# Oracle Hospitality OPERA Reporting and Analytics User Guide





Oracle Hospitality OPERA Reporting and Analytics User Guide, Release 25.2

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## **Preface**

Oracle Hospitality OPERA Reporting and Analytics is a web-based application that centralizes hotel property management data to provide operational and analytical insights into business operations, and to improve efficiency by delivering information to all roles within an enterprise.

#### **Purpose**

This document is intended for customers subscribed to Oracle Hospitality OPERA Reporting and Analytics Cloud Services (OPERA R&A).

#### **Audience**

Oracle Hospitality OPERA Reporting and Analytics documentation applies to the following users:

- Application administrators who have permission to configure OPERA R&A.
- Users who perform day-to-day reporting operations and typically do not have permissions to configure OPERA R&A.

#### **Customer Support**

To contact Oracle Customer Support, access My Oracle Support at the following URL:

#### https://iccp.custhelp.com/

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

#### **Documentation**

Oracle Hospitality product documentation is available on the Oracle Help Center at http://docs.oracle.com/en/industries/hospitality/.

#### **Revision History**

Table 1 Revision History

Date	Description of Change
September 2024	Initial Publication.



# Reporting and Analytics for Hotels

Oracle Hospitality OPERA Reporting and Analytics is a web-based application that centralizes hotel property management data to provide operational and analytical insights and to improve efficiency by delivering information to all roles within an organization. Hotel organizations can use Oracle Hospitality OPERA Reporting and Analytics Cloud Service to leverage data management and business analytics functionality.

The following figure shows the most common tasks for OPERA Reporting and Analytics users. Your business requirements and organization size ultimately determine how you use OPERA Reporting and Analytics. For example, small organizations might have one person who performs system administrator tasks as well as creates and publishes analysis reports.



Administrator, System Administrator



Corporate Revenue Manager, Regional Hotel Manager, Property General Manager, Hotel Operations Manager

Set up roles and permissions and add users

Perform item alignment to ensure consistent data for reporting

Assign new property into enterprise reporting hierarchy.

Define currency exchange rules

Create analysis reports based on hotel subject areas

Analysis Report Examples: Hotels

Hotel Report Tutorial: Regional Managers Property Performance

Dashboard Tutorial: Regional Metric Data and KPIs

Set up schedules for running reports and sending

them by email

# **Common Actions and Navigation**

## **Bookmark URL**

The URL provided in the OPERA R&A welcome letter must be bookmarked by individual users prior to accessing the login screen as there are automatic re-directs. Bookmarking after connection will remove your tenant id which is needed for proper login.

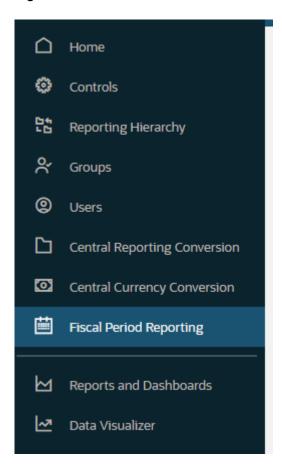
## **Application Navigation**

Figure 2-1 Example Application Header



- User Options: Exposes options to log off of the application or access help documentation.
- Navigation Menu: Expands the portlets menu, listing authorized portlets used to configure the application

Figure 2-2 Menu



 Menu: The primary application menu; based upon the permissions granted to your group(s).

#### **Search Options**

Search options are presented on each portlet where searching for records is available. Entering text into the field will present a list of records that match the value. This could be text at any point in the front middle or end of the value. Select the value to choose the record.

Figure 2-3 Icons





#### **Drag and Drop**

Moving records from one column or status to another can be done by selecting the record to move by clicking and holding the mouse button down on the Move icon. Drag the record over to the place to move and release the mouse button.

## **Application Tiles**

Application Tiles provide quick access to identify and resolve any outstanding configuration actions in OPERA R&A. Tiles are enabled through permissions.

#### **Reporting Tiles**

When the correct permissions are enabled, tiles for Reports, Dashboards, and Data Visualizers are available on the home page. These tiles act as shortcuts to open these modules.

#### **Configuration Tiles**

When the correct permissions are enabled, tiles are available on the home page that will notify the user of any outstanding configuration actions that may be required, based upon any new definitions reported through OPERA or Identity Management. These tiles act as shortcuts to open the individual configuration page and filter to show actionable records. Tiles are available for Reporting Hierarchy, Groups, Users, and Central Currency Conversion.

#### **Reporting Hierarchy:**

This tile shows if any new levels or properties are defined and not assigned within the reporting hierarchy. Until these are present in the reporting hierarchy, data for those properties cannot be included in reporting.

#### **Groups:**

This tile shows groups that have been created that do not have any permissions granted. Until permissions are defined for the group, any users associated with the group will not have the ability to access functionality.

#### Users:

This tile shows users that have not been assigned a level in the Reporting Hierarchy or chain(s). A level and chain(s) are required for the user to access reporting data.

#### **Central Currency Conversion:**

This tile shows if any central currency conversion rules are scheduled to expire within the next 30 days.



## **Controls**

Controls allow for configuration of optional features and functionality in OPERA R&A.

## **Enable Central Currency Conversion**

For an enterprise where properties with different base currencies are reporting, the central currency conversion feature will provide date-based rules to manage the conversion of the properties financial data. Property currency values are converted into a single central currency reporting value selected once this functionality is enabled

- 1. From the OPERA R&A navigation menu, click Controls.
- Enable the Enable Central Currency control.

Once Central Currency is enabled, it cannot be disabled.

- When prompted, confirm or decline control restriction.
- Select the currency to use for all enterprise reporting values. This value cannot be changed once defined.
- 3. Click Save.

## **Reporting Links**

#### **Data Visualizer**

The Data Visualizer URL can be copied and pasted to users who are reporting only users and will need access to this reporting feature. The URL is not currently available from the OBI Reporting Console and this URL can be bookmarked to provide the user access with valid user permissions.

#### **Smart View**

The Smart View for Microsoft Office plug-in is available for download and installation from the OBI Reporting Console. The URL provided is utilized to define the path users will enter while configuring Smart View to gain access to any reporting data. Copy and paste to users that will be permitted to access reporting data from the plug-in. Valid user authentication is required to access the reporting data.

## **SFTP Configuration**

Secure File Transfer Protocol (SFTP) allows reports to be delivered to a secure location outside of the R&A system. This is useful when sharing data with third-party solution providers or services. You may configure up to twenty five SFTP service profiles. Please review the SFTP Guide in SFTP Service Configuration for details on configuring SFTP.

1. From OPERA R&A navigation menu, click Controls.

- 2. Click the File Delivery, then SFTP tab.
  - a. If the SFTP tab is not present, an SFTP service is not configured for your organization. Open an SR requesting your SFTP service be included as part of your R&A organization.
- 3. Choose the SFTP Profile to update from the list, if more than one is defined.
- 4. Click the **Update SFTP** button to edit the SFTP fields.
- 5. Edit the remote directory for all reports to be exported (optional).
- Enter your valid SFTP user and password (required).
- 7. Click Save.

#### **Password Supported Characters**

The SFTP password supports the following characters:

- The alphabetic characters a to z (uppercase and lowercase).
- The numerals 0 to 9.
- The following special characters:

Character	Description
@	At sign
1	Forward slash
-	Minus sign / Hyphen
	Period
	Underscore

#### Resend

In the event of a failure during the SFTP transmission, you can configure the application to automatically attempt to resend the failed delivery. Configuration of the resend functionality will apply to all delivery profiles.

1. From the SFTP Tab, select Enable Resend on SFTP Delivery Failure.



Resend functionality requires the Service Account to be enabled.

- 2. You may optionally change the three (3) resend configuration parameters:
  - a. Retry Attempts defines the number of times (ranging from 1 to 6) to retry failed SFTP jobs according to the resend frequency.
  - Resend Frequency (Min) defines in minutes how often the system wakes up to check for and resend failed SFTP jobs.
  - Resend Duration (Min) specifies the duration in minutes for which the system should continue attempting to resend failed SFTP jobs.
- 3. Click Save.



## **Object Storage**

The Object Storage tab which provides information required in the use of Object Storage.

- 1. From the OPERA Reporting and Analytics navigation menu, click Controls
- 2. Click on the File Delivery, then Object Storage tab
  - a. If the Object Storage tab is not present, your OPERA Reporting and Analytics instance is utilizing OBIEE for reporting services. Migration of OBIEE to OAS instances is underway. Contact your account manager about having your migration scheduled if you require this functionality sooner.
- 3. Choose the Object Storage tab
- From the tab you can highlight and copy your AppID which is required to process any files to Object Storage.
- Click the Show/Hide button to expose the Object Storage Secret. This field can also be highlighted and copied once visible.
- You can optionally click the Regenerate Secret button to generate a new Object Storage secret.

## Set Upgrade Preference

The upgrade of your analytics version will now be scheduled based upon a preferred time. Time is based upon your local time zone but recorded in UTC. By default, upgrades are scheduled for 00:00 UTC. To change your preferred time, follow the instructions below.

- 1. From OPERA R&A navigation menu, click Controls.
- Click on the System tab.
- 3. Edit the preferred time for upgrades to be performed, local time (optional).
- Click Save .

## Service Account

The Service Account is used to run applications, automated services, and background processes in OPERA Reporting and Analytics. It is strongly recommended that this account be associated to a dedicated, non-person user and email address to prevent any interruption in service. A service account must be a privileged account that is associated with the OC\_RNA-BIADMIN Group. To enable the Service Account:

- From OPERA Reporting and Analytics navigation menu, click Controls.
- Click the System, then Service Account Tab.
- From the list, select the dedicated, non-person user account. a. If the account does not show in the list, please reconfirm that the account is associated with the OC\_RNA-BIADMIN group.
- 4. Enter the password for the Service Account.
- 5. Click the Validate button to confirm the user credentials can be accessed.
- Click Save.



## **Password Supported Characters**

The password supports the following characters:

- The alphabetic characters a to z (uppercase and lowercase).
- The numerals 0 to 9.
- The following special characters:

Character	Description
@	At sign
1	Forward slash
-	Minus sign / Hyphen
	Period
	Underscore

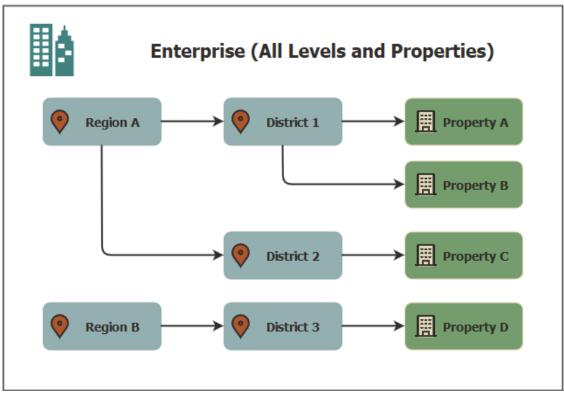


## **Enterprise Hierarchy**

The enterprise hierarchy provides the reporting structure to an enterprise and its properties.

The enterprise has only a single hierarchy. The hierarchy ensures totals from all properties are available for reports and controls how dashboards and other visualizations show information in OPERA R&A.

The hierarchy consists of levels and properties. A property is a hotel. A level is a group of levels or a group of properties. You define the hierarchy by creating parent-child relationships between levels and properties. In the following figure of a sample hierarchy, District 1 is the parent to the Property A and Property B, and Region A is the parent to District 1 and District 2.



The enterprise hierarchy is utilized to determine user access to information in the application. Using the sample hierarchy as a model, you can create a District Manager group and then assign the role to Jen, the District Manager for District 1. Because of the relationship between District 1 and the Properties A and B, Jen can see information for those properties only. She cannot see information for the locations related to the other districts.

## **Create Level**

- From the OPERA R&A navigation menu, click Reporting Hierarchy.
- Click Create Level.
- 3. Type a level code.

- 4. Type a level name.
- 5. Optionally create a relationship to another level.
- 6. Click Save.



As a best practice, single property organizations should not create a reporting hierarchy and assign their property directly to the organization level. Small chains and large enterprises should carefully construct a hierarchy that will properly allow/restrict access to property data.

## **Assigning Properties**

OPERA properties are automatically synced to OPERA R&A as part of the provisioning process completed by your Oracle Cloud Enablement team.

- 1. From the OPERA R&A navigation menu, click Reporting Hierarchy.
- 2. Locate the unassigned property from the Unassigned column.
- 3. Drag and Drop the property into the Assigned list to establish the parent-child relationship.
  - a. Properties can have a parent-child relationship with the Enterprise without a level by dropping the property at the bottom of the list.
  - **b.** Properties are assigned to a level in the Enterprise Hierarchy by dropping the property onto the level.

**Note Note** 

Assignment of a property to an existing level in the hierarchy will grant users assigned that level in the hierarchy access to view property data.

## **Re-assigning Properties**

OPERA properties can be moved from one level to another should the enterprise structure change.

- 1. From the OPERA R&A navigation menu, click Reporting Hierarchy.
- **2.** Locate the assigned property from the Assigned column.
- 3. Drag and Drop the property from the current level to the new level in the Enterprise.
  - a. Levels and all their relationships can also be re-assigned by moving the level.

## **Edit Level**

- 1. From the OPERA R&A navigation menu, click Reporting Hierarchy.
- 2. From the Level, click Edit.



- 3. Edit a level code or name.
- 4. Click Save.

## **Delete Level**

- 1. From the OPERA R&A navigation menu, click Reporting Hierarchy.
- **2.** From the Level, click Delete.
  - **a.** Delete option will only be shown when no existing relationships to other levels or properties are found
- **3.** From confirmation prompt, click Confirm.



## Groups, Tasks, and Users

OPERA R&A uses groups and tasks to control access to content and functionality. A group defines a set of tasks for a user type, while the user tasks represents content or functionality.

The following figure illustrates a typical flow for configuring groups and users to OPERA R&A:



Figure : Group and User Configuration

OPERA Reporting and Analytics provides the following default groups:

## **OPERA R&A Application Administrator**

This group provides access to every area of the enterprise configuration. User assigned to this group can perform any action and make any change in the application portal. This group provides no reporting capabilities. Changes to this read only group are not permitted. If reporting tasks are required for these users, other default or generated groups with reporting tasks must be associated with the user.

## **OPERA R&A Reporting Administrator**

This group provides access to view enterprise configuration in addition to all supported features and subject areas in the OBI Reporting Console (reporting tool). User assigned to this group can view certain configuration in the application portal and utilize most all capabilities in the reporting tool. For security purposes, the ability to view personally identifiable information (PII) is restricted by default with this group. Changes to this group can be made through the Group portal by an authorized user.

## **OPERA R&A Chain Administrator**

Users assigned to this group are defined as Chain Administrators for any Chains that are assigned to the User. This will permit them to manage those users within their assigned chains as well as assign any unassigned users to their chain. By default, this group has no user tasks granted. It is strongly recommended that tasks be defined based upon those needed for this role in your organization.

## **Custom Groups**

If the default groups do not meet your business requirements, you can create custom groups and specify user tasks for any new groups. For example, your enterprise has a district level with three districts. Each district has three properties. You can create a District Manager group.

When you add a District Manager user, you assign the user to the district enterprise level and to the new District Manager group. Because of the district-property relationship settings in OPERA R&A, District Managers can view data for only the properties in their districts.



As a best practice, create custom groups to limit access to specific application and reporting functionality based upon the user's role in the enterprise. For instance, users that are permitted to run reports, but not author/edit report should have a custom group that will restrict their user tasks to only allow consumption of existing reports.

## **Create Group**

If utilizing OPERA Cloud Identity Management (OCIM) for user and group management, please refer to the section on Managing Groups in the OCIM Administrator Guide. The latest version release of OCIM documentation can be found here.

If utilizing Identity Access Management (IAM), these groups are used to grant access to OPERA Reporting and Analytics portals and capabilities. Under the IAM, groups are the links between user accounts and OPERA Reporting and Analytics. They contain tasks that you grant to users. Only IAM Console users are permitted to create Groups.

- 1. From the Identity Domain console, select the Groups option from the menu.
- 2. Click Create Group.
- 3. In the Name and Description fields of the Create Group window, enter the name and description about the group. The Group Name is required to begin with "OC\_RNA-" in order for the group to be configurable in OPERA Reporting and Analytics. Groups with any other names will not be found or usable in the application.



Use of capitalized alphabet, numbers, and \_ are allowable characters for the Group Name. Use of lower case, other special characters or spaces is not allowed.

Click Create.

Additional information on group configuration can be found at https://docs.oracle.com/en-us/iaas/Content/Identity/groups/managinggroups.htm



Changing the name of a group once tasks have been assigned will invalidate the groups reporting tasks and prevent users from accessing reporting functionality.

## Set Group Tasks



From the OPERA R&A Groups portlet, individual groups created under IDCS will be listed and available to have tasks defined. User Tasks are broken out by individual sub-categories. To allow access to all user tasks within a sub-category, enable the sub-category. This will enable all the individual tasks within the sub-category. To enable only specific user tasks, use the enable/disable option to change the value.

- 1. From the OPERA R&A navigation menu, click Groups.
- 2. From the list or search bar, locate the Group to set user tasks.
- 3. Click Edit on the Group.

Set tasks within the categories listed below. For a detailed account of each user task, see Appendix A.

Click Save.

#### Administration

The Administration category contains all of the available tasks for controlling access and capabilities for configuring the application. Configuration capabilities encompass the entire enterprise and cannot be restricted/configured to individual hubs, chains or properties.



Refer to the Appendix for a listing of all available user tasks and their function. Only assign administration tasks that are needed to support the groups role in the application portal.

#### Reporting

The Reporting category contains all of the available tasks to author, distribute and access data Subject Areas. User tasks granted define the capabilities that users associated with this group are permitted to use.



Refer to the Appendix for a listing of all available user tasks and their function. Only assign reporting tasks that are needed to support the groups role in the reporting module.

## Group As Role

From the OPERA R&A Groups portlet, individual groups created under IDCS will be listed and available to be defined as a Role in your reporting module. Enabling a group as a role allows you to configure access to specific folders and catalog objects based upon the Role.

- From the OPERA R&A navigation menu, click Groups.
- From the list or search bar, locate the Group to edit.
- Click Edit on the Group.
- To enable, select the Update Group as Role option and click Save.



- Once enabled and saved, role configuration will be pushed overnight and update the reporting module.
- To disable, unselect the Update Group as Role option and click Save.
  - Once disabled and saved, role configuration will be removed overnight and update the reporting module. Any restrictions on reports for groups will be removed at this point.

#### Configure Role on Folder or Catalog Object

- From the OPERA R&A navigation menu, click Reports and Dashboards.
- 2. From the BI Application locate and select the folder or catalog object to configure access.
- 3. Select More > Permissions.
- 4. Under Permissions, click the Add button.
- Under the Available Members section, enter the name of the Role and click Search.
- 6. Select the Role and add to the Selected Members list using the move buttons.
- Change the Set Permission value to match your desired outcome. Enable the Apply permissions options accordingly and click OK.



Removal of the BI Content Consumer, BI Content Author or BI Administrator will render the folder or catalog object inaccessible. Do not remove these.

Once configured, any user that has that role will have the configuration applied.

## Create User/Assign Groups

If utilizing OPERA Cloud Identity Management (OCIM) for user and group management, please refer to the section on Managing Users in the OCIM Administrator Guide. The latest version release of OCIM documentation can be found here.

If utilizing Identity Access Management (IAM), users are defined and granted access to OPERA R&A portals and capabilities through Group assignment in IAM. Only IAM Console users are permitted to create other IAM and OPERA R&A users.

It is strongly recommended to have additional users defined as IAM Administrators to allow for group and user creation in case of administrator absence or departure and to avoid interruption in operations. In the event your IAM Administrator has departed, and no alternative administrators are defined, open a non-technical service request with Support requesting a new IAM Administrator.

- From the Identity Domain console, select the Users option from the menu, and then click Create User.
- In the First Name and Last Name fields of the Create User window, enter the user's first and last name.
- 3. To have the user log in with their email address:
  - a. Leave the Use the email address as the user name check box selected.
  - b. In the User Name / Email field, enter the email address for the user account.



#### OR

- **1.** To have the user log in with their user name:
  - a. Clear the Use the email address as the user name check box.
  - **b.** In the User Name field, enter the user name that the user is to use to log in.
  - c. In the Email field, enter the email address for the user account password recovery.
- 2. Under the Groups section, select the check box for each group that you want to assign to the user account.
- 3. Click Create.

Additional information on user configuration can be found at https://docs.oracle.com/en-us/iaas/Content/Identity/users/about-managing-users.htm

## Set User Access

From the Users portlet, individual users created under IDCS will be listed and available to have user tasks defined.

- 1. From the OPERA R&A navigation menu, click Users.
- 2. From the list or search bar, locate the User to define allowable property data.
- 3. Click Edit on the User.
- Click Define Access
- 5. Define the access that will be available for the user to report on:
  - All levels and Properties
  - Individual Enterprise Level within the Reporting Hierarchy
  - Individual property or multiple properties from the property list
  - Combination of Enterprise Level and Property/Properties
- 6. Click Save.
- 7. Set the Chain(s) for the User. See description below.
- 8. Click Save.

#### **Chains**

For an enterprise that consists of multiple chains, the Chain assignment option will restrict the user to only reporting data for properties defined for the selected chain(s) regardless of the presence of other properties within their defined access.

When the user is defined as a Chain Administrator (Group), they will be given the ability to manage user assignments within their assigned chains.

### Note:

Note: Ensure all users have a defined access and chain associated to them prior to accessing reports and dashboards to prevent any potential issues. If a user accesses prior to adding these, once added, they will need to clear their cache or use a private browsing window.

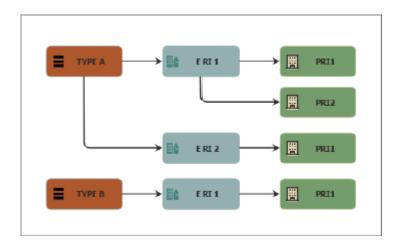


# **Central Reporting Conversion**

Central Reporting Conversion is used to configure conversion values for the Property Reporting Items from OPERA and Enterprise Reporting Items. Conversion is based upon the individual Enterprise Reporting Types such as Chains, Markets and Room Classes.

Property Reporting Item alignment matches similar items under the Enterprise Reporting Item, ensuring that reporting and calculations account for variances in naming or entry and that data remains structured. The following diagram provides an overview of how reporting items can be aligned.

**Figure - Central Reporting** 



## Reporting Item Types

The Reporting Item Types are different categories of definitions and dimensions in which your property data is received and can be reported.

## **Enterprise Reporting Items**

#### **Create Enterprise Reporting Item**

- From the OPERA R&A navigation menu, click Central Reporting Conversion.
- Click Create.
- 3. Select the enterprise reporting item type.
- 4. Enter a name.
- Depending upon the type selected, additional required fields may be presented
- Enter the PMS Reference

7. Click Save.

#### **Edit Enterprise Reporting Item**

- 1. From the OPERA R&A navigation menu, click Central Reporting Conversion.
- 2. From the Reporting Item Type search, select the correct type for the Item to edit.
- 3. From the item, click Edit.
- 4. Edit a reference or name.
- Click Save.

#### **Delete Enterprise Reporting Item**

- 1. From the OPERA R&A navigation menu, click Central Reporting Conversion.
- 2. From the Reporting Item Type search, select the correct type for the Item to edit.



Before an Enterprise Reporting Item can be deleted, any Property Reporting Items must be unaligned. Either unalign or realign any Property Reporting Items to allow for deletion.

- 3. From the item, click Edit.
- Click Delete.

## **Property Reporting Items**

#### **Orphaned Reporting Items**

When the Property Reporting Item is not aligned with an Enterprise Reporting Item, it is considered to be "Orphaned". Any measurables for these orphaned records are reported under a Property Specific line item on the Enterprise Report.

#### **Aligned Reporting Items**

These are Property Reporting Items that are aligned with an Enterprise Reporting Item. All measurables for these item will be included in the calculated value. Property Reporting Items can be moved within Central Reporting Conversion by using the following actions:

## **Alignment Actions**

#### **Align Items**

From the Unaligned list, you can quickly add all unaligned reporting items of a specific PMS Reference Code to a newly defined Enterprise Reporting Item.

- Create a new Enterprise Reporting item to containing the PMS Reference Code you wish to align under the Reporting Item Type.
- 2. Click the Align Items button to align all property reporting items with that PMS Reference Code to the new Enterprise Reporting Item.



#### Align

- 1. From the Unaligned list, click and hold the Property Reporting Item to align.
- 2. Drag the item onto the Enterprise Reporting item to align

#### Unalign

- 1. From the Aligned list, click and hold the Property Reporting Item to unaligned.
- 2. Drag the item onto the Unaligned list

#### Realign Item

- 1. From the Aligned list, click and hold the Property Reporting Item to realign.
- 2. Drag the item onto another Enterprise Reporting Item

#### Realign All

To realign all property reporting items in an Enterprise Reporting Item.

- 1. From the Aligned list, click and hold the Enterprise Reporting Item to realign.
- 2. Drag onto another Enterprise Reporting Item.
- 3. All Property Reporting Items will be realigned to the new Enterprise Reporting Item.



# **Central Currency Conversion**

When Central Currency functionality has been enabled, access to the Central Currency Conversion portlet is made available. Within this portlet, users and create sets of conversion rules that are utilized to generate a central reporting value based upon buy rates specified at the enterprise level.

## **Currency Rules**

Currency Rules provide the required attributes for conversion of any property currency values into the central currency values generated in the application.

#### **Create Currency Rule**

- 1. From the OPERA R&A navigation menu, click Central Currency Conversion.
- Click Create.
- 3. Select the Property Currency to convert.
- Set the Buy Rate for the conversion.
- 5. Specify the first business date that will utilize this rule
- 6. Optionally, set an expiration for the last business date to use this rule.
- 7. Click Save.

#### **Edit Currency Rule**

- 1. From the OPERA R&A navigation menu, click Central Currency Conversion.
- 2. From the Search Currency field, enter the currency to edit.
- 3. From the rule list, select the rule and click Edit.
- Edit the buy rate or any of the dates.
- 5. Click Save.
- Click Create.
- Select the Property Currency to convert.
- 8. Set the Buy Rate for the conversion.
- 9. Specify the first business date that will utilize this rule
- 10. Optionally, set an expiration for the last business date to use this rule.

Click Save.

# **Fiscal Period Reporting**

Fiscal Period Reporting provides access to execute reports based upon configurable fiscal periods. Within this portlet, users can create, edit, or delete fiscal period definitions. Once definitions are available, certain reports can be made based upon a fiscal period.

## How to Create a Fiscal Year

- 1. From the OPERA R&A navigation menu, click Fiscal Period Reporting.
- 2. Click Create.
- 3. Enter the Name of the fiscal year.
- 4. Specify the Start Date and End Date for the fiscal year.
- Optionally, change the Fiscal Cycle to be based upon one if the pre-defined accounting cycles.
  - a. Fiscal cycles define the number of weeks in each financial period in each financial quarter. For example, the 4-4-5 accounting cycle means that in each quarter, the first financial period consists of the first four weeks, the second period consists of the next four weeks, and the third period consists if the next five weeks. This quarter then accounts for 13 weeks, and the four quarters account for 52 weeks, or the full calendar year.
- Click save.

## How to Edit a Fiscal Year

- 1. From the OPERA R&A navigation menu, click Fiscal Period Reporting.
- 2. Locate the current Fiscal Year to Edit and click the Edit icon.
- 3. Optionally edit the Name of the fiscal year.
- 4. Optionally edit the Start Date for the fiscal year.
- 5. Optionally edit the End Date for the fiscal year.
- 6. Optionally edit the Fiscal Cycle for the fiscal year.
- 7. Click Save.

## How to Delete a Fiscal Year

- From the OPERA R&A navigation menu, click Fiscal Period Reporting.
- 2. Locate the fiscal year to delete and click the Delete icon.
- 3. Confirmation of deletion will be displayed once completed.

# **Application Change Log**

The Application Change Log provides authorized users the ability to audit changes made to the R&A application portal. To access the Application Change log, select the option from the menu or through the application tile on the home page.

#### **Search Application Change Log**

- 1. Choose the Change Group to search.
- 2. Choose the Action Type to search for the selected Group.
- 3. Optionally select the User Login to search.
- 4. Specify the date range to search by using the Start and End date fields.
- Click the search button.

Records matching the search criteria are presented in the log.

Records returned provide the description of the change, the old value, new value, datetime of change, and the user that made the change.

#### **Download Application Change Log**

 When records are available in the log, click the **Download Logs** button to generate a .csv file containing the records.



# **End of Day Reporting**

Authorized users in the Application Portal will have the ability to setup End-of-Day Reporting configuration. This End-of-Day Reporting configuration allows for specific reports to be scheduled for delivery when the property end-of-day (EOD) is identified from OPERA. These reports include:

- Data Model-based BI Publisher Reports
  - Only BI Publisher Reports that are based upon a data model, not a Subject Areas, qualify for use during EOD.
  - For BIP reports to work with EOD, add a p\_resorts and p\_business\_date as parameters in the Data Model.
- Analysis Reports
  - For an analysis report to qualify for use during EOD, the report must have Property and Business Date as prompts under filters. This allows the values passed by the application to be ran.

#### **End of Day Configuration**

- 1. If Service Account is not enabled, enable at this time.
- From the Navigation Menu, select End of Day Reporting.
- **3.** From the End of Day Reporting page, enter the code of the property to view or use the search option to pick from a list of properties.
- 4. Once entered, click the **Search** button to load any reports configured for the property.
- Under the Reports register section will be any reports current scheduled to run at the end of day.

#### Add a New Report

Allows you to add reports to the End-of Day reports register for a property.

- Click the **New** button to add a new report.
- Using the Search and Select Report window, locate the BI Publisher report to have scheduled to run after EOD.
- 3. Highlight the report and click the **Select** button.
- 4. Under Select Destination, choose the destination for the Report to be distributed after the EOD. There are 4 options to choose from For BI Publisher report:
  - a. Defined By Report: The Defined by Report option will utilize the destination(s) preconfigured under the bursting query for this report.
  - **b.** Email: Email will prompt you to enter a single email address for delivery.
  - c. Object Storage: When selection Object Storage, you will be prompted to provide the Prefix and File Name to use during delivery of the report. These are both casesensitive fields.



- **d.** SFTP: You must chose from one of the defined Delivery Profiles prior to setting the Remote Directory and File Name to use for delivery.
- Click Save to save the report delivery configuration. For Analysis Reports, e-mail is the only available delivery destination

Repeat steps 1 through 5 for any additional reports to be delivered as part of the End of Day Reporting for this property.

#### **Clone Reports to Property**

For use with multi-property instances. If reports defined from one property are also the same needed for other properties, a clone feature has been made to copy existing reports register from one property to others without having to recreate each report job.

- 1. Navigate to the Reports register for the property to clone.
- 2. Click the **Clone to Property** button to prompt for a list of Properties to select for replication of the report jobs.
- Select at least one property and click the Save button to clone these reports to the selected properties.

#### **Edit Property Report**

In the case where you wish to change the destination of a report in the report registry for a property, you can edit the report. After changing, the next time the report is scheduled it will go to the new destination.

- Navigate to the Reports register for the property to edit.
- Click the Ellipses button on the report to expose the Edit Report option.
- Select the Edit Report option.
- 4. Update the destination configuration of the report and click Save.

#### **Delete Property Report**

In the case where you wish to remove a report in the report registry for a property, you can delete the report.

- 1. Navigate to the Reports register for the property to edit.
- 2. Click the **Ellipses** button on the report to expose the Delete Report option.
- Select the Delete Report option to remove the report from the Report register.



# **Analysis Reports**

Analysis Reports enables you to design and maintain reports and visualizations of data posted to OPERA Reporting and Analytics. Analysis reports are comprised of:

Table 11-1 Analysis Report Components

<b>Analysis Report Component</b>	Example	
Subject areas represent an area of business data that end users can view in the analysis report, and consist of folders, measure columns, attribute columns, hierarchical columns, and hierarchy levels.	The Statistics - Managers Report subject area contains operations data for guest, revenue, room and rates.	■ Subject Ar…
Folders provide a named grouping of columns.	The Statistics - managers Report subject area contains multiple folders. Folders will contain attributes and measurements based upon each of the folders names.	Statistics-Managers Report  Details Guest Details Revenue Details Room Details Calendar Period Financial Period Rate Season Property Details
Attribute columns hold a flat list of values with no hierarchical relationships, and provide scope and constraints to the data presented by a report. The folders containing attribute columns unique to the selected subject area typically contain Definitions in their names.	the Calendar Period folder contains attribute columns such as Period Code and Year.	Statistics-Managers Report Calendar Period Period Type Period Code Period Description Start Date End Date Year
Hierarchical columns hold data values that are organized using named levels and parent-child relationships. Hierarchical columns enable users to drill down into the data, and their folder name typically contains Hierarchy.		Calendar Year Hierarchy Financial Year Hierarchy  All Years Financial Year

Table 11-1 (Cont.) Analysis Report Components

#### **Analysis Report Component** Example Measure columns hold a list of The Statistics-Managers Report Statistics-Managers Report data values that typically subject area contains folders Revenue Details reside in the Business that contain measure columns Intelligence repository as a fact for items such as counts and F&B Revenue table, which can change or be revenues.. Other Revenue added or aggregated. The folders containing measure Total Revenue columns typically contain Measures in their names.

You can select the operational subject area, or business model, that applies to the report or visualization you want to view or create, and then you can apply business analytics by:

- Selecting specific data sets to use in the report, and then applying filters to each data set.
- Selecting and configuring the resulting appearance of data, such as by rearranging columns and rows in the table, inserting visualizations and charts, and changing column labels.
- Adding and configuring user prompts to enable users viewing the report to configure data filters as needed. For example, you can add a date selection prompt to allow users to set the range of dates for which they need the report.

Online help opens if you access Help when creating or editing analysis reports or when working with dashboards. The online Help may describe functionality not available in OPERA R&A.

## Sharing Analysis/Visualizer Reports

Analysis Reports enforce file permissions by restricting access to the My Folder for each user account and to the Shared Folder:

- Only the specific user can view and access the contents of their My Folder.
- All users can view the content of the Shared Folder but cannot enact changes.

Deleting a report in your My Folder does not impact the copy of the report in the Shared Folder.

- In OPERA R&A, to access reporting if you cannot access the reporting link, contact your system Administrator.
- 2. To save an analysis report to the Shared Folder or to change the users and roles for which the report is saved:
  - **a.** Select the report for which you want to configure permissions, and then click the report properties and then permissions.
  - Select whether to configure permissions for the report at the Roles level or at the individual Users level.

You cannot configure a report to have both role-level and user-level permissions. For example, if you configure role-based permissions for a report, and then configure user-based permissions, the user-based permissions overwrite the role-based permissions.

Use the lists and arrows to add or remove permissions, and then click Save.

# **Analysis Report Examples**

The following analysis reports provide examples of how you can leverage and implement analysis reports to solve business information needs.

#### Corporate Revenue Manager

The Corporate Revenue Manager wants to view a comparison of sales across all properties in different regions and a comparison of sales at the district and location levels. You can create a report that allows the user to drill down the organizational levels and to view yearly sales and revenue information, including key performance indicators such as Average Daily Revenue and Revenue Per Available Room.

#### Regional Hotel Manager

The Regional Hotel Manager wants to identify the most and least profitable properties as well as positive and negative sales and cost outliers. You can create a report that allows the user to quickly view the performance of properties across the region and identify the most and least profitable properties. The user can then view key revenue metrics such as average daily rate (ADR) and revenue per available room (revPAR) to identify potential opportunities for improvement.

#### **Property General Manager**

The Property Manager wants to identify the market segment and channel that are driving the booking and focus on segment to market. You can create a report that shows property the average guest expenditure and ADR by room type. This allows the Property Manager to monitor performance and revenue by market mix and to identify both the areas needing focus and the areas with the most potential.

#### **Hotel Operations Manager**

The Hotel Operations Manager wants to understand performance of operational metrics to improve efficiency. You can create a report that visualizes operational metrics across a period of time to identify areas of improvement.

## Report Tutorial: Regional Managers Property Performance

This topic provides an example walkthrough of how a regional manager can design and create an analysis report to address a business need.

#### Identify the Data Shown by the Report

A regional manager wants a visualized comparison of property revenue and performance across all properties in the region. To determine the data to be shown by the report, the regional manager conceptualizes the information needs and decides that for each property, the report should include:

- The total room revenue.
- The total number of occupied rooms.



#### **Identify the Subject Areas**

Identify the subject areas that contain the columns and attributes required for the report. In this example, the **Statistics-Managers Report** subject area contains every column required for creating this report.

#### Add Data Columns to the Report

On the Criteria tab, the regional manager adds the following columns:

- Property Details/Chain Code
- Property Details/Property
- Dates/Business Date Calendar/Year
- Room Details/Occupied Rooms
- Revenue Details/Room Revenue

#### Add Filters to the Report

On the Criteria tab, the regional manager adds the following filters:

- · Chain Code (prompted)
- Year (prompted)

#### Add Visualizations to the Report

On the **Results** tab, the regional manager begins adding and configuring the report layout and style. To set up a line-bar graph to show the **Total Room Revenue Comparison with Occupied Rooms**, select the visualization for the line-bar graph to show the Total Room Revenue Comparison with Occupied Rooms.

## Running, Printing, and Exporting Analysis Reports

- 1. OPERA Reporting and Analytics only shows reports for which you have access.
- Access the Catalog by clicking the Catalog option on the menu bar and select the My Folder or Shared Folder (and the underlying sub-folder where applicable) and click on Open to execute the report.
- 3. Select or enter the report parameters, and then click OK.
- To clear the report parameters, click Reset.
- To print the analysis report, click Print, and then select a printable format.
- 6. To export the analysis report, click Export, and then select a file or data format.

## **Editing Existing Analysis Reports**

- 1. On the Criteria tab of an existing report, drag and drop columns from the Subject Area pane to the Selected Columns pane to add columns to the report and to configure default sorting and filters. You can double-click a column to add the column to the end of the table.
- 2. On the Criteria tab, add, edit, and remove filters in the Filters pane.



- On the Results tab, preview the appearance and output of the report, and edit the layout of the report. You can customize the formula in each column, change column labels, and apply aggregation rules.
- **4.** On the Results tab, you can configure rules for data selection in the Selection Steps pane to refine the data on which the report works.
- 5. On the Prompts tab, you can add and configure user input prompts in the Prompts pane to create a form in which users specify their report parameters. You can also configure the title, text, and appearance of the prompts form in the Display pane.

## Create a New Analysis Report

- 1. From the Reporting Menu Bar select New/Create > Analysis.
- 2. Search and Select the Subject Area for your new Analysis Report.
- 3. To add and configure columns for the report:
  - a. On the Criteria tab, find the columns you want to add to the report in the Subject Area pane.
  - **b.** Drag and drop the columns to the Selected Columns pane.
  - **c.** To configure the sorting order for a column, click the configure icon, select Sort, and then select the sorting method.
  - **d.** To configure filters for a column, click the configure icon, select Filter, and then configure the filter for the column.
- 4. To add a filter for a subject area element that is not a column in the report:
  - a. On the Criteria tab, click the Create a filter for the current Subject Area button in the Filters pane.
  - b. Navigate to the subject area element by which you want to filter, and then click OK.
  - c. Configure the filter settings, and then click OK.
- 5. To configure the aggregation rule for a column:
  - a. On the Results tab, click Edit View to open the Layout pane.
  - b. In the Columns and Measures section, click the configure icon for a column, select Aggregation Rule, and then select the aggregation rule that corresponds to the Column Aggregation configuration element.
- 6. To add and configure prompts for user input when running the report:
  - a. On the Prompts tab, click the New button.
  - **b.** Select the type of prompt you want to add.
  - c. Configure the prompt, and then click OK.
- **7.** To configure the prompt form:
  - a. On the Prompts tab, click the Edit button in the Display pane.
  - **b.** Configure the form, such as by setting the title and information text to show with the user input prompts, and then click OK.
- 8. Click Save to save the report or Click Save As to Save and rename the existing report to extend the report for further analysis. Reports can be saved in your personal My Folder. To share a report with other users, save to a folder under the Organization folder in the Shared Folders.



Saving directly to the Shared Folder or creation of new folders in the Shared Folders is not permitted. New folders can be created under the Shared Folders > Organization folder only.

## **Scheduled Reports**

You use the Agents to schedule your reports. This can be done by creating an Agent from the New/Create drop down from the Menu Bar or selecting Agent from the Actionable Intelligence Menu Folder. The Agent created must first be saved and can be used to schedule the report under the My Folder or the Shared Folders. Visualizations cannot be scheduled at this time.

As a best practice it is recommended that all Agents and the corresponding Analysis be saved under the Shared Folders directory. Any moving or renaming of the folder structure, or of the Agent/Analysis may result in agents getting disable and at times results in access issues to the Agents when trying to re-enable.

You may optionally compress your file output by using the "Compress output prior to delivery" option on the Output tab of the Schedule Report Job screen. This will produce and distribute a .zip file into email, SFTP or Object Storage.

## Best Practices and Prerequisites For Data Models

The following are recommended best practices for you to follow prior to creating a data model.

- Create a folder specifically for BI Publisher reports. As the number of reports needed may increase over time, having a specific folder for all BI Publisher related data models, analysis templates, and reports will ultimately save time and avoid confusion. (Best Practice Recommendation)
- Create an Analysis folder within the BI Publisher Folder to store all analysis/report templates. (Best Practice Recommendation)
- Build a new analysis or select an existing analysis to build the data model for BI Publisher. In this example, the existing Statistics Matrix analysis has been selected. (Prerequisite)
- Create a copy of the selected analysis and paste the copy in the Analysis folder. Although
  it is not a required step, it is recommended to use a copied analysis for BI Publisher for 2
  reasons:
  - i. Analysis templates for BI Publisher should not have prompts attached if bursting is applied.
  - 2. ii. Should the original analysis be modified, it will not affect the BI Publisher. (Best Practice Recommendation)

## Creating a Data Model

- In the R&A application screen, select the drop down menu for "Create" and click on "Data Model".
- 2. A new "Untitled" screen will open. Select the drop down menu for the "+" sign under the "Diagram" tab. Click on "Analysis".
- 3. A "New Data Set Analysis" window will open.
  - a. Enter a Data Set "Name".
  - Select the "Analysis" used for the Data Set.



- c. Enter "90" seconds for "Time Out". (Best Practice Recommendation)
- 4. Click "OK" and return to the "Untitled" screen.
- 5. Select the "Structure" tab. The screen will default to the "Table View"
- 6. The "XML Tag Name" column maps the "Data Source" information with the "Display Name" information. Enter the appropriate attribute names in the "XML Tag Name" column. (XML Tag Names do not allow space, use the "\_" sign instead of space)
- 7. Click on "Properties" in the "Data Model" menu.
- 8. In the "XML Output Options" option, uncheck "Include Parameter Tags" box and check the "Include Empty Tags for Null Elements" box. (Best Practice Recommendation)
- 9. Return to the created Data Set and select the "Data" tab. Click on "View" and the system will run through the Data Set to confirm that all the attributes are correctly mapped.
- 10. Click on "Save As Sample Data".
- 11. Select "Save" from the top right corner of the screen. Add "\_DM" to indicate the file is a Data Model. (Best Practice Recommendation)
- 12. Data Model is now created and saved.

## Creating a BI Publisher Report

- In the R&A application screen, select the drop down menu for "Create" and click on "Report".
- 2. From the pop up screen, select "Use Data Model" and search for the appropriate Data Model in the "Data Model" box. Click on "Next".
- In the "Select Lavout" tab:
  - a. Select "Portrait" or "Landscape"
  - b. Add "Page Header" and/or "Page Footer"
  - c. Select the desired layout
- Click "Next".
- 5. In the "Create Table" tab, drag and drop the necessary attributes onto the report screen.
- 6. Check the "Show Grand Totals Row" if necessary. Click on "Preview Report"
- 7. A separate tab will open displaying the report. Close tab and return to the report screen.
- 8. Click "Next".
- 9. The "Save Report" tab will appear. User can select to "View Report" or "Customize Report Layout" and click "Finish".
- **10.** The report can be viewed or exported in the following formats:
  - a. Interactive
  - b. HTML
  - c. PDF
  - d. RTF
  - e. Excel(\*.xlsx)
  - f. PowerPoint(\*.pptx)



## **Bursting By Email**

- Select the appropriate Data Model and click on "Edit".
- 2. Select "Bursting".
- 3. Below the "Bursting" heading, click on the "+" sign and a new row will appear.
- 4. Enter the email address for delivery under the Name column.
- 5. Select "SQL Query" under the Type Column.
- 6. Select "Analytics" under the Data Source Column.
- 7. Under the "Bursting Query | Attachment" heading, users can use the "Split By" drop down menu to separate reports by categories such as "by property".
- 8. Users can also use the "Delivered By" drop down menu to email reports by categories such as by property.
- Do not check the "Enable Consolidated Output" and "Group Data by Split Key Values" check boxes.
- 10. Copy and paste the template below in the "SQL Query" section.

select DISTINCT

RESORT KEY,

'Arrivals Report' TEMPLATE,

'RTF' TEMPLATE\_FORMAT,

'en-US' LOCALE,

'PDF' OUTPUT FORMAT,

'Email' DEL\_CHANNEL, -- Can be any of the output type part of the Template

'Arrivals\_Report - '||Resort||'\_'||to\_Char(Sysdate-1,'YYYYMMDD') OUTPUT\_NAME,

'xxx.xxx@xxx.com' PARAMETER1, -- TO ADDRESS

'yyy.yyy@yyy.com' PARAMETER2, -- CC ADDRESS

'noreply cds gbu-analytics@gbua.ocs.oraclecloud.com' PARAMETER3, -- FROM ADDRESS

'Bursting Arrivals Report Sample' PARAMETER4,

'Attached is the output for '||RESORT ||'.csv' PARAMETER5,

'true' PARAMETER6

from RESORT

Once the template is pasted, modify the Query as below:

- RESORT KEY No need to modify.
- TEMPLATE The report name that will be used for bursting. The report name can be retrieved from the Properties menu of the report.
- **TEMPLATE\_FORMAT** No need to modify. The resulting report will still be delivered in the format that was specified in report properties.



- LOCALE This defaults to the user account's locale/location setting.
- OUTPUT\_FORMAT The output format of the delivered report such as PDF.
- DEL\_CHANNEL This indicates the delivery channel for the report. In this case, "email" is used.
- RESORT OUTPUT\_NAME The file name that appears. In this example, the file name
  will be "Arrivals\_Report Property Name\_System date minus 1 day" in YYYYMMDD
  format.
- TO ADDRESS The Email address/es to which the report will be sent. To enter multiple
  email addresses, use the following format: 'xxx@xxxx.com,yyy@yyyy.com'
- CC ADDRESS The CC Email address/es. To enter multiple email addresses, use the following format: 'xxx@xxxx.com,yyy@yyyy.com'
- FROM ADDRESS Indicates the email address from which the report will be sent.
- PARAMETER 4 Indicates the subject line of the email.
- PARAMETER 5 Indicates the email body.
- PARAMETER 6 Indicates if the email is secure. Leave this value as "TRUE."
- 1. Click on the "Save" icon. Bursting by email is now set up on the Data Model.
- Return to the "Catalog" screen and select "Edit" on the BIP report to be delivered.
- 3. Select "Properties" and check the box for "Enable Bursting" in the "General" tab.
- Click "OK".
- 5. Return to the catalog, click on "More" on the BIP report and select "Schedule".
- 6. In the "Schedule Report Job" window, select the "Output" tab.
- Check the "Make Output Public" check box to make report public.
- 8. Check the "Save Data for Republishing" check box to retain data for republishing.
- Check the "Compress output prior to delivery" to send report in compressed format.
- 10. Users can designate outputs and destinations.
- 11. In the "Schedule" tab, select "Frequency"
  - a. Once
  - b. Hourly/Minute
  - c. Daily
  - d. Monthly
  - e. Annually
  - f. Specific Dates
- **12.** Select "Run Now" or a designated start date and time.
- **13.** In the "Notification" tab, check the "Notify By" check box and enter the recipient email address. Use "," to separate multiple email addresses.
  - a. Check "Report completed" to send notification when report is completed.
  - Check "Report completed with warnings" to send notification when report is completed with warnings.
  - c. Check "Report failed" to send notification when report fails to complete.
  - d. Check "Report skipped" to send notification if report was skipped.



14. Click "Submit" and enter a "Report Job Name".

## **Bursting By FTP**

- 1. Select the appropriate Data Model and click on "Edit".
- 2. Select "Bursting".
- 3. Below the "Bursting" heading, click on the "+" sign and a new row will appear.
- 4. Enter SFTP under the Name column.
- 5. Select "SQL Query" under the Type Column.
- 6. Select "Analytics" under the Data Source Column.
- 7. Copy and paste the template below in the "SQL Query" section.

select DISTINCT

RESORT KEY,

'Arrivals\_Report' TEMPLATE,

'RTF' TEMPLATE\_FORMAT,

'en-US' LOCALE,

'PDF' OUTPUT FORMAT,

'FTP' DEL\_CHANNEL, -- Can be any of the output types part of the Template

'REPORT' OUTPUT NAME,

'HGBUSFTPProfile-2' PARAMETER1, --sftp server name

'/OCRNA' PARAMETER4, --remote directory

'Arrivals Report - '||Resort||' '||to Char(Sysdate-1,'YYYYMMDD') PARAMETER5,

'true' PARAMETER6

from RESORT

Once the template is pasted, modify the Query as below:

- RESORT KEY No need to modify.
- TEMPLATE The report name that will be used for bursting. The report name can be retrieved from the Properties menu of the report.
- **TEMPLATE\_FORMAT** No need to modify. The resulting report will still be delivered in the format that was specified in report properties.
- LOCALE This defaults to the user account's locale/location setting.
- OUTPUT FORMAT The output format of the delivered report such as PDF.
- DEL\_CHANNEL This indicates the delivery channel for the report. In this case, "FTP" is used.
- **RESORT OUTPUT\_NAME** The output name is not used. In this case, leave the line as "REPORT OUTPUT NAME." The actual file name will be indicated in Parameter 5.
- **PARAMETER 1** This indicates the FTP server's name. If the SFTP is set up, you can find the server's name under Schedule, Output tab, Add Destination, FTP Server field.



- PARAMETER 4 This indicates the remote directory. In this example, the remote directory
  is /OCRNA. If the SFTP is set up, you can find the remote directory name in the application
  portal menu under Controls, SFTP, Remote Directory field.
- **PARAMETER 5** This indicates the file name. For example, Arrivals\_Report '|| Resort||'\_'||to\_Char(Sysdate-1,'YYYYMMDD') is used.
- PARAMETER 6 Indicates if the email is secure. Leave this value as "TRUE."
- 1. Click on the "Save" icon. Bursting is now set up on the Data Model.
- 2. Return to the "Catalog" screen and select "Edit" on the BIP report to be delivered.
- 3. Select "Properties" and check the box for "Enable Bursting" in the "General" tab.
- Click "OK".
- 5. Return to the catalog, click on "More" on the BIP report and select "Schedule".
- 6. In the "Schedule Report Job" window, select the "Output" tab.
- 7. Check the "Make Output Public" check box to make report public.
- Check the "Save Data for Republishing" check box to retain data for republishing.
- 9. Check the "Compress output prior to delivery" to send report in compressed format.
- 10. Users can designate outputs and destinations.
- 11. In the "Schedule" tab, select "Frequency"
  - a. Once
  - b. Hourly/Minute
  - c. Daily
  - d. Monthly
  - e. Annually
  - Specific Dates
- 12. Select "Run Now" or a designated start date and time.
- 13. In the "Notification" tab, check the "Notify By" check box and enter the recipient email address. Use "," to separate multiple email addresses.
- **14.** Check "Report completed" to send notification when report is completed.
- 15. Check "Report completed with warnings" to send notification when report is completed with warnings.
- 16. Check "Report failed" to send notification when report fails to complete.
- 17. Check "Report skipped" to send notification if report was skipped.
- 18. Click "Submit" and enter a "Report Job Name".

## Bursting for BIP Efolio Report

- 1. Select the appropriate Data Model and click on "Edit".
- Select "Bursting".
- 3. Below the "Bursting" heading, click on the "+" sign and a new row will appear.
- 4. Enter the email address for delivery under the Name column.
- 5. Select "SQL Query" under the Type Column.



- 6. Select "Analytics" under the Data Source Column.
- **7.** For Email Query, copy and paste the template below in the "SQL Query" section.

select DISTINCT

RESORT KEY,

'eFolio\_xml\_Report' TEMPLATE,

'ETEXT' TEMPLATE\_FORMAT,

'en-US' LOCALE,

'TEXT' OUTPUT\_FORMAT,

'Email' DEL\_CHANNEL, -- Can be any of the output type part of the Template

RESORT OUTPUT\_NAME,

'<To Email Address>' PARAMETER1,

'<CC Email Address>' PARAMETER2, -- CC

'noreply cds qbu-analytics@qbua.ocs.oraclecloud.com' PARAMETER3, -- FROM ADDRESS

'Bursting Sample' PARAMETER4,

'Attached is the output for '||RESORT PARAMETER5,

'true' PARAMETER6

from RESORT

For FTP Query, copy and paste the template below in the "SQL Query" section.

select DISTINCT

RESORT "KEY"

'eFolio\_xml\_Report' TEMPLATE

'ETEXT' TEMPLATE FORMAT

'en-US' LOCALE

'TEXT' OUTPUT\_FORMAT

'FTP' DEL CHANNEL

RESORT OUTPUT\_NAME

'<SFTP Server Name>'PARAMETER1 --sftp server name

'<Directory Path>' PARAMETER4 --remote directory

'<ReportName> - '||Resort||'\_'||Sysdate||'.xml PARAMETER5 --file name

'True' PARAMETER6

from RESORT

## Configuring Burst Reports for Object Storage



- After configuring the Publisher data model, as you build your burst query by navigating to the bursting section, you need to be aware of some of the key parameters to be supplied to the burst query that are specific to Object Storage.
- Sample Bursting Query for object storage as the delivery channel:

select DISTINCT

RESORT KEY,

'Arrivals Report' TEMPLATE,

'RTF' TEMPLATE FORMAT,

'en-US' LOCALE,

'PDF' OUTPUT FORMAT,

'OBJECTSTORAGE' DEL\_CHANNEL,

'<output\_name>' OUTPUT\_NAME,

'OS' PARAMETER1,

'''PARAMETER2,

'<file\_name>' PARAMETER3

from RESORT

Key parameters that are specific to object storage are:

Once the template is pasted, modify the Query as below:

- RESORT KEY No need to modify.
- TEMPLATE The report name that will be used for bursting. The report name can be retrieved from the Properties menu of the report.
- **TEMPLATE\_FORMAT** No need to modify. The resulting report will still be delivered in the format that was specified in report properties.
- LOCALE This defaults to the user account's locale/location setting.
- OUTPUT\_FORMAT The output format of the delivered report such as PDF.
- DEL\_CHANNEL This indicates the delivery channel for the report. This needs to be keyed in as OBJECTSTORAGE.
- REPORT OUTPUT\_NAME The output name is not used. In this case, leave the line as "REPORT OUTPUT NAME." The actual file name will be indicated in Parameter 3.
- PARAMETER 1 Use OS as the parameter value for this, because this is the
  preconfigured server name. The value for this should be kept as OS and should not be
  changed.
- PARAMETER 2 Prefix under the object storage bucket where the file will be uploaded.
   The prefix should not start or end with a / character; for example ris/outgoing is a possible prefix to use.
- PARAMETER 3 This indicates the file name. File name. The file will be created under the prefix; For example, shared/chainname/Arrivals\_Report - '||Resort||'\_'|| to\_Char(Sysdate-1,'YYYYMMDD')|| '.pdf' is used.



## Scheduling BIP Report

Enable Bursting for the Report to be scheduled.

- In the BIP Report Properties, select Enable Bursting and from the drop down, select the Bursting Query defined in the underlying Data Model.
- 2. Select the BIP report and schedule it.
- 3. On the **Schedule** tab, select the frequency and submit the job.

## **Notes**

The following oracle document can be used for further information on Bursting in OBIEE. Although this document is for the older version of OBIEE, it holds good for the current version of the OBIEE used in R&A.

https://docs.oracle.com/cd/E21764\_01/bi.1111/e18862/T527073T555155.htm

## Viewing and Editing Analysis Reports in Microsoft Office

You can use Oracle Smart View for Office to access analysis reports and to work with Reporting and Analytics data from within a Microsoft Office application.

- 1. Log into OPERA Reporting and Analytics, using the URL provided by your manager.
- 2. Open the Reporting and Dashboard tile on your Home page.
- 3. From the reporting and dashboard page, select the *Download Desktop Tools* dropdown list and select the *Smart View for MS Office* option.
- 4. Select the Download Smart View for Office option, then click Download Now.
- 5. Accept the Oracle License Agreement and choose Download. You may be prompted to log in with an Oracle account if you are not already logged in.
- 6. After file downloads, extract all files, and run the smartview.exe as an administrator.
- 7. After the client installs completely, start your Microsoft Office application then open the Smart View tab.
- 8. Click Panel > Private Connection and click the drop-down menu next to the server selection option. Select the Create new connection option.
- 9. Click Oracle BI EE and copy/paste the Smart View URL located in the External Reporting Links section of your Controls page.
- 10. Click Finish

You can now log into R&A and save the private connection. Please refer to the Oracle Smart View for Office documentation for instructions and information on use.



## **Dashboards**

OPERA Reporting and Analytics dashboards provide a collection of data and visualizations designed to give you an overview of information on one screen and to allow you to drill down for more detailed information.

#### Note:

Online Help opens if you access Help when creating or editing analysis reports or when working with dashboards. The online Help may describe functionality not available in OPERA R&A.

### Available Dashboards

You can add and view the following dashboards:

### **Property Overview**

This dashboard shows key revenue metrics across all properties or select properties filtered by business date. This includes:

- Summary metrics such as total revenue, room revenue, average daily rate, and revenue per available room.
- A matrix of available and occupied rooms per room type for each property.
- Visualizations for the following statistics for the last closed business date:
  - Room Statistics
  - Arrival vs Departure Rooms
  - Group vs Transient Rooms

You can filter the dashboard by properties or business date.

### **Financials**

This dashboard provides visualizations of revenue by market and of payments. The dashboard also contains a summary of ledger activity details. You can filter the dashboard by property, business date, market code, transaction code group, and transaction code sub-group.

### Reservations

This dashboard provides snapshot view of key reservation metrics, including 7-day pickup % and 30-day pickup % for rooms, revenue, and average daily rates (ADR). The dashboard also shows visualizations comparing totals to the previous month and to the previous week. You can filter the dashboard by property.



# **Performance Monitoring**

The following performance recommendations are designed to assist administrators in tuning their report job schedules to run optimally based upon the available resources.

Table 12-1 Limits Querying Data (Data Visualizations, Classic Analyses and Dashboards)

Which compute size do you have?	Limits when querying data for visualizations, analyses, and dashboards	
	Max input rows returned from any data source query	
Small	2,000,000	
Medium	2,000,000	
Large	4,000,000	

When you query a data source for data visualizations or Classic analyses and dashboards, the compute size determines the maximum number of rows that are returned from the data source.

Table 12-2 Limits Displaying Data (Data Visualization, Classic Analyses and Dashboards)

Which compute size do you have?	Limits when displaying data in visualizations, analyses, and dashboards	
	Max summarized rows returned from any data source query	
Small	500,000	
Medium	500,000	
Large	1,000,000	

When you display data in data visualizations or Classic analyses and dashboards, the compute size determines the maximum number of summarized rows returned from the data source that are displayed.

**Table 12-3** Limits Exporting Data (Data Visualizations)

Which compute size do you have?	Limits when exporting data from data visualizations to CSV file
Small	2,000,000
Medium	2,000,000
Large	4,000,000

When you export data from a data visualization, the compute size determines the maximum number of rows you can export to a CSV file.

Table 12-4 Limits Exporting Data (Classic Analyses and Dashboards)

Which compute size do you	Limits when exporting data from analyses and dashboards		
have?	Max rows exported to unformatted reports	Max rows exported to formatted reports	
Small	2,000,000	200,000	
Medium	2,000,000	200,000	
Large	4,000,000	400,000	

When you export data from analyses and dashboards, the compute size determines the maximum number of rows you can export. There are different limits for formatted data and unformatted data.

- Unformatted data limits: formats such as CSV, Excel, XML, and Tab Delimited.
- Formatted data limits: formats such as PDF, Excel, Powerpoint, and Web Archive/HTML.

Note: When two pivot views are laid out side by side in a union the formatted export limit will be 20,000 rows.

Table 12-5 Limits Delivering by Email (Classic Analyses and Dashboards)

Which compute size do you	Limits when delivering analyses and dashboards by email		
have?	Max rows in unformatted reports delivered by email	Max rows in formatted reports delivered by email	
Small	200,000	50,000	
Medium	200,000	50,000	
Large	300,000	100,000	

If you plan to send analyses and dashboards by email, the compute size determines the maximum number of rows you can deliver in a single email. There are different limits for delivering formatted data and unformatted data.

- Unformatted data limits: formats such as CSV, Excel, XML, and Tab Delimited.
- Formatted data limits: formats such as PDF, Excel, Powerpoint, and Web Archive/HTML.

Table 12-6 Data Size Limits (Classic Pixel-perfect Reports)

Which compute	Report data size limits when generating pixel-perfect reports			
size do you have?			Max data size for bursting reports	Max data size for data generation
Small	500MB	2GB	4GB	2GB
Medium	500MB	2GB	4GB	2GB
Large	500MB	4GB	8GB	4GB

If you plan to generate pixel-perfect reports, the compute size determines several limits associated with report generation.

**Table 12-7 Processing Limits (Classic Pixel-perfect Reports)** 

Which	Data model and report processing limits when generating pixel-perfect reports				
compute size do you have?	SQL Query timeout for scheduled reports (seconds)	Max rows for CSV output	Max number of in-memory rows in XPT layout	Max number of concurrent scheduled jobs	Max number of concurrent online reports
Small	1,800	4,000,000	200,000	4	46
Medium	1,800	4,000,000	200,000	4	96
Large	3,600	6,000,000	300,000	10	480



# **Best Practices**

Main Section	Sub Section	Best Practice Description	Scenarios
<b>Application Portal</b>			
Controls	Central Currency	Activate the Central Currency function only if necessary, as once the feature is activated, it cannot be reversed or deactivated.	1. If all properties and the Corporate Office use the same currency, do NOT activate feature.  2. If all properties use the same currency but the Corporate Office uses a different currency, activate feature.  3. If all/some properties use different currencies and the Corporate Office needs reports that utilize a single currency, activate feature.
Controls	Object Storage	Administrators should regenerate the APP secret(password) annually as a standard procedure.	
Controls	SFTP	When utilizing SFTP, enable resend functionality.	When using bursting for BIP reports, enabling the resend functionality will provide redundancy in report delivery in case it fails for unforeseen reasons.
Controls	Service Account	Always create a service account and associate in the application portal.	SFTP resend functionalities require use of a Service Account and if the service account is absent, SFTP resend function cannot be enabled.



Groups	Custom Groups	Create custom groups to limit access to specific application and reporting functionality based upon the user's role in the organization.	Users such as shift supervisors who are permitted to run reports, but not author/edit report should have a custom group that will restrict their user tasks to only allow consumption of existing reports.
Groups	Set Group Tasks	Only assign administration tasks that are needed to support the groups role in the application portal.	Most user groups should not have access to the Edit Users privilege. The access should be limited to related roles such as Director of IT.
Groups	Set Group Tasks	Only assign reporting tasks that are needed to support the groups role in the reporting module.	Users such as supervisors may only need consumption privilege on reports and users such as department managers may need ability to author reports.
Users	Administration	Always configure additional users as OIM Administrators to allow for group and user creation in case of administrator absence or departure and to avoid interruption in operations.	Upon initial access to R&A, designate multiple roles such as the Director of IT and the Controller as OIM Administrators.
Users	Define Property Level Access	Although it is easier to grant access to all properties to a user, for security reasons, make sure to only assign levels, properties, chains to users who should be accessing the data.	Employees who work for property A should not be able to access guest or records in property B or C. Therefore, they should only be granted access at the property level. On the other hand, a Corporate Revenue Manager will need access to all properties and therefore should be granted access at the enterprise level.



### **Central Reporting** Conversion

### **Monitoring**

Periodically review each of the reporting item types for unaligned reporting items in the Central Reporting Conversion Screen. Failure to align codes in the new all reporting items may result in data when Central conversion fields are utilized in reporting.

For example, if a new property is added to the enterprise that already has aligned central market codes, and there are market property that do not align with the central discrepancies in report codes, they will appear in the Unaligned Reporting Items column in the Central Reporting Conversion screen.

### **R&A Application**

My Account

**Preferences** 

There is an option to start in the Criteria tab or Results tab when editing the report. In Analysis Editor, choose Full Editor and select Start on Criteria tab when editing Analysis. This allows the user to immediately start editing the report in the criteria tab instead of having to wait for the report to run in results tab first before being able to switch to the criteria tab.

### Creating/Editing Analytics

**Prompts** 

When creating prompts, choose a default selection to minimize report run time. (Edit Prompt -Options - Default Selection)

When possible, create filters to limit results which will help minimize report run time.

For reports such as the Pace report where a certain date range is usually set, create a default selection in the prompt for a set date range.

In the Reservations Report, users can create a property filter, a Reservation Status filter and a Room Type filter so the report only displays Property A with reservations that are in Reserved status. and it will exclude pseudo room types.

### **Creating/Editing Analytics**

**Filters** 



Creating/Editing Analytics	Subject Area	When creating a report/analysis, do not add Subject Area to the current Subject Area as the action is not supported by R&A. In many cases, it will lead to <b>performance</b> issues or failure to execute reports.	Instead of combining subject areas in an analysis/report which is not supported by R&A, users can create dashboards that includes reports from multiple subject areas. The Dashboard can then be exported and scheduled for delivery.
Creating/Editing Analytics	Sharing Analysis/ Visualizer Reports	Save reports in Shared Folder to avoid access issues. No one will have access to edit, delete reports, data models or agents that are saved in the user's My Folder especially if the user no longer works for the company.	If a report creator such as the Director of Revenue has created pace report, reservations report and 90 Day Forecast report and only saved them in My Folder, only the Director of Revenue will have access to run or schedule those reports. If the director no longer works for the property, the hotel staff will have to create all those reports from scratch.
Creating/Editing Analytics	Filtering Dimension/ Measure Attributes	Keep in mind that Dimension attributes will provide a list of available values whereas Measure attributes will require user to input a value.	For example, when filtering "Reservation Status" (Dimension Attribute), user can select the desired values from a dropdown list provided such as "Checked in", "Checked out" or "No Show"; when filtering "Amount" (Measure Attribute), user will need to enter a value such as "100".
Creating/Editing Analytics	Altering Template Reports	If template reports are altered for specific needs of the user, be sure to save the altered version as a separate new report as the altered versions will be saved over in the next release.	

Creating/Editing **Analytics** 

**Business Date Range** in Statistics History and Forecast Subject Area

Ensure to specify a business date range when creating a report in the subject area. Without a date range specified, the system will automatically display a row for every day between the past 3 years and the next 10 years from current date, which will severely affect performance.

Creating/Editing **Analytics** 

**Selecting Attributes** 

option to find an attribute, attention is paid to which folder/ subfolder the attribute over the attributes, it is located in order to pull the data correctly and most efficiently.

It is recommended that The search for "First when using the search Name" in the Bookings Reservation SA will result in 2 attributes. If we hover the cursor will indicate that 1 is the reservation guest's first name and the other is the accompanying guest's

first name.

Agent

**Report Frequency** 

If multiple re-runs of a Examples of big report are necessary, set the re-runs to be at Reports, Transaction For larger reports 30 minutes or more apart with multiple daily to minimize

performance issues such as extended run time.

reports are Pace least 15 minutes apart. Reports, or reports that have a large date range results such as 90 days reservations forecast with multiple attributes. Examples of smaller reports are Arrival Reports, Housekeeping Reports and Credit Reports.

Agent Scheduling multiple Scatter the scheduled If there are 10 big Reports iobs to distribute the reports that needs to load uniformly over a be scheduled. Best period of time. Do not Practice would be to clutter all jobs in a start their deliveries short period of time. after peak hours, for example after 5pm. User should run critical scheduled jobs And scatter the delivery time with 1during off-hours to avoid **performance** hour differences to issues. minimize performance issues. Examples of big reports are Pace Reports, Transaction Reports, or reports that have a large date range with multiple daily results such as 90 days reservations forecast with multiple attributes. Agent Scheduling Reports If the report is renamed, moved or deleted, make sure to pause or cancel the agent/schedule. Otherwise the system will continue to send notification of failure. **BI Publisher** Data Model — Data Be precise with needed Instead of using query: Sets data by selecting only SELECT \* FROM columns needed and EMPLOYEES; use "where" clause use SELECT and bind parameters DEPARTMENT ID, whenever possible to DEPARTMENT\_NAME restrict returned data FROM EMPLOYEES more precisely WHERE DEPARTMENT\_ID IN (:P\_DEPT\_ID) This will reduce the amount of data returned. **BI Publisher** Data Model — Data Use shorter column Shorten Sets names to minimize the "DEPARTMENT\_IDENT XML file size, therefore IFICATION" to shortening I/O "DEP\_ID" or processing time. This "RESERVATION\_TYPE" will enhance report to "RES\_TYPE" efficiency. **BI Publisher** Data Model — Data The number of Sets columns/attributes selected in SQL queries should not exceed 100. Large number of columns will impact report performance.

BI Publisher	Data Model — Data Sets	Sorting should be done in the SQL, not during report formatting. Sorting of data is highly recommended to be done at the time of data extraction and we should avoid sorting during report formatting to improve performance.	Example: select resort, confirmation_no, resv_name_id, begin_date, end_date from reservation name where resv_status = 'RESERVED' order by begin_date
BI Publisher	Data Model — Parameters	Binding a large number of parameter values is inefficient and may cause <b>performance</b> issues. Limit the List of Values(LOV) based on SQL queries to 1000 rows.	When creating a list of value populate the number of values based on the required amount of data elements returned.
BI Publisher	Data Model — Parameters	When creating a Menu type parameter, if the list of values may contain multiple values, ensure that if you enable both the "Multiple Selection" and "Can Select All" options, then also select NULL value passed to limit the values that are passed.	When creating parameter ensure to select proper flags to make the report more efficient.
BI Publisher	Report	Make sure that Data Caching is not enabled in Report Properties- Caching. The Enable Data Caching box should be unchecked to ensure up to date data extraction.	
BI Publisher	Report Bursting	If bursting is configured for reports, make sure to enable SFTP resend function in the application portal.	When using bursting for BIP reports, enabling the resend functionality will provide redundancy in report delivery in case it fails for unforeseen reasons.
BI Publisher	Report Bursting	When using the bursting function for SFTP, limit number of files for each report to avoid performance issues. It is recommended to ideally limit the number of files to 150.	

# SFTP Service Configuration

This chapter contains information for using these document templates.

## **Required Information**

For Oracle to configure a connection from the data center to your SFTP service, the following information must be provided.

SFTP Service Profile Name

This value allows you to distinguish between SFTP services when more than one SFTP profile used for distribution is defined. This name must be comprised of all capital letters with no spaces or special characters and a maximum of 14 characters. An underscore is acceptable.

SFTP Service IP / Host Name

The IP address of the SFTP service is the preferred means of connecting. Hostnames, if provided, need to resolve to the service endpoint.

SFTP Service Port

Port number on the IP/ Host to which the delivery service connects.

Remote Directory

A defined directory to which the SFTP service will send files by default. The actual remote directory can be defined with each job request. Use of special characters other than an underscore are not permitted. Please ensure that the folder is created on the service and the user has proper permissions to access/write to the directory.

Open an SR requesting SFTP configuration in your R&A instance. The process typically takes 10 to 14 business days to open the connection in the data center after the information is received. While awaiting this process, please review the next sections on Ciphers and Allowed IPs to prevent any delays.

After your request is processed, the SFTP profiles show on your Reporting and Analytics Application Portal under the Controls page. Follow the SFTP Configuration in this User Guide for defining default credentials for SFTP Profile delivery.

## **Supported Cipher Suites**

Oracle BI Publisher supports the following cipher suites for SFTP delivery:

- 3des-cbc
- · blowfish-cbc
- · aes128-cbc
- aes128-ctr

- aes192-ctr
- aes256-ctr

# Key Exchange Methods

- diffie-hellman-group1-sha1
- diffie-hellman-group14-sha1
- diffie-hellman-group-exchange-sha1
- diffie-hellman-group-exchange-sha256

## **Public Key Algorithms**

Oracle BI Publisher supports the following public key algorithms:

- ssh-dss
- ssh-rsa



Blob storage SFTP configured with SSH RSA private keys is not supported by Oracle Bl. Blob storage must be configured to use credential based authorization at this time. (i.e., companyname.blob.core.windows.net) https://docs.oracle.com/en/cloud/saas/otbi/otbi-pub-admin/ssh-options-sftp.html

## Allowed IPs

To ensure that file delivery is received, please allow the following IP addresses based upon your OPERA Reporting and Analytics region:

### Asia Pacific (SYD)

- 192.29.145.52
- -192.29.144.19
- -192.29.144.238
- -192.29.145.209
- 192.29.145.212
- -192.29.149.217

### **Bombay (BOM)**

- -192.29.163.179
- -192.29.49.26
- -192.29.165.220



- -192.29.163.1
- -192.29.161.32
- -192.29.166.249

### **Europe, Middle East and Africa (FRA)**

- -130.61.8.226
- -130.61.9.164
- -130.61.13.224
- -130.61.15.8
- -130.61.64.168
- -130.61.65.155

### Jeddah (JED)

- -192.29.226.137
- -192.29.227.99
- -192.29.224.186
- -192.29.225.170
- -192.29.227.164
- -192.29.225.242

### Singapore (SIN)

- -129.148.179.106
- -129.148.179.88
- -129.148.177.241
- -129.148.178.234
- -129.148.178.235
- -129.148.176.25

### The Americas (IAD)

- $-\ 129.213.11.191$
- -129.213.14.79
- -129.213.67.18
- -129.213.72.220
- -129.213.75.248
- -129.213.76.27



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# Object Storage

This chapter explains how to configure file delivery to Object Storage (OS) and how to manage files (access, list) via API.

## **Prerequisites**

This chapter contains instructions on prerequisites to utilize Object Storage (OS) functionality with OPERA Reporting and Analytics (R&A).

- Oracle Analytics Server
- Postman

### **Oracle Analytics Server**

Object Storage was introduced as part of Oracle Analytics Server (OAS) as an alternate way of storing/delivering data. Currently, Oracle Hospitality is rolling out all new customers with OAS making Object Storage (OS) available for BI Publisher report delivery. Many existing customers were installed with Oracle Business Intelligence Enterprise Edition (OBIEE) which did not offer OS as a feature.

To continue with use of Object Storage, your environment must be using OAS. To confirm whether you are using OAS or OBIEE, use the following step.

1. From your R&A console, open Reports and Dashboards.

If your R&A page has a Help > Oracle Analytics option, then you are on OAS and can continue.

If your R&A page has a Help > About Oracle BI EE option, then you are on OBIEE, and further instruction on OBIEE to OAS migration will become available later.

### **Postman**

Postman is an Application Programming Interface (API) platform for building and using APIs.

To download and install the Postman app, connect to https://www.postman.com/downloads/and follow the instructions to install and register an account.

## File Delivery

### Send to Object Storage

This section contains instructions for sending a BI Publisher report to Object Storage (OS).

- From your Oracle Analytics Server (OAS) console, open Catalog. Locate the BI Publisher Report you wish to schedule for distribution to OS.
- 2. From the BI Publisher report, select More > Schedule.
- 3. Under Schedule Report Job, click the Output tab.

- 4. Under Destination > Destination Type, select Object Storage and click Add Destination.
- This will add the Object Storage output to the page.
- 6. Under Object Storage, you will need to define the following:
  - a. Prefix

The Prefix will define the bucket in OS where the object will be stored. Use of special characters or spaces are not permitted and will prevent retrieval of the object through PAR URL. Underscores, hyphens, and forward slashes are permitted, Ex: OPERA\_RA/2025-01-01.

b. File Name

The File Name defines the path and file name of the object in the bucket.

### NOTE: Prefix and file names are case-sensitive.

For additional information on Object Storage, visit https://docs.oracle.com/en-us/iaas/Content/Object/home.htm

- 7. Set the Prefix and File Name for the object and click the Schedule tab.
- 8. Under the Schedule tab, define the frequency in which to schedule the job.
- 9. Click the Submit button.
- 10. Specify the Report Job Name and click **OK** to schedule.

## Generate PAR URL

- Import Postman Collections
- Set Environment Variables
- Generate Token
- Generate PAR URL

### **Import Postman Files**

This section contains instructions for importing the preconfigured Postman collection and environment for OS into your Postman instance.

- Navigate tohttps://github.com/oracle/hospitality-api-docs/tree/main/postman-collections/ reporting-and-analytics.
- Download the Collection file by highlighting the R&A\_ObjectStorage\_ParURL.postman\_collection.json file in GitHub, then selecting the More Options > Download option. Save to your local machine.
- 3. Download the Environment file by highlighting the R&A\_PARVariables.postman\_environment.json file in GitHub, then selecting the More Options > Download option. Save to your local machine.
- 4. To import the Collection from Postman, select Collections and click the **Import** option.
- **5.** Select the *R&A\_ObjectStorage\_ParURL.postman\_collection.json* file from your local machine using the Postman application to import the Collection.
- To import the Environment, from Postman, select Environments and click the Import option.
- 7. Select the *R&A\_PARVariables.postman\_environment.json* file from your local machine using the Postman application to import the Environment.



#### Set Environment Variables

This section contains instructions for defining each of the environment variables in your Postman instance.

From the Environment section of Postman, click R&A\_PARVariables to expose all the required environment variables.

#### **IDCSHostName**

The IDCSHostName variable represents the URL path to your identity management host. This value will be available from your application logon page in the browser address bar.

Copy your R&A URL up to ".com" and update it to the Current column under the IDCSHostName variable.

### **APPId**

The APPId variable will be unique to your application instance and can be found under the Controls > File Delivery > Object Storage tab in the Application Portal.

Copy the AppID value in the portal to the Current column under the APPID variable.

#### **APPSecret**

The APPSecret will also be unique to your application instance and can be found under the Controls > File Delivery > Object Storage tab in the Application Portal. Click the **Show** button to expose the secret.

Copy the AppSecret value in the portal to the Current column under the APPSecret variable.

### **TenantID**

The TenantID variable will also be unique to your application instance and can be found under the User > About in the Application Portal.

Copy the TenantID value in the portal to the Current column under the TenantID variable.

### Token

The Token variable can be automatically populated to the environment variables by executing the GetToken API under Collection now that the first fours environment variables have been defined.

- 1. From Postman, select the Collection option.
- 2. In the Environment list, pin the R&A PARVariables environment.
- From Collections, select the GetToken post command.
- Click Send to retrieve the token and automatically populate to the current value in the Environment variables.

### **PortalEndPoint**

The PortalEndPoint variable defines which environment you are currently attempting to utilize (Production or UAT). Use one of the following values depending upon the source of the object to populate the Current PortalEndPoint:

- PROD:https://portal.ohra.oraclehospitality.ocs.oraclecloud.com/
- UAT:https://uat.ohra.oraclehospitality.ocs.oraclecloud.com/

### **Prefix**



The Prefix variable will depend upon the Prefix value used when generating the BIPublisher report. Use the Prefix for the report and update the Current Prefix value.

### **FileName**

The FileName variable will depend upon the file name value used when generating the BIPublisher report. Use the FileName for the report and update the Current FileName value.

### MinutesToExpire

The MinutesToExpire variable will default to 15 minutes in which the PAR URL that is generated is valid for use. Change the Current value to the number of minutes you wish to allow for the URL to be active for the end user.

#### **Generate PAR URL**

This section contains instructions for generating a PAR URL for an object.

- 1. From Collections, select the Generate PAR URL post command.
- 2. Click **Send** to generate the PAR URL in the response tab of Postman.
- Copy and distribute this URL to allow access to the object.

## Additional APIs

- Generate Folder PAR URL
- All Created PAR URL
- All Expired PAR URL

#### Generate Folder PAR URL

This API provides you with a listing of generated Objects available to access from a PAR URL.

- 1. From Collections, select the Generate Folder PAR URL post command.
- Click Send to generate the Folder PAR URL in the response tab of Postman.
- Copy and access this URL in a browser to view the list of available objects.

File listing within a folder is limited to 1,000 rows. When additional rows are available, the nextStartWith will appear with the next file in the listing.

Append the PARURL with *?Start*= value from *nextStartWith* and run. This will return the next 1,000 files. Continue to append the URL with *?Start*= until you have reached the end of the list.

If additional guidance is required to use the ListObject, refer to https://docs.oracle.com/en-us/iaas/api/#/en/objectstorage/20160918/Object/ListObjects

### All Created PAR URL

This API provides you with a listing of generated PAR URLs and the current status.

- 1. From Collections, select the All Created PAR URL get command.
- Click Send to generate the list in the response tab of Postman.
- 3. Review the response tab.

### All Expired PAR URL

This API provides you with a listing of expired PAR URLs.



- 1. From Collections, select the All expired PAR URL get command.
- 2. Click **Send** to generate the list in the response tab of Postman.
- **3.** Review the response tab.





# **Appendix**

See below information for current permissions managed through the Group configuration.

# **Administration Tasks**

Category	User Task	Description			
Application Por	Application Portal				
	View Portal	Allows access to Application Portal			
	Open Reporting	Allows access to Reporting link and tile in Application Portal			
	Open Data Analyzer	Allows access to Reporting Data Analyzer link and tile in Application Portal			
<b>Groups Portlet</b>					
	View Group	Allows access to the Groups Portlet			
	Edit Group	Allows ability to edit Group			
<b>Users Portlet</b>					
	View Users	Allows access to the Users Portlet			
	Edit Users	Allows ability to edit User			
Reporting Hier	archy Portlet				
	View Hierarchy	Allows access to the Reporting Hierarchy Portlet			
	Create Reporting Level	Allows ability to Create a Reporting Level in the Reporting Hierarchy			
	Edit Reporting Level	Allows ability to Edit a Reporting Level in the Reporting Hierarchy			
	Delete Reporting Level	Allows ability to Delete a Reporting Level from the Reporting Hierarchy			
Central Report	ing Conversion Portlet				
	View Reporting Conversion	Allows access to the Reporting Conversion Portlet			
	Create Enterprise Reporting Item	Allows ability to Add an Enterprise Reporting Item in Reporting Conversion			
	Edit Enterprise Reporting Item	Allows ability to Edit an Enterprise Reporting Item in Reporting Conversion			
	Delete Enterprise Reporting Item	Allows ability to Delete an Enterprise Reporting Item from Reporting Conversion			
Central Curren	cy Conversion Portlet				
	View Central Currency Conversion	Allows access to the Currency Conversion Portlet			
	Create Central Currency Rule	Allows ability to Add a Conversion Rule in Currency Conversion			



Category	User Task	Description
	Edit Currency Conversion Rule	Allows ability to Edit a Conversion Rule in Currency Conversion
Controls Por	rtlet	
	View Controls	Allows access to the Settings Portlet
	Enable/Set Central Currency	Allows ability to Enable Central Currency Reporting and Define Central Currency
	Enable Tenant Upgrade Time	Allows user to specify the upgrade time preference
	View Tenant Upgrade/ Update Notifications	Enables on-screen notification of scheduled Upgrade/Update
Tiles		
	Reporting Hierarchy	Enables the Reporting Hierarchy Tile on the Home page
	Groups	Enables the Groups Tile on the Home Page
	Users	Enables the Users Tile on the Home Page
	Application Change Log	Enables Application Change Log tile on the Home Page
	<b>Currency Conversion</b>	Enables Currency Rules tile on the Home Page
Fiscal Repor	ting	
	View Fiscal Periods	Allows access to the Fiscal Period Reporting portlet
	Create Fiscal Year	Allows ability to create a fiscal year
	Edit Fiscal Year	Allows ability to edit an existing fiscal year
	Delete Fiscal Year	Allows ability to delete a fiscal year
Application	Change Log	
	View Application Change Log	Allows ability to search and export application change log records

# Reporting Tasks

Category	User Task	Description		
Report Consumer				
	View Reports and Dashboards	Allows access to view Seeded/Shared Reports and Dashboards		
Report Author				
	Author Reports and Dashboards	Allows ability to create, edit and delete a Reports and Dashboards		
Data Privacy				
	Include Personal Information	Exposes Personal Information on any Reports/ Dashboards		
	Sensitive Personal Information	Exposes Sensitive Personal Information on any Reports/Dashboards		
Subject Areas				



Category	User Task	Description
	Accounts Receivable	Allows access to Accounts Receivable Subject Areas
	Blocks	Allows access to Blocks Subject Areas
	Changes	Allows access to Change Logs Subject Areas
	Configuration	Allows access to Configuration Subject Areas
	Financials	Allows access to Financials Subject Areas
	Housekeeping	Allows access to Housekeeping Management Subject Areas
	Profiles – Accounts	Allows access to Profiles – Account Subject Areas
	Profiles – Contacts	Allows access to Profiles – Contacts Subject Areas
	Profiles – Individuals	Allows access to Profiles – Individuals Subject Areas
	Profiles – Other	Allows access to Profiles – Other Subject Areas
	Property	Allows access to Property Subject Areas
	Rates	Allows access to Rates Subject Areas
	Reservations	Allows access to Reservations Subject Areas
	Revenues	Allows access to Revenue Subject Areas
	Rooms Management	Allows access to Rooms Management Subject Areas
	Sales and Catering	Allows access to Sales & Catering Subject Areas
	Statistics – Forecast	Allows access to Statistics – Forecast Subject Areas
	Statistics – Manager	Allows access to Statistics – Manager Subject Areas
	Statistics – Reservations	Allows access to Statistics - Reservations Subject Areas

# **Enhancement Requests**

Looking to submit a feature enhancement? From <a href="https://iccp.custhelp.com/">https://iccp.custhelp.com/</a>, create a Support Request under the OPERA Reporting and Analytics solution. Be sure to provide details of your request as well as the contact information of the person to discuss any additional questions about the request should they arise from our Product and Development Teams.

