

Oracle® Communications

Cloud Native Binding Support Function REST Specification Guide



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What's New in This Guide

Oracle Communications Cloud Native Core Binding Support Function (BSF) REST API Guide is a new guide in this release.

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Introduction

This document provides information on how to configure the Binding Support Function (BSF) Management Service using RESTful API.

Overview

Binding Support Function (BSF) provides a Protocol Data Unit (PDU) session binding functionality, which ensures that an Application Function (AF) request for a certain PDU Session reaches the relevant Policy Control Function (PCF) holding the PDU Session information. This Network Function (NF):

- Allows Policy Control Function users to register, update, and remove the binding information
- Allows NF consumers to retrieve the binding information

Acronyms

This section provides information about the acronyms and terminology used in the document.

Table 1-1 Acronyms

Field	Description
AF	Application Function
BSF	Binding Support Function
FQDN	Fully Qualified Domain Names
GPSI	Generic Public Subscription Identifier
HTTP	Hypertext Transfer Protocol
NEF	Network Exposure Function
NF	Network Function
NRF	NF Repository Function
PCF	Policy Control Function
OCPM	Oracle Communications Policy Management
PDU	Protocol Data Unit
RDBMS	Relational Database Management System
S-NSSAI	Single Network Slice Selection Assistance Information. An S-NSSAI is comprised of: - A Slice/Service type (SST), which refers to the expected Network Slice behaviour in terms of features and services; - A Slice Differentiator (SD), which is an optional information that complements the Slice/Service type(s) to differentiate amongst multiple Network Slices of the same Slice/Service type.
SMF	Session Management Function
SUPI	Subscription Permanent Identifier

Table 1-1 (Cont.) Acronyms

Field	Description
UDSF	Unstructured Data Storage network function
UE	User Equipment

References

Refer the following documents for more information on Binding Support Function.

- Oracle Communications Cloud Native Binding Support Function Installation Guide
- Oracle Communications Cloud Native Binding Support Function User's Guide

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Configuring Binding Support Function

This section provides information for configuring Binding Support Function.

General Configurations

This section provides information for configuring General Configurations in Binding Support Function (BSF).

Retrieve General Configurations using GET

This section provides information for retrieving general configurations in BSF.

Table 2-1 Service API Interface: GET

Resource Name	Resource URI	Possible Output Code
General Configurations	ocpm/bsf/v1/configuration/general	200: OK General configuration is returned 400: Bad request 401: Unauthorized 403: Forbidden 404: Not Found 429: Too Many Requests 500: Internal Server Error 503: Service Unavailable

The following table describes the supported data structures while retrieving global configurations:

Table 2-2 Data structures supported by GET response body

Name	Data Type	Mandatory (M)/ Optional (O)	Description
enableTracing	Boolean	M	Specifies whether to enable tracing. Possible values are: <ul style="list-style-type: none">• True (Default)• False
enableMetrics	Boolean	M	Specifies whether to enable system metrics. Possible values are: <ul style="list-style-type: none">• True (Default)• False

GET Operation URI: **ocpm/bsf/v1/configuration/global**

Input : No Input

Output :

```
{
  "enableMetrics": true,
  "enableTracing": false
}
```

Update General Configurations using PUT

This section provides information for updating general configurations in BSF:

Table 2-3 Service API Interface: PUT

Resource Name	Resource URI	Possible Output Code
General Configurations	ocpm/bsf/v1/configuration/general	200: OK Specifies that the update is successful and provides the values in database. 201: 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

The following table describes the supported data structures when updating general configurations:

Table 2-4 Data structures supported by PUT request and response body

Name	Data Type	Mandatory (M)/ Optional (O)	Description
enableTracing	Boolean	M	Specifies whether to enable tracing. Possible values are: <ul style="list-style-type: none"> • True (Default) • False
enableMetrics	Boolean	M	Specifies whether to enable system metrics. Possible values are: <ul style="list-style-type: none"> • True (Default) • False

REST Message Sample**Definition: PUT****URI: ocpm/bsf/v1/configuration/general****Example Request**

```
{
  "enableMetrics": true,
  "enableTracing": true
}
```

Example Response: 200 status with response body

```
{
  "enableMetrics": true,
  "enableTracing": false
}
```

Management Service

This section provides information for configuring Management Service in BSF.

Retrieve Management Service Configuration using GET

This section provides an overview for retrieving management service configuration in BSF.

Table 2-5 Service API Interface: GET

Resource Name	Resource URI	Possible Output Code
Management Service	ocpm/bsf/v1/configuration/service/management-service	200: OK Management Service is returned 400: Bad request 401: Unauthorized 403: Forbidden 404: Not Found 429: Too Many Requests 500: Internal Server Error 503: Service Unavailable

The following table describes the supported data structures while retrieving management service:

Table 2-6 Data structures supported by GET response body

Name	Data Type	Mandatory (M)/ Optional (O)	Description
apiRoot	String	O	Specifies the URL for server root.
logLevels:level	String	O	Possible values are: <ul style="list-style-type: none"> • TRACE (Default) • DEBUG • INFORMATION • WARN • ERROR • ALWAYS
logLevels:loggerName	String	O	Specifies the name of the logger. For Example, trace
rootLogLevel	String	M	Specifies the status of root log level. Possible values are: <ul style="list-style-type: none"> • TRACE • DEBUG • INFORMATION • WARN (Default) • ERROR • ALWAYS

GET Operation URI : **ocpm/bsf/v1/configuration/service/management-service**

Input : No Input

Output :

```
{
  "apiRoot": "abc",
  "logLevels": [{
    "level": "TRACE",
    "loggerName": "trace"
  }, {
    "level": "WARN",
    "loggerName": "warn"
  }, {
    "level": "INFO",
    "loggerName": "Info"
  }],
  "rootLogLevel": "ERROR"
}
```

Update Management Service Configurations using PUT

This section provides information for updating management service configurations in BSF.

Table 2-7 Service API Interface: PUT

Resource Name	Resource URI	Possible Output Code
Management Service	ocpm/bsf/v1/configuration/service/management-service	200: OK Specifies that the update is successful and provides the values in database. 201: 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

The following table describes the supported data structures while updating management service:

Table 2-8 Data structures supported by PUT request and response body

Name	Data Type	Mandatory (M)/ Optional (O)	Description
apiRoot	String	O	Specifies the URL for server root.
logLevels:level	String	O	Possible values are: <ul style="list-style-type: none"> • TRACE (Default) • DEBUG • INFORMATION • WARN • ERROR • ALWAYS
logLevels:loggerName	String	O	Specifies the name of the logger. For Example, trace
rootLogLevel	String	M	Specifies the status of root log level. Possible values are: <ul style="list-style-type: none"> • TRACE • DEBUG • INFORMATION • WARN (Default) • ERROR • ALWAYS

REST Message Sample**Definition: PUT****URI: ocpm/bsf/v1/configuration/service/managementservice****Example Request**

```
{
  "apiRoot": "abcd",
  "logLevels": [{
    "level": "TRACE",
    "loggerName": "trace"
  },
  {
    "level": "WARN",
    "loggerName": "warn"
  },
  {
    "level": "INFO",
    "loggerName": "Info"
  }
  ],
  "rootLogLevel": "ERROR"
}
```

Example Response: 200 status with response body

```
{
  "apiRoot": "abcd",
  "logLevels": [
    {
      "level": "TRACE",
      "loggerName": "trace"
    },
    {
      "level": "WARN",
      "loggerName": "warn"
    },
    {
      "level": "INFO",
      "loggerName": "Info"
    }
  ],
  "rootLogLevel": "ERROR"
}
```