# Oracle® Revenue Management and Billing Analytics

Version 2.0.0.0.0

# Release Notes

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# About this Document

This document lists the features and architecture of Oracle Revenue Management and Billing Analytics. It also lists the supported platforms, supported ORMB versions, and highlights known issues in this release.

This document does not describe the functionality of Oracle Revenue Management and Billing Analytics or technical know-how on how to install Oracle Revenue Management and Billing Analytics. For more detailed information, you can refer to the following documents:

| Document | Description |
|---|---|
| *Oracle Revenue Management and Billing Analytics Functional Overview* | Lists and describes the key features of Oracle Revenue Management and Billing Analytics. It also describes the features available in the Administration UI and Dashboards. |
| *Oracle Revenue Management and Billing Analytics Installation Guide* | Lists the pre-requisites, supported platforms, and hardware and software requirements for installing the Oracle Revenue Management and Billing Analytics application. It also explains how to install the Oracle Revenue Management and Billing Analytics application. |
| *Oracle Revenue Management and Billing Analytics Security Guide* | Describes how to configure security for Oracle Revenue Management and Billing Extractors and Schema and Oracle Revenue Management and Billing Analytics. |


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# Features

This section describes the following features of ORMB Analytics:

- Extractors and Schema
- Dashboards
- Subject Areas

## Extractors and Schema

Oracle Revenue Management and Billing Extractors and Schema is a ready data mart, which enables customers to slice and dice data to define reports.

It is used to extract and transform the data into target 'stars', which is then used to drive reports and answer business questions from the data within the source application named Oracle Revenue Management and Billing.

## Dashboards

Oracle Revenue Management and Billing Analytics is a pre-built set of 'rich' dashboards and reports that deliver intuitive, role-based intelligence for everyone in an organization – from front line employees to senior management. You can personalize these dashboards and reports as required.

Each dashboard caters to a subject area corresponding to a physical star in the database. Each dashboard contains a number of pages that present information from the subject area through a set of visualizations to the end user.

## Subject Areas

Dashboards are available for the following subject areas in this release:

- **Financial Transactions** – This subject area includes all important details corresponding to bills, adjustments and payments. One dashboard named Financial Transaction (FT) is designed and developed to cater to this subject area. The Financial Transaction (FT) dashboard includes financial analyses, such as:
    - Total value of receivables, adjustments, and payments across divisions
    - Trend for the last N months
    - Distribution across division, currency, customer segment, etc.
- **Product Pricing** - One dashboard named Product Pricing is designed and developed to cater to this subject area. The Product Pricing dashboard provides you a single but holistic view of how a product is priced in the system. It allows you to drill down from product usage across divisions to individual price tier level details. In addition, it provides the comparison between standard

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and agreed pricing, different price variations for a product, and the different price lists, computation models and price points available for each price variation, etc.

- **Feed Management** - One dashboard named Feed Management is designed and developed to cater to this subject area. The Feed Management dashboard helps you to identify and act upon problematic product processors. It also provides useful insights on the transaction feeds, their status and unrealized revenues in the system.
- **General Ledger** - One dashboard named General Ledger is designed and developed to cater to this subject area. The General Ledger dashboard provides insight on the ledger postings which are done from Oracle Revenue Management and Billing. It also provides various analyses, such as:
    - Breakdown based on the GL Account
    - Breakdown based on the Distribution Code
- **Contract** - One dashboard named Contract is designed and developed to cater to this subject area. The Contract dashboard helps you to understand where you stand with respect to customer acquisitions and attritions. It also provides information, such as the churn, win/loss ratio, premature or abrupt termination of contracts and what is in the pipeline.
- **Payment Tenders** - One dashboard named Payment Tenders is designed and developed to cater to this subject area. The Payment Tenders dashboard provides analyses on the payments made in the system. It also provides various information, such as:
    - Payment tenders linked to a tender source and tender type
    - Root cause for payment errors
    - Problematic tender sources
    - Unrealized payments
- **To Do** - One dashboard named To Do is designed and developed to cater to this subject area. The To Do dashboard is useful from an operational perspective because it helps you to obtain information about staff allocation, completed and pending workload, staff productivity, average completion time, ageing analysis, breakdown by task type and priority, etc.


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# Supported Platforms

The following table lists the operating system and software combinations on which Oracle Revenue Management and Billing Analytics Version 2.0.0.0.0 is supported:

| Operating System (Server) | Chipset | Required Software | Database Server |
|---|---|---|---|
| Oracle Linux 6.4 (64-bit) | x86 -64 | • Oracle Fusion Middleware Infrastructure 12.1.3.0.0<br>• Oracle Data Integrator 12.1.3.0.0<br>• Oracle Golden Gate 12.1.2.1.0<br>• Oracle Golden Gate Management Pack 12.1.3.0.0<br>• Java Development Kit 1.7<br>• Oracle Business Intelligence Enterprise Edition 11.1.1.7.1 | Oracle 12.1.0.2.0 |

## Web Browser Support

The Administration UI is supported on the following:

- Internet Explorer 10.x
- Firefox 31+
- Chrome 15+

The Dashboards are supported on the following:

- Internet Explorer 9.x, 10.x, 11.x
- Firefox 31+

**Note:**

Oracle Revenue Management and Billing Analytics Version 2.0.0.0.0 is supported on Oracle Unbreakable Enterprise Kernel.

Oracle Revenue Management and Billing Analytics Version 2.0.0.0.0 is supported on Oracle VM 2.2.2. Refer to the knowledge base article ID 249212.1 on My Oracle Support for Oracle's Support Policy on VM Ware.

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# Supported ORMB Version

Oracle Revenue Management and Billing Analytics Version 2.0.0.0.0 will work with Oracle Revenue Management and Billing (ORMB) Versions 2.3.0.1.0 and 2.3.0.2.0.


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# Technical Recommendations

To improve the overall performance of Oracle Revenue Management and Billing Analytics Version 2.0.0.0.0, we recommend you to:

- Set database initialization parameters
- Set tablespace storage size for Warehouse
- Set INITRANS for dimensions and facts

## Database Initialization Parameters

This section recommends value for each parameter in the init.ora file. These parameters are a starting point for database tuning. The actual or optimal value for a production environment may differ from one deployment to another.

The following recommendations must be treated as guidelines and not as the actual values:

| Parameter | Recommended Value |
|---|---|
| MEMORY_MAX_TARGET | 50-60% of total available RAM on the node |
| MEMORY_TARGET | Value should be less than or equal to the value set for the MEMORY_MAX_TARGET parameter and at the same time it should be greater than or equal to the sum of SGA_TARGET and PGA_AGGREGATE_TARGET |
| SGA_TARGET | 50-70% of the value defined for the MEMORY_TARGET parameter |
| SGA_MAX_SIZE | Minimum 8GB |
| DB_CACHE_SIZE | Minimum 4GB |
| PGA_AGGREGATE_TARGET | Minimum 2GB |
| STATISTICS_LEVEL | TYPICAL |
| DB_BLOCK_SIZE | 8K or 16K |
| LOG_CHECKPOINT_INTERVAL | 0 |
| LOG_CHECKPOINT_TIMEOUT | 0 |
| OPTIMIZER_SECURE_VIEW_MERGING | TRUE |
| OPTIMIZER_MODE | ALL_ROWS |
| OPEN_CURSORS | 3000 |
| PROCESSES | 500 |
| SESSION_CACHED_CURSORS | 500 |

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| Parameter | Recommended Value |
|---|---|
| PARALLEL_AUTOMATIC_TUNING | TRUE |
| OPTIMIZER_INDEX_CACHING | 80 |
| OPTIMIZER_INDEX_COST_ADJ | 20 |
| PARALLEL_FORCE_LOCAL | TRUE |
| DB_FILE_MULTIBLOCK_READ_COUNT | 32 |
| CURSOR_SPACE_FOR_TIME | TRUE |
| WORKAREA_SIZE_POLICY | AUTO |
| TIMED_STATISTICS | FALSE |
| DISK_ASYNCH_IO | TRUE |
| QUERY_REWRITE_ENABLED | FALSE |

# Tablespace Storage Size for Warehouse

Initial storage size of tablespaces created in the replication schema (tablespace name: REP_01) and warehouse (tablespace name: DWADM_01) should be greater than or equal to the storage size of tablespaces in the source schema. This is required to avoid the following error message during initial data load:

Ora-01653: Unable to extend table in tablespace

# INITRANS for Dimensions and Facts

In the Warehouse schema, the default INITRANS for dimension is 4 and for fact is 16. When thread count of jobs for dimension or fact is higher than the default INITRANS setting, then the INITRANS for corresponding fact or dimension and its indexes should be set appropriately.

# Jobs for User Defined Dimensions

Jobs for user defined dimensions are disabled by default. If required, these jobs can be enabled from the **Jobs Configuration** screen in Administration UI.

# Notification on ETL Job Failures

By default, email notification is disabled for ETL jobs. To enable email notification when ETL job fails, you need to set the **ENABLE_EMAIL** option to **True** and specify the required email ids in the **SendOraMailTLS** procedure in ODI.


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# Technology Stack

Oracle Revenue Management and Billing Analytics has a layered architecture, which consists of the following layers:

- Source Layer
- Replication Layer
- Transformation Layer
- Presentation and Access Layer

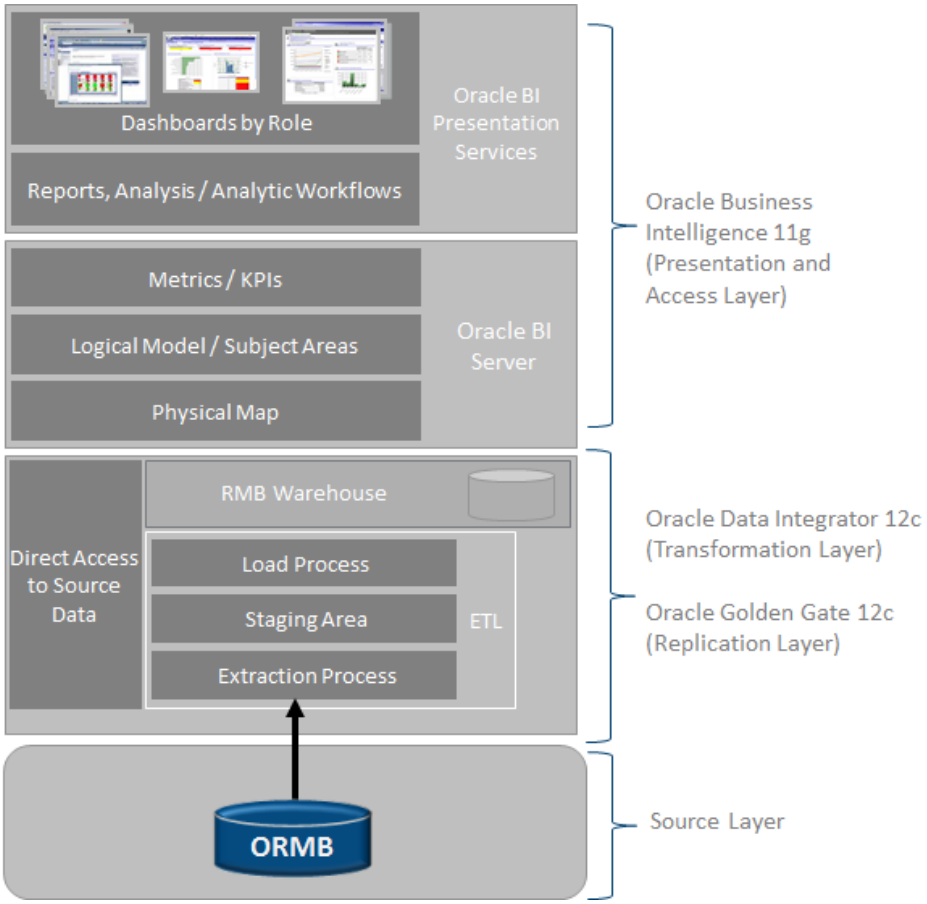


**Figure 1: ORMB Analytics Layered Architecture**

## Source Layer

The Source layer is the ORMB schema from where the data is replicated.

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# Replication Layer

The Replication layer consists of the replication objects where the data changes in the source system are replicated. The data replication is implemented using Oracle Golden Gate (OGG).

# Transformation Layer

The Transformation layer consists of two layers:

- **Staging** - The Staging layer represents the temporary staging area where the transformation, validations, enrichment, data cleansing and other mediation operations on the source data takes place in order to map the source objects to the target objects. The mapping between source and target is implemented using Oracle Data Integrator (ODI).
- **Target** - The Target layer is the data mart where the 'stars' reside. The objects in this layer are dimensions, facts, and materialized views.

# Presentation and Access Layer

The Presentation and Access layer represents the presentation and reporting services which display the 'stars' in the form of rich and attractive dashboards, charts, and reports. The presentation layer is implemented using Oracle Business Intelligence Enterprise Edition (OBIEE).


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# Product Documentation

User manuals and other technical documents are available in the Portable Document Format (PDF) format. You can download Oracle Revenue Management and Billing Analytics release specific documentation library (for example, Oracle Revenue Management and Billing Analytics Version 2.X.X.X.X Documentation Library) using the following URL:

http://www.oracle.com/technetwork/indexes/documentation/fsgbu-1364781.html

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# Media Pack Download

Oracle Financial Services Revenue Management and Billing Analytics Version 2.0.0.0.0 and Oracle Insurance Revenue Management and Billing Analytics Version 2.0.0.0.0 media packs are available for the following platforms:

- Linux (x86-64)

The media pack includes the following packages:

- Oracle Revenue Management and Billing Analytics V2.0.0.0.0 Release Notes
- Oracle Revenue Management and Billing Analytics V2.0.0.0.0 Database Component
- Oracle Revenue Management and Billing Analytics V2.0.0.0.0 ETL Component
- Oracle Revenue Management and Billing Analytics V2.0.0.0.0 Dashboard Component
- Oracle Revenue Management and Billing Analytics V2.0.0.0.0 Admin Tool Component

To download a package from a media pack:

1. Login to Oracle Software Delivery Cloud. The **Terms and Restrictions** page appears.
2. Select the **I have reviewed the terms of the License Agreement or Oracle Trial License Agreement and accept its terms** check box.
3. Select the **YES, I accept these Export Restrictions** check box.
4. Click **Continue**. The **Media Pack Search** page appears.
5. Select the **Oracle Financial Services Products** option from the **Select a Product Pack** list.
6. From the **Platform** list, select **Linux x86-64**.
7. Click **Go**. A list of financial services products which are released for the specified platform appears in the **Search Results** section.
8. Select the radio button corresponding to Oracle Financial Services Revenue Management and Billing Analytics Version 2.0.0.0.0.
9. Click **Continue**. The **Oracle Revenue Management and Billing Analytics for <Platform>** page appears.
10. Click the **Download** button corresponding to the package that you want to download. The **File Download** dialog box appears.
11. Click **Save**. The **Save As** dialog box appears.
12. Browse to the location where you want to download the package and then click **Save**. The package is downloaded on your local machine.


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# Known Issues

This section lists the known issues in Oracle Revenue Management and Billing Analytics Version 2.0.0.0.0 along with the workaround available to handle these issues.

| Issue | **DESCRIPTION ATTRIBUTE UPDATE NOT REPLICATED TO WAREHOUSE** |
|---|---|
| Description | If the description attribute is only updated in a source table, the change will be available in the replication table but will not be propagated immediately to the target table in Warehouse. This will be only replicated when any other attribute is changed in the source table. |
| Workaround | None |

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# Technical Support

For any technical support, consult with Oracle Support, Oracle Partner, or Oracle Consulting that may be supporting your implementation and upgrade process.


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