

Oracle® Communications Billing and Revenue Management

Business Operations Center Online Help



Release 12.0

E84951-07

August 2023

The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

ORACLE®

Oracle Communications Billing and Revenue Management Business Operations Center Online Help,
Release 12.0

E84951-07

Copyright © 2017, 2023, 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, and MySQL 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

Preface

Audience	vi
Documentation Accessibility	vi
Diversity and Inclusion	vi

1 Getting Started with Business Operations Center

About Using Browser Commands with Business Operations Center	1-1
About Roles	1-1
Using Keyboard Shortcuts	1-2

2 Running Business Operations Jobs

About the Roles Required to Run Business Operations Jobs	2-1
Managing Workflows	2-2
Running Billing	2-3
Collecting Payments	2-4
Generating Invoices	2-5
Generating General Ledger Reports	2-6
Specifying the Individual Report Types To Generate	2-6
Synchronizing Product Catalogs	2-7
Refunding Payments	2-8
Running Custom Jobs	2-8
Specifying Job Frequency Settings	2-9

3 Setting Up Custom Categories

Defining a Custom Category	3-1
Modifying a Custom Category Definition	3-2
Deleting a Custom Category Definition	3-3

4	Managing Blackout Periods	
	Creating a Blackout Period	4-1
	Deleting a Blackout Period	4-1
5	Searching for and Sorting Jobs	
	Searching for Any Type of Job	5-1
	Searching for and Sorting Completed Jobs	5-1
	Searching for Jobs in the Timeline	5-2
6	Viewing Jobs	
	Viewing Job Details	6-1
	Viewing All Jobs Scheduled to Run Today and Tomorrow	6-2
	Viewing Job Results	6-2
	Viewing All Jobs Completed Yesterday and Today	6-2
	Viewing Information about Failed Jobs	6-3
	Viewing Details of Failed Jobs	6-3
	Viewing All Jobs That Did Not Run or That Failed in the Last 24 Hours	6-3
	Viewing the Timeline from the Job Details Page	6-3
	Viewing a Job's Details from the Job Timeline	6-4
7	Managing Failed Jobs and Transactions	
	Rerunning Failed Jobs	7-1
	Exporting Failure Reports	7-2
	Solving Failed BRM-Initiated Payment Transactions	7-2
	Resolving Real-Time Checkpoints	7-3
	Fixing Unresolved Batches	7-3
	Applying Unresolved Payments	7-4
8	Editing Jobs	
	Editing a Job from the Jobs Page	8-1
	Editing Jobs from the Job Timeline	8-1
9	Deactivating, Reactivating, and Deleting Jobs	
	Deactivating a Job	9-1
	Deactivating a Job from the Jobs Page	9-1
	Deactivating a Job from the Timeline	9-1

Reactivating a Job	9-2
Reactivating a Job from the Jobs Page	9-2
Deleting a Job	9-2
Deleting a Job from the Jobs Page	9-2
Deleting a Job from the Timeline	9-3

10 Changing the Time and Date of BRM

About Changing the BRM System Time and Date	10-1
Changing the BRM System Time and Date	10-1

11 Viewing Business Trends

Preface

Oracle Communications Billing and Revenue Management Business Operations Center is a web-based application that you use to create, schedule, and manage operations such as billing, payment collection, invoicing, general ledger report generation, product catalog synchronization, and refunds. You can also use it to track business trends. Business Operations Center Online Help describes how to use the application.

Audience

This guide is intended for all Business Operations Center users and system administrators.

See the documentation for those products for additional installation and configuration instructions.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

1

Getting Started with Business Operations Center

You use Oracle Communications Billing and Revenue Management (BRM) Business Operations Center to create, schedule, and view the results of the following operations:

- **Billing:** Finds accounts that need to be billed; calculates the balance due for each bill unit in the accounts, including all usage and cycle fees; and creates a bill for the balance due.
- **Collecting payments:** Collects the balance due for accounts that use payment card (credit or debit card) or direct debit payment methods.
- **Invoicing:** Generates invoices that list the events that were charged for and the customer's total account balance.
- **Generating general ledger reports:** Generates general ledger reports to collect general ledger data for general ledger accounts.
- **Synchronizing product catalogs:** Synchronizes the catalogs stored in the BRM server with updated values from customers.
- **Refunding payments:** Finds accounts that have refund items, and makes online refund transactions.
- **Workflows:** Runs a set of jobs in order, enabling an automated end-to-end process.
- **Your custom applications:** Runs your custom applications and displays the results in the Business Operations screen. You must configure Business Operations Center to run your custom application.
- **Tracking business trends:** Shows business trends based on data generated by the different supported operations.

For information about managing or administering Business Operations Center, see "Using Business Operations Center" in *BRM System Administrator's Guide*.

About Using Browser Commands with Business Operations Center

To avoid losing data, do not use browser commands, such as Back, Forward, and Refresh.

About Roles

The following table lists the user roles that provide access to Business Operations Center functionality. A user's role determines what tasks the user can perform in Business Operations Center.

Role	Description
BOC Super Admin	Create, edit, delete, deactivate, and reactivate billing, collecting payment, invoicing, general ledger, synchronizing product catalog, refund, and workflow operations. Resolve failures in payments from the Home page. Have read access to the Dashboard page. Create users and assign roles to them.
Operations Billing Admin	Create, edit, delete, deactivate, and reactivate billing and invoicing operations.
Operations Custom Admin	Create, edit and, delete custom categories in Business Operations Center. Create, edit, delete, deactivate, and reactivate custom operations.
Operations View	Have read access to the Job History page, job timeline, and failed BRM payment transactions in the Home page.
Operations Finance Admin	Create, edit, delete, deactivate, and reactivate operations to collect payments, generate general ledger reports, and refund payments. Resolve payment failures from the Home page. Have read access to the Home and Job History pages and the job timeline.
Finance View	Have read access to the Dashboard page.
Operations Pricing Sync Admin	Create, edit, delete, deactivate, and reactivate product catalog sync operations. Have read access to the Job History page and job timeline.

Using Keyboard Shortcuts

You can use keyboard shortcuts for many actions in Business Operations Center.

Action	Shortcut
Move focus to the next field or element from top to bottom and left to right.	Tab
Move focus to the previous field or element, from bottom to top and right to left.	Shift + Tab
In a drop-down list in the navigation bar and on the Job History page, open the menu and move to the next item in the list. For the Time Period and Status lists on the Job History page and Jobs page, move to the next item in the list.	Down Arrow
In a drop-down list in the navigation bar and on the Job History page, move to the previous item in the list. For a navigation list item on the Job History page and Jobs page, move to the previous item in the list.	Up Arrow

Action	Shortcut
In the branding bar at the top of the interface, move to the next icon to the right. On the Jobs home page, move to the next tab to the right.	Right Arrow
In the branding bar at the top of the interface, move to the next icon to the left. On the Jobs home page, move to the next tab to the left.	Left Arrow
Click a link, a button, or an item on a navigation list or a drop-down list.	Enter or Spacebar
Opens a context menu, similar to a right-click with the mouse.	Shift + F10
Print the current page.	Ctrl + P
Open the browser's search bar or field to find text on the current page.	Ctrl + F or F3

2

Running Business Operations Jobs

You perform basic business operations tasks, such as billing customers and collecting payments, by creating and running jobs in Oracle Communications Billing and Revenue Management (BRM) Business Operations Center.

To run business operations jobs, see the following topics:

- [About the Roles Required to Run Business Operations Jobs](#)
- [Managing Workflows](#)
- [Running Billing](#)
- [Collecting Payments](#)
- [Generating Invoices](#)
- [Generating General Ledger Reports](#)
- [Synchronizing Product Catalogs](#)
- [Refunding Payments](#)
- [Running Custom Jobs](#)
- [Specifying Job Frequency Settings](#)

About the Roles Required to Run Business Operations Jobs

To run business operations jobs, you must be assigned the appropriate role. This table shows the types of jobs that each role can run:

Role	Jobs
BOC Super Admin	Workflow Billing Collecting payments Invoicing Generating general ledger reports Synchronizing product catalogs Refunding payments
Operations Billing Admin	Billing Invoicing
Operations Custom Admin	Custom
Operations Finance Admin	Billing Invoicing Refunding payments
Operations Pricing Sync Admin	Synchronizing product catalogs

For more information, see "[About Roles](#)".

Managing Workflows

Run a set of business operations jobs in order by creating a workflow job. You can enable an automated end-to-end process for the workflow job in the following order:

- Billing
- Invoicing
- Payment collections, including the option to settle any previously authorized one-time payments
- Refunds



Note:

You cannot change the order. A workflow job stops if any individual job fails.

To create a workflow job:

1. Click the **Jobs** icon.
The Jobs page appears.
2. In the **Categories** column, click **Workflow**.
3. Click **New**.
The job creation wizard appears.
4. Specify the name of the job, the frequency at which to run the job, and other settings. See "[Specifying Job Frequency Settings](#)".
5. Click **Next**.
The Jobs page appears.
6. In the **Select Job Types to Include in this Workflow** section, select two or more jobs to run: billing, invoicing, payment collections, or refunds.
You cannot change the order in which the jobs are run.
7. Select **Next**.
The Attributes page appears.
8. In the **Account Selection Criteria** section, select the accounts to run the jobs against:
 - **Based on status:** Select whether to run the job for one or more of these account statuses: active, inactive, or closed.
 - **Based on payment method:** Select whether to run the job for one or more of these payment methods: credit and debit cards, direct debits, or invoices.
9. In the **Billing due date occurs** list, select one of these:
 - **On or before day this job runs:** Runs the job against accounts whose billing date is any day before midnight of the day that you run the job.

- **N days or earlier before this job runs:** Runs the job against accounts whose billing day of the month occurs a specified number of days before the job is run.
- **On specific days of month:** Select one or more calendar days. For example, select 5 to run billing against accounts that have the 5th as their billing day of the month.

This option appears only when the workflow includes a billing job.

10. If the workflow includes an invoicing job, select whether to generate summary or detailed invoices:
 - **Summary:** These invoices list only the bill items.
 - **Detail:** These invoices list bill items and events that have currency balance impacts.
11. Click **Done**.

You can view a workflow job's status and metrics from the **Job History** page by clicking the link displayed under **Processed** in each row. However, you cannot rerun failed workflow jobs from this page.

Running Billing

To bill your customers, you create a billing job.

To create a billing job:

1. Click the **Jobs** icon.
The Jobs page appears.
2. In the **Categories** column, click **Billing**.
3. Click **New**.
The job creation wizard appears.
4. Specify the name of the job, the frequency at which to run the job, and other settings. See "[Specifying Job Frequency Settings](#)".
5. Click **Next**.
The Attributes page appears.
6. Select the status of the accounts to bill.

 **Note:**

You must select at least one status.

7. Select the payment method of the accounts to bill.
The payment method is the way customers pay their bills.

 **Note:**

You must select at least one payment method.

8. (Optional) Select one or more billing segments to bill.

A billing segment is a bill unit category. Select the billing segments that contain the bill units you want to bill.

9. In the **Billing due date occurs** section, select the billing due date that determines which accounts are included in the job.

Do one of the following:

- To bill accounts whose billing due date is on or a day before the day the job is run, select **On or before day this job runs**.
- To bill accounts whose billing due date is a specified number of days before the date the job is run, select **N days or earlier before this job runs** and enter a numeric value for **N**.
- To bill accounts based on their billing day, select **On specific days of month**, and specify one or more days of month. The job will include all accounts whose billing day of the month is selected.

 **Note:**

If you selected one or more billing segments, you cannot specify a specific day of month as the billing due date.

10. Click **Done**.

Collecting Payments

To collect payments from your customers, you create a payment collection job.

To create a payment collection job:

1. Click the **Jobs** icon.
The Jobs page appears.
2. In the **Categories** column, click **Payment Collections**.
3. Click **New**.
The job creation wizard appears.
4. Specify the name of the job, the frequency at which to run the job, and other settings. See "[Specifying Job Frequency Settings](#)".
5. Click **Next**.
The Attributes page appears.
6. Select the status of the accounts to collect payments from.

 **Note:**

You must select at least one status.

7. Select one or more account payment methods to collect payments from.
The payment method is the way customers pay their bills.

8. In the **Accounts with payment collection date occurring** section, select the payment collection date for the accounts. Do one of the following:
 - To include accounts whose payment collection date is on or a day before the day the job is run, select **On or before day this job runs**.
 - To include accounts whose payment collection date is a specified number of days before the job is run, select **N days or earlier before this job runs** and enter a numeric value for **N**.
9. (Optional) To deposit all preauthorized credit card and direct debit transactions made within the last 30 days (from yesterday), select **Settle previously authorized one-time payment**.
10. Click **Done**.

Generating Invoices

To generate invoices for your customers, you run an invoicing operation. To run the operation, you create an invoicing job.

To create an invoicing job:

1. Click the **Jobs** icon.
The Jobs page appears.
2. In the **Categories** column, click **Invoicing**.
3. Click **New**.
The job creation wizard appears.
4. Specify the name of the job, the frequency at which to run the job, and other settings. See "[Specifying Job Frequency Settings](#)".
5. Click **Next**.
The Attributes page appears.
6. Select one or more account payment methods to be invoiced.
The payment method is the way customers pay their bills.
7. In the **Accounts with billing cycle ending** section, select the billing cycle end date for the accounts. Do one of the following:
 - To include accounts whose billing cycle ends on or a day before the day the job is run, select **On or before day this job runs**.
 - To include accounts whose billing cycle ends a specified number of days from the date the job is run, select **N days or earlier before this job runs** and enter a numeric value for **N**.
8. Select the type of invoice to generate:
 - To list only bill items, select **Summary**.
 - To list the bill items for the bill unit and the events that have currency balance impacts greater than zero, select **Details**.
9. Click **Done**.

Generating General Ledger Reports

To generate general ledger reports, you create a general ledger job.

To create a general ledger job:

1. Click the **Jobs** icon.
The Jobs page appears.
2. In the **Categories** column, click **General Ledger**.
3. Click **New**.
The job creation wizard appears.
4. Specify the name of the job, the frequency at which to run the job, and other settings. See "[Specifying Job Frequency Settings](#)".
5. Click **Next**.
The Attributes page appears.
6. Specify the purpose of your general ledger report:
 - To generate a report for previewing your general ledger data, click **Preview**. Use this option if your company supports deliverable-based revenue recognition.
 - To generate the general ledger report in XML format for posting to your external financial system, click **Export for Posting**. Use this option if your company supports deliverable-based revenue recognition.
 - To generate a separate general ledger report for each type of revenue that you pick, click **Individual**. Use this option if your company supports event-based revenue recognition. To specify which revenue reports to generate, see "[Specifying the Individual Report Types To Generate](#)".
7. Click **Done**.

Specifying the Individual Report Types To Generate

You can generate separate G/L reports for each type of revenue, such as unbilled revenue, unbilled unearned revenue, unbilled earned revenue, and so on, and then view them in Business Intelligence.

To specify which individual G/L reports to generate:

1. Under **Report Purpose**, click **Individual**.
2. In the **Reporting Period** field, specify the date range to include in the report.
For one-time jobs, you choose specific dates for the start and end of the reporting period, such as September 10 through September 30.
For repeating jobs, you can adjust the reporting period by adding or subtracting days relative to the day the job runs. For example, if the general ledger job runs on the 30th day of the month, you can specify to end the reporting period one day earlier, on the 29th day of the month.
3. In the **G/L Segment** list, select the G/L segment.

4. In the **Types of Reports to Generate** area, select one or more revenue report types to generate: unbilled, unbilled earned, unbilled unearned, previous billed earned, billed, billed earned, and billed unearned.

Business Operations Center will generate a separate report for each revenue type that you select.
5. In the **Include in Report** area, specify to include one or more of the following resources in the report:
 - To include currency amounts, such as US Dollars and euros, select **Currency**.
 - To include noncurrency amounts, such as minutes and gigabytes, select **Non currency**.
 - To include the totals for each type of charge, select **Breakdown by charge type**.
6. Select whether to **Post G/L revenue**.
 - **Yes**: Posts G/L revenue.
 - **No**: The G/L revenue is not posted. You typically run a GL report without posting when you want to see the data before the end of the normal GL cycle. Your regularly-scheduled GL reports should post data.

Synchronizing Product Catalogs

Different catalogs or plans for different pricing components such as charge offers, discount offers, packages, and so on are stored in the BRM server. However, the customer cannot access the BRM server to update the catalogs.

To update these catalogs in the BRM server, you create a product catalog sync job.

To synchronize a product catalog:

1. Click the **Jobs** icon.
The Jobs page appears.
2. In the **Categories** column, click **Product Catalog Sync**.
3. Click **New**.
The job creation wizard appears.
4. Specify the name of the job, the frequency at which to run the job, and other settings. See "[Specifying Job Frequency Settings](#)".
5. Click **Next**.
The Attributes page appears.
6. Specify the synchronization parameter, which determines which catalog will be synchronized.

You can either synchronize the entire catalog or select specific elements of the catalog to synchronize.

For more information on the catalog elements, see *Pricing Design Center Online Help*.
7. Specify the synchronization period.
8. Click **Done**.

Refunding Payments

To refund payments to your customers, you create a refund job.

To create a refund job:

1. Click the **Jobs** icon.
The Jobs page appears.
2. In the **Categories** column, click **Refunds**.
3. Click **New**.
The job creation wizard appears.
4. Specify the name of the job, the frequency at which to run the job, and other settings. See "[Specifying Job Frequency Settings](#)".
5. Click **Next**.
The Attributes page appears.
6. Select the status of accounts to give refunds to.
7. Select one or more account payment methods to give refunds to.
8. Click **Done**.

Running Custom Jobs

To run one of your custom applications, create a custom job.

To create a custom job:

1. Click the **Jobs** icon.
The Jobs page appears.
2. In the **Categories** column, select the name of the custom job you want to run.
For information about custom categories, see "[Setting Up Custom Categories](#)".
3. Click **New**.
The job creation wizard appears.
4. Specify the name of the job, the frequency at which to run the job, and other settings. See "[Specifying Job Frequency Settings](#)".
5. Click **Next**.
The Attributes page appears with the utility's syntax listed in the **Usage Summary** area at the bottom of the page.
6. In the **Parameters and associated values** field, enter the parameters to run with the script such as **-active -test**.
Do not enter parameters here that require a file upload. You will do that in the next step.
7. (Optional) To include a parameter that requires a file, select the plus icon next to **Add parameters that specify files to upload**. Then, enter the parameter name and browse to the location of the file to upload.

For example, enter **-file** and then browse to the file to upload.

8. Click **Done**.

Specifying Job Frequency Settings

To specify the job frequency settings:

1. In the **Name and Job Frequency** page, enter a name for the job.
You cannot use the name of an active job. You can, however, reuse the name of a job that has ended or that was deleted.
2. (Optional) In the **Tag** field, enter one or more descriptive terms to use to search for the job. Separate each tag with a comma. Tags are not case sensitive.
3. (Optional) Select **Notify when complete** and enter your email address to receive an email notification when the job completes.
4. In the **Frequency** section, select when to run the job:

- To run the job only once, select **One Time**.
You can start the job immediately or at a specified date and time.
- To run the job on a recurring basis, select **Repeats** and then set:
 - The frequency, which can be daily, weekly, or monthly, and the starting time.
 - The start date, which can be immediately or on a date you specify.
 - When to end the recurring job, either never or on a date you specify.

5. (Optional) To view the job in a calendar-like view, click **View timeline with this job included**.

The timeline displays completed and upcoming jobs in a scrolling, calendar-like view. You can use this view to see whether you scheduled your job to run during a blackout period or to run at the same time another job is running.

See "[Viewing the Timeline from the Job Details Page](#)" and "[Creating a Blackout Period](#)".

6. (Optional) In the **Job Uses Data in Schema** section, specify one or more database schemas on which to run the job. Select the target schema numbers from the **Schema** list.

By default, the job is run against all schemas in the database.

Note:

The **Job Uses Data in Schema** section is displayed only if you have a multischema BRM system.

3

Setting Up Custom Categories

You can set up Oracle Communications Billing and Revenue Management (BRM) Business Operations Center to run your custom applications. To do so, you create a custom category that defines the name and location of your script as well as the parameters associated with the script.

After the custom category is set up, you run your custom application from Business Operations Center by running a custom job. See "[Running Custom Jobs](#)".



Note:

To set up custom categories, you must be assigned the **Operations Custom Admin** role.

To set up custom categories, see the following topics:

- [Defining a Custom Category](#)
- [Modifying a Custom Category Definition](#)
- [Deleting a Custom Category Definition](#)

Defining a Custom Category

A custom category defines how Business Operations Center can find and run your custom script.

To define a custom category:

1. Click the **Jobs** icon.
The Jobs page appears.
2. Click the **Other Actions** icon at the top right and then select **Manage Category Definitions**.
The Category Definitions page appears.
3. Click **Define Category**.
The Define Category page appears.
4. In the **Script location** field, enter the path under **\$PIN_HOME/** where your script is located. For example, enter **/bin/custom** if your script is located in the **\$PIN_HOME/bin/custom** directory.
5. In the **Execution location** field, enter the path under **\$PIN_HOME/** in which to run the script.

If your script needs to connect to the BRM database, this directory must contain a configuration file that explains how the utility can connect to the BRM system. See "Connecting BRM Utilities" in *BRM System Administrator's Guide*.

6. In the **Script name** field, enter the name of your custom script such as **my_custom_script**. This name must match the name of the script stored in the **Script location** directory.
7. In the **Category name** field, enter the name to display in Business Operations Center for your custom job. The default is the name of your script.
8. In the **Resource name** field, enter a unique name for each category.
The resource name is used to authorize policies that control who can access each category.
A valid resource name must meet the following conditions:
 - Maximum length must be 255 characters
 - You must prefix "category_" and suffix "_resource"
 - The maximum length for a category name is 237 characters and characters are restricted to alphanumeric, that is, a to z or A to Z, 0-9, underscore (`_`), period (`.`), and hyphen
9. In the **Usage summary** field, enter the syntax for running your script. This should match the **-help** output from your script. For example:

```
my_custom_script -file <FileName> [-verbose] [-test] [-help]
```
10. Click **Done**.

Modifying a Custom Category Definition

To modify a custom category definition:

1. Click the **Jobs** icon.
The Jobs page appears.
2. Click the **Other Actions** icon at the top right and then select **Manage Category Definitions**.
The Category Definitions page appears.
3. In the **Category Name** column, click the name of the custom category that you want to modify, such as **my_custom_application**.
A read-only summary of the custom category appears on the right.
4. Click the **Edit** icon:

5. Edit the details as required.
6. Click **Done**.
The edited custom category definition appears in the **Category Name** column.

Deleting a Custom Category Definition

When you delete a custom category definition, Business Operations Center also deletes any associated jobs that are scheduled to run.

To delete a custom category definition:

1. Click the **Jobs** icon.
The Jobs page appears.
2. Click the **Other Actions** icon at the top right and then select **Manage Category Definitions**.
The Category Definitions page appears.
3. In the **Category Name** column, click the name of the custom category that you want to delete, such as **my_custom_application**.
A read-only summary of the custom category appears on the right.
4. Click the **Delete** icon.



5. Confirm that you want to delete the custom category definition and any associated jobs that are scheduled for the future.
6. Refresh your page.

The custom category definition is removed from Business Operations Center.

4

Managing Blackout Periods

You can create blackout periods in Oracle Communications Billing and Revenue Management (BRM) Business Operations Center. During a blackout period, you cannot schedule one-time jobs, and any instances of recurring jobs won't run. You might create a blackout period, for example, for planned system maintenance.

To manage blackout periods, see the following topics:

- [Creating a Blackout Period](#)
- [Deleting a Blackout Period](#)

Creating a Blackout Period

To create a blackout period:

1. Click the **Jobs** icon.
The Jobs page appears.
2. Click the **Other Actions** icon at the top right and then select **Schedule Blackout Period**.
The Schedule Blackout Period dialog box appears.
3. In the **Title** field, enter a name for the blackout period.
4. Specify the date and time range of the blackout period.
5. (Optional) In the **Description** field, enter information about the blackout period.
6. Click **Create**.

The blackout period is displayed as a gray bar at the bottom of the timeline.

For more information, see "[Viewing the Timeline from the Job Details Page](#)".

Deleting a Blackout Period

You can delete a blackout period scheduled for the future. Afterward, all occurrences of a job in a blackout period run as scheduled.

To delete a blackout period:

1. Click the **Jobs** icon.
The Jobs page appears.
2. Click the **Job Timeline** icon:



The job timeline appears.

3. Right-click the blackout period and then select **Delete**.
4. Click **Confirm**.

5

Searching for and Sorting Jobs

You can search for jobs in the **Jobs** page of Oracle Communications Billing and Revenue Management (BRM) Business Operations Center. You can also search for and sort jobs in the **Job History** page.

To search for and sort business operations jobs, see the following topics:

- [Searching for Any Type of Job](#)
- [Searching for and Sorting Completed Jobs](#)
- [Searching for Jobs in the Timeline](#)

Searching for Any Type of Job

To search for any type of job:

1. Click the **Jobs** icon.
The Jobs page appears.
2. In the **Categories** column, click the type of job that you want to find.
3. Click the **Filter** icon:



4. Select to filter the job by status type or the frequency at which the job runs, and then click **Update**.

All jobs matching the search criteria appear.

Searching for and Sorting Completed Jobs

You can search for and sort completed jobs from the **Job History** page.

To search for and sort completed jobs:

1. Click the **History** icon.
The Job History page appears.
2. Search for completed jobs by applying filters such as time period, status, category, job name, job ID, tag, or schema number.

Note:

The option to search by schema number appears only if you have a multischema BRM system.

3. From the **Sort By** list at the top right, select the sorting condition such as Started, Finished, Status, and Category.

Searching for Jobs in the Timeline

To search for jobs in the timeline:

1. Click the **Jobs** icon.
The Jobs page appears.
2. Click the **Job Timeline** icon:



The timeline appears.

3. In the **Filter by category, job name, job id, tag, schema** field, enter the search criteria.
All jobs matching the search criteria appear in the timeline.

 **Note:**

The option to search by schema number appears only if you have a multischema BRM system.

4. (Optional) Select **My jobs only** to view only the jobs that you created.

6

Viewing Jobs

You can view the results of running jobs in Oracle Communications Billing and Revenue Management (BRM) Business Operations Center. You can also view jobs in a timeline and view details about accounts associated with failed jobs.

To view jobs, see the following topics:

- [Viewing Job Details](#)
- [Viewing Job Results](#)
- [Viewing Information about Failed Jobs](#)
- [Viewing the Timeline from the Job Details Page](#)
- [Viewing a Job's Details from the Job Timeline](#)

Viewing Job Details

All jobs, except deleted jobs, are listed in the **Jobs** and **Home** pages.

- The **Jobs** page contains all jobs, except deleted jobs, that were created from the time Business Operations Center was installed.
- The **Home** page shows all jobs, except deleted jobs, that are scheduled to run today and tomorrow. See "[Viewing All Jobs Scheduled to Run Today and Tomorrow](#)".

The **Home** page also shows the jobs that completed yesterday and today. See "[Viewing All Jobs Completed Yesterday and Today](#)".

To view job details:

1. Click the **Jobs** icon.
The Jobs page appears.
2. In the **Categories** column, click the type of job you want to view.
All active jobs in the selected category appear.
3. (Optional) To view completed and deactivated jobs, apply filters:
 - a. Click the **Filter** icon:

 - b. Under **Job Status**, select **Completed** and **Inactive**.
 - c. Click **Update**.
All completed and deactivated jobs appear.
4. Click a job.
Details about the job appear on the right.

Viewing All Jobs Scheduled to Run Today and Tomorrow

To view the details of jobs scheduled to run between now and 11:59 p.m. tomorrow:

1. Click the **Home** icon.
The Home page appears.
2. Click the **Scheduled** tab on the right.
The list of jobs scheduled to run between now and 11:59 p.m. tomorrow appears.
3. Click a job's name.
The Job History page appears.
For more information, see "[Viewing Job Results](#)".

Viewing Job Results

You can view job results from the **Job History** and **Home** pages.

To view job results from the **Job History** page:

1. Click the **History** icon.
The Job History page with the results of the jobs run in the last 24 hours appears.
2. (Optional) Select the time period.
3. (Optional) Click the **Filter by category, job name, job id, tag, schema** field, select one or more filter criteria, and then click the **Search** icon.

 **Note:**

The option to search by schema number appears only if you have a multischema BRM system.

4. (Optional) Select the status of the jobs.
5. (Optional) From the **Sort By** list, sort the search results by job start date, job end date, status, or category.

 **Note:**

You can view job details from the **Job History** page by clicking the job name displayed at the top of each row.

Viewing All Jobs Completed Yesterday and Today

To view the details of the jobs completed between 12:00 a.m. yesterday and now:

1. Click the **Home** icon.
The Home page appears.

2. Click the **Completed** tab.

The list of jobs completed between 12:00 a.m. yesterday and now appears.

Viewing Information about Failed Jobs

You can view information about failed jobs from the **Home** and **Job History** pages.

Viewing Details of Failed Jobs

To view details of a failed job:

1. Click the **History** icon.

The Job History page with the results of the jobs run in the last 24 hours appears.

2. (Optional) Select the time period.
3. (Optional) Select the status of the jobs as **Failed**.
4. Click the **View failure report** link for any job with a **Failed** status.

The Review Failure Details dialog box appears.

Note:

The **View failure report** link appears only in the following situations:

- The job failed due to issues in the account associated with the job.
- The job is a billing, invoicing, payment collection, general ledger, custom, or refund job.

5. (Optional) In the **Account Number** column, click the account number for which you want to view details.

A page with the details of that account appears.

You can also export the details of the account associated with the failed jobs.

For more information, see "[Rerunning Failed Jobs](#)" and "[Exporting Failure Reports](#)".

Viewing All Jobs That Did Not Run or That Failed in the Last 24 Hours

To view the jobs that did not run or that have failed in the last 24 hours:

1. Click the **Home** icon.

The Home page appears.

2. In the **Unresolved** section, the number of jobs that failed in the last 24 hours appear.

In the **Attention** section, the number of jobs that did not run due to blackout or server issues in the last 24 hours appear.

Viewing the Timeline from the Job Details Page

The job timeline displays completed and upcoming jobs in a scrolling, calendar-like view.

To view the timeline from within a job's details page:

1. Click the **Jobs** icon.
The Jobs page appears.
2. Click the job you want to view in the timeline. See "[Viewing Job Details](#)".
Details about the job appear on the right.
3. In the job details, click the **View in timeline** link at the top right.
The timeline appears, and the selected job and its occurrences are highlighted.
The timeline is read only.

You can also view a job in the timeline while creating the job. See "[Running Billing](#)".

Viewing a Job's Details from the Job Timeline

To view a job's details from the job timeline:

1. Click the **Jobs** icon.
The Jobs page appears.
2. Click the **Job Timeline** icon:

The job timeline appears with all scheduled jobs.
3. (Optional) Right-click a job and then select **View**.
The details of the job appear.

7

Managing Failed Jobs and Transactions

You can use Oracle Communications Billing and Revenue Management (BRM) Business Operations Center to rerun failed jobs, export reports containing details of the accounts related to the failed jobs, and resolve the failed BRM-initiated payment transactions.

To manage failed jobs and transactions, see the following topics:

- [Rerunning Failed Jobs](#)
- [Exporting Failure Reports](#)
- [Solving Failed BRM-Initiated Payment Transactions](#)

Rerunning Failed Jobs

Note:

When you rerun a failed job, it runs only on the database schema on which the job failed. For example, if the original job was run on all schemas but the failure occurred in the second schema, the job is rerun only on the second schema.

To rerun a failed job:

1. Click the **History** icon.
The Job History page with the results of the jobs run in the last 24 hours appears.
2. (Optional) Select the appropriate time period.
3. (Optional) Select the **Failed** or **Blacked-out** status.
All failed jobs or jobs that did not run due to a blackout are displayed.
4. Do one of the following:
 - To run failed jobs, click **Run Again**.
 - To run blacked-out jobs, click **Run Now**.The job creation wizard with the details of the job appears.
5. Click **Done**.
The failed job runs immediately.

You can view the result of running the job in the **Job History** page. The job that you reran is listed in the same job, in a reverse chronological list. The job name is the same, but it now has a suffix (**rerun**). If rerunning a failed job also fails, you can rerun it again. The second rerun is also listed in the original job.

See "[Viewing Details of Failed Jobs](#)".



Note:

You can rerun a failed job only one time.

Exporting Failure Reports

You can export details about the accounts in a failed job into a spreadsheet on your local system.

To export a failure report:

1. Click the **History** icon.
The Job History page appears.
2. Search for a failed job. See "[Viewing Details of Failed Jobs](#)".
3. Click the **View failure report** link for any job with a **Failed** status.



Note:

The **View failure report** link appears only in the following situations:

- The job failed due to issues in the account associated with the job.
- The job is a billing, invoicing, payment collection, or refund job.

The Review Failure Details dialog box appears.

4. In the **Account Number** column, click the account number for which you want to view details.
A page with the details of that account appears.
5. Click the **Export** button.
6. Select **Save File**.
7. Click **OK**.
8. Browse to the location where you want to save the report.
9. (Optional) Change the name of the file.
10. Click **Save**.

Solving Failed BRM-Initiated Payment Transactions

The three types of payment failures that you can resolve through Business Operations Center are the following:

- **Real-time Checkpoints:** Transactions where the credit card failed either authorization or verification. You resolve these errors by deleting the checkpoints from BRM and then resubmitting the charge to the credit card processor. Because the first transaction failed, the customer won't be charged twice.

- **Unresolved Batches:** BRM does not know if the payment clearing house received or processed the batch. You resolve this issue by calling the clearing house to find out if they received the batch and then either marking the batch as processed or resubmitting the batch to the clearing house.
- **Unresolved Payments:** Transactions where the credit card number is reported as charged in both BRM and the payment clearing house, but it has not been recorded as paid in BRM. You resolve these payments by marking the customer's bill as paid.

For more information, see "Resolving Failed BRM-Initiated Payment Transactions".



Note:

If the option **Failed BRM-Initiated Payment Transactions** is not displayed in the **Home** page, no payments failed.

Resolving Real-Time Checkpoints

Credit card transactions that failed verification or authorization are marked as having real-time checkpoints. You fix these errors by deleting the checkpoints from BRM. You can then resubmit the charge to the credit card processor again.

To resolve real-time checkpoints:

1. Click the **Home** icon.
The Home page appears.
2. Click **Failed BRM-Initiated Payment Transactions**.
A page with details about the failed payments appears.
3. Click **Real Time Checkpoints**.
The page lists the credit card transactions that failed verification and authorization.
4. (Optional) To export the list of transactions to a file, click **Export authorize records**.
5. Click **Clear**.
The checkpoints are deleted from the BRM database.

You can resubmit the charges that failed authorization to the credit card processor again.

Fixing Unresolved Batches

A batch of payments is marked as unresolved when BRM does not receive confirmation from the payment clearing house that it received or processed those payments. To resolve these issues, call the payment clearing house to find out whether they received the batch. If they did, you record the batch as having been processed successfully. If they did not, you resubmit the batch to the payment clearing house for processing.

To fix unresolved batches:

1. Click the **Home** icon.
The Home page appears.
2. Click **Failed BRM-initiated Payment Transactions**.

A page with details about the failed payments appears.

3. Click **Unresolved Batches**.

The page lists all batches that have not been marked as processed.

4. Call the payment clearing house to find out whether they received any of the batches.

5. Do one of the following:

- If the payment clearing house received the batch, click **Yes** and then click **Resolve**.
- If the payment clearing house did not receive the batch, click **No** and then click **Resubmit**.

6. (Optional) Export details about the batches to a file:

a. Click **View Batch**.

The list of all the transactions in the batch transaction appears.

b. Click **Export All**.

Applying Unresolved Payments

In rare cases, a credit card charge is made and the checkpoint is cleared, but the payment isn't applied to the customer's account in BRM. These payments are categorized as unresolved. This might happen because of a network failure. You fix these errors by having Business Operations Center record the payment in your customers' accounts.

To apply unresolved payments to your customers' accounts:

1. Click the **Home** icon.

The Home page appears.

2. Click **Failed BRM-initiated Payment Transactions**.

A page with details about the failed payments appears.

3. Click **Unresolved Payments**.

All unresolved payment transactions appear.

4. (Optional) To export all unresolved payments to a file for further investigation, click **Export All**.

5. Click **Resolve**.

Your customer's account is updated to show that they made the payment.

8

Editing Jobs

You can edit active and scheduled business operations jobs in Oracle Communications Billing and Revenue Management (BRM) Business Operations Center.

To edit business operations jobs, see the following topics:

- [Editing a Job from the Jobs Page](#)
- [Editing Jobs from the Job Timeline](#)

Editing a Job from the Jobs Page

You can edit only an active job. For recurring jobs, you can edit only the future occurrences of the job.



Note:

You cannot edit the following:

- A one-time job scheduled to run immediately
- A single instance of a recurring job

To edit a job from the **Jobs** page:

1. Click the **Jobs** icon.
The Jobs page appears.
2. Select the active job that you want to edit. See "[Viewing Job Details](#)".
Details about the job appear on the right.
3. Click the **Edit Job** icon:



The job creation wizard with details about the job appears.

4. Edit the details as required.
5. Click **Done**.
The edited job appears in the jobs list.

Editing Jobs from the Job Timeline

You cannot edit the following:

- A one-time job scheduled to run immediately

- A single instance of a recurring job

To edit a job from the job timeline:

1. Click the **Jobs** icon.

The Jobs page appears.

2. Click the **Job Timeline** icon:



The timeline appears.

3. Right-click the job that you want to edit, and then select **Edit**.

The job creation wizard with details about the job appears.

4. Edit the required details.

5. Click **Done**.

The edited job appears in the jobs list.

9

Deactivating, Reactivating, and Deleting Jobs

You can delete, deactivate, and reactivate business operations jobs in Oracle Communications Billing and Revenue Management (BRM) Business Operations Center.

To deactivate, reactivate, or delete business operations jobs, see the following topics:

- [Deactivating a Job](#)
- [Reactivating a Job](#)
- [Deleting a Job](#)

Deactivating a Job

Deactivating a job prevents it from running. You can reactivate a deactivated job. You can deactivate either a single instance of a job or all occurrences of the job.

Deactivating a Job from the Jobs Page

To deactivate a job from the **Jobs** page:

1. Click the **Jobs** icon.
The Jobs page appears.
2. Click the active job that you want to deactivate. See "[Viewing Job Details](#)".
Details about the job appear on the right.
3. Click the **Deactivate Job** icon:



4. Click **Confirm**.

Deactivating a Job from the Timeline

To deactivate a job from the timeline:

1. Click the **Jobs** icon.
The Jobs page appears.
2. Click the **Job Timeline** icon:



The timeline appears.

3. Right-click the job you want to deactivate, and select one of the following options:
 - To deactivate a one-time job, select **Deactivate**.
 - To deactivate one instance of a recurring job, select **Deactivate this one only**.

- To deactivate the entire recurring job, select **Deactivate entire job**.
4. Click **Confirm**.

Reactivating a Job

You can reactivate all occurrences of a deactivated job or a single instance of a deactivated job before its scheduled runtime. You cannot reactivate a deleted job.

Reactivating a Job from the Jobs Page

To reactivate a job from the **Jobs** page:

1. Click the **Jobs** icon.
The Jobs page appears.
2. Click the job that you want to reactivate. See "[Viewing Job Details](#)".
Details about the job appear on the right.
3. Next to **This job has been deactivated**, click **Activate**:

 **Status**

 **This job has been deactivated** [Activate](#)

Last Executed	Never executed
Next Scheduled	03/28, 05:27 PM

4. Click **Confirm**.

Deleting a Job

A deleted job cannot be reactivated.

Deleting a Job from the Jobs Page

To delete a job from the **Jobs** page:

1. Click the **Jobs** icon.
The Jobs page appears.
2. Click the job that you want to delete. See "[Viewing Job Details](#)".
Details about the job appear on the right.
3. Click the **Delete Job** icon at the top right:



4. Click **Confirm**.

Deleting a Job from the Timeline



Note:

You cannot delete a single instance of a recurring job.

To delete a job from the timeline:

1. Click the **Jobs** icon.
The Jobs page appears.
2. Click the **Job Timeline** icon:



The timeline appears.

3. Right-click the job you want to delete, and then select **Delete**.
4. Click **Confirm**.

If you delete a recurring job, you can still view past occurrences of the job in the timeline.

10

Changing the Time and Date of BRM

You can change the BRM system time and date for testing purposes in Oracle Communications Billing and Revenue Management (BRM) Business Operations Center.

To change the BRM time and date, see the following topics:

- [About Changing the BRM System Time and Date](#)
- [Changing the BRM System Time and Date](#)

Caution:

Changing the time and date introduces the possibility of corrupting data. Do not change the time and date in a production system.

About Changing the BRM System Time and Date

Changing the BRM system time and date does not affect the operating system time and date. You do this to test time-sensitive functions associated with nonrecurring jobs. For example, you can change the BRM system's time and date to test the following:

- Whether accounts are billed correctly. You can advance the date and then run a billing job and generate an invoice.
- Whether product catalogs are synchronized correctly.

To indicate that you have changed the BRM system time and date, a banner showing the modified BRM system time and date is displayed on the top of every page.

Note:

Closing the banner does not revert the time and date to the real system time and date.

Changing the BRM System Time and Date

To change the BRM system time and date:

1. Click the **Jobs** icon.
The Jobs page appears.
2. Do one of the following:
 - If you are changing the time and date for the first time, click the **Other Actions** icon on the top right and then select **Manage Virtual Time**.

- If you have already changed the time and date and want to edit those settings, click the **Manage Virtual Time** link in the banner.

The Manage Virtual Time dialog box appears.

3. Click **Virtual time enabled**.

 **Note:**

If you already changed the time and date, skip this step.

4. In the **New virtual time value** field, change the BRM system time and date.
5. (Optional) To freeze the system time and date to the time and date you set, click **Do not advance time**.
6. Click **Save**.

The BRM system's new time and date is displayed in the banner at the top of every page.

11

Viewing Business Trends

You can view business trends in Oracle Communications Billing and Revenue Management (BRM) Business Operations Center.

The **Business Dashboard** page displays the progression of business trends during the last 12 months. Businesses use this data to predict future trends or to make strategic decisions.

To view business trends, click the **Dashboard** icon. The following graphs appear:

- **Billed Revenue:** Shows revenue collected in dollars for all billed accounts.
- **Payments Received:** Shows payments received in dollars.
- **Accounts Receivable:** Shows the amount, in dollars, to be collected from all accounts.
- **Subscriber Accounts:**
 - The donut chart shows the percentage for the current day of active and inactive accounts that have subscribed to any service.
 - The line graph shows the number of active and inactive accounts that have subscribed to any service. The data points show the data as of the last day of the month.
- **Product Popularity:**
 - The **Most Popular Products** bar graph shows the number of subscriptions for each of your top ten most popular products. The data points show the data as of the last day of the month.
 - The **Least Popular Products** bar graph shows the number of subscriptions for each of your bottom ten least popular products. The data points show the data as of the last day of the month.