# Oracle® Communications Convergent Charging Controller Short Message Charging Bundle Help



Release 15.0.1 F97138-01 June 2024

ORACLE

Oracle Communications Convergent Charging Controller Short Message Charging Bundle Help, Release 15.0.1

F97138-01

Copyright © 2024, Oracle and/or its affiliates.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle®, Java, MySQL, and NetSuite are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

# Contents

#### 1 SMCB Service

CCS SMCB Service Screen	1-1
Searching for records	1-1
Rating Rules	1-1
Rating Rules tab search fields	1-1
Regular expressions	1-2
Creating rating rules	1-2
Rating rules fields	1-2
Editing rating rules	1-3
Deleting rating rules	1-4
Rating Types	1-4
Rating Types tab search fields	1-4
Creating rating types	1-4
Rating types fields	1-4
Editing rating types	1-5
Deleting rating types	1-5

## 2 SMCB Feature Node

Short Message Charging	2-1
Node exits	2-1
Configuring the node	2-2



# 1 SMCB Service

This chapter explains the how to use the SMCB Service screen.

This chapter contains the following topics.

**CCS SMCB Service Screen** 

**Rating Rules** 

**Rating Types** 

# **CCS SMCB Service Screen**

The Short Message Charging Bundle service provides an SMS screen to allow you to configure billing rates and rules. This defines the charging mechanism and cost for sending a short message.

There are three rule types:

- Named Event
- Tariffed
- Free

#### Searching for records

Follow these steps to search for records on the tabs of the CCS SMCB Service screen.

1. Within the search fields at the top of the tab, enter all or part of the content you are searching for.

Note: Leaving all fields blank will return all records.

2. Click Search.

## **Rating Rules**

You create rating rules on the **Rating Rules** tab in the CCS SMCB Services screen. They can be prioritized to provide a given behavior, such as charging for short codes differently to PSTN numbers that start with the same digits.

Lower priority (0..1) entries are processed before higher priority entries (2+).

#### Rating Rules tab search fields

This table describes the fields on the **Rating Rules** tab available for searching records.

Field	Description
	The name of the rating rule to search for. Restricted to 20 characters in length.



Field	Description
Priority	The priority given to this rule, from 0 (most preferred) to 99999 (least preferred).
Source	The source regular expression to search for. Restricted to 64 characters.
Destination	The destination regular expression to search for. Restricted to 64 characters.
Text Content	The text to search for. Restricted to 64 characters.

For more information, see Searching for records.

#### **Regular expressions**

The following is an explanation of regular expressions and their use.

Regular expressions can contain anchors ('^' and '\$'), groups ('[]') and wild cards ('\*'):

- '^' anchors the expression to the start of the string
- '\$' anchors the expression to the end of the string
- '[]' groups characters into a class, for example [0-9] means any number
- '\*' repeats the previous character class zero or more times, such as '[0-9]\*'

#### Examples

This table shows some example expressions.

Expression	Description
^1234\$	Will match the exact string 1234.
^1234	Will match any string beginning with 1234.
1234\$	Will match any string that ends with 1234.
^[0-9]*1234\$	Will match a string that begins with zero or more numbers (0-9) and ends with 1234.
1234[0-9][0-9]*	Will match a string that contains the substring 1234 and then 1 or more numbers (0-9).

### Creating rating rules

Follow these steps to set up an SMCB rating rule.

1. On the Rating Rules tab, click New.

**Result:** You see the Create SMCB Rating Rule screen.

- 2. Fill in the fields, as described in Rating rules fields.
- 3. Click Save.

**Related topic** 

**Rating Rules** 

#### Rating rules fields

This table describes the function of each field.



Field	Description
Name	The name given to this rating rule. Restricted to 20 characters.
Priority	The priority given to this rule, from 0 (most preferred) to 99999 (least preferred).
	If the source, destination and (optionally) content regular expressions from two rules <i>both</i> match a given short message, the priority will be used to determine which rule is used.
	If the two rules have the same priority, the rules will be ordered alphabetically by rule name.
Source Regex	The regular expression that is applied to the source number to determine if the rule matches. Restricted to 64 characters. This field will be verified when the <b>Save</b> button is selected, (see Regular expressions).
Destination Regex	The regular expression that is applied to the destination number to see if the rule matches. Restricted to 64 characters. This field will be verified when the <b>Save</b> button is selected, (see Regular expressions).
Content Regex	The text against which messages are matched. This rule is optional. It is applied after the other rules have been applied. Restricted to 200 characters.
Ignore Text Case	Defines whether or not to ignore the case of the message text when matching it against the text in the <b>Content Regex</b> field.
Rating Type	The type of the rating the will be applied to the call if the rule matches. Lists all the currently defined rating type names. This shows the name of the rating types on the <b>Rating Types</b> tab.
No Funds Reply	The text that is returned to the user if there are insufficient funds to bill this call. Restricted to 160 characters.
Comment	A free form text field allowing you to enter comments. This field is not used for any processing, but is present to allow you to save extra information if needed. Restricted to 100 characters.

# Editing rating rules

Follow these steps to edit an SMCB rating rule.

- 1. On the **Rating Rules** tab, from the table, select the rule to edit.
- 2. Click Edit.

**Result:** You see the Edit SMCB Rating Rule screen.

- 3. Make changes to the fields, as described in Rating rules fields.
- 4. Click Save.



#### Deleting rating rules

Follow these steps to delete an SMCB rating rule.

- 1. On the Rating Rules tab, from the table, select the rule to delete.
- 2. Click Delete.

Result: You see a Confirm Deletion dialog box.

3. Click OK.

#### **Related topic**

Rating Rules

# **Rating Types**

The **Rating Types** tab lists the SMCB rating types that have been defined for use in the rating rules. You can add new rating types to the list, edit, or delete existing ones.

#### Rating Types tab search fields

This table describes the fields on the **Rating Types** tab available for searching records.

Field	Description	
Name	The name of the rating type to be found. Restricted to 20 characters.	
Rating Type	The type of the rating to be search for. The drop down list is set to: Any Tariff Free Named Event	

For more information, see Searching for records.

#### Creating rating types

Follow these steps to create an SMCB rating type.

1. On the Rating Types tab, click New.

Result: You see the Create SMCB Rating Type screen.

- 2. Fill in the fields, as described in Rating types fields.
- 3. Click Save.

**Related topic** 

**Rating Types** 

#### Rating types fields

This table describes the function of each field.



Field	Description
Name	The name of this rating type.
	Restricted to 20 characters.
Rating Type	The type of the rating type. The available types are:
	• Free
	Named Event     Tariff
Colling Number Drefix	
Calling Number Prefix	The calling number prefix that is applied before sending the information to the billing engine (only enabled with type is Tariff).
	Restricted to 10 hexadecimal digits (0-9,A-F).
Named Event Class	The named event class that is billed (only enabled with type is
	Named Event
	).
	Restricted to currently defined event classes in the database.
Named Event Name	The named event name that is billed (only enabled with type is
	Named Event
	).
	Restricted to currently defined event names in the database.

### Editing rating types

Follow these steps to edit an SMCB Rating Type.

- 1. On the **Rating Types** tab, from the table, select the type to edit.
- 2. Click Edit.

**Result:** You see the Edit SMCB Rating Type screen.

- 3. Make changes to the fields, as described in Rating types fields.
- 4. Click Save.

### Deleting rating types

Follow these steps to delete an SMCB rating type.

- 1. On the Rating Types tab, from the table, select the type to delete.
- 2. Click Delete.

**Result:** You see a Confirm Deletion dialog box.

3. Click OK.

#### **Related topic**



Rating Types

# 2 SMCB Feature Node

This chapter describes the Oracle Communications Convergent Charging Controller SMCB Macro feature node available from the SMCB palette group in the ACS Control Plan Editor.

This chapter contains the following topics.

Short Message Charging

# Short Message Charging

This node provides the charging mechanism in an ACS service plan where ever it is required.

This allows a flexible approach to call logic and functionality.

For example, a CCS Friends and Family feature node could be used before the Short Message Charging feature node to provide a discount for sending short messages to friends and family numbers.

#### Node exits

This node has one entry and eight exits. The number of exits cannot be changed.

Exit	Cause	Description
1	Confirm Res Success	Confirm reservation success (debitUnitRes)
2	Revoke Res Success	Reservation revoked success (releaseRes)
3	No Rating Rule	No rating rule found (no billing at all)
4	Initial Res Failure	SMS forward denied (reserveUnitErr)
5	Confirm Res Failure	Confirm reservation failure (debitUnitErr)
6	Revoke Res Failure	Reservation revoked failure (not sure this is possible in MOX)
7	General Failure	An error occurred. Can be anything, for example:
		<ul> <li>Failure to communicate with the billing engine</li> </ul>
		<ul> <li>Actions not supported for this service domain</li> </ul>
		(failure to talk to the billing engine or actions not supported for this service domain)
8	Free SMS	Free Short Message (no billing at all)



# Configuring the node

This node requires no configuration data. You may change the Node name, if required.