4 Peer Configuration supported REST APIs details:

Description	HTTP Method or Custom Operation	Resource URI	Content Type	Possible Result Codes
Get Peer Configuration	GET	/nfType/nf-common-component/v1/{serviceName}/peerconfiguration	application/json	See Table A-1
Update Peer Configuration	PUT	/nfType/nf-common-component/v1/{serviceName}/peerconfiguration	application/json	See Table A-2
Get All Peer Configuration	GET	/nfType/nf-common-component/v1/{serviceName}/{instanceId}/peerconfiguration	application/json	See Table A-1
Update All Peer Configurations	PUT	/nfType/nf-common-component/v1/{serviceName}/{instanceId}/peerconfiguration	application/json	See Table A-2

Table 3-5 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
id	string	O	Peer identifier Note: Unique value in peerconfiguration
host	string	O	Host details of a peer. It can be IPv4, IPv6 and FQDN details.

Table 3-5 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
virtualHost	string	O	Host details of a remote peer. For SLF feature, the virtualHost is SCP peer details. It must be a valid FQDN. This FQDN is sent to Alternate Route Service for DNS SRV resolution.
port	string	O	Port details of a peer.
apiPrefix	string	O	API prefix details of a peer. Note: Keep the value as '/' only
healthApiPath	string	O	Path of health API / scp-api-root/v1/status. This attribute is added to maintain the health status of the API. This attribute is added as part of monitoring the availability of SCP health status.

Peer Monitoring Configuration**Table 3-6 Peer Monitoring Configuration supported REST APIs details:**

Description	HTTP Method or Custom Operation	Resource URI	Content Type	Possible Result Codes
Get Peer Monitoring Configuration	GET	/nfType/nf-common-component/v1/{serviceName}/peermonitoringconfiguration	application/json	See Table A-1
Update Peer Monitoring Configuration	PUT	/nfType/nf-common-component/v1/{serviceName}/peermonitoringconfiguration	application/json	See Table A-2
Get All of Peer Monitoring Configuration	GET	/nfType/nf-common-component/v1/{serviceName}/{instanceId}/peermonitoringconfiguration	application/json	See Table A-1

Table 3-6 (Cont.) Peer Monitoring Configuration supported REST APIs details:

Description	HTTP Method or Custom Operation	Resource URI	Content Type	Possible Result Codes
Update All of Peer Monitoring Configurations	PUT	/nfType}/nf-common-component/v1/{serviceName}/{instanceId}/peermonitoringconfiguration	application/json	See Table A-2

Table 3-7 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
enabled	Boolean	O	Attribute to enable or disable monitoring at a global level. Default value: false
timeout	Long	O	Flag to configure the duration after which calls to the SCP health API is timed out. This is provided in milliseconds. The allowed value ranges from 300 milliseconds to 10000 milliseconds. Default value: 1000
frequency	Long	O	Indicates the frequency or interval at which Egress Gateway microservice initiates health check calls toward SCP. This is provided in milliseconds. The allowed value ranges from 300 milliseconds to 10000 milliseconds. Default value: 2000
failureThreshold	Integer	O	Indicates the number of consecutive failure responses after which a healthy SCP can be marked as unhealthy. The allowed value ranges 1 to 10. The maximum number of attempts to mark SCP unhealthy is 10. Default value: 3

Table 3-7 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
successThreshold	Integer	O	Indicates the number of successful responses after which an unhealthy SCP can be marked as healthy. Health API call to given SCP shall succeed consecutively to these many attempts before it is marked as Available from UNAVAILABLE. The allowed value ranges 1 to 10. Default value: 3

Sample body:

```
{
  "enabled":true,
  "timeout":1000,
  "frequency":2000,
  "failureThreshold":3,
  "successThreshold":3
}
```

Peer Set Configuration

Table 3-8 Peerset Configuration supported REST APIs details:

Description	HTTP Method or Custom Operation	Resource URI	Content Type	Possible Result Codes
Get Peerset Configuration	GET	{apiRoot}/egw/healthStatus/peerSet/{peerSetId}	application/json	See Table A-1
List of Peerset Configuration	GET	{apiRoot}/egw/healthStatus/peerSet	application/json	See Table A-1
Get the list of peer sets wherein each peer set consists of ID and list of http or https instances.	GET	/nfType}/nf-common-component/v1/{serviceName}/peerSetconfiguration	application/json	See Table A-1

Table 3-8 (Cont.) Peerset Configuration supported REST APIs details:

Description	HTTP Method or Custom Operation	Resource URI	Content Type	Possible Result Codes
Add or update the list of peer sets wherein each peer set consists of ID and list of http or https instances.	PUT, PATCH,	/nfType}/nf-common-component/v1/{serviceName}/peersetconfiguration	application/json	see Table A-2

Table 3-9 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
id	string	O	Identifier for Peer Set
httpConfiguration	array(PeerIdentifierConfiguration)	O	Configuration for HTTP based Peers. This value will be selected, if 3GPPAPIRootScheme value is http
httpsConfiguration	array(PeerIdentifierConfiguration)	O	Configuration for HTTPS based Peers. This value will be selected, if 3GPPAPIRootScheme value is https

Table 3-10 PeerIdentifierConfiguration

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
priority	integer	O	Priority of peer to be used in a peer set
peerIdentifier	string	O	Peer identifier is the value of peer configured during PeerConfiguration

Sample body:

```
peerSetConfiguration[
  {
    "id": "set0",
    "httpConfiguration": [
      {
        "priority": 1,
        "peerIdentifier": "peer1"
      }
    ],
    "httpsConfiguration": [
      {
```

```

    "priority": 1,
      "peerIdentifier": "peer1"
    }]

```

3.4 OC Policy Mapping

This URI can be used to update service names and corresponding policy name for the service which is mapped to "ocDiscardPolicies" based on "policyName" and also to enable/disable the Overload Control feature and the sampling period in overload control. By default, the Overload Control feature is disabled and the sampling period is the 60s. To enable the feature, REST API needs to be invoked and update the enabled flag to true.

Table 3-11 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI
Get OC Policy Mapping	GET	PCF/nf-common-component/v1/{serviceName}/ocpolicymapping
Update OC Policy Mapping	PUT	PCF/nf-common-component/v1/{serviceName}/{instanceId}/ocpolicymapping
Partially OC Policy Mapping	PATCH	PCF/nf-common-component/v1/{serviceName}/{instanceId}/ocpolicymapping

Get, Update, and Patch OCPolicyMapping

Table 3-12 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)aints	Description
enabled	boolean	M	To enable or disable Overload Control feature. Set values to: - true: To enable - false: To disable
mappings.svcName	string	M	The SVC entry to determine a mapping between service and discard policy name per service.
mappings.policyName	string	M	The discard policy entry to determine a mapping between service and discard policy name per service.
samplingPeriod	integer	M	Time frame for each cycle of Overload Control per service. Its value is in milliseconds.

Sample Request/Response body structure for GET, PUT, and PATCH operations:

```
{
  "enabled": true,
  "mappings": [
    {
      "svcName": "sm.pcf.com",
      "policyName": "OCDP1"
    },
    {
      "svcName": "cm.pcf.com",
      "policyName": "OCDP2"
    },
    {
      "svcName": "localhost",
      "policyName": "OCDP3"
    }
  ],
  "samplingPeriod": 200
}
```

3.5 Error Code Profiles

This URI can be used to update the `errorCodeProfiles` that are used in Overload Control feature for populating details in error responses when a request is discarded.

By default, the `errorCodeProfiles` remains null.

Table 3-13 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI
Get error code profiles	GET	PCF/nf-common-component/v1/{serviceName}/errorcodeprofiles
Update error code profiles	PUT	PCF/nf-common-component/v1/{serviceName}/{instanceId}/errorcodeprofiles
Partially update the error code profiles	PATCH	PCF/nf-common-component/v1/{serviceName}/{instanceId}/errorcodeprofiles

Get, Update, and Patch `errorCodeProfile`

Table 3-14 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
name	string	M	Error name.

Table 3-14 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
errorCode	integer	M	errorCode field in an errorScenario determines the HttpStatusCode that needs to be populated in ProblemDetails (HttpStatus field) response from IGW when the exception occurred at IGW matches the configured errorScenario's exceptionType field.
errorCause	string	O	errorCause field in an errorScenario determines the error cause that needs to be populated in ProblemDetails (Cause field) response from IGW when the exception occurred at IGW matches the configured errorScenario's exceptionType parameter.
errorTitle	string	O	errorTitle field in an errorScenario determines the title that needs to be populated in ProblemDetails (Title field) response from IGW when the exception occurred at IGW matches the configured errorScenario's exceptionType parameter.
redirectURL	string	O	redirectUrl field in an errorScenario determines the redirection URL, this value is populated in LOCATION header while sending response from IGW. The header is populated only when the exception occurred at IGW matches the configured errorScenario's exceptionType parameter, the errorCode configured for the particular errorScenario lies in 3xx error series and the redirectUrl field for the particular errorScenario is configured appropriately.
retry-after	string	O	retryAfter field in an errorScenario determines the value in seconds/ particular date after which the service should be retried, this value is populated in Retry-After header while sending response from IGW. The header is populated only when the exception occurred at IGW matches the configured errorScenario's exceptionType parameter, the errorCode configured for the particular errorScenario lies in 3xx error series and the retryAfter field for the particular errorScenario is configured appropriately in seconds.
errorDescription	string	O	errorDescription field in an errorScenario determines the description that needs to be populated in ProblemDetails (Detail field) response from IGW when the exception occurred at IGW matches the configured errorScenario's exceptionType field.

Sample Request/Response body structure for GET, PUT, and PATCH operations:

```
[
  {
    "name": "error300",
    "errorCode": 300,
    "errorCause": "",
```

```

    "errorTitle": "",
    "redirectURL": "",
    "retry-after": "",
    "errorDescription": ""
  },
  {
    "name": "error500",
    "errorCode": 500,
    "errorCause": "",
    "errorTitle": "",
    "redirectURL": "",
    "retry-after": "",
    "errorDescription": ""
  },
  {
    "name": "error429",
    "errorCode": 429,
    "errorCause": "",
    "errorTitle": "",
    "redirectURL": "",
    "retry-after": "",
    "errorDescription": ""
  }
]

```

3.6 OC Discard Policies

This URI can be used to update discard policies that will be used in overload control to select the appropriate policy from the configured list based on the load level of a particular service. By default, ocDiscardPolicies will be null.

Table 3-15 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI
Get Discard Policies	GET	PCF/nf-common-component/v1/{serviceName}/ocdiscardpolicies
Update Discard Policy	PUT	PCF/nf-common-component/v1/{serviceName}/{instanceId}/ocdiscardpolicies
Partially update the Discard Policy	PATCH	PCF/nf-common-component/v1/{serviceName}/{instanceId}/ocdiscardpolicies

Get, Update, and Patch OCDiscardData

Table 3-16 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
name	string	M	Name of the discarded policy.
scheme	string The value can be: - PriorityBased - PercentageBased	M	Discarded policy scheme.
policies.value	integer	M	Value of priority above which requests are considered as potential candidates for drop. Percentage of requests to drop in the current sampling period over the calculated rate in the previous sampling period.
policies.action	string The value can be: RejectWithErrorCode	O	Defines the action to be taken on selected requests rejection based on error code.
policies.level	string	O	Defines the overload level.
policies.errorCodeProfile	string	O	The error code profiles.

Sample Request/Response body structure for GET, PUT, and PATCH operations:

```
[
{
  "name": "OCDP2",
  "scheme": "PercentageBased",
  "policies": [
    {
      "value": 20,
      "action": "RejectWithErrorCode",
      "level": "L1",
      "errorCodeProfile": "error411"
    },
    {
      "value": 40,
      "action": "RejectWithErrorCode",
      "level": "L2",
      "errorCodeProfile": "error412"
    },
    {
      "value": 60,
      "action": "RejectWithErrorCode",
      "level": "L3",
```

```

        "errorCodeProfile": "error413"
    },
    {
        "value": 80,
        "action": "RejectWithErrorCode",
        "level": "L4",
        "errorCodeProfile": "error414"
    },
    {
        "value": 95,
        "action": "RejectWithErrorCode",
        "level": "L5",
        "errorCodeProfile": "error415"
    }
  ]
},
{
  "name": "OCDP1",
  "scheme": "PriorityBased",
  "policies": [
    {
      "value": 30,
      "action": "RejectWithErrorCode",
      "level": "Minor",
      "errorCodeProfile": "error300"
    },
    {
      "value": 20,
      "action": "RejectWithErrorCode",
      "level": "Critical",
      "errorCodeProfile": "error500"
    }
  ]
}
]

```

3.7 Overload Level Threshold

This URI can be used to configure the Overload Threshold Level. The data is saved in a line with service_name perf-info and used by the overload manager.

Table 3-17 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI
Get Overload Threshold Value of the required SVC (Backend service).	GET	/PCF/nf-common-component/v1/perf-info/overloadLevelThreshold
Update the Overload Threshold Value of the required SVC (Backend service).	PUT	/PCF/nf-common-component/v1/perf-info/overloadLevelThreshold
Delete the Overload Threshold Value of the required SVC (Backend service).	DELETE	/PCF/nf-common-component/v1/perf-info/overloadLevelThreshold

Update overloadLevelThreshold

Table 3-18 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M) / Optional(O) Conditional(C)	Description
svcName	string	M	Name of the backend service (svcName). You can configure the threshold values for the following services: • PCRF Core • Diameter Connector • PCF Session Management • PCF Access and Mobility • PCF UE Policy • CHF Connector • UDR Connector Note For PCRF-CORE deployment mode, configuring overload level threshold for SM Service, AM Service, and UE Policy Service is not required. For PCF deployment mode, configuring the overload level threshold for PCRF Core is not required.
metricsThresholdList	array	M	List of criteria used to calculate the load level.
metricsThresholdList.metricsName	string	M	Name of criteria: • cpu • svc_pending_count • svc_failure_count • memory
metricsThresholdList.levelThresholdList	array	M	List of threshold values
metricsThresholdList.levelThresholdList.level	string	M	Specifies the name of the level: L1/L2/L3

Table 3-18 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M) / Optional(O) Conditional(C)	Description
metricsThresholdList.levelThresholdList.abatementValue	integer	M	If the metric level goes below this value, load level goes to a lower value. The abatement values for each of the metrics are as follows: - cpu (Calculated in percentage (%)) and ranges between 1-100 - svc_pending_count (Accepts an integer value) and ranges between 1 to 1000000 - svc_failure_count (Accepts an integer value) and ranges between 1 to 1000000 - memory (Calculated in percentage (%)) and ranges between 1-100
metricsThresholdList.levelThresholdList.onsetValue	integer	M	If the metric level goes above this value, load level is set. The onset value of L1 is less than the abatement value of L2 and the onset value of L2 is less than the abatement value of L3. The onset values for each of the metrics are as follows: - cpu (Calculated in percentage (%)) and ranges between 1-100 - svc_pending_count (Accepts an integer value) and ranges between 1 to 1000000 - svc_failure_count (Accepts an integer value) and ranges between 1 to 1000000 - memory (Calculated in percentage (%)) and ranges between 1-100

Sample Request/Response body structure for GET/PUT operation:

```
[
  {
    "svcName": "ztt-overload-ocnp-pcf-sm",
    "metricsThresholdList": [
      {
        "metricsName": "svc_pending_count",
        "levelThresholdList": [
          {
            "level": "L1",
            "onsetValue": 50,
            "abatementValue": 40
          },
          {
            "level": "L2",
            "onsetValue": 200,
            "abatementValue": 180
          },
          {
            "level": "L3",
```

```

        "onsetValue": 400,
        "abatementValue": 360
    },
    {
        "level": "L4",
        "onsetValue": 600,
        "abatementValue": 540
    },
    {
        "level": "L5",
        "onsetValue": 800,
        "abatementValue": 720
    }
]
}
]

```

3.7.1 Overload Level Threshold Profiles

This URI can be used to configure the Overload Threshold Level Profiles. The data is saved in a line with service_name perf-info and used by the overload manager.

Table 3-19 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI
Get the Overload Threshold Profile of the required SVC (Backend service).	GET	/oc-cnpolicy-configuration/v1/overloadlevelThreshold/activeProfile For details on Request/Response Body Parameters for GET activeProfile, see Table 3-20
Activate the Overload Threshold Profile	PUT	/oc-cnpolicy-configuration/v1/overloadlevelThreshold/activeProfile For details on Request/Response Body Parameters for PUT activeProfile, see Table 3-20
Get all the overload threshold profiles names which includes default and custom profiles	GET	/oc-cnpolicy-configuration/v1/overloadlevelThreshold/profiles For details on Request/Response Body Parameters for GET profiles, see Table 3-21
Get Overload Threshold Value for particular profile.	GET	/oc-cnpolicy-configuration/v1/overloadlevelThreshold/profiles/{name} For details on Request/Response Body Parameters for GET profiles/{name}, see Table 3-22

Table 3-19 (Cont.) Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI
Adds a new Overload Threshold Profile	POST	/oc-cnpolicy-configuration/v1/overloadlevelThreshold/profiles/{name} For details on Request/Response Body Parameters for POST profiles/{name}, see Table 3-22
Update the profile.	PUT	/oc-cnpolicy-configuration/v1/overloadlevelThreshold/profiles/{name} For details on Request/Response Body Parameters for PUT profiles/{name}, see Table 3-22
Delete the Overload Threshold Profile of the required SVC (Backend service).	DELETE	/oc-cnpolicy-configuration/v1/overloadlevelThreshold/profiles/{name}
Migrate the data from standalone to profile i.e if any overloadlevelThreshold data is already configured then it will migrate that data to profile name - Name of the profile activate - if after migration , profile should be activated	POST	/oc-cnpolicy-configuration/v1/overloadlevelThreshold/migrate For details on Request/Response Body Parameters for POST migrate, see Table 3-23
Exports the Overload Threshold Profile.	GET	/oc-cnpolicy-configuration/v1/overloadlevelThreshold/export
Imports the Overload Threshold Profile.	POST	/oc-cnpolicy-configuration/v1/overloadlevelThreshold/import For details on Request/Response Body Parameters for POST (import), see Table 3-24 .

Table 3-20 Request/Response Body Parameters for GET/PUT activeProfile

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	M	Name of the active profile.

Sample Request/Response for GET/PUT activeProfile

```
{
  "name": "custom"
}
```

Table 3-21 Request/Response Body Parameters for GET profiles

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	M	Name of the profile.
isCustomProfile	string	M	To specify the type of profile: default or custom

Sample Request/Response for GET profiles

```
[
  {
    "name":"default",
    "isCustomProfile":false
  },{
    "name":"custom",
    "isCustomProfile":true
  }
]
```

Table 3-22 Request/Response Body Parameters for GET/PUT/POST profiles/{name}

Field Name	Data Type	Mandatory(M) /Optional(O) Conditional(C)	Description
name	string	M	Name of the profile.

**Table 3-22 (Cont.) Request/Response Body Parameters for GET/PUT/POST profiles/
{name}**

Field Name	Data Type	Mandatory(M))/ Optional(O)/ Conditional(C)	Description
value.svcName	string	M	Name of the backend service (svcName). You can configure the threshold values for the following services: • PCRF Core • Diameter Connector • PCF Session Management • PCF Access and Mobility • PCF UE Policy • CHF Connector • UDR Connector
value.metricsThresholdList	array	M	List of criteria used to calculate the load level.
value.metricsThresholdList.metricsName	string	M	Name of criteria: • cpu • svc_pending_count • svc_failure_count • memory
value.metricsThresholdList.levelThresholdList	array	M	List of threshold values
value.metricsThresholdList.levelThresholdList.level	string	M	Specifies the name of the level: L1/L2/L3.

Note

For PCRF-CORE deployment mode, configuring overload level threshold for SM Service, AM Service, and UE Policy Service is not required.

For PCF deployment mode, configuring the overload level threshold for PCRF Core is not required.

Table 3-22 (Cont.) Request/Response Body Parameters for GET/PUT/POST profiles/{name}

Field Name	Data Type	Mandatory(M) Optional(O) Conditional(C)	Description
value.metricsThresholdList.levelThresholdList.abatementValue	integer	M	If the metric level goes below this value, load level goes to a lower value. The abatement values for each of the metrics are as follows: - cpu (Calculated in percentage (%)) and ranges between 1-100 - svc_pending_count (Accepts an integer value) and ranges between 1 to 1000000 - svc_failure_count (Accepts an integer value) and ranges between 1 to 1000000 - memory (Calculated in percentage (%)) and ranges between 1-100
value.metricsThresholdList.onsetValue	integer	M	If the metric level goes above this value, load level is set. The onset value of L1 is less than the abatement value of L2 and the onset value of L2 is less than the abatement value of L3. The onset values for each of the metrics are as follows: - cpu (Calculated in percentage (%)) and ranges between 1-100 - svc_pending_count (Accepts an integer value) and ranges between 1 to 1000000 - svc_failure_count (Accepts an integer value) and ranges between 1 to 1000000 - memory (Calculated in percentage (%)) and ranges between 1-100

Sample Request/Response for GET/PUT/POST profiles/{name}

```

{
  "name": "custom",
  "value": [
    {
      "svcName": "service-name-pcrf-core",
      "metricsThresholdList": [
        {
          "metricsName": "cpu",
          "levelThresholdList": [
            {
              "level": "L1",
              "onsetValue": 49,
              "abatementValue": 41
            },
            {
              "level": "L2",
              "onsetValue": 48,
              "abatementValue": 47
            }
          ]
        }
      ]
    }
  ]
}

```

```
{
  [
    {
      "level": "L3",
      "onsetValue": 52,
      "abatementValue": 50
    }
  ]
}
```

Table 3-23 Request/Response Body Parameters for POST migrate

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
name	string	M	Name of the profile to migrate.
activate	string	M	To activate the profile. Set value to: - true: To activate - false: Not to activate

Sample request/response for GET profiles list

```
{
  "name": "migrate_profile",
  "activate": true/false
}
```

Table 3-24 Request/Response Body Parameters for POST (import)

Field Name	Data Type	Mandatory(M) Optional(O) Conditional(C)	Description
exportData.name	string	M	Name of the profile.

Table 3-24 (Cont.) Request/Response Body Parameters for POST (import)

Field Name	Data Type	Mandatory(M) / Optional(O) Conditional(C)	Description
exportData.value.svcName	string	M	Name of the backend service (svcName). You can configure the threshold values for the following services: • PCRF Core • Diameter Connector • PCF Session Management • PCF Access and Mobility • PCF UE Policy • CHF Connector • UDR Connector Note For PCRF-CORE deployment mode, configuring overload level threshold for SM Service, AM Service, and UE Policy Service is not required. For PCF deployment mode, configuring the overload level threshold for PCRF Core is not required.
exportData.value.metricsThresholdList	array	M	List of criteria used to calculate the load level.
exportData.value.metricsThresholdList.metricsName	string	M	Name of criteria: • cpu • svc_pending_count • svc_failure_count • memory
exportData.value.metricsThresholdList.levelThresholdList	array	M	List of threshold values
exportData.value.metricsThresholdList.levelThresholdList.level	string	M	Specifies the name of the level: L1/L2/L3.

Table 3-24 (Cont.) Request/Response Body Parameters for POST (import)

Field Name	Data Type	Mandatory(M) / Optional(O) Conditional(C)	Description
exportData.value.metricsThresholdList.levelThresholdList.abatementValue	integer	M	If the metric level goes below this value, load level goes to a lower value. The abatement values for each of the metrics are as follows: - cpu (Calculated in percentage (%)) and ranges between 1-100 - svc_pending_count (Accepts an integer value) and ranges between 1 to 1000000 - svc_failure_count (Accepts an integer value) and ranges between 1 to 1000000 - memory (Calculated in percentage (%)) and ranges between 1-100
exportData.value.metricsThresholdList.levelThresholdList.onsetValue	integer	M	If the metric level goes above this value, load level is set. The onset value of L1 is less than the abatement value of L2 and the onset value of L2 is less than the abatement value of L3. The onset values for each of the metrics are as follows: - cpu (Calculated in percentage (%)) and ranges between 1-100 - svc_pending_count (Accepts an integer value) and ranges between 1 to 1000000 - svc_failure_count (Accepts an integer value) and ranges between 1 to 1000000 - memory (Calculated in percentage (%)) and ranges between 1-100

Sample Request/Response Body Parameters for POST (import)

```

"exportData": [
  {
    "name": "TestProfile",
    "value": [
      {
        "svcName": "pcrf-core",
        "metricsThresholdList": [
          {
            "metricsName": "cpu",
            "levelThresholdList": [
              {
                "level": "L1",
                "abatementValue": 41,
                "onsetValue": 44
              },
              {
                "level": "L2",
                "abatementValue": 47,
                "onsetValue": 49
              }
            ]
          }
        ]
      }
    ]
  }
]

```

```

    },
    {
      "level": "L3",
      "abatementValue": 50,
      "onsetValue": 52
    }
  ]
},
}

```

3.8 NF profile registration with NRF

These URIs can be used to update or retrieve PCF NF profile to be registered with Network Repository Function (NRF).

Table 3-25 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI
Get PCF NfProfile	GET	PCF/nf-common-component/v1/nrf-client-nfmanagement/nfProfileList
Update PCF NfProfile	PUT	PCF/nf-common-component/v1/nrf-client-nfmanagement/nfProfileList

The sample request body structure for GET and PUT operation is as follows:

```

[
  {
    "nfInstanceId": "fe7d992b-0541-4c7d-ab84-c6d70b1b0123",
    "nfType": "PCF",
    "nfStatus": "REGISTERED",
    "plmnList": null,
    "nsiList": null,
    "fqdn": "occp-ocpm-ingress-gateway.ocpcf.svc",
    "interPlmnFqdn": null,
    "ipv4Addresses": null,
    "ipv6Addresses": null,
    "priority": null,
    "capacity": null,
    "load": 80,
    "locality": null,
    "pcfInfo": {
      "dnnList": [
        "internet",
        "volte"
      ],
      "supiRanges": [
        {
          "start": "12123444444",
          "end": "232332323323232",
          "pattern": null
        }
      ]
    }
  }
]

```

```

    ]
  },
  "customInfo":null,
  "recoveryTime":null,
  "nfServices":[
    {
      "serviceInstanceId":"03063893-cf9e-4f7a-9827-067f6fa9dd01",
      "serviceName":"npcf-am-policy-control",
      "versions":[
        {
          "apiVersionInUri":"v1",
          "apiFullVersion":"1.0.0",
          "expiry":null
        }
      ],
      "scheme":"http",
      "nfServiceStatus":"REGISTERED",
      "fqdn":"occpn-ocpm-ingress-gateway.ocpcf.svc",
      "interPlmnFqdn":null,
      "ipEndpoints":null,
      "apiPrefix":null,
      "defaultNotificationSubscriptions":null,
      "allowedPlmns":null,
      "allowedNfTypes":[
        "AMF",
        "NEF"
      ],
      "allowedNfDomains":null,
      "allowedNssais":null,
      "priority":null,
      "capacity":null,
      "load":null,
      "recoveryTime":null,
      "supportedFeatures":null
    },
    {
      "serviceInstanceId":"03063893-cf9e-4f7a-9827-067f6fa9dd02",
      "serviceName":"npcf-smpolicycontrol",
      "versions":[
        {
          "apiVersionInUri":"v1",
          "apiFullVersion":"1.0.0",
          "expiry":null
        }
      ],
      "scheme":"http",
      "nfServiceStatus":"REGISTERED",
      "fqdn":"occpn-ocpm-ingress-gateway.ocpcf.svc",
      "interPlmnFqdn":null,
      "ipEndpoints":null,
      "apiPrefix":null,
      "defaultNotificationSubscriptions":null,
      "allowedPlmns":null,
      "allowedNfTypes":[
        "SMF",
        "NEF",

```

```

        "AF"
    ],
    "allowedNfDomains":null,
    "allowedNssais":null,
    "priority":null,
    "capacity":null,
    "load":null,
    "recoveryTime":null,
    "supportedFeatures":null
  },
  {
    "serviceInstanceId":"03063893-cf9e-4f7a-9827-067f6fa9dd03",
    "serviceName":"npcf-ue-policy-control",
    "versions":[
      {
        "apiVersionInUri":"v1",
        "apiFullVersion":"1.0.0",
        "expiry":null
      }
    ],
    "scheme":"http",
    "nfServiceStatus":"REGISTERED",
    "fqdn":"occpn-ocpm-ingress-gateway.ocpcf.svc",
    "interPlmnFqdn":null,
    "ipEndpoints":null,
    "apiPrefix":null,
    "defaultNotificationSubscriptions":null,
    "allowedPlmns":null,
    "allowedNfTypes":[
      "AMF"
    ],
    "allowedNfDomains":null,
    "allowedNssais":null,
    "priority":null,
    "capacity":null,
    "load":null,
    "recoveryTime":null,
    "supportedFeatures":null
  }
]

```

3.9 Server Header at Ingress Gateway

This section describes the Common Config Server URIs that you can use to enable and configure server header at Ingress Gateway. The server header is included in the error responses sent by Ingress Gateway for the errors generated at Ingress Gateway as well as backend microservices.

Note

You can configure server header at both global and route level. However, if you define server header configuration at both global and route level, the route level configuration (irrespective of being enabled or disabled) takes precedence over the global level configuration.

Error Code Series List

The following table describes the URIs available to define and retrieve error code series list:

Table 3-26 Supported REST APIs for Error Code Series List

Description	HTTP Method or Custom Operation	Resource URI
Get Error Code Series List	GET	{apiRoot}/PCF/nf-common-component/v1/igw/errorcodeserieslist
Define Error Code Series List	PUT	{apiRoot}/PCF/nf-common-component/v1/igw/errorcodeserieslist
Delete Error Code Series List	PUT To delete the configurations, put an empty json in the request. []	{apiRoot}/PCF/nf-common-component/v1/igw/errorcodeserieslist

The sample request body structure for PUT operation is as follows:

```
[
  {
    "id": "E1",
    "errorCodeSeries":
    [
      {
        "errorSet": "4xx",
        "errorCodes": [400, 408]
      },
      {
        "errorSet": "5xx",
        "errorCodes": [500, 503]
      }
    ]
  },
  {
    "id": "E2",
    "errorCodeSeries":
    [
      {
        "errorSet": "4xx",
        "errorCodes": [-1]
      }
    ]
  }
]
```

```

    }
  ]
]

```

Table 3-27 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
id	string	M	Specifies the unique ID that is used in the errorCodeSeriesId while configuring server header at global or route level.
errorCodeSeries.errorSet	string	M	Specifies an errorSet (4XX, 5XX) in errorCodeSeries for matching server response.
errorCodeSeries.errorCodes	array	M	Specifies the error codes in a specific error set against which the server response is validated for populating server header.

Configuring Server header (global level)

The following table describes the URIs available to enable and configure server header at global level:

Table 3-28 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI
Get Server Header	GET	/PCF/nf-common-component/v1/igw/serverheaderdetails
Define Server Header	PUT	/PCF/nf-common-component/v1/igw/serverheaderdetails

The sample request body structure for PUT operation is as follows:

```

{
    "enabled": false,           # Set to false if we want Server Header
                                # to be generated at Route Level
    "errorCodeSeriesId": "E1",  # See "errorcodeserieslist" resource
                                # above for more details.
    "configuration": {
        "nfType": "PCF",
        "nfInstanceId": "123456" # NF Instance Id of the PCF
    }
}

```

Table 3-29 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
enabled	boolean	M	When the value for this parameter is set to true, server headers are generated at a global level. To generate server headers at route level, set the value to false.
errorCodeSeriesId	string	M	Specifies the error list IDs. For more information, see Table 3-26 .
configuration.nftype	string	M	Specifies the type of network function. Default value: PCF
configuration.nfInstanceId	string	M	Specifies the NF Instance ID of the PCF.

Configuring Server header (route level)

The following table describes the URIs available to enable and configure server header at route level:

Table 3-30 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI
Get Route Level Configuration	GET	/PCF/nf-common-component/v1/igw/routesconfiguration
Define Server Header at Route Level	PUT	/PCF/nf-common-component/v1/igw/routesconfiguration

The sample request body structure for PUT operation is as follows:

```
[{
  "id": "sm_create_session_route",
  "serverHeaderDetails": {
    "enabled": true,
    "errorCodeSeriesId": "E1"
  }
}]
```

The sample request body structure to clear route using PUT operation is as follows:

```
[]
```

Table 3-31 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
id	string	M	Specifies the route IDs for which you need to define server header. You can define the server header at route level for any of the following supported route IDs: - sm_create_session_route - sm_delete_session_route - sm_update_session_route - udr_notify_route - chf_terminate_route - chf_notify_route - pa_create_session_route - pa_delete_session_route - pa_update_session_route - pa_events_subscription_route - reverse_ue_service - reverse_user_udr_notify_service - reverse_user_chf_notify_service - reverse_nrf_discovery_service - reverse_nrf_management_service - reverse_nrf_notify_service - reverse_soapconnector_service - reverse_ue_service_notify - am_create_session_route - am_delete_session_route - am_update_session_route
serverHeaderDetails.enabled	boolean	M	Set the value for this parameter to true if you want to define server header at the route level.
serverHeaderDetails.errorCodesId	string	M	Specifies the error list IDs. For more information, see Table 3-26 .

The sample request body structure for GET operation is as follows:

```
[{
  "id":"sm_create_session_route"
}]
```

3.10 Rate Limiting

3.10.1 Rate Limiting at Ingress Gateway

This section describes the URIs that you can use to configure route level rate limiting in persistent configuration at Ingress Gateway.

Error Code Profiles

The following table describes the URIs available to define and retrieve error code profiles in persistent configuration:

Table 3-32 Supported REST APIs for Error Code Profiles

Description	HTTP Method or Custom Operation	Resource URI
Get Error Code Profiles	GET	{apiRoot}/PCF/nf-common-component/v1/igw/errorcodeprofiles
Define Error Code Profiles	PUT	{apiRoot}/PCF/nf-common-component/v1/igw/errorcodeprofiles

The sample request body structure for PUT operation is as follows:

```
[{
  "name": "error429",
  "errorCode": 429,
  "errorCause": "Too Many Request",
  "errorTitle": "",
  "redirectURL": "",
  "retry-after": "",
  "errorDescription": ""
}]
```

Table 3-33 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
name	string	M	Specifies the unique name for the error profile.
errorCode	string	M	errorCode field in an errorScenario determines the HttpStatusCode that needs to be populated in ProblemDetails (HttpStatus field) response from IGW when the exception occurred at IGW matches the configured errorScenario's exceptionType field.
errorCause	string	M	errorCause field in an errorScenario determines the error cause that needs to be populated in ProblemDetails (Cause field) response from IGW when the exception occurred at IGW matches the configured errorScenario's exceptionType parameter.
errorTitle	string	O	errorTitle field in an errorScenario determines the title that needs to be populated in ProblemDetails (Title field) response from IGW when the exception occurred at IGW matches the configured errorScenario's exceptionType parameter.

Table 3-33 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
redirectURL	string	O	redirectUrl field in an errorScenario determines the redirection URL, this value is populated in LOCATION header while sending response from IGW. The header is populated only when the exception occurred at IGW matches the configured errorScenario's exceptionType parameter, the errorCode configured for the particular errorScenario lies in 3xx error series and the redirectUrl field for the particular errorScenario is configured appropriately.
retry-after	string	O	retryAfter field in an errorScenario determines the value in seconds/ particular date after which the service should be retried, this value is populated in Retry-After header while sending response from IGW. The header is populated only when the exception occurred at IGW matches the configured errorScenario's exceptionType parameter, the errorCode configured for the particular errorScenario lies in 3xx error series and the retryAfter field for the particular errorScenario is configured appropriately in seconds.
errorDescription	string	O	errorDescription field in an errorScenario determines the description that needs to be populated in ProblemDetails (Detail field) response from IGW when the exception occurred at IGW matches the configured errorScenario's exceptionType field.

Configuring Rate Limit for Policy

The following table describes the URIs available to enable and configure ratelimit:

Table 3-34 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI
Get Rate Limit	GET	{apiRoot}/PCF/nf-common-component/v1/igw/routelevelratelimiting
Define Rate Limit	PUT	{apiRoot}/PCF/nf-common-component/v1/igw/routelevelratelimiting

The sample request body structure for PUT operation is as follows:

```
{
  "enabled": true,
  "samplingPeriod": 2000,
  "rateLimitPolicies": [
```

```

{
  "name": "R1",
  "value": 5,
  "action": "RejectWithErrorCode",
  "scheme": "PriorityBased",
  "errorCodeProfile": "error429"
}
]
}

```

Table 3-35 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
enabled	boolean	M	Specifies whether to enable or disable rate limiting feature.
samplingPeriod		M	Specifies the duration for each cycle of route rate limit. The value of sampling period is defined in milliseconds.
rateLimitPolicies.name	string	M	Specifies the unique name of the discard policy.
rateLimitPolicies.value	integer	M	Specifies the value of priority above which requests are considered as potential candidates for drop.
rateLimitPolicies.action	string	M	Specifies the action such as silent drop or rejection for the selected requests.
rateLimitPolicies.scheme	string	M	Specifies the scheme on the basis of which requests are selected to be dropped. The only supported value for this parameter is PriorityBased.
rateLimitPolicies.errorCodeProfile	string	M	Specifies the error code profile. For more information, see Table 3-32 .

Configuring Rate Limit for Policy at route level

For details on configuring rate limit for policy at route level, see [Route Level Configuration](#).

3.11 Failure Count at Ingress Gateway

This section describes the URIs that you can use to configure failure count at Ingress Gateway.

Configuring Failure Count Overload**Error Code Series List**

The following table describes the URIs available to define and retrieve error code series list:

Table 3-36 Supported REST APIs for Error Code Series

Description	HTTP Method or Custom Operation	Resource URI
Get Error Code Series List	GET	{apiRoot}/PCF/nf-common-component/v1/igw/errorcodeserieslist
Define Error Code Series List	PUT	{apiRoot}/PCF/nf-common-component/v1/igw/errorcodeserieslist
Delete Error Code Series List	PUT To delete the configurations, put an empty json in the request. []	{apiRoot}/PCF/nf-common-component/v1/igw/errorcodeserieslist

The sample request body structure for PUT operation is as follows:

```
[
  {
    "id": "E1",
    "errorCodeSeries": [
      {
        "errorSet": "4xx",
        "errorCodes": [
          400,
          408
        ]
      },
      {
        "errorCodes": [
          500,
          503
        ]
      }
    ]
  },
  {
    "id": "E2",
    "errorCodeSeries": [
      {
        "errorSet": "5xx",
        "errorCodes": [
          -1
        ]
      }
    ]
  }
]
```

Table 3-37 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
id	string	M	Specifies the unique ID that is used in the errorCodeSeriesId while configuring server header at global or route level.
errorCodeSeries.errorSet	string	M	Specifies an errorSet (4XX, 5XX) in errorCodeSeries for matching server response.
errorCodeSeries.errorCodes	array	M	Specifies the error codes in a specific error set against which the server response is validated for populating server header.

Failure Count for Policy at Route Level

The following table describes the URIs available to define and retrieve failure count at route level:

Table 3-38 Supported REST APIs for Failure Count at Route Level

Description	HTTP Method or Custom Operation	Resource URI
Get failure count at route level Configuration	GET	{apiRoot}/PCF/nf-common-component/v1/igw/routesconfiguration
Define failure count at route level Configuration	PUT	{apiRoot}/PCF/nf-common-component/v1/igw/routesconfiguration

For details on configuring the failure count for Policy at route level, see [Route Level Configuration](#).

Configuring both Failure Count and Rate Limiting Overload**Error Code Series List for Failure Count**

For details on configuring error code series list for failure count, see *Error Code Series List* under *Configuring Failure Count Overload* section.

Error Code Profile for Rate Limiting

For details on configuring error code profile for failure count, see *Error Code Profiles* in [Rate Limiting at Ingress Gateway](#).

Rate Limit for Policy

For details on configuring rate limit for Policy, see *Configuring Rate Limit for Policy* in [Rate Limiting at Ingress Gateway](#).

Route Level for Failure Count and Rate Limiting

For details on configuring the route level for failure count and rate limiting, see [Route Level Configuration](#).

3.12 Route Level Configuration

The following table describes the URIs available to enable and configure rate-limit at route level:

Table 3-39 Supported REST APIs

Description	HTTP Method or Custom Operation	Resource URI
Get Rate Limit at route level Configuration	GET	{apiRoot}/PCF/nf-common-component/v1/igw/routesconfiguration
Define Rate Limit at route level Configuration	PUT	{apiRoot}/PCF/nf-common-component/v1/igw/routesconfiguration

The sample request body structure for PUT operation is as follows:

```
[
  {
    "id": "sm_create_session_route",
    "rateLimiting": {
      "methods": [
        {
          "name": "POST",
          "rate": 3,
          "rateLimitPolicy": "R1"
        }
      ]
    },
    "failureReqCountErrorCodeSeriesId": "E1"
  },
  {
    "id": "sm_update_session_route",
    "rateLimiting": {
      "methods": [
        {
          "name": "POST",
          "rate": 6,
          "rateLimitPolicy": "R1"
        }
      ]
    },
    "failureReqCountErrorCodeSeriesId": "E1"
  },
  {
    "id": "sm_delete_session_route",
    "rateLimiting": {
      "methods": [
        {
          "name": "POST",
          "rate": 3,
          "rateLimitPolicy": "R1"
        }
      ]
    }
  }
]
```

```

    }
  ],
  "failureReqCountErrorCodeSeriesId": "E1"
}
]

```

Table 3-40 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
id	string	M	Specifies the route IDs for which you need to define the rate limit. You can define the rate limit at route level for any of the following supported route IDs. For the list of supported route IDs for each service, see <i>Overload Control</i> section in <i>Oracle Communications Cloud Native Core, Converged Policy User Guide</i> .
rateLimiting.methods.name	string	O	Specifies the name of the HTTP method such as GET, DELETE, or POST. The rate limit is calculated by considering the method along with the route ID.
rateLimiting.methods.rate	integer	O	Specifies the rate for route level rate limit. Any requests with sbi-priority header with a value greater than the configured number are discarded.
rateLimiting.methods.rateLimitPolicy	string	O	Specifies the unique rate limit policy name. For more information, see Table 3-34 .
failureReqCountErrorCodeSeriesId	string	O	Specifies the mapping between error series and failure count.

3.13 Controlled Shutdown at Ingress and Diameter Gateway

This section describes the URIs that you can use to enable and configure Controlled Shutdown at Ingress and Diameter Gateway.

Operational State

The following table describes the URIs available to define and retrieve operational state:

Table 3-41 Supported REST APIs for Operational State

Description	HTTP Method or Custom Operation	Resource URI
GET Operational State	GET	{apiRoot}/controlledShutdown/operationalState
PUT Operational State	PUT	{apiRoot}/controlledShutdown/operationalState

The sample request body structure for PUT operation is as follows:

```
{
  "operationalState": "NORMAL"
}
```

Table 3-42 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
Operational State	Enum - NORMAL - PARTIAL_SHUTDOWN - COMPLETE_SHUTDOWN	M	Specifies the operational state

Operational State History

The following table describes the URIs available to retrieve operational state history:

Table 3-43 Supported REST APIs for Operational State History

Description	HTTP Method or Custom Operation	Resource URI
GET Operational State History	GET	{apiRoot}/oc-cnpolicy-configuration/v1/controlledShutdown/operationalStateHistory

The sample request body structure for GET operation is as follows:

```
[
  {
    "id": "ea01053b-5a3b-4de2-850b-7210bf2a04d5",
    "type": "operationalState",
    "value": "{\"state\":\"NORMAL\"}",
    "timeStamp": "2022-08-30T08:12:45.88519",
    "status": "SUCCESS"
  }
]
```

Table 3-44 Request/Response Body Parameters

Field Name	Data Type	Description
id	UUID	Auto-generated ID
type	String	Type of historical data

Table 3-44 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Description
value	String	Operational state value
timeStamp	Date	Logs the timestamp when the operational state event took place
status	String	- Success: Successful in switching of operational state - Failure: Fail in switching of operational state

Table 3-45 Request Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
Offset	Integer	O	Offset is a position in the set of records.
Limit	Integer	O	Limit as an option allows to limit the number of rows returned from a query.
Page	Integer	O	Page shows the number of records.

Note

If offset and Limit are not provided in the API, then the query fetches all the records from the database.

Controlled Shutdown Error Mapping

The following table describes the URIs available to define and retrieve Controlled Shutdown Error Mapping:

Table 3-46 Supported REST APIs for Controlled Shutdown Error Mapping

Description	HTTP Method or Custom Operation	Resource URI
GET Controlled Shutdown Error Mapping	GET	{apiRoot}/oc-cnpolicy-configuration/v1/controlledShutdown/errorMapping
PUT Controlled Shutdown Error Mapping	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/controlledShutdown/errorMapping

The sample request body structure for PUT operation is as follows:

```
{
  "routeErrorProfileList": [
    {
```

```

        "errorProfileName": "ERR_400",
        "routeIds": [
            "sm_update_session_route"
        ]
    },
    {
        "errorProfileName": "ERR_100",
        "routeIds": [
            "sm_create_session_route"
        ]
    },
    {
        "routeIds": [
            "sm_delete_session_route",
            "udr_notify_route"
        ],
        "errorProfileName": "ERR_1200"
    }
]
}

```

Table 3-47 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
routeErrorProfile List	Array	M	Specifies the route error profile list.

Table 3-47 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
routeErrorProfileList.routeIDs	Array	M	Specifies the route ID. You can define the server header at route level for any of the following supported route IDs: • sm_create_session_route • sm_delete_session_route • sm_update_session_route • udr_notify_route • chf_terminate_route • chf_notify_route • pa_create_session_route • pa_delete_session_route • pa_update_session_route • pa_events_subscription_route • pa_events_unsubscription_route • am_create_session_route • am_delete_session_route • am_update_session_route • ue_create_session_route • ue_update_session_route • ue_delete_session_route • n1_message_notify • reverse_soapconnector_service • reverse_nrf_notify_service • binding_audit_notify_route • udr_um_notify_route
routeErrorProfileList.errorProfileName	String	M	Specifies the error code profile.

Message Type

The following table describes the URIs available to define and retrieve Message Type:

Table 3-48 Supported REST APIs for Message Type

Description	HTTP Method or Custom Operation	Resource URI
GET Message Type	GET	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/controlledshutdown/error mappings/{messageType}
PUT Message Type	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/controlledshutdown/error mappings/{messageType}

The sample request body structure for PUT operation is as follows:

```
{
  "messageType": "CER",
  "ansWithResultCode": "CUSTOM_RESULT_CODE",
  "resultCode": "7899",
  "useExperimentalResultCode": true,
  "vendorId": "2"
}
```

Table 3-49 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
messageType	String	M	Type of the request
ansWithResultCode	Enum The supported values are: • DIAMETER_TOO_BUSY • DIAMETER_UNABLE_TO_COMPLY • DIAMETER_UNABLE_TO_DELIVER • CUSTOM_RESULT_CODE	M	Specifies the result code, returned in the answer response.
resultCode	Integer	M	Specify a value for this parameter when you choose CUSTOM_RESULT_CODE value for the ansWithResultCode parameter. Specifies the custom result code, which is returned in the answer response.
useExperimentalResultCode	Boolean	O	Specify a value for this parameter when you choose CUSTOM_RESULT_CODE value for the ansWithResultCode parameter. Specifies the value of result code by user according to their requirement. Result code associates with the vendor ID, when the useExperimentalResultCode is true.
vendorId	Integer	O	Specify a value for this parameter when you choose CUSTOM_RESULT_CODE value for the ansWithResultCode parameter and useExperimentalResultCode is true.

Export/Import

The following table describes the URIs available to define and retrieve Export/Import:

Table 3-50 Supported REST APIs for Export/Import

Description	HTTP Method or Custom Operation	Resource URI
GET Export	GET	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/controlledshutdown/errormappings/export
Put Import	PUT	{apiRoot}/oc-cnpolicy-configuration/v1/diameter/controlledshutdown/errormappings/import

The sample response body structure for PUT operation is as follows:

```
"exportData": [
  {
    "messageType": "Rx_AAR_I",
    "ansWithResultCode": "CUSTOM_RESULT_CODE",
    "useExperimentalResultCode": false,
    "resultCode": "1300"
  },
  {
    "messageType": "Rx_AAR_U",
    "ansWithResultCode": "DIAMETER_TOO_BUSY",
    "useExperimentalResultCode": false
  },
  {
    "messageType": "STR",
    "ansWithResultCode": "CUSTOM_RESULT_CODE",
    "useExperimentalResultCode": true,
    "resultCode": "2109",
    "vendorId": "1"
  }
]
```

Table 3-51 Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/ Optional(O)/ Conditional(C)	Description
messageType	String	M	Type of the request

Table 3-51 (Cont.) Request/Response Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
ansWithResultCode	Enum The supported values are: • DIAMETER_TOO_BUSY • DIAMETER_UNABLE_TO_COMPLY • DIAMETER_UNABLE_TO_DELIVER • CUSTOM_RESULT_CODE	M	Specifies the result code, returned in the answer response.
resultCode	Integer	M	Specify a value for this parameter when you choose CUSTOM_RESULT_CODE value for the ansWithResultCode parameter. Specifies the custom result code, which is returned in the answer response. .
useExperimentalResultCode	Boolean	O	Specify a value for this parameter when you choose CUSTOM_RESULT_CODE value for the ansWithResultCode parameter. Specifies the value of result code by user according to their requirement. Result code associates with the vendor ID, when the useExperimentalResultCode is true.
vendorId	Integer	O	Specify a value for this parameter when you choose CUSTOM_RESULT_CODE value for the ansWithResultCode parameter and useExperimentalResultCode is true.

3.14 NF Scoring for a Site

The following table describes the URI available to define NF Scoring:

Table 3-52 REST API for NF Scoring

Description	HTTP Method or Custom Operation	Resource API
GET for NF Score	GET	/oc-cnpolicy-configuration/v1/nfscore

Table 3-53 Fields

Field Name	Mandatory (M)/ Optional(O)/ Conditional(C)	Datatype	Description
NF Score	M	Float	The score of a site based on NF-specific factors (metrics, alerts, and so on).
detailedReport	M	NA	Detailed report of NFScore calculation.
scoringFactors	M	NA	Comprises the factors that contributed to the NFScore
criteria	C	NA	Factors involved in NFScore calculation Criteria are present for a specific factor If it is enabled for NF-Scoring.
maxScore	C	Integer	Max score of that factor maxScore is present for a specific factor If it is enabled for NF-Scoring.
calculatedScore	C	Float	calculated score of that factor calculatedScore are present for a specific factor If it is enabled for NF-Scoring.
additionalInfo	O	NA	additional info related to factor's score calculation.
configuredValue	C	Integer	An expected value configured for a factor configuredValue is present for a specific factor If it is enabled for NF-Scoring.
actualValue	C	Float	An actual value for a particular factor after doing factor-specific configuration. actualValue is present for a specific factor If it is enabled for NF-Scoring.
totalSvcs	C	Integer	Total configured services. totalSvcs is present when the factor SVC-Health is enabled

Table 3-53 (Cont.) Fields

Field Name	Mandatory (M)/ Optional(O)/ Conditional(C)	Datatype	Description
upSvcs	C	Integer	Total running services. upSvcs is present when the factor SVC-Health is enabled
totalSites	C	Integer	Total configured sites totalSites is present when the factor replicationHealth is enabled.
availableLinks	C	Integer	Total healthy sites availableLinks is present when the factor replicationHealth is enabled.
critical	C	Integer	Critical alert's contribution to alert's calculated score This attribute is present when ActiveAlerts are enabled as NF-Scoring factor
major	C	Float	Major alert's contribution to alert's calculated score This attribute is present when ActiveAlerts are enabled as NF-Scoring factor
minor	C	Float	Minor alert's contribution to alert's calculated score This attribute is present when ActiveAlerts are enabled as NF-Scoring factor
failedFactors	C	Float	Enabled factors that failed to contribute to NFScore This attribute is present when an application fails to calculate the score for 1 or more factors.
detail	C	NA	Factor's failure reason This attribute is present when there are 1 or more failed factors.

Note: When the Enable flag is true for any criteria, then its related fields will be shown.

Sample Response Body for GET NF Score:

```
{
  "NFScore": 129,
  "detailedReport": {
    "scoringFactors": [
      {
        "criteria": "tps",
        "maxScore": 100,
        "calculatedScore": 75,
        "additionalInfo": {
          "configuredValue": 4000,
          "actualValue": 3000
        }
      },
      {
        "criteria": "serviceHealth",
        "maxScore": 100,
        "calculatedScore": 70,
        "additionalInfo": {
          "totalSvcs": 10,
          "upSvcs": 7
        }
      },
      {
        "criteria": "signallingConnections",
        "maxScore": 100,
        "calculatedScore": 50,
        "additionalInfo": {
          "configuredValue": 50,
          "actualValue": 25
        }
      },
      {
        "criteria": "replicationHealth",
        "maxScore": 100,
        "calculatedScore": 50,
        "additionalInfo": {
          "totalSites": 3,
          "availableLinks": 1
        }
      },
      {
        "criteria": "localityPreference",
        "maxScore": 100, #remove
        "calculatedScore": 100
      },
      {
        "criteria": "activeAlert",
        "score": -30, #rename to "calculatedScore"
        "additionalInfo": {
          "critical": -10,
          "major": -20,
          "minor": 0
        }
      }
    ]
  }
}
```

```

    ]
  },
  "failedFactors": [
    {
      "criteria": "replicationHealth",
      "detail": "failed to calculate replicationHealth score"
    }
  ]
}

```

3.15 Configuration for User-Agent Header Generation at Egress Gateway

Configuring User-Agent Header in Egress Gateway

This section describes the URIs that you can configure for user-agent header generation at Egress Gateway.

The configuration to enable and disable the generation of the user-agent header can be done using REST API exposed by the config-service when sending the following JSON body.

Table 3-54 Supported REST APIs for User-Agent Generation

Description	HTTP Method or Custom Operation	Resource URI
PUT User-Agent Generation	PUT	http://<config-service IP>:<config-service PORT>/pcf/nf-common-component/v1/egw/useragentheader

CURL command for PUT Operation: `curl -X PUT http://10.75.232.35:8000/pcf/nf-common-component/v1/egw/useragentheader -H "Content-Type: application/json" -d`

The sample request body structure for PUT operation is as follows:

```

{
  "enabled": true,
  "nfType": "PCF",
  "nfInstanceId": "fe7d992b-0541-4c7d-ab84-c6d70b1b0555",
  "nfFqdn": "pcf.oracle.org",
  "addFqdnToHeader": true,
  "overwriteHeader": true
}

```

Table 3-55 Request Body Parameters

Field Name	Data Type	Mandatory(M)/Optional(O)/Conditional(C)	Description
egress-gateway.userAgentHeader.enabled	Boolean	M	Specifies whether the feature is enabled or disabled. By default, the value is set to false.
egress-gateway.userAgentHeader.nfType	String	M	This parameter holds the nfType that will be used to generate the user agent header.
egress-gateway.userAgentHeader.nfInstanceId	String	O	This parameter represents the UUID of the CNPCF deployment that will be used to generate the user agent header.
egress-gateway.userAgentHeader.addFqdnToHeader	Boolean	M	This parameter specifies if the user agent will use the FQDN information under the module to append it when generating the user agent header. The default value is set to 'false' meaning that the FQDN information will not be encoded into the user agent header during its generation. By default, the value is set to false.
egress-gateway.userAgentHeader.nfFqdn	String	O	This is an optional parameter and can be present or not, if operators want to include the FQDN string configured under this section then the parameter userAgentHeader.addFqdnToHeader needs to be enabled.
egress-gateway.userAgentHeader.overwriteHeader	Boolean	M	This parameter is used to govern if we want to include the User-Agent header generated at CNPCF Egress Gateway or forward the User-Agent received from service request. By default it will be set to true as CNPCF always generates its own service requests.

A

Result Codes

This section provides detailed information about result codes.

GET HTTP Method

The following table describes the possible result codes for GET method:

Table A-1 Result Codes for GET

Code	Description
200	OK
204	Successful
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
429	Too Many Requests
500	Internal Server Error
503	Service Unavailable

PUT HTTP Method

The following table describes the possible result codes for PUT method:

Table A-2 Result Codes for PUT

Code	Description
200	Updated
201	Created
204	Successfully updated
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
405	Method Not Allowed
406	Not Acceptable
408	Request Timeout
409	Conflict
412	Precondition Failed
500	Internal Server Error
503	Service Unavailable
504	Gateway Timeout

POST HTTP Method

The following table describes the possible result codes for POST method:

Table A-3 Result Codes for POST

Code	Description
200	OK
201	Imported/Created
204	Successfully created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
405	Method Not Allowed
406	Not Acceptable
408	Request Timeout
409	Conflict
412	Precondition Failed
500	Internal Server Error
503	Service Unavailable
504	Gateway Timeout

DELETE HTTP Method

The following table describes the possible result codes for DELETE method:

Table A-4 Result Codes for DELETE

Code	Description
200	OK
204	Successfully Deleted
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
429	Too Many Requests
500	Internal Server Error
503	Service Unavailable