

# **Oracle® Revenue Management and Billing**

Version 3.2.0.0.0

## **Upgrade Guide**

Revision 21.3

F50896-01

January 2022

## Oracle Revenue Management and Billing Upgrade Guide

F50896-01

### **Copyright Notice**

Copyright © 2009, 2022 Oracle and/or its affiliates. All rights reserved.

### **Trademark Notice**

Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

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

### **License Restrictions Warranty/Consequential Damages Disclaimer**

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

### **Warranty Disclaimer**

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

### **Restricted Rights Notice**

If this software or related documentation is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

#### U.S. GOVERNMENT RIGHTS

Oracle programs, including any operating system, integrated software, any programs installed on the hardware and/or documentation delivered to U.S. Government end users are “commercial computer software” pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware and/or documentation shall be subject to license terms and restrictions applicable to the programs. No other rights are granted to the U.S. Government.

### **Hazardous Applications Notice**

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

**Third-Party Content, Products, and Services Disclaimer**

This software and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

# Preface

## About This Document

This document will help you to understand how to upgrade the Oracle Revenue Management and Billing application and its database. It also explains how to upgrade the application framework.

## Intended Audience

This document is intended for the following audience:

- End-Users
- System Administrators
- Consulting Team
- Implementation Team

## Organization of the Document

The information in this document is organized into the following sections:

Section No.	Section Name	Description
Section 1	Preparing for Upgrade	Provides an overview of the upgrade process. It also lists the prerequisites for upgrading the application.
Section 2	Upgrading from ORMB Version 3.1.0.0.0 to 3.2.0.0.0	Explains how to upgrade from Oracle Revenue Management and Billing Version 3.1.0.0.0 to 3.2.0.0.0.
Section 3	Additional Tasks	Lists and describes the additional tasks that you need to perform after upgrading the application.
Appendix A	Known Issues	Lists the known issues in Oracle Revenue Management and Billing Version 3.2.0.0.0.
Appendix B	Third Party Software Upgrade	Provides a list of third party software that you need to upgrade before upgrading the application.
Appendix C	New Tables Added in ORMB Version 3.2.0.0.0	Lists and describes the tables that are newly added in Oracle Revenue Management and Billing Version 3.2.0.0.0.
Appendix D	Existing Tables Modified in ORMB Version 3.2.0.0.0	Lists the existing tables and their columns that are modified in Oracle Revenue Management and Billing Version 3.2.0.0.0.

Section No.	Section Name	Description
Appendix E	Algorithms and Algorithm Types Dropped in ORMB Version 3.2.0.0.0	Lists the algorithms and algorithm types which are dropped in Oracle Revenue Management and Billing Version 3.2.0.0.0.
Appendix F	Parameters Added or Removed from Algorithm Types in ORMB Version 3.2.0.0.0	Lists the parameters which are added or removed from the algorithm types in Oracle Revenue Management and Billing Version 3.2.0.0.0.
Appendix G	Option Types Added or Removed from Feature Configurations in ORMB Version 3.2.0.0.0	Lists the option types which are added or removed from the feature configurations in Oracle Revenue Management and Billing Version 3.2.0.0.0.
Appendix H	Characteristic Types Dropped in ORMB Version 3.2.0.0.0	Lists the characteristic types which are dropped in Oracle Revenue Management and Billing Version 3.2.0.0.0.
Appendix I	Changing the DB User Password	Explains how to change the database user password.
Appendix J	ORMB V3.2.0.0.0 Rollup Packs	Lists the rollup packs available for Oracle Revenue Management and Billing Version 3.2.0.0.0. It also explains how to apply a rollup pack on the application environment and database.
Appendix K	New Tables Added in OUAF Version 4.4.0.3.0	Lists and describes the tables that are newly added in Oracle Utilities Application Framework Version 4.4.0.3.0.
Appendix L	Existing Tables Modified in OUAF Version 4.4.0.3.0	Lists the existing tables and their columns that are modified in Oracle Utilities Application Framework Version 4.4.0.3.0.

## Conventions

The following conventions are used across the document:

Convention	Meaning
<b>boldface</b>	Boldface indicates graphical user interface elements associated with an action, or terms defined in the text.
<i>italic</i>	Italic indicates a document or book title.
<code>monospace</code>	Monospace indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or information that an end-user needs to enter in the application.

## Acronyms

The following acronyms are used in this document:

Acronym	Meaning
ORMB	Oracle Revenue Management and Billing
OUIAF	Oracle Utilities Application Framework
FW	Framework
INPD	Initial Product Determined
UPLD	Uploaded
INVL	Invalid
EROR	Error
COMP	Completed
CNCL	Cancelled
FTP	File Transfer Protocol

## Related Documents

You can refer to the following documents for more information:

Document Name	Description
<i>Oracle Revenue Management and Billing Version 3.2.0.0.0 Release Notes</i>	Provides a brief description about the new features, enhancements, and UI level changes introduced in the current release. The new features and enhancements are classified under three distinct heads – Generic (which is intended for both domains), Financial Services, and Health Insurance. It also contains high-level information about the supported platforms, framework upgrade, supported upgrades, and documentation updates. In addition, it contains a list of discontinued features, planned deprecation notices, customer bugs fixed or forward ported and known issues in the current release.
<i>Oracle Revenue Management and Billing Upgrade Path Guide</i>	Explains the path and pre-requisites for upgrading Oracle Revenue Management and Billing from one version to another.
<i>Oracle Revenue Management and Billing Direct Database Upgrade Guide</i>	Explains how to directly upgrade the ORMB database from 2.3.0.2.0 or any later version to the current release. It also highlights any known issues during direct database upgrade and how to handle these issues in the database.

## Change Log

Revision	Last Update	Updated Section	Comments
21.1	25-Feb-2022	Section 2.5.2: Applying the Release-Specific Patches	Updated Information
		Section 2.6: Upgrading the ORMB Database	Updated Information
		Section 2.6.2: Applying the Release-Specific Patches	Updated Information
		Appendix J: ORMB V3.2.0.0.0 Rollup Packs	Updated Information
21.2	04-Mar-2022	Section 2.6.1: Installing ORMB Version 3.2.0.0.0	Updated Information
21.3	17-Nov-2022	Section 2.6.1: Installing ORMB Version 3.2.0.0.0	Updated Information

# Contents

---

1.	Preparing for Upgrade .....	1
1.1	Upgrade Overview .....	1
1.2	Upgrade Pre-requisites .....	3
1.3	Supported Upgrades .....	3
2.	Upgrading from ORMB Version 3.1.0.0.0 to 3.2.0.0.0 .....	4
2.1	Prerequisites .....	4
2.2	Downloading the ORMB Packages and Patches .....	4
2.3	Upgrading Framework on the Database .....	5
2.3.1	Installing Rollup Pack for OUAF Version 4.4.0.3.0 .....	5
2.4	Installing Framework on the Application Environment .....	8
2.4.1	Installing OUAF Version 4.4.0.3.0 .....	8
2.4.2	Installing Rollup Pack for OUAF Version 4.4.0.3.0 .....	12
2.5	Installing the ORMB Application .....	14
2.5.1	Installing ORMB Version 3.2.0.0.0 .....	14
2.5.2	Applying the Release-Specific Patches .....	16
2.5.3	Accessing the ORMB Application .....	18
2.6	Upgrading the ORMB Database .....	18
2.6.1	Installing ORMB Version 3.2.0.0.0 .....	19
2.6.2	Applying the Release-Specific Patches .....	22
2.7	Migrating Data .....	23
3.	Additional Tasks .....	24
3.1	Generating the Application Viewer .....	24
3.2	Starting the Thread Pool Worker .....	25
3.3	Building Javadoc Index .....	25
Appendix A :	Known Issues .....	26
Appendix B :	Third Party Software Upgrade .....	27
Appendix C :	New Tables Added in ORMB Version 3.2.0.0.0 .....	28
C.1	C1_APAY_REQ .....	28
C.2	C1_APAY_REQ_CHAR .....	29
C.3	C1_APAY_REQ_DTLS .....	30
C.4	C1_APAY_REQ_K .....	30
C.5	C1_APAY_REQ_LOG .....	31
C.6	C1_APAY_REQ_LOG_PARM .....	32
C.7	C1_APAY_REQ_TYPE .....	33
C.8	C1_APAY_REQ_TYPE_CHAR .....	34
C.9	C1_APAY_REQ_TYPE_L .....	35
C.10	C1_DEAL_PRICE_ASGN_TC_L .....	35
C.11	C1_DEAL_TC_ADHOC .....	36
C.12	C1_DEAL_TC_ADHOC_L .....	36
Appendix D :	Existing Tables Modified in ORMB Version 3.2.0.0.0 .....	38



D.1	C1_BENEFIT_SUB_TYPE .....	38
D.2	C1_DEAL.....	38
D.3	C1_DEAL_PRICE_ASGN_TC .....	39
D.4	C1_DEAL_TYPE.....	39
D.5	C1_DSPT_REQ_TYPE .....	39
D.6	C1_HOLD_REQ_TYPE .....	40
D.7	C1_MODEL_SQI .....	40
D.8	C1_REF_WO_REQ_TYPE .....	40
D.9	CI_ACCT .....	41
D.10	CI_ACCT_APAY.....	41
D.11	CI_ADJ_TYPE .....	41
D.12	CI_APAY_RT_TYPE .....	42
D.13	CI_BILL_ACH.....	42
D.14	CI_CIS_DIVISION .....	42
D.15	CI_CUST_CL_CTRL.....	43
D.16	CI_PER.....	43
D.17	CI_PRICEASGN .....	43
D.18	CI_TXN_CALC .....	44
Appendix E :	Algorithms and Algorithm Types Dropped in ORMB Version 3.2.0.0.0 .....	45
E.1	Algorithm Type .....	45
E.2	Algorithm .....	45
Appendix F :	Parameters Added or Removed from Algorithm Types in ORMB Version 3.2.0.0.0 .....	46
Appendix G :	Option Types Added or Removed from Feature Configurations in ORMB Version 3.2.0.0.0 .....	47
Appendix H :	Characteristic Types Dropped in ORMB Version 3.2.0.0.0.....	48
Appendix I :	Changing the DB User Password.....	49
Appendix J :	ORMB V3.2.0.0.0 Rollup Packs.....	50
J.1	Applying a Rollup Pack on the Application Environment .....	50
J.2	Applying a Rollup Pack on the Database .....	51
Appendix K :	New Tables Added in OUAF Version 4.4.0.3.0.....	52
K.1	CI_ACC_GRP_ROLE .....	52
K.2	F1_ACTION_METHOD.....	52
K.3	F1_ACTION_METHOD_CHAR.....	53
K.4	F1_ACTION_METHOD_L.....	54
K.5	F1_COLOR_OPT .....	55
K.6	F1_COLOR_OPT_ITEM .....	55
K.7	F1_COLOR_OPT_L.....	56
K.8	F1_DATA_EXPORT_CTRL.....	57
K.9	F1_DATA_EXPORT_CTRL_LOG.....	58
K.10	F1_DATA_EXPORT_CTRL_LOG_PARM .....	59
K.11	F1_FILE_INT_REC .....	60
K.12	F1_FILE_INT_REC_ALG.....	61
K.13	F1_FILE_INT_REC_L .....	62

K.14	F1_FILE_INT_TYPE .....	62
K.15	F1_FILE_INT_TYPE_L.....	63
K.16	F1_INSIGHT_GRP .....	64
K.17	F1_INSIGHT_GRP_CHAR .....	65
K.18	F1_INSIGHT_GRP_L.....	66
K.19	F1_INSIGHT_GRP_TYPE .....	66
K.20	F1_INSIGHT_GRP_VISUAL_STR.....	67
K.21	F1_INSIGHT_TYPE .....	67
K.22	F1_INSIGHT_TYPE_ALG.....	68
K.23	F1_INSIGHT_TYPE_CHAR .....	69
K.24	F1_INSIGHT_TYPE_L .....	70
K.25	F1_INSIGHT_TYPE_USER_ACT .....	71
K.26	F1_INSIGHT_TYPE_USER_ACT_ALG.....	72
K.27	F1_INSIGHT_TYPE_VISUAL_SETTING.....	73
K.28	F1_MD_BI_TBL .....	73
K.29	F1_MD_BI_TBL_FLD.....	74
K.30	F1_MD_BI_TBL_L.....	75
K.31	F1_MO_UPD .....	76
K.32	F1_TREE .....	76
K.33	F1_TREE_L.....	77
K.34	F1_TREE_NODE.....	78
K.35	F1_TREE_NODE_ALG .....	79
K.36	F1_TREE_NODE_L.....	80
Appendix L : Existing Tables Modified in OUAF Version 4.4.0.3.0 .....		81
L.1	CI_BATCH_INST.....	81
L.2	CI_BATCH_JOB .....	81
L.3	CI_CHAR_TYPE .....	82
L.4	CI_MD_FLD_L .....	82
L.5	CI_MD_TBL .....	83
L.6	CI_TD_ENTRY_OPEN_VW .....	83
L.7	F1_CAL_FISC_PERIOD_D.....	84
L.8	F1_CAL_FISC_QUARTER_D .....	85
L.9	F1_CAL_FISC_YEAR_D.....	86
L.10	F1_CAL_MONTH_D.....	86
L.11	F1_CAL_QUARTER_D.....	87
L.12	F1_CAL_WEEK_D .....	88
L.13	F1_CAL_YEAR_D .....	89
L.14	F1_IWS_SVC.....	89
L.15	F1_LGCY_OBJ.....	90
L.16	F1_MIGR_DATA_ST_TBL.....	90
L.17	SC_USER.....	90
L.18	CI_ALG_PARM.....	91

L.19	CI_ZONE_PRM .....	91
L.20	F1_MIGR_DATA_ST .....	91



# 1. Preparing for Upgrade

---

This section provides an overview of the upgrade process. It also lists the pre-requisites for upgrading Oracle Revenue Management and Billing from one version to another.

## 1.1 Upgrade Overview

The following figure provides an overview of the steps that need to be taken for upgrading Oracle Revenue Management and Billing.

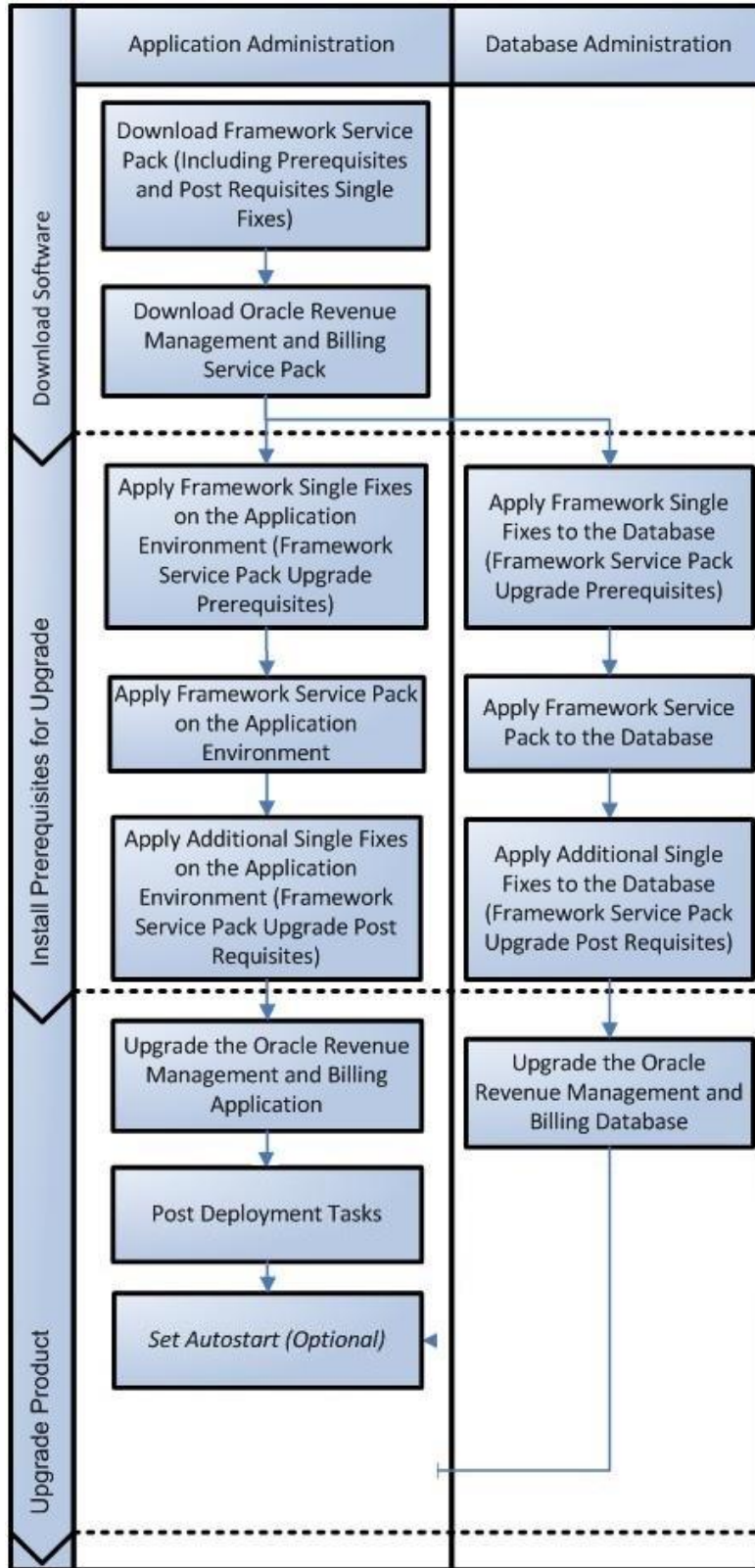


Figure 1: Upgrade Process

## 1.2 Upgrade Pre-requisites

Before you upgrade Oracle Revenue Management and Billing, you need to upgrade the application framework as mentioned in the *Oracle Revenue Management and Billing Upgrade Path Guide*. While upgrading the application framework, you might have to apply some patches (additional single fixes) as pre-requisites or post-requisites.

Also, before you upgrade the application framework, you might have to upgrade some of the third party software. For more information, refer to the **Upgrade Prerequisites** section in the *Oracle Revenue Management and Billing Upgrade Path Guide*.

## 1.3 Supported Upgrades

In this release, we support the following upgrades:

- Upgrade from Oracle Revenue Management and Billing Version 3.1.0.0.0 to 3.2.0.0.0

## 2. Upgrading from ORMB Version 3.1.0.0.0 to 3.2.0.0.0

This section explains how to upgrade from Oracle Revenue Management and Billing Version 3.1.0.0.0 to 3.2.0.0.0. The high-level steps include:

1. [Downloading the ORMB Packages and Patches](#)
2. [Upgrading Framework on the Database](#)
3. [Installing Framework on the Application Environment](#)
4. [Installing the Oracle Revenue Management and Billing Application](#)
5. [Upgrading the Oracle Revenue Management and Billing Database](#)
6. [Migrating Data](#)

**Note:** Before you upgrade the application, you must take a backup of the application and the database.

### 2.1 Prerequisites

If you are already using the Transaction Feed Management feature and want to upgrade to Oracle Revenue Management and Billing Version 3.2.0.0.0, then you need to ensure the following (before upgrading):

- All bills generated in the system are in the **Complete** status. In other words, there should not be any bills in the **Pending** status. If there are any bills in the **Pending** status or if any billable charge (generated through TFM) is not yet billed, disaggregation and cancellation of transactions which are uploaded using 3.1.0.0.0 will not happen successfully.
- Transactions which are uploaded using 3.1.0.0.0 must not be in the **Initial Product Determined (INPD)** status. They can be in the **Uploaded (UPLD)**, **Invalid (INVL)**, **Error (EROR)**, **Completed (COMP)**, or **Cancelled (CNCL)** status.
- Equal to (=) or tilde (~) symbol is not used in any existing price item parameter code or value. Otherwise, erroneous results might occur.

Also, ensure that no data exists in the **CI\_BCHG\_TEMP** table before you start the upgrade process. If there is data in the **CI\_BCHG\_TEMP** table, it means all billing batches are not yet executed for a set of bills. We recommend you to either complete the billing process for such bills by executing all the billing batches or delete the data from the **CI\_BCHG\_TEMP** table. Otherwise, erroneous results might occur when you execute the billing batches after the upgrade.

### 2.2 Downloading the ORMB Packages and Patches

For upgrading from Oracle Revenue Management and Billing Version 3.1.0.0.0 to 3.2.0.0.0, you must download the following packages from the Oracle Revenue Management and Billing 3.2.0.0.0 media pack which is available on [Oracle Software Delivery Cloud](#):

- Oracle Utilities Application Framework V4.4.0.3.0 Single Fix Prerequisite Rollup for RMB V3.2.0.0.0
- Oracle Revenue Management and Billing V3.2.0.0.0 Multiplatform
- Oracle Revenue Management and Billing V3.2.0.0.0 Oracle Database



You must also download the following package from the Oracle Utilities Customer Care and Billing 2.8.0.0.0 media pack which is available on [Oracle Software Delivery Cloud](#):

- Oracle Utilities Application Framework 4.4.0.3.0

The downloaded files will be in the JAR or ZIP format.

## 2.3 Upgrading Framework on the Database

While upgrading from Oracle Revenue Management and Billing Version 3.1.0.0.0 to 3.2.0.0.0, you need to install the following on the database:

1. [Rollup Pack for Oracle Utilities Application Framework \(OUAF\) Version 4.4.0.3.0](#)

To install the framework service pack on the database, you must have ability to connect to the database.

### 2.3.1 Installing Rollup Pack for OUAF Version 4.4.0.3.0

You can install the rollup pack for Oracle Utilities Application Framework Version 4.4.0.3.0 from a Windows machine or UNIX Standalone server. To install the rollup pack for Oracle Utilities Application Framework (OUAF) Version 4.4.0.3.0 on the database:

1. Login to the database server using the administrator's credentials.
2. Copy the **Oracle Utilities Application Framework V4.4.0.3.0 Single Fix Prerequisite Rollup for RMB V3.2.0.0.0** package to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

```
cp <PATH>/<filename>.zip <PATH>/TEMPDIR
```

**Windows:**

```
copy <PATH>\<filename>.zip <PATH>\TEMPDIR
```

**Note:** You can also use File Transfer Protocol (FTP) to transfer the downloaded file from one host to another. You must use the binary mode while copying files through FTP.

3. Change to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

```
cd <PATH>/TEMPDIR
```

**Windows:**

```
cd <PATH>\TEMPDIR
```

4. Unzip the **Oracle Utilities Application Framework V4.4.0.3.0 Single Fix Prerequisite Rollup for RMB V3.2.0.0.0** package using the following command:

**AIX, Linux:**

```
unzip <filename>.zip -d <PATH>/<DESTINATION_FOLDER_1>
```

**Windows:**

```
unzip <filename>.zip -d <PATH>\<DESTINATION_FOLDER_1>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_1>` folder. The contents include the `ORMB-V32000-FW-PREREQ-MultiPlatform.jar` file.

5. Change to the `<DESTINATION_FOLDER_1>` folder using the following command:

**AIX, Linux:**

```
cd <PATH>/<DESTINATION_FOLDER_1>
```

**Windows:**

```
cd <PATH>\<DESTINATION_FOLDER_1>
```

6. Decompress the JAR file using the following command:

```
jar -xvf ORMB-V32000-FW-PREREQ-MultiPlatform.jar
```

A sub-folder named `FW-V4.4.0.3.0-Rollup` is extracted. It contains the following two sub-folders:

- `Application`
- `Database`

7. Change to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

```
cd <PATH>/TEMPDIR
```

**Windows:**

```
cd <PATH>\TEMPDIR
```

8. Create a folder named `dbpatch_tools` using the following command:

```
mkdir dbpatch_tools
```

9. Copy the `db_patch_standalone.jar` file to the `dbpatch_tools` folder.

10. Change to the `dbpatch_tools` folder using the following command:

**AIX, Linux:**

```
cd <PATH>/TEMPDIR/dbpatch_tools
```

**Windows:**

```
cd <PATH>\TEMPDIR\dbpatch_tools
```

11. Decompress the JAR file using the following command:

```
jar -xvf db_patch_standalone.jar
```

The contents are extracted in the `dbpatch_tools` folder. The contents include the following three sub-folders:

- `bin`
- `config`
- `lib`

12. Set the `TOOLS_BIN` environment variable using the following command:

**AIX, Linux:**

```
export TOOLS_BIN=/TEMPDIR/dbpatch_tools/bin
```

**Windows:**

```
SET TOOLSBIN=TEMPDIR\dbpatch_tools\bin
```

13. Change to the `Database` folder using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_1>/FW-V4.4.0.3.0-Rollup/Database
```

**Windows:**

```
cd <DESTINATION_FOLDER_1>\FW-V4.4.0.3.0-Rollup\Database
```

**Note:** The `<DESTINATION_FOLDER_1>` folder is the location where you have extracted the contents of the `ORMB-V32000-FW-PREREQ-MultiPlatform.jar` file.

14. Execute the `ouafDatabasePatch` utility using the following command:

**AIX, Linux:**

```
ouafDatabasePatch.sh
```

**Windows:**

```
ouafDatabasePatch.cmd
```

This utility prompts you to enter values for the following parameters:

Parameter	Value
Enter the target database type (O/M/D) [O]	O (if you have Oracle database) OR M (if you have MySQL database)
Enter the username that owns the schema	<DB_USER> Example: CISADM
Enter the password for the <DB_USER> user	<DB_USER_PASSWORD>
Enter the name of the Oracle Database Connection String	<DB_Server:DBPORT:ORACLE_SID>

**Note:** If you have changed the database user password, you will not be able to install the rollup pack for Oracle Utilities Application Framework Version 4.4.0.3.0. You will have to first change the database user password. For more information on how to change the database user password, refer to [Appendix I: Changing the DB User Password](#).

15. Enter the required parameter values. The following message appears in the command line:

```
Ready to process patches, Do you want to continue? (Y/N)
```

16. Type **Y** and then press **Enter**. A message appears indicating that the patches are applied successfully.

## 2.4 Installing Framework on the Application Environment

Once you install the framework and its rollup pack on the database, you need to install the following on the application environment:

1. [Oracle Utilities Application Framework \(OUAF\) Version 4.4.0.3.0](#)
2. [Rollup Pack for Oracle Utilities Application Framework \(OUAF\) Version 4.4.0.3.0](#)

You must not perform these steps on the existing environments. Instead, you must create new development and production/UAT environments on the application server and then perform the steps listed in this section.

### 2.4.1 Installing OUAF Version 4.4.0.3.0

To install Oracle Utilities Application Framework (OUAF) Version 4.4.0.3.0 on the application environment:

1. Login to the application server using the administrator's credentials.
2. Create a temporary folder (for example, `TEMPDIR`) on the application server using the following command:

```
mkdir TEMPDIR
```

3. Copy the **Oracle Utilities Application Framework 4.4.0.3.0** package to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

```
cp <PATH>/<filename>.zip <PATH>/TEMPDIR
```

**Windows:**

```
copy <PATH>\<filename>.zip <PATH>\TEMPDIR
```

**Note:** You can also use File Transfer Protocol (FTP) to transfer the downloaded file from one host to another. You must use the binary mode while copying files through FTP.

4. Change to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

```
cd <PATH>/TEMPDIR
```

**Windows:**

```
cd <PATH>\TEMPDIR
```

5. Unzip the **Oracle Utilities Application Framework 4.4.0.3.0** package using the following command:

**AIX, Linux:**

```
unzip <filename>.zip -d <PATH>/<DESTINATION_FOLDER_1>
```

**Windows:**

```
unzip <filename>.zip -d <PATH>\<DESTINATION_FOLDER_1>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_1>` folder. The contents include `FW-V4.4.0.3.0-MultiPlatform.jar` file.

6. Decompress the `FW-V4.4.0.3.0-MultiPlatform.jar` file using the following command:

```
jar -xvf FW-V4.4.0.3.0-MultiPlatform.jar
```

The contents of the JAR file include a folder named `FW-V4.4.0.3.0-SP3`.

7. Install and configure the required third-party software for the application server.

**Note:** You must install the prerequisite third party software depending on the platform on which you want to install Oracle Utilities Application Framework. For more details, refer to the **Installing Application Server Prerequisite Software** section in the *Oracle Revenue Management and Billing Installation Guide*.

8. Set the `Java_Home` path using the following command:

```
export PATH=/Java_Home/bin:$PATH
```

**Note:**

The `<Java_Home>` is the location where you have installed Java 1.8.

The above command is applicable only for AIX and Linux platforms.

9. Change to the `FW-V4.4.0.3.0-SP3` folder using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_1>/FW-V4.4.0.3.0-SP3
```

**Windows:**

```
cd <DESTINATION_FOLDER_1>\FW-V4.4.0.3.0-SP3
```

**Note:** The `<DESTINATION_FOLDER_1>` folder is the location where you have extracted the contents of the `FW-V4.4.0.3.0-MultiPlatform.jar` file.

10. Execute the `install` utility using the following command:

**AIX, Linux:**

```
ksh ./install.sh
```

**Windows:**

```
install.cmd
```

The following message appears in the command line:

```
Enter Oracle Client Home Folder (<Enter> quit):
```

11. Type `<ORACLE_CLIENT_HOME>`, and then press **Enter**. The following environment installation menus appear in the command line:

- 1. Environment ID, Roles, Third Party Software Configuration
- 2. Keystore Options
- 50. Environment Installation Options

**Note:**

The `<ORACLE_CLIENT_HOME>` is the location where Oracle Database Client is installed. This is required to execute the Perl installation utilities.

If the `ORACLE_CLIENT_HOME` environment variable is set, the installation utility will not request you to provide this information.

12. Type **1** to define values for the third party software configuration, and then press **Enter**. The utility prompts you to enter values for a list of menu options.
13. Specify the required value for menu options, and then press **Enter**. The specified values are stored in the `$SPLEBASE/etc/ENVIRON.INI` file.

**Note:** For more details about these menu options, refer to the **Environment ID, Roles, Third Party Software Configuration** section in the *Oracle Revenue Management and Billing Installation Guide*.

14. Type **2** to define values for the keystore options, and then press **Enter**. The utility prompts you to enter values for a list of menu options.
15. Specify the required value for menu options, and then press **Enter**. The specified values are stored in the `$SPLEBASE/etc/ENVIRON.INI` file.

**Note:** For more details about these menu options, refer to the **Keystore Options** section in the *Oracle Revenue Management and Billing Installation Guide*.

16. Type **50** to define values for the environment installation options, and then press **Enter**. The utility prompts you to enter values for a list of menu options.
17. Specify the required value for menu options, and then press **Enter**. The specified values are stored in the `$SPLEBASE/etc/ENVIRON.INI` file.

**Note:**

`$SPLEBASE` or `%SPLEBASE%` is the path where the application environment is installed.

Before you specify the environment installation options, ensure that you have created an output folder named Log File Mount Point. If this output folder does not exist, the installation will not be successfully executed.

For more details about these menu options, refer to the **Environment Installation Options** section in the *Oracle Revenue Management and Billing Installation Guide*.

18. Type **P** to proceed with the installation. The following environment configuration menus appear in the command line:
  - 1. Environment Description
  - 2. Business Application Server Configuration
  - 3. Web Application Server Configuration
  - 4. Database Configuration
  - 5. General Configuration Options
  - 6. OUAF TrustStore Options
19. Type **1**, and then press **Enter**. The utility prompts you to enter the environment description.
20. Specify the environment description, and then press **Enter**. The specified values are stored in the `$SPLEBASE/etc/ENVIRON.INI` file.

**Note:** For more details, refer to the **Environment Description** section in the *Oracle Revenue Management and Billing Installation Guide*.

21. Type **2** to define values for the business application server configuration, and then press **Enter**. The utility prompts you to enter values for a list of menu options.
22. Specify the required value for menu options, and then press **Enter**. The specified values are stored in the `$SPLEBASE/etc/ENVIRON.INI` file.

**Note:** For more details, refer to the **Business Application Server Configuration** section in the *Oracle Revenue Management and Billing Installation Guide*.

23. Type **3** to define values for the web application server configuration, and then press **Enter**. The utility prompts you to enter values for a list of menu options.
24. Specify the required value for menu options, and then press **Enter**. The specified values are stored in the `$SPLEBASE/etc/ENVIRON.INI` file.

**Note:** For more details, refer to the **Web Application Server Configuration** section in the *Oracle Revenue Management and Billing Installation Guide*.

25. Type **4** to define values for the database configuration, and then press **Enter**. The utility prompts you to enter values for a list of menu options.
26. Specify the required value for menu options, and then press **Enter**. The specified values are stored in the `$SPLEBASE/etc/ENVIRON.INI` file.

**Note:** For more details about these menu options, refer to the **Database Configuration** section in the *Oracle Revenue Management and Billing Installation Guide*.

27. Type **5** to define values for the general configuration options, and then press **Enter**. The utility prompts you to enter values for a list of menu options.
28. Specify the required value for menu options, and then press **Enter**. The specified values are stored in the `$SPLEBASE/etc/ENVIRON.INI` file.

**Note:** For more details about these menu options, refer to the **General Configuration Options** section in the *Oracle Revenue Management and Billing Installation Guide*.

29. Type **6** to define values for the OUAF TrustStore Options, and then press **Enter**. The utility prompts you to enter values for a list of menu options.
30. Specify the required value for menu options, and then press **Enter**. The specified values are stored in the `$SPLEBASE/etc/ENVIRON.INI` file.

**Note:** For more details about these menu options, refer to the **OUAF TrustStore Options** section in the *Oracle Revenue Management and Billing Installation Guide*.

31. Type **P** to proceed with the installation. The Oracle Utilities Application Framework Version 4.4.0.3.0 is installed on the application server.

**Note:**

The utility contains default values for some of the menu options. If required, you can change their values. While executing the `install` utility, you must set the value for the required menu options. Otherwise, the installation process will not be completed successfully.

You will be warned if you did not edit a section. You may proceed if you want to keep the default settings.

Once the installation process is completed, the following utilities are automatically executed in the specified order:

1. `initialSetup` - The `initialSetup` utility updates the configuration files including the WAR files on the system. On the UNIX machine, this utility is available in the `$(SPLEBASE)/bin` folder. And, on the Windows machine, this utility is available in the `%SPLEBASE%\bin` folder.

2. `splenviron` - The `splenviron` utility sets the environment variables using the `ENVIRON.INI` file. On the UNIX machine, this utility is available in the `$(SPLEBASE)/bin` folder. And, on the Windows machine, this utility is available in the `%SPLEBASE%\bin` folder. The following are some of the key environment variables that are set using the `splenviron` utility:

- `$PATH`
- `$(SPLEBASE (%SPLEBASE%))` - Indicates the `<SPLEBASE>/<SPLENVIRON>` folder
- `$(SPLEOUTPUT (%SPLEOUTPUT%))` - Indicates the `<SPLEBASE>/<SPLENVIRON>` folder
- `$(SPLENVIRON (%SPLENVIRON%))` - Indicates the environment name

For future operations or any post installation steps, you need to first execute the following command to connect your session to the new environment:

**AIX, Linux:**

```
$(SPLEBASE)/bin/splenviron.sh -e $(SPLENVIRON)
```

**Windows:**

```
%SPLEBASE%\bin\splenviron.cmd -e %SPLENVIRON%
```

You need to execute this script each time you want to be connected to the specific environment before performing manual operations such as shutdown, startup or performing an additional application product installation.

When you have finished the install process, your current online session will be connected to the new environment.

## 2.4.2 Installing Rollup Pack for OUAF Version 4.4.0.3.0

To install the rollup pack for Oracle Utilities Application Framework Version 4.4.0.3.0 on the application environment:

1. Copy the **Oracle Utilities Application Framework V4.4.0.3.0 Single Fix Prerequisite Rollup for RMB V3.2.0.0.0** package to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

```
cp <PATH>/<filename>.zip <PATH>/TEMPDIR
```



**Windows:**

```
copy <PATH>\<filename>.zip <PATH>\TEMPDIR
```

**Note:** You can also use File Transfer Protocol (FTP) to transfer the downloaded file from one host to another. You must use the binary mode while copying files through FTP.

2. Change to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

```
cd <PATH>/TEMPDIR
```

**Windows:**

```
cd <PATH>\TEMPDIR
```

3. Unzip the **Oracle Utilities Application Framework V4.4.0.3.0 Single Fix Prerequisite Rollup for RMB V3.2.0.0.0** package using the following command:

**AIX, Linux:**

```
unzip <filename>.zip -d <PATH>/<DESTINATION_FOLDER_2>
```

**Windows:**

```
unzip <filename>.zip -d <PATH>\<DESTINATION_FOLDER_2>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_2>` folder. The contents include the `ORMB-V32000-FW-PREREQ-MultiPlatform.jar` file.

4. Decompress the JAR file using the following command:

```
jar -xvf ORMB-V32000-FW-PREREQ-MultiPlatform.jar
```

A sub-folder named `FW-V4.4.0.3.0-Rollup` is extracted. It contains the following two sub-folders:

- `Application`
- `Database`

5. Initialize the application environment where you want to install the rollup pack using the following command:

**AIX, Linux:**

```
$(SPLBASE)/bin/splenv.sh -e $(SPLENVIRON)
```

**Windows:**

```
%SPLBASE%\bin\splenv.cmd -e %SPLENVIRON%
```

6. Change to the `Application` folder using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_2>/FW-V4.4.0.3.0-Rollup/Application
```

**Windows:**

```
cd <DESTINATION_FOLDER_2>\FW-V4.4.0.3.0-Rollup\Application
```

**Note:** The `<DESTINATION_FOLDER_2>` folder is the location where you have extracted the contents of the `ORMB-V32000-FW-PREREQ-MultiPlatform.jar` file.

7. Execute the `installSFgroup` utility using the following command:

**AIX, Linux:**

```
chmod a+x installSFgroup.sh
chmod a+x FW*/*.sh
./installSFgroup.sh
```

**Windows:**

```
installSFgroup.cmd
```

The following message appears in the command line:

```
Ready to process patches, Do you want to continue? (Y/N)
```

8. Type **Y** in the command line, and then press **Enter**. A message appears indicating that the process has been completed successfully.

## 2.5 Installing the ORMB Application

This section explains how to install the application. You need to install the following on the application environment:

1. [Oracle Revenue Management and Billing \(ORMB\) Version 3.2.0.0.0](#)
2. [Oracle Revenue Management and Billing \(ORMB\) Version 3.2.0.0.0 Post Requisite Patches](#)

**Note:** If you have updated the template files in the `$SPLEBASE/etc` folder, you must also take a backup of these files. Once the application is installed on the new application environment, you need to copy the latest template files in the `$SPLEBASE/etc` folder.

Once you install the application, you can access the application. For more information on how to access the application, refer to the [Accessing the ORMB Application](#) section.

### 2.5.1 Installing ORMB Version 3.2.0.0.0

To install Oracle Revenue Management and Billing (ORMB) Version 3.2.0.0.0 on the application environment:

1. Login to the application server using the administrator's credentials.
2. Copy the **Oracle Revenue Management and Billing V3.2.0.0.0 Multiplatform** package to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

```
cp <PATH>/<filename>.zip <PATH>/TEMPDIR
```

**Windows:**

```
copy <PATH>\<filename>.zip <PATH>\TEMPDIR
```

**Note:** You can also use File Transfer Protocol (FTP) to transfer the downloaded file from one host to another. You must use the binary mode while copying files through FTP.

3. Change to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

```
cd <PATH>/TEMPDIR
```

**Windows:**

```
cd <PATH>\TEMPDIR
```

4. Unzip the **Oracle Revenue Management and Billing V3.2.0.0.0 Multiplatform** package using the following command:

**AIX, Linux:**

```
unzip <filename>.zip -d <PATH>/<DESTINATION_FOLDER_3>
```

**Windows:**

```
unzip <filename>.zip -d <PATH>\<DESTINATION_FOLDER_3>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_3>` folder. The contents include `ORMB.V3.2.0.0.0` folder.

5. Initialize the application environment (on which you want to install the application) using the following command:

**AIX, Linux:**

```
$(SPLBASE)/bin/splenv.sh -e $(SPLENVIRON)
```

**Windows:**

```
%SPLBASE%\bin\splenv.cmd -e %SPLENVIRON%
```

6. Stop the managed server where the application is hosted using the Oracle WebLogic Console.
7. Change to the `ORMB.V3.2.0.0.0` folder using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_3>/ORMB.V3.2.0.0.0
```

**Windows:**

```
cd <DESTINATION_FOLDER_3>\ORMB.V3.2.0.0.0
```

8. Execute the `install` utility using the following command:

**AIX, Linux:**

```
./install.sh
```

**Windows:**

```
install.cmd
```

The following message appears in the command line:

```
Do you wish to proceed with the installation? Y/N:
```

9. Type **Y** and then press **Enter**. A message appears informing you to type **P** if you want to proceed with the installation.
10. Type **P**, and then press **Enter**.

**Note:**

If you want to set the advanced menu options, execute the `configureEnv` utility using the following command:

**AIX, Linux:**

```
$SPLEBASE/bin/configureEnv.sh -a
```

**Windows:**

```
%SPLEBASE%\bin\configureEnv.cmd -a
```

You cannot set the advanced menu options during the installation process. These options can be set only after the application is installed. For more information, refer to the **Advanced Menu Options** section in the *Oracle Revenue Management and Billing Installation Guide*.

## 2.5.2 Applying the Release-Specific Patches

Once you install Oracle Revenue Management and Billing (ORMB) Version 3.2.0.0.0, you need to apply the release-specific patches on the application environment. To view the list of patches that you need to apply on the application environment, refer to the *ORMB V3.2.0.0.0 Patch Guide (Document ID: 2850975.1)* on [My Oracle Support](#).

Alternatively, instead of individually applying the patches, you can download and install the rollup packs, if available, to apply a set of patches at once. For more information about the rollup packs, refer to [Appendix J: ORMB V3.2.0.0.0 Rollup Packs](#).

To apply a patch:

1. Download the patch from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file using the following command:

**AIX, Linux:**

```
unzip <filename>.zip -d <PATH>/<DESTINATION_FOLDER_4>
```

**Windows:**

```
unzip <filename>.zip -d <PATH>\<DESTINATION_FOLDER_4>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_4>` folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_<PATCH_NUMBER>_Product_Fix_Design.pdf`.

3. Unzip the `MultiPlatform.zip` file using the following command:

**AIX, Linux:**

```
unzip <DESTINATION_FOLDER_4>/MultiPlatform.zip -d  
<PATH>/<DESTINATION_FOLDER_5>
```

**Windows:**

```
unzip <DESTINATION_FOLDER_4>\MultiPlatform.zip -d  
<PATH>\<DESTINATION_FOLDER_5>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_5>` folder. The contents include the `V3.2.0.0.0-<PATCH_NUMBER>_MultiPlatform` folder.

4. Change to the `V3.2.0.0.0-<PATCH_NUMBER>_MultiPlatform` folder using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_5>/V3.2.0.0.0-<PATCH_NUMBER>_MultiPlatform
```

**Windows:**

```
cd <DESTINATION_FOLDER_5>\V3.2.0.0.0-<PATCH_NUMBER>_MultiPlatform
```

**Note:** The `<DESTINATION_FOLDER_5>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V3.2.0.0.0-<PATCH_NUMBER>.jar` and a directory named `database`.

5. Decompress the `CCB.V3.2.0.0.0-<PATCH_NUMBER>.jar` file using the following command:

```
jar -xvf CCB.V3.2.0.0.0-<PATCH_NUMBER>.jar
```

The contents include two sub-folders - `META-INF` and `CCB.V3.2.0.0.0-<PATCH_NUMBER>`.

6. Initialize the application environment (on which you want to install the patch) using the following command:

**AIX, Linux:**

```
$SPLBASE/bin/splenvron.sh -e $SPLENVIRON
```

**Windows:**

```
%SPLBASE%\bin\splenvron.cmd -e %SPLENVIRON%
```

Where,

`$SPLBASE` or `%SPLBASE%` is the path where the application environment is installed and `$SPLENVIRON` or `%SPLENVIRON%` is the name of the application environment.

7. Change to the `CCB.V3.2.0.0.0-<PATCH_NUMBER>` folder using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_5>/V3.2.0.0.0-<PATCH_NUMBER>_MultiPlatform/CCB.V3.2.0.0.0-<PATCH_NUMBER>
```

**Windows:**

```
cd <DESTINATION_FOLDER_5>\V3.2.0.0.0-<PATCH_NUMBER>_MultiPlatform\CCB.V3.2.0.0.0-<PATCH_NUMBER>
```

8. Install the patch using the following command:

**AIX, Linux:**

```
./installSF.sh
```

**Windows:**

```
installSF.cmd
```

9. Start the managed server using the Oracle WebLogic Console.

## 2.5.3 Accessing the ORMB Application

The following table lists the URLs that you can use to access the application on various application servers:

Application Server	URL
Oracle WebLogic	https://<hostname>:<WebLogic_Port_Number>/ouaf/loginPage.jsp

## 2.6 Upgrading the ORMB Database

This section explains how to upgrade the database. When you upgrade the database, the system overwrites the database schema and the metadata present in the database. However, the transactional data is not affected.

While upgrading from Oracle Revenue Management and Billing Version 3.1.0.0.0 to 3.2.0.0.0, you need to install the following on the database:

1. [Oracle Revenue Management and Billing \(ORMB\) Version 3.2.0.0.0](#)
2. [Oracle Revenue Management and Billing \(ORMB\) Version 3.2.0.0.0 Post Requisite Patches](#)

### Note:

To view the list of patches that you need to apply on the database, refer to the *ORMB V3.2.0.0.0 Patch Guide (Document ID: 2850975.1)* on [My Oracle Support](#).

Alternatively, instead of individually applying the patches, you can download and install the rollup packs, if available, to apply a set of patches at once. For more information about the rollup packs, refer to [Appendix J: ORMB V3.2.0.0.0 Rollup Packs](#).

Before you upgrade the database, you must take a backup of the existing database.

When you upgrade the database, any metadata with the Owner flag set to CM is not overridden during the upgrade process.

### Pre-requisites:

Before installing Oracle Revenue Management and Billing Version 3.2.0.0.0 on the database, you need to set the **MAX\_STRING\_SIZE** parameter to **EXTENDED**. If you have a non-container database, you need to perform the following steps to set the **MAX\_STRING\_SIZE** parameter to **EXTENDED**:

1. Set the `ORACLE_HOME` and `ORACLE_SID` environment variables.

**Note:** You need to connect as system administrator while executing the below steps.

2. Shutdown the target database using the following command:

```
shutdown immediate
```

3. Start the database in the Upgrade mode using the following command:

```
startup upgrade
```

4. Set the `MAX_STRING_SIZE` parameter to `EXTENDED` using the following command:

```
alter system set max_string_size=extended scope=both;
```

5. Execute the `utl32k.sql` file using the following command:

```
@?/rdbms/admin/utl32k.sql;
```

- Restart the database in the Normal mode using the following commands:

```
shutdown immediate
startup
```

However, if you have a container database, you need to perform the following steps to set the **MAX\_STRING\_SIZE** parameter to **EXTENDED**:

- Set the `ORACLE_HOME` and `ORACLE_SID` environment variables.

**Note:** You need to connect as system administrator while executing the below steps.

- Set the `MAX_STRING_SIZE` parameter to `EXTENDED` using the following command:

```
alter system set max_string_size=extended scope=spfile;
```

- Start all pluggable databases in the Upgrade mode using the following command:

```
shutdown immediate
startup upgrade
alter pluggable database all open upgrade;
exit
```

- Create the `utl32k_cdb_pdb_output` folder to store the log files using the following command:

```
mkdir /scratch/mydir/utl32k_cdb_pdb_output
```

- Execute the `utl32k.sql` from the `catcon.pl` file for all pluggable databases using the following command:

```
cd $ORACLE_HOME/rdbms/admin
$ORACLE_HOME/perl/bin/perl $ORACLE_HOME/rdbms/admin/catcon.pl -u
SYS -d $ORACLE_HOME/rdbms/admin -l
'/scratch/mydir/utl32k_cdb_pdb_output' -b
utl32k_cdb_pdb_output utl32k.sql
```

- Restart the database in the Normal mode using the following commands:

```
shutdown immediate
startup
alter pluggable database all open read write;
```

## 2.6.1 Installing ORMB Version 3.2.0.0.0

To install Oracle Revenue Management and Billing (ORMB) Version 3.2.0.0.0:

- Login to the database server using the administrator's credentials.
- Create a temporary folder (for example, `TEMPDIR`) on the database server using the following command:

```
mkdir TEMPDIR
```

- Copy the **Oracle Revenue Management and Billing V3.2.0.0.0 Oracle Database** package to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

```
cp <PATH>/<filename>.zip <PATH>/TEMPDIR
```

**Windows:**

```
copy <PATH>\<filename>.zip <PATH>\TEMPDIR
```

**Note:** You can also use File Transfer Protocol (FTP) to transfer the downloaded file from one host to another. You must use the binary mode while copying files through FTP.

4. Change to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

```
cd <PATH>/TEMPDIR
```

**Windows:**

```
cd <PATH>\TEMPDIR
```

5. Unzip the **Oracle Revenue Management and Billing V3.2.0.0.0 Oracle Database** package using the following command:

**AIX, Linux:**

```
unzip <filename>.zip -d <PATH>/<DESTINATION_FOLDER_2>
```

**Windows:**

```
unzip <filename>.zip -d <PATH>\<DESTINATION_FOLDER_2>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_2>` folder. The contents include the following sub-folders:

- FW
- RMB

**Note:**

There might be situations when you do not want to recreate one or more table indexes. You can skip the recreation process of one or more table indexes by adding the following line in the `<DESTINATION_FOLDER_1>/RMB/Upgrade/Oracle/Install-Upgrade/CDXSchUpg.inp` file:

```
-INDEX: 'INDEX1', 'INDEX2', 'INDEX3'
```

For example, `-INDEX: 'XXT033P0', 'XXT034P0', 'XXT035P0'`

6. Set the `JAVA_HOME` environment variable using the following command:

**AIX, Linux:**

```
export JAVA_HOME=<JAVA_HOME_PATH>
```

**Windows:**

```
SET JAVA_HOME=<JAVA_HOME_PATH>
```

**Note:** The `<JAVA_HOME_PATH>` is the location where Java Development Kit Version 8.0 is installed.



7. Set the `JAR_PATH` environment variable using the following command:

**AIX, Linux:**

```
export JAR_PATH=<DESTINATION_FOLDER_2>/RMB/jarfiles
```

**Note:** The above command is applicable only for AIX and Linux platforms.

8. Set the `CLASS_PATH` environment variable using the following command:

**AIX, Linux:**

```
export CLASS_PATH=$JAR_PATH/commons-cli-1.4-c12260c.jar:$JAR_PATH/commons-codec-1.15.jar:$JAR_PATH/commons-collections-3.2.2.jar:$JAR_PATH/jackson-annotations-2.10.3.jar:$JAR_PATH/jackson-core-2.10.3.jar:$JAR_PATH/jackson-databind-2.10.3.jar:$JAR_PATH/log4j-api-2.13.3.jar:$JAR_PATH/log4j-core-2.13.3.jar:$JAR_PATH/ojdbc8-19.3.0.0.0.jar:$JAR_PATH/spl-oradbi-4.4.0.3.0.jar:$JAR_PATH/spl-shared-4.4.0.3.0.jar
```

**Windows:**

```
SET CLASS_PATH=<DESTINATION_FOLDER_2>\RMB\jarfiles\*
```

9. Change to the `Install-Upgrade` folder using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_2>/RMB/Upgrade/Oracle/Install-Upgrade
```

**Windows:**

```
cd <DESTINATION_FOLDER_2>\RMB\Upgrade\Oracle\Install-Upgrade
```

10. Execute the `OraDBI (Java)` utility using the following command:

**AIX, Linux:**

```
$JAVA_HOME/bin/java -Xmx1500M -cp $CLASS_PATH com.oracle.ouaf.oem.install.OraDBI -d jdbc:oracle:thin:@<DB_SERVER_NAME>:<DB_PORT>:<DB_NAME>, <SCHEMA_NAME>, <SCHEMA_PASSWORD>, <READWRITE_USER>, <READONLY_USER>, <READWRITE_ROLE>, <READONLY_ROLE>, <SCHEMA NAME> -p <READWRITE_USER_PASSWORD>, <READONLY_USER_PASSWORD> -l 1,2 -q true
```

**Windows:**

```
%JAVA_HOME%\bin\java -Xmx1500M -cp %CLASS_PATH% com.oracle.ouaf.oem.install.OraDBI -d jdbc:oracle:thin:@<DB_SERVER_NAME>:<DB_PORT>:<DB_NAME>, <SCHEMA_NAME>, <SCHEMA_PASSWORD>, <READWRITE_USER>, <READONLY_USER>, <READWRITE_ROLE>, <READONLY_ROLE>, <SCHEMA NAME> -p <READWRITE_USER_PASSWORD>, <READONLY_USER_PASSWORD> -l 1,2 -q true
```

The following message appears in the command line:

```
Ready to upgrade the target database from V3.1.0.0.0 to V3.2.0.0.0, do you want to continue (Y/N)?
```

11. Type **Y** and then press **Enter**. A message appears indicating that the process is completed successfully.

## 2.6.2 Applying the Release-Specific Patches

Once you install Oracle Revenue Management and Billing Version 3.2.0.0.0, you need to apply all patches listed in the *ORMB V3.2.0.0.0 Patch Guide (Document ID: 2850975.1)*. You can apply a patch from a Windows machine or UNIX Standalone server.

To apply a patch:

1. Download the patch from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file using the following command:

**AIX, Linux:**

```
unzip <filename>.zip -d <PATH>/<DESTINATION_FOLDER_3>
```

**Windows:**

```
unzip <filename>.zip -d <PATH>\<DESTINATION_FOLDER_3>
```

The contents of the zip file are extracted in the <DESTINATION\_FOLDER\_3> folder. The contents include three files - README.txt, MultiPlatform.zip, and Bug\_<PATCH\_NUMBER>\_Product\_Fix\_Design.pdf.

3. Unzip the MultiPlatform.zip file using the following command:

**AIX, Linux:**

```
unzip <DESTINATION_FOLDER_3>/MultiPlatform.zip -d  
<PATH>/<DESTINATION_FOLDER_4>
```

**Windows:**

```
unzip <DESTINATION_FOLDER_3>\MultiPlatform.zip -d  
<PATH>\<DESTINATION_FOLDER_4>
```

The contents of the zip file are extracted in the <DESTINATION\_FOLDER\_4> folder. The contents include the V3.2.0.0.0-<PATCH\_NUMBER>\_MultiPlatform folder.

4. Change to the V3.2.0.0.0-<PATCH\_NUMBER>\_MultiPlatform folder using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_4>/V3.2.0.0.0-<PATCH_NUMBER>_MultiPlatform
```

**Windows:**

```
cd <DESTINATION_FOLDER_4>\V3.2.0.0.0-<PATCH_NUMBER>_MultiPlatform
```

**Note:** The <DESTINATION\_FOLDER\_4> folder is the location where you have extracted the contents of the MultiPlatform.zip file.

The contents include a file named CCB.V3.2.0.0.0-<PATCH\_NUMBER>.jar and a folder named database.

5. Change to the `ORACLE` folder using the following command:

**AIX, Linux:**

```
cd database/ORACLE
```

**Windows:**

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

6. Unzip the `CDXPatch.zip` file using the following command:

**AIX, Linux:**

```
unzip CDXPatch.zip -d <PATH>/<DESTINATION_FOLDER_5>
```

**Windows:**

```
unzip CDXPatch.zip -d <PATH>\<DESTINATION_FOLDER_5>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_5>` folder. The contents include utility files and a folder named `<PATCH_NUMBER>`.

7. Execute the `ouafDatabasePatch` utility using the following command:

**Windows:**

```
ouafDatabasePatch.cmd
```

**AIX, Linux:**

```
ouafDatabasePatch.sh
```

## 2.7 Migrating Data

No data migration is required while upgrading from Oracle Revenue Management and Billing Version 3.1.0.0.0 to 3.2.0.0.0.

## 3. Additional Tasks

This section describes the following tasks that you need to perform after upgrading the application:

1. [Generating the Application Viewer](#)
2. [Starting the Thread Pool Worker](#)
3. [Building Javadoc Index](#)

### 3.1 Generating the Application Viewer

Once you upgrade the application, you need to regenerate the application viewer. To regenerate the application viewer:

1. Login to the application server using the administrator's credentials.
2. Initialize the application environment (on which you want to regenerate the application viewer) using the following command:

**AIX, Linux:**

```
$SPLEBASE/bin/splenvron.sh -e $SPLENVIRON
```

**Windows:**

```
%SPLEBASE%\bin\splenvron.cmd -e %SPLENVIRON%
```

Where, `$SPLEBASE` or `%SPLEBASE%` is the path where the application environment is installed, and `$SPLENVIRON` or `%SPLENVIRON%` is the name of the application environment for which you want to set the environment variables.

3. Set the `ANT_OPTS` environment variable using the following command:

**Windows:**

```
Set ANT_OPTS= -Xms512m -Xmx1024m -XX:PermSize=256M
```

**Note:** This command helps to process some tasks which require more memory. This command is only applicable for Windows and not for Linux machine.

4. Execute the `genappvieweritems` utility using the following command:

**AIX, Linux:**

```
$SPLEBASE/bin/genappvieweritems.sh
```

**Windows:**

```
%SPLEBASE%\bin\genappvieweritems.cmd
```

If the application viewer is generated successfully, the response code is set to 0. However, if you get a response code other than 0, it means an error has occurred while generating the application viewer. A log file is created in the `$SPLEBASE/logs` folder.

5. Execute the `initialSetup` utility using the following command:

**AIX, Linux:**

```
$SPLEBASE/bin/initialSetup.sh
```

**Windows:**

```
%SPLEBASE%\bin\initialSetup.cmd
```

Where, `$SPLEBASE` or `%SPLEBASE%` is the path where the application environment is installed. The `initialSetup` utility updates the configuration files including the WAR files on the system.

## 3.2 Starting the Thread Pool Worker

Once you upgrade the application, you need to start the thread pool worker. The thread pool worker is required when you execute batches either online or through batch scheduler.

You can use the **Distributed Thread Pool** property of the thread pool worker to set the number of threads that can run concurrently. By default, 5 threads run concurrently. You can change the default value by editing the following line in the `threadpoolworker.properties` file:

```
com.splwg.grid.distThreadPool.threads.DEFAULT=5
```

To start the thread pool worker, use the following command once you initialize the application environment:

**AIX, Linux:**

```
$SPLEBASE/bin/threadpoolworker.sh
```

**Windows:**

```
%SPLEBASE%\bin\threadpoolworker.cmd
```

Where, `$SPLEBASE` or `%SPLEBASE%` is the path where the application environment is installed.

## 3.3 Building Javadoc Index

Once you upgrade the application, you may want to regenerate the index file of Javadoc documentation. You must regenerate the Javadoc index file only when some modifications are made to the Java code.

To regenerate the Javadoc index file, use the following command:

**AIX, Linux:**

```
$SPLEBASE/bin/buildJavadocsIndex.sh
```

**Windows:**

```
%SPLEBASE%\bin\buildJavadocsIndex.cmd
```

Where, `$SPLEBASE` or `%SPLEBASE%` is the path where the application environment is installed.

## Appendix A : Known Issues

---

To view a list of known issues in the current release, refer to the *Oracle Revenue Management and Billing Version 3.2.0.0.0 Release Notes*.

---

## Appendix B : Third Party Software Upgrade

---

To view a list of third party software that you need to upgrade before upgrading the application, refer to the **Upgrade Prerequisites** section in the *Oracle Revenue Management and Billing Upgrade Path Guide*.

## Appendix C : New Tables Added in ORMB Version 3.2.0.0.0

This section lists and describes the tables that are newly added in Oracle Revenue Management and Billing Version 3.2.0.0.0.

### C.1 C1\_APAY\_REQ

<b>Purpose:</b>	Used to store the details of an automatic payment request.
<b>Total Number of Columns:</b>	12

#### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
APAY_REQ_ID	CHAR(12)	No	-
APAY_REQ_TYPE_CD	CHAR(30)	No	-
BUS_OBJ_CD	CHAR(30)	No	-
BO_STATUS_CD	CHAR(12)	No	-
BO_DATA_AREA	CLOB	Yes	-
COMMENTS	VARCHAR2(254)	Yes	-
CRE_DTTM	DATE	Yes	-
STATUS_UPD_DTTM	DATE	Yes	-
ILM_ARCH_SW	CHAR(1)	Yes	-
ILM_DT	DATE	Yes	-
VERSION	NUMBER(5,0)	No	1
BO_STATUS_REASON_CD	VARCHAR2(30)	Yes	-

#### Primary Key:

Key Type	Column Name
Simple	APAY_REQ_ID

#### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM752P0	Non Unique	APAY_REQ_ID



## C.2 C1\_APAY\_REQ\_CHAR

<b>Purpose:</b>	Used to store the characteristics of an automatic payment request.
<b>Total Number of Columns:</b>	12

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
APAY_REQ_ID	CHAR(12)	No	-
CHAR_TYPE_CD	CHAR(8)	No	-
EFFDT	DATE	No	-
CHAR_VAL	CHAR(16)	No	''
ADHOC_CHAR_VAL	VARCHAR2(254)	No	''
CHAR_VAL_FK1	VARCHAR2(50)	No	''
CHAR_VAL_FK2	VARCHAR2(50)	No	''
CHAR_VAL_FK3	VARCHAR2(50)	No	''
CHAR_VAL_FK4	VARCHAR2(50)	No	''
CHAR_VAL_FK5	VARCHAR2(50)	No	''
SRCH_CHAR_VAL	VARCHAR2(254)	No	''
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	APAY_REQ_ID
	CHAR_TYPE_CD
	EFFDT

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM754P0	Non Unique	APAY_REQ_ID
			CHAR_TYPE_CD
			EFFDT

## C.3 C1\_APAY\_REQ\_DTLS

<b>Purpose:</b>	Used to store the bills for which the automatic payment request is created.
<b>Total Number of Columns:</b>	8

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
APAY_REQ_ID	CHAR(12)	No	-
APAY_DTL_ID	CHAR(12)	No	-
APAY_ID	VARCHAR2(14)	No	-
SCHED_EXTRACT_DT	DATE	Yes	-
EXTRACT_ELIG_SW	CHAR(1)	No	'N'
VERSION	NUMBER(5,0)	No	1
BILL_ID	CHAR(12)	No	-
SETTLEMENT_ACCT_ID	CHAR(10)	No	-

### Primary Key:

Key Type	Column Name
Simple	APAY_DTL_ID

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM755P0	Non Unique	APAY_DTL_ID

## C.4 C1\_APAY\_REQ\_K

<b>Purpose:</b>	Used to store the automatic payment request ID.
<b>Total Number of Columns:</b>	2

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
APAY_REQ_ID	CHAR(12)	No	-
ENV_ID	NUMBER(6,0)	No	-

**Primary Key:**

Key Type	Column Name
Composite	APAY_REQ_ID
	ENV_ID

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM753P0	Unique	APAY_REQ_ID
			ENV_ID

## C.5 C1\_APAY\_REQ\_LOG

<b>Purpose:</b>	Used to store the logs of an automatic payment request.
<b>Total Number of Columns:</b>	20

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
APAY_REQ_ID	CHAR(12)	No	-
SEQNO	NUMBER(5,0)	No	-
LOG_DTTM	DATE	No	-
LOG_ENTRY_TYPE_FLG	CHAR(4)	No	''
DESCRLONG	VARCHAR2(4000)	No	''
BO_STATUS_CD	CHAR(12)	No	''
BO_STATUS_REASON_CD	VARCHAR2(30)	Yes	-
MESSAGE_CAT_NBR	NUMBER(5,0)	Yes	-
MESSAGE_NBR	NUMBER(5,0)	Yes	-
CHAR_TYPE_CD	CHAR(8)	Yes	-
CHAR_VAL	CHAR(16)	No	''
ADHOC_CHAR_VAL	VARCHAR2(254)	No	''
CHAR_VAL_FK1	VARCHAR2(50)	No	''
CHAR_VAL_FK2	VARCHAR2(50)	No	''
CHAR_VAL_FK3	VARCHAR2(50)	No	''
CHAR_VAL_FK4	VARCHAR2(50)	No	''
CHAR_VAL_FK5	VARCHAR2(50)	No	''

Column Name	Data Type	Nullable (Yes or No)	Default Value
USER_ID	CHAR(8)	Yes	-
SRCH_CHAR_VAL	VARCHAR2(254)	Yes	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	APAY_REQ_ID
	SEQNO

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM756P0	Non Unique	APAY_REQ_ID
			SEQNO

## C.6 C1\_APAY\_REQ\_LOG\_PARM

<b>Purpose:</b>	Used to store the log parameters of an automatic payment request.
<b>Total Number of Columns:</b>	6

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
APAY_REQ_ID	CHAR(12)	No	-
SEQNO	NUMBER(5,0)	No	-
PARM_SEQ	NUMBER(3,0)	No	-
MSG_PARM_TYP_FLG	CHAR(4)	No	''
MSG_PARM_VAL	VARCHAR2(2000)	No	''
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	APAY_REQ_ID
	SEQNO
	PARM_SEQ

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM757P0	Non Unique	APAY_REQ_ID
			SEQNO
			PARM_SEQ

## C.7 C1\_APAY\_REQ\_TYPE

<b>Purpose:</b>	Used to store the details of an automatic payment request type.
<b>Total Number of Columns:</b>	12

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
APAY_REQ_TYPE_CD	CHAR(30)	No	-
BUS_OBJ_CD	CHAR(30)	No	''
TRANS_BUS_OBJ_CD	CHAR(30)	No	''
BO_DATA_AREA	CLOB	No	''
APAY_REQ_ACTION_FLG	CHAR(4)	No	-
C1_ACTIVE_INACTIVE_FLG	CHAR(4)	No	-
VERSION	NUMBER(5,0)	No	1
IS_APPR_REQ_SW	CHAR(1)	No	-
C1_APPR_TD_TYPE	CHAR(8)	No	''
C1_APPR_TD_ROLE	CHAR(10)	No	''
C1_SUB_TD_TYPE	CHAR(8)	No	''
C1_SUB_TD_ROLE	CHAR(10)	No	''

**Primary Key:**

Key Type	Column Name
Simple	APAY_REQ_TYPE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM749P0	Unique	APAY_REQ_TYPE_CD

## C.8 C1\_APAY\_REQ\_TYPE\_CHAR

<b>Purpose:</b>	Used to store the characteristics of an automatic payment request type.
<b>Total Number of Columns:</b>	12

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
APAY_REQ_TYPE_CD	CHAR(30)	No	-
CHAR_TYPE_CD	CHAR(8)	No	-
SEQ_NUM	NUMBER(5,0)	No	-
CHAR_VAL	CHAR(16)	No	''
ADHOC_CHAR_VAL	VARCHAR2(254)	No	''
CHAR_VAL_FK1	VARCHAR2(50)	No	''
CHAR_VAL_FK2	VARCHAR2(50)	No	''
CHAR_VAL_FK3	VARCHAR2(50)	No	''
CHAR_VAL_FK4	VARCHAR2(50)	No	''
CHAR_VAL_FK5	VARCHAR2(50)	No	''
SRCH_CHAR_VAL	VARCHAR2(254)	No	''
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	APAY_REQ_TYPE_CD
	CHAR_TYPE_CD
	SEQ_NUM

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM751P0	Unique	APAY_REQ_TYPE_CD
			CHAR_TYPE_CD
			SEQ_NUM

## C.9 C1\_APAY\_REQ\_TYPE\_L

<b>Purpose:</b>	Used to store the description of an automatic payment request type.
<b>Total Number of Columns:</b>	5

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
APAY_REQ_TYPE_CD	CHAR(30)	No	-
LANGUAGE_CD	CHAR(3)	No	-
DESCR	VARCHAR2(60)	No	' '
DESCRLONG	VARCHAR2(4000)	No	' '
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	APAY_REQ_TYPE_CD
	LANGUAGE_CD

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM727P0	Unique	APAY_REQ_TYPE_CD
			LANGUAGE_CD

## C.10 C1\_DEAL\_PRICE\_ASGN\_TC\_L

<b>Purpose:</b>	Used to store the price assignment specific terms and conditions of a deal.
<b>Total Number of Columns:</b>	4

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
DEAL_PRI_TC_ID	CHAR(10)	No	-
LANGUAGE_CD	CHAR(3)	No	-
LONG_DESC	VARCHAR2(4000)	Yes	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	DEAL_PRI_TC_ID
	LANGUAGE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM747P0	Unique	DEAL_PRI_TC_ID
			LANGUAGE_CD

## C.11 C1\_DEAL\_TC\_ADHOC

<b>Purpose:</b>	Used to store the adhoc terms and conditions of a deal.
<b>Total Number of Columns:</b>	4

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
DEAL_TC_ID	CHAR(10)	No	-
DEAL_ID	CHAR(10)	No	-
TC_TYPE_CD	CHAR(12)	Yes	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Simple	DEAL_TC_ID

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM745P0	Unique	DEAL_TC_ID

## C.12 C1\_DEAL\_TC\_ADHOC\_L

<b>Purpose:</b>	Used to store the description of the adhoc terms and conditions of a deal.
<b>Total Number of Columns:</b>	4



**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
DEAL_TC_ID	CHAR(10)	No	-
LANGUAGE_CD	CHAR(3)	No	-
LONG_DESC	VARCHAR2(4000)	Yes	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	DEAL_TC_ID
	LANGUAGE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM746P0	Unique	DEAL_TC_ID
			LANGUAGE_CD

## Appendix D : Existing Tables Modified in ORMB Version 3.2.0.0.0

This section lists the existing tables which are modified in Oracle Revenue Management and Billing Version 3.2.0.0.0. It indicates the columns that are newly added, dropped, or modified in these tables.

### D.1 C1\_BENEFIT\_SUB\_TYPE

The following table lists the columns that are newly added, modified, or dropped in the C1\_BENEFIT\_SUB\_TYPE table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	SPONS_ACCT_DER_ALG_CD	Newly Added	-	CHAR(12)	No	-

### D.2 C1\_DEAL

The following table lists the columns that are newly added, modified, or dropped in the C1\_DEAL table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	LAST_UPDATE_DTTM	Newly Added	-	DATE	No	-

## D.3 C1\_DEAL\_PRICE\_ASGN\_TC

The following table lists the columns that are newly added, modified, or dropped in the C1\_DEAL\_PRICE\_ASGN\_TC table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BUS_OBJ_CD	Newly Added	-	CHAR(30)	No	-

## D.4 C1\_DEAL\_TYPE

The following table lists the columns that are newly added, modified, or dropped in the C1\_DEAL\_TYPE table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	DAYS_TO_INACTIVATE	Newly Added	-	NUMBER(3)	No	-

## D.5 C1\_DSPT\_REQ\_TYPE

The following table lists the columns that are newly added, modified, or dropped in the C1\_DSPT\_REQ\_TYPE table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ACCT_ID	Newly Added	-	CHAR(10)	No	-

## D.6 C1\_HOLD\_REQ\_TYPE

The following table lists the columns that are newly added, modified, or dropped in the C1\_HOLD\_REQ\_TYPE table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	IS_RELAPPR_REQ	Newly Added	-	CHAR(1)	No	-
2.	C1_RELAPPR_TD_ROLE	Newly Added	-	CHAR(8)	No	-
3.	C1_RELAPPR_TD_TYPE	Newly Added	-	CHAR(10)	No	-

## D.7 C1\_MODEL\_SQI

The following table lists the columns that are newly added, modified, or dropped in the C1\_MODEL\_SQI table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	CHG_DT_FLG	Newly Added	-	CHAR(1)	No	-

## D.8 C1\_REF\_WO\_REQ\_TYPE

The following table lists the columns that are newly added, modified, or dropped in the C1\_REF\_WO\_REQ\_TYPE table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ACCT_ID	Newly Added	-	CHAR(10)	No	-

## D.9 CI\_ACCT

The following table lists the columns that are newly added, modified, or dropped in the CI\_ACCT table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	APAY_REV_REQD_SW	Newly Added	-	CHAR(1)	No	-
2.	HOLD_REF_DT	Newly Added	-	DATE	No	-
3.	IM_REFUND_SW	Newly Added	-	CHAR(1)	No	-

## D.10 CI\_ACCT\_APAY

The following table lists the columns that are newly added, modified, or dropped in the CI\_ACCT\_APAY table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	APAY_USAGE_FLG	Newly Added	-	CHAR(4)	No	-

## D.11 CI\_ADJ\_TYPE

The following table lists the columns that are newly added, modified, or dropped in the CI\_ADJ\_TYPE table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	REF_OPTION_FLG	Newly Added	-	CHAR(4)	No	-

## D.12 CI\_APAY\_RT\_TYPE

The following table lists the columns that are newly added, modified, or dropped in the CI\_APAY\_RT\_TYPE table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	REF_DATE_CALC_ALG	Newly Added	-	CHAR(12)	No	-

## D.13 CI\_BILL\_ACH

The following table lists the columns that are newly added, modified, or dropped in the CI\_BILL\_ACH table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	EXTRACT_ELIG_SW	Newly Added	-	CHAR(1)	No	-

## D.14 CI\_CIS\_DIVISION

The following table lists the columns that are newly added, modified, or dropped in the CI\_CIS\_DIVISION table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	APREQ_REF_SW	Newly Added	-	CHAR(1)	No	-
2.	DIR_CRD_REF_SW	Newly Added	-	CHAR(1)	No	-
3.	IM_REFUND_SW	Newly Added	-	CHAR(1)	No	-

## D.15 CI\_CUST\_CL\_CTRL

The following table lists the columns that are newly added, modified, or dropped in the CI\_CUST\_CL\_CTRL table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	IM_REFUND_SW	Newly Added	-	CHAR(1)	No	-

## D.16 CI\_PER

The following table lists the columns that are newly added, modified, or dropped in the CI\_PER table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	IM_REFUND_SW	Newly Added	-	CHAR(1)	No	-

## D.17 CI\_PRICEASGN

The following table lists the columns that are newly added, modified, or dropped in the CI\_PRICEASGN table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	CHG_DT_FLG	Newly Added	-	CHAR(1)	No	-

## D.18 CI\_TXN\_CALC

The following table lists the columns that are newly added, modified, or dropped in the CI\_TXN\_CALC table:

Sr. No.	Column Name	Modification Type	Data Type in V3.1.0.0.0	Data Type in V3.2.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	RESEED_SW	Newly Added	-	CHAR(1)	No	-



---

## Appendix E : Algorithms and Algorithm Types Dropped in ORMB Version 3.2.0.0.0

---

This section lists the algorithms and algorithm types which are dropped in Oracle Revenue Management and Billing Version 3.2.0.0.0.

### E.1 Algorithm Type

No algorithm types are dropped in Oracle Revenue Management and Billing Version 3.2.0.0.0.

### E.2 Algorithm

No algorithms are dropped in Oracle Revenue Management and Billing Version 3.2.0.0.0.

## **Appendix F : Parameters Added or Removed from Algorithm Types in ORMB Version 3.2.0.0.0**

---

No parameters are newly added or removed from the existing algorithm types in Oracle Revenue Management and Billing Version 3.2.0.0.0.

## Appendix G : Option Types Added or Removed from Feature Configurations in ORMB Version 3.2.0.0.0

This section lists the option types which are newly added or removed from the existing feature configurations in Oracle Revenue Management and Billing Version 3.2.0.0.0.

Feature Configuration	Option Type (Removed from 3.2.0.0.0)	Option Type (Added in 3.2.0.0.0)
C1_AXENTITY	-	Approval Transaction Field Masking
C1_FINTRANOP	-	Allow non-significant zero amount FT GL entry
C1-DEAL	-	Agreed Priceltem Limit For Online Hierarchy Creation

## **Appendix H : Characteristic Types Dropped in ORMB Version 3.2.0.0.0**

---

No characteristic types are dropped in Oracle Revenue Management and Billing Version 3.2.0.0.0.

## Appendix I : Changing the DB User Password

---

If you have changed the database user password, you need to execute the following steps before installing the rollup pack for Oracle Utilities Application Framework Version 4.4.0.3.0:

1. Download and apply the single fix available for Bug 22505470 - PATCHES APPEND EXTRA SPACE TO STRINGS AND ADD DB SERVICE CONNECTION SUPPORT on the application and database environments.
2. Perform the following steps on the application environment:
  - a. Change the DB Name using the `configureEnv` command.
  - b. Execute the `initialSetup` utility using the following command:

**AIX, Linux:**

```
$SPLEBASE/bin/initialSetup.sh
```

**Windows:**

```
%SPLEBASE%\bin\initialSetup.cmd
```

- c. Execute the `invokeDBUpdatePatch` utility to change the database user name and password using the following command:

**AIX, Linux:**

```
$SPLEBASE/bin/invokeDBUpdatePatch.sh -b
```

**Windows:**

```
%SPLEBASE%\bin\invokeDBUpdatePatch.cmd -b
```

## Appendix J : ORMB V3.2.0.0.0 Rollup Packs

Instead of individually applying the patches, you can download and apply the release-specific rollup packs. To view the list of rollup packs that you need to apply on the application environment and database, refer to the *ORMB V3.2.0.0.0 Patch Guide (Document ID: 2850975.1)* on [My Oracle Support](#).

### J.1 Applying a Rollup Pack on the Application Environment

Once you install Oracle Revenue Management and Billing Version 3.2.0.0.0, you need to apply the rollup packs listed in the *ORMB V3.2.0.0.0 Patch Guide (Document ID: 2850975.1)*. To apply a rollup pack on the application environment:

1. Download the rollup pack from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the rollup pack using the following command:

**AIX, Linux:**

```
unzip <filename>.zip -d <PATH>/<DESTINATION_FOLDER_1>
```

**Windows:**

```
unzip <filename>.zip -d <PATH>\<DESTINATION_FOLDER_1>
```

The contents of the zip file are extracted in the <DESTINATION\_FOLDER\_1> folder. The contents include the `README.txt` file and three folders named `RMB_V3.2.0.0.0_App_Rollup`, `RMB_V3.2.0.0.0_DB_Rollup`, and `RMB_V3.2.0.0.0_PFDs`.

3. Initialize the application environment (on which you want to install the rollup pack) using the following command:

**AIX, Linux:**

```
$(SPLEBASE)/bin/splenvron.sh -e $(SPLENVIRON)
```

**Windows:**

```
%SPLEBASE%\bin\splenvron.cmd -e %SPLENVIRON%
```

Where,

`$(SPLEBASE)` or `%SPLEBASE%` is the path where the application environment is installed and `$(SPLENVIRON)` or `%SPLENVIRON%` is the name of the application environment.

4. Change to the `RMB_V3.2.0.0.0_App_Rollup` folder using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_1>/RMB_V3.2.0.0.0_App_Rollup
```

**Windows:**

```
cd <DESTINATION_FOLDER_1>\RMB_V3.2.0.0.0_App_Rollup
```

**Note:** The <DESTINATION\_FOLDER\_1> folder is the location where you have extracted the contents of the rollup pack.

5. Install the patch using the following command:

**AIX, Linux:**

```
./installSFgroup.sh
```

**Windows:**

```
installSFgroup.cmd
```

## J.2 Applying a Rollup Pack on the Database

Once you install Oracle Revenue Management and Billing Version 3.2.0.0.0, you need to apply the rollup packs listed in the *ORMB V3.2.0.0.0 Patch Guide (Document ID: 2850975.1)*. You can apply a rollup pack from a Windows machine or UNIX Standalone server. To apply a rollup pack on the database:

1. Download the rollup pack from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the rollup pack using the following command:

**AIX, Linux:**

```
unzip <filename>.zip -d <PATH>/<DESTINATION_FOLDER_1>
```

**Windows:**

```
unzip <filename>.zip -d <PATH>\<DESTINATION_FOLDER_1>
```

The contents of the zip file are extracted in the <DESTINATION\_FOLDER\_1> folder. The contents include the `README.txt` file and three folders named `RMB_V3.2.0.0.0_App_Rollup`, `RMB_V3.2.0.0.0_DB_Rollup`, and `RMB_V3.2.0.0.0_PFDs`.

3. Change to the `RMB_V3.2.0.0.0_DB_Rollup` folder using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_1>/RMB_V3.2.0.0.0_DB_Rollup
```

**Windows:**

```
cd <DESTINATION_FOLDER_1>\RMB_V3.2.0.0.0_DB_Rollup
```

**Note:** The <DESTINATION\_FOLDER\_1> folder is the location where you have extracted the contents of the rollup pack.

4. Execute the `ouafDatabasePatch` utility using the following command:

**Windows:**

```
ouafDatabasePatch.cmd
```

**AIX, Linux:**

```
ouafDatabasePatch.sh
```

## Appendix K : New Tables Added in OUAF Version 4.4.0.3.0

This section lists and describes the tables that are newly added in Oracle Utilities Application Framework Version 4.4.0.3.0.

### K.1 CI\_ACC\_GRP\_ROLE

<b>Purpose:</b>	Used to store the To Do types associated with an access group.
<b>Total Number of Columns:</b>	4

#### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ACCESS_GRP_CD	CHAR(12)	No	NULL
TD_TYPE_CD	CHAR(8)	No	NULL
ROLE_ID	CHAR(10)	No	NULL
VERSION	NUMBER(5,0)	No	1

#### Primary Key:

Key Type	Column Name
Composite	ACCESS_GRP_CD
	TD_TYPE_CD

#### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	F1C776P0	Unique	ACCESS_GRP_CD
			TD_TYPE_CD

### K.2 F1\_ACTION\_METHOD

<b>Purpose:</b>	Used to store the details of an action method.
<b>Total Number of Columns:</b>	5

#### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ACTION_METHOD_CD	VARCHAR2(30)	No	NULL



Column Name	Data Type	Nullable (Yes or No)	Default Value
ACTION_METHOD_ROLE_XFLG	VARCHAR2(30)	No	NULL
BUS_OBJ_CD	CHAR(30)	No	NULL
BO_XML_DATA_AREA	XMLTYPE	Yes	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Simple	ACTION_METHOD_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C777P0	UNIQUE	ACTION_METHOD_CD

## K.3 F1\_ACTION\_METHOD\_CHAR

<b>Purpose:</b>	Used to store the characteristics of an action method.
<b>Total Number of Columns:</b>	12

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
ACTION_METHOD_CD	VARCHAR2(30)	No	NULL
CHAR_TYPE_CD	CHAR(8)	No	NULL
SEQ_NUM	NUMBER(3,0)	No	NULL
ADHOC_CHAR_VAL	VARCHAR2(254)	Yes	-
CHAR_VAL	CHAR(16)	Yes	-
CHAR_VAL_FK1	VARCHAR2(50)	Yes	-
CHAR_VAL_FK2	VARCHAR2(50)	Yes	-
CHAR_VAL_FK3	VARCHAR2(50)	Yes	-
CHAR_VAL_FK4	VARCHAR2(50)	Yes	-
CHAR_VAL_FK5	VARCHAR2(50)	Yes	-
SRCH_CHAR_VAL	VARCHAR2(50)	Yes	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	ACTION_METHOD_CD
	CHAR_TYPE_CD
	SEQ_NUM

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C779P0	Unique	ACTION_METHOD_CD
			CHAR_TYPE_CD
			SEQ_NUM
2.	F1C779S1	Non Unique	SRCH_CHAR_VAL

## K.4 F1\_ACTION\_METHOD\_L

<b>Purpose:</b>	Used to store the description of an action method.
<b>Total Number of Columns:</b>	5

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
ACTION_METHOD_CD	VARCHAR2(30)	No	NULL
LANGUAGE_CD	CHAR(3)	No	NULL
DESCR100	VARCHAR2(100)	No	NULL
DESCRLONG	VARCHAR2(4000)	Yes	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	ACTION_METHOD_CD
	LANGUAGE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C778P0	Unique	ACTION_METHOD_CD
			LANGUAGE_CD

## K.5 F1\_COLOR\_OPT

<b>Purpose:</b>	Used to store the details of a color option.
<b>Total Number of Columns:</b>	8

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
COLOR_OPT_CD	VARCHAR2(30)	No	-
BUS_OBJ_CD	CHAR(30)	No	-
COLOR_OPT_CLASS_FLG	CHAR(4)	No	''
BACKGROUND_COLOR_XFLG	VARCHAR2(30)	No	''
BACKGROUND_COLOR_XFLG	VARCHAR2(30)	Yes	-
OWNER_FLG	CHAR(4)	No	''
BO_XML_DATA_AREA	XMLTYPE	Yes	-
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Simple	COLOR_OPT_CD

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	F1C787P0	Unique	COLOR_OPT_CD

## K.6 F1\_COLOR\_OPT\_ITEM

<b>Purpose:</b>	Used to store the foreground and background colors defined in a color option.
<b>Total Number of Columns:</b>	6

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
COLOR_OPT_CD	VARCHAR2(30)	No	-
SEQNO	NUMBER(5,0)	No	1
ITEM_FOREGROUND_COLOR_XFLG	VARCHAR2(30)	No	''

Column Name	Data Type	Nullable (Yes or No)	Default Value
ITEM_BACKGROUND_COLOR_XFLG	VARCHAR2(30)	Yes	-
OWNER_FLG	CHAR(4)	No	''
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	COLOR_OPT_CD
	SEQNO

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C789P0	Unique	COLOR_OPT_CD
			SEQNO

## K.7 F1\_COLOR\_OPT\_L

<b>Purpose:</b>	Used to store the description of a color option.
<b>Total Number of Columns:</b>	5

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
COLOR_OPT_CD	VARCHAR2(30)	No	-
LANGUAGE_CD	CHAR(3)	No	-
DESCR100	VARCHAR2(100)	No	-
OWNER_FLG	CHAR(4)	No	''
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	COLOR_OPT_CD
	LANGUAGE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C788P0	Unique	COLOR_OPT_CD
			LANGUAGE_CD

## K.8 F1\_DATA\_EXPORT\_CTRL

<b>Purpose:</b>	Used to store the details of a data export control.
<b>Total Number of Columns:</b>	9

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
F1_DATA_EXPORT_CD	VARCHAR2(30)	No	NULL
BUS_OBJ_CD	CHAR(30)	No	NULL
F1_DATA_EXPORT_CLS_FLG	CHAR(4)	No	NULL
MAINT_OBJ_CD	CHAR(12)	No	NULL
F1_INIT_EXPORT_FLG	CHAR(4)	Yes	-
F1_ONGEXP_STATUS_FLG	CHAR(4)	Yes	-
F1_EXPORT_THRU_DTTM	DATE	Yes	-
CRE_DTTM	DATE	No	NULL
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Simple	F1_DATA_EXPORT_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C765P0	Unique	F1_DATA_EXPORT_CD

Sr. No.	Index Name	Index Type	Column Name
2.	F1C765S1	Unique	MAINT_OBJ_CD

## K.9 F1\_DATA\_EXPORT\_CTRL\_LOG

<b>Purpose:</b>	Used to store the logs of a data export control.
<b>Total Number of Columns:</b>	17

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
F1_DATA_EXPORT_CD	VARCHAR2(30)	No	NULL
SEQNO	NUMBER(5,0)	No	-
LOG_DTTM	DATE	No	-
LOG_ENTRY_TYPE_FLG	CHAR(4)	No	NULL
DESCRLONG	VARCHAR2(4000)	No	NULL
CHAR_TYPE_CD	CHAR(8)	No	NULL
CHAR_VAL	CHAR(16)	No	NULL
ADHOC_CHAR_VAL	VARCHAR2(254)	No	NULL
CHAR_VAL_FK1	VARCHAR2(50)	No	NULL
CHAR_VAL_FK2	VARCHAR2(50)	No	NULL
CHAR_VAL_FK3	VARCHAR2(50)	No	NULL
CHAR_VAL_FK4	VARCHAR2(50)	No	NULL
CHAR_VAL_FK5	VARCHAR2(50)	No	NULL
MESSAGE_CAT_NBR	NUMBER(5,0)	No	0
MESSAGE_NBR	NUMBER(5,0)	No	0
USER_ID	CHAR(8)	No	NULL
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	F1_DATA_EXPORT_CD
	SEQNO

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	F1C766P0	Unique	F1_DATA_EXPORT_CD
			SEQNO

Sr. No.	Index Name	Index Type	Column Name
2.	F1C766S1	Non Unique	CHAR_TYPE_CD
			CHAR_VAL_FK1
3.	F1C766S2	Non Unique	CHAR_TYPE_CD
			CHAR_VAL

## K.10 F1\_DATA\_EXPORT\_CTRL\_LOG\_PARM

<b>Purpose:</b>	Used to store the log parameters of a data export control.
<b>Total Number of Columns:</b>	6

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
F1_DATA_EXPORT_CD	VARCHAR2(30)	No	NULL
SEQNO	NUMBER(5,0)	No	-
PARAM_SEQ	NUMBER(3,0)	No	-
MSG_PARM_TYP_FLG	CHAR(4)	No	-
MSG_PARM_VAL	VARCHAR2(2000)	No	-
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	F1_DATA_EXPORT_CD
	SEQNO
	PARAM_SEQ

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	F1C767P0	Unique	F1_DATA_EXPORT_CD
			SEQNO
			PARAM_SEQ

## K.11 F1\_FILE\_INT\_REC

<b>Purpose:</b>	Used to store the details of a file integration record.
<b>Total Number of Columns:</b>	11

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FILE_INT_TYPE_CD	VARCHAR2(30)	No	NULL
FILE_INT_REC_CD	VARCHAR2(30)	No	NULL
SEQNO	NUMBER(5,0)	No	1
PRNT_SEQ	NUMBER(5,0)	Yes	-
DATA_AREA_CD	CHAR(30)	No	NULL
ROOT_ELEM	VARCHAR2(100)	No	NULL
BUS_OBJ_CD	CHAR(30)	No	NULL
FILE_INT_REC_STATUS_FLG	CHAR(4)	No	NULL
BO_XML_DATA_AREA	XMLTYPE	Yes	-
OWNER_FLG	CHAR(4)	No	NULL
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	FILE_INT_TYPE_CD
	FILE_INT_REC_CD

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	F1C773P0	Unique	FILE_INT_TYPE_CD
			FILE_INT_REC_CD



## K.12 F1\_FILE\_INT\_REC\_ALG

<b>Purpose:</b>	Used to store the algorithms associated with a file integration record.
<b>Total Number of Columns:</b>	7

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FILE_INT_TYPE_CD	VARCHAR2(30)	No	NULL
FILE_INT_REC_CD	VARCHAR2(30)	No	NULL
FILE_INT_REC_SEVT_FLG	CHAR(4)	No	NULL
SEQ_NUM	NUMBER(3,0)	No	1
ALG_CD	CHAR(12)	No	NULL
OWNER_FLG	CHAR(4)	No	NULL
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	FILE_INT_TYPE_CD
	FILE_INT_REC_CD
	FILE_INT_REC_SEVT_FLG
	SEQ_NUM
	ALG_CD

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	F1C775P0	Unique	FILE_INT_TYPE_CD
			FILE_INT_REC_CD
			FILE_INT_REC_SEVT_FLG
			SEQ_NUM
			ALG_CD

## K.13 F1\_FILE\_INT\_REC\_L

<b>Purpose:</b>	Used to store the description of a file integration record.
<b>Total Number of Columns:</b>	7

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FILE_INT_TYPE_CD	VARCHAR2(30)	No	NULL
FILE_INT_REC_CD	VARCHAR2(30)	No	NULL
LANGUAGE_CD	CHAR(3)	No	NULL
DESCR100	VARCHAR2(100)	No	NULL
DESCR4000	VARCHAR2(4000)	Yes	-
OWNER_FLG	CHAR(4)	No	NULL
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	FILE_INT_TYPE_CD
	FILE_INT_REC_CD
	LANGUAGE_CD

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	F1C774P0	Unique	FILE_INT_TYPE_CD
			FILE_INT_REC_CD
			LANGUAGE_CD

## K.14 F1\_FILE\_INT\_TYPE

<b>Purpose:</b>	Used to store the details of a file integration type.
<b>Total Number of Columns:</b>	8

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FILE_INT_TYPE_CD	VARCHAR2(30)	No	NULL

Column Name	Data Type	Nullable (Yes or No)	Default Value
BUS_OBJ_CD	CHAR(30)	No	NULL
FILE_INT_CLASS_FLG	CHAR(4)	No	NULL
FILE_INT_OBJ_FLG	CHAR(4)	No	NULL
FILE_INT_STATUS_FLG	CHAR(4)	No	NULL
BO_XML_DATA_AREA	XMLTYPE	Yes	-
OWNER_FLG	CHAR(4)	No	NULL
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Simple	FILE_INT_TYPE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C771P0	Unique	FILE_INT_TYPE_CD

## K.15 F1\_FILE\_INT\_TYPE\_L

<b>Purpose:</b>	Used to store the description of a file integration type.
<b>Total Number of Columns:</b>	6

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
FILE_INT_TYPE_CD	VARCHAR2(30)	No	NULL
LANGUAGE_CD	CHAR(3)	No	NULL
DESCR100	VARCHAR2(100)	No	NULL
DESCR4000	VARCHAR2(4000)	Yes	-
OWNER_FLG	CHAR(4)	No	NULL
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	FILE_INT_TYPE_CD
	LANGUAGE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C772P0	Unique	FILE_INT_TYPE_CD
			LANGUAGE_CD

## K.16 F1\_INSIGHT\_GRP

<b>Purpose:</b>	Used to store the details of an insight group.
<b>Total Number of Columns:</b>	5

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
INSIGHT_GRP_CD	VARCHAR2(30)	No	-
BUS_OBJ_CD	CHAR(30)	No	-
INSIGHT_CLASS_FLG	CHAR(4)	No	''
BO_XML_DATA_AREA	XMLTYPE	Yes	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Simple	INSIGHT_GRP_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C801P0	Unique	INSIGHT_GRP_CD

## K.17 F1\_INSIGHT\_GRP\_CHAR

<b>Purpose:</b>	Used to store the characteristics of an insight group.
<b>Total Number of Columns:</b>	12

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
INSIGHT_GRP_CD	VARCHAR2(30)	No	-
CHAR_TYPE_CD	CHAR(8)	No	-
CHAR_VAL	CHAR(16)	No	-
ADHOC_CHAR_VAL	VARCHAR2(254)	No	-
CHAR_VAL_FK1	VARCHAR2(50)	No	''
CHAR_VAL_FK2	VARCHAR2(50)	No	''
CHAR_VAL_FK3	VARCHAR2(50)	No	''
CHAR_VAL_FK4	VARCHAR2(50)	No	''
CHAR_VAL_FK5	VARCHAR2(50)	No	''
SRCH_CHAR_VAL	VARCHAR2(50)	No	''
VERSION	NUMBER(5,0)	No	1
SEQ_NUM	NUMBER(3,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	INSIGHT_GRP_CD
	CHAR_TYPE_CD
	SEQ_NUM

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	F1C803P0	Unique	INSIGHT_GRP_CD
			CHAR_TYPE_CD
			SEQ_NUM
2.	F1C803S1	Non Unique	SRCH_CHAR_VAL

## K.18 F1\_INSIGHT\_GRP\_L

<b>Purpose:</b>	Used to store the description of an insight group.
<b>Total Number of Columns:</b>	5

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
INSIGHT_GRP_CD	VARCHAR2(30)	No	-
LANGUAGE_CD	CHAR(3)	No	-
DESCR100	VARCHAR2(100)	No	-
DESCRLONG	VARCHAR2(4000)	Yes	-
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	INSIGHT_GRP_CD
	LANGUAGE_CD

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	F1C802P0	Unique	INSIGHT_GRP_CD
			LANGUAGE_CD

## K.19 F1\_INSIGHT\_GRP\_TYPE

<b>Purpose:</b>	Used to store the details of an insight group type.
<b>Total Number of Columns:</b>	4

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
INSIGHT_GRP_CD	VARCHAR2(30)	No	-
INSIGHT_TYPE_CD	VARCHAR2(30)	No	-
SEQ_NUM	NUMBER(3,0)	No	1
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	INSIGHT_GRP_CD
	INSIGHT_TYPE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C805P0	Unique	INSIGHT_GRP_CD
			INSIGHT_TYPE_CD

## K.20 F1\_INSIGHT\_GRP\_VISUAL\_STR

<b>Purpose:</b>	Used to store the visual structures of an insight group.
<b>Total Number of Columns:</b>	3

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
INSIGHT_GRP_CD	VARCHAR2(30)	No	-
VISUAL_STRUCTURE_FLG	CHAR(4)	No	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	INSIGHT_GRP_CD
	VISUAL_STRUCTURE_FLG

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C804P0	Unique	INSIGHT_GRP_CD
			VISUAL_STRUCTURE_FLG

## K.21 F1\_INSIGHT\_TYPE

<b>Purpose:</b>	Used to store the details of an insight type.
<b>Total Number of Columns:</b>	7

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
INSIGHT_TYPE_CD	VARCHAR2(30)	No	-
BUS_OBJ_CD	CHAR(30)	No	-
VISUAL_STRUCTURE_FLG	CHAR(4)	No	-
INSIGHT_ACT_TRACK_FLG	CHAR(4)	No	-
OWNER_FLG	CHAR(4)	No	-
BO_XML_DATA_AREA	XMLTYPE	Yes	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Simple	INSIGHT_TYPE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C780P0	Unique	INSIGHT_TYPE_CD

## K.22 F1\_INSIGHT\_TYPE\_ALG

<b>Purpose:</b>	Used to store the algorithms associated with an insight type.
<b>Total Number of Columns:</b>	6

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
INSIGHT_TYPE_CD	VARCHAR2(30)	No	-
INSIGHT_SEVT_FLG	CHAR(4)	No	-
SEQ_NUM	NUMBER(3,0)	No	1
ALG_CD	CHAR(12)	No	-
OWNER_FLG	CHAR(4)	No	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	INSIGHT_TYPE_CD



Key Type	Column Name
	INSIGHT_SEVT_FLG
	SEQ_NUM

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C783P0	Unique	INSIGHT_TYPE_CD
			INSIGHT_SEVT_FLG
			SEQ_NUM

## K.23 F1\_INSIGHT\_TYPE\_CHAR

<b>Purpose:</b>	Used to store the characteristics of an insight type.
<b>Total Number of Columns:</b>	13

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
INSIGHT_TYPE_CD	VARCHAR2(30)	No	-
OWNER_FLG	CHAR(4)	No	-
CHAR_TYPE_CD	CHAR(8)	No	-
CHAR_VAL	CHAR(16)	No	-
ADHOC_CHAR_VAL	VARCHAR2(254)	No	-
CHAR_VAL_FK1	VARCHAR2(50)	No	-
CHAR_VAL_FK2	VARCHAR2(50)	No	-
CHAR_VAL_FK3	VARCHAR2(50)	No	-
CHAR_VAL_FK4	VARCHAR2(50)	No	-
CHAR_VAL_FK5	VARCHAR2(50)	No	-
SRCH_CHAR_VAL	VARCHAR2(50)	No	-
VERSION	NUMBER(5,0)	No	1
SEQ_NUM	NUMBER(3,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	INSIGHT_TYPE_CD

Key Type	Column Name
	CHAR_TYPE_CD
	SEQ_NUM

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C781P0	Unique	INSIGHT_TYPE_CD CHAR_TYPE_CD SEQ_NUM
2.	F1C781S1	Non Unique	SRCH_CHAR_VAL

## K.24 F1\_INSIGHT\_TYPE\_L

<b>Purpose:</b>	Used to store the description of an insight type.
<b>Total Number of Columns:</b>	6

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
INSIGHT_TYPE_CD	VARCHAR2(30)	No	-
LANGUAGE_CD	CHAR(3)	No	-
DESCR100	VARCHAR2(100)	No	-
DESCRLONG	VARCHAR2(4000)	Yes	-
OWNER_FLG	CHAR(4)	No	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	INSIGHT_TYPE_CD
	LANGUAGE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C782P0	Unique	INSIGHT_TYPE_CD LANGUAGE_CD

## K.25 F1\_INSIGHT\_TYPE\_USER\_ACT

<b>Purpose:</b>	Used to store the user actions defined for an insight type.
<b>Total Number of Columns:</b>	8

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
INSIGHT_TYPE_CD	VARCHAR2(30)	No	-
INSIGHT_ACT_CD	VARCHAR2(30)	No	-
INSIGHT_ACT_FLD_FLG	CHAR(4)	No	-
INSIGHT_ACT_DISP_TYPE	CHAR(4)	No	-
INSIGHT_ACT_CLASS_FLG	CHAR(4)	No	-
SCR_CD	CHAR(12)	No	-
OWNER_FLG	CHAR(4)	No	-
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	INSIGHT_TYPE_CD
	INSIGHT_ACT_CD

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	F1C784P0	Unique	INSIGHT_TYPE_CD
			INSIGHT_ACT_CD

## K.26 F1\_INSIGHT\_TYPE\_USER\_ACT\_ALG

<b>Purpose:</b>	Used to store the algorithms associated with an insight type user action.
<b>Total Number of Columns:</b>	7

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
INSIGHT_TYPE_CD	VARCHAR2(30)	No	-
INSIGHT_ACT_CD	VARCHAR2(30)	No	-
INSIGHT_ACT_SEVT_FLG	CHAR(4)	No	-
SEQ_NUM	NUMBER(3,0)	No	1
ALG_CD	CHAR(12)	No	-
OWNER_FLG	CHAR(4)	No	-
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	INSIGHT_TYPE_CD
	INSIGHT_ACT_CD
	INSIGHT_ACT_SEVT_FLG
	SEQ_NUM

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	F1C785P0	Unique	INSIGHT_TYPE_CD
			INSIGHT_ACT_CD
			INSIGHT_ACT_SEVT_FLG
			SEQ_NUM

## K.27 F1\_INSIGHT\_TYPE\_VISUAL\_SETTING

<b>Purpose:</b>	Used to store the visual settings of an insight type.
<b>Total Number of Columns:</b>	11

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
INSIGHT_TYPE_CD	VARCHAR2(30)	No	-
SEQ_NUM	NUMBER(3,0)	No	1
VISUAL_SETTING_TYPE_FLG	CHAR(4)	No	-
SEVERITY_VAL	NUMBER(6,0)	No	-
INSIGHT_COLOR_OPT_CD	VARCHAR2(30)	No	-
DISP_ICON_CD	CHAR(12)	No	-
ICON_COLOR_OPT_CD	VARCHAR2(30)	No	-
HEADER_COLOR_OPT_CD	VARCHAR2(30)	No	-
HEADER_CAT_FLG	CHAR(4)	No	-
OWNER_FLG	CHAR(4)	No	-
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	INSIGHT_TYPE_CD
	SEQ_NUM

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	F1C786P0	Unique	INSIGHT_TYPE_CD
			SEQ_NUM

## K.28 F1\_MD\_BI\_TBL

<b>Purpose:</b>	Used to store the details of an analytics table.
<b>Total Number of Columns:</b>	8

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
F1_BI_TBL_NAME	CHAR(30)	No	NULL
TBL_NAME	CHAR(30)	No	NULL
BUS_OBJ_CD	CHAR(30)	No	NULL
F1_BI_TABLE_TYPE_FLG	CHAR(4)	No	NULL
OWNER_FLG	CHAR(4)	No	NULL
VERSION	NUMBER(5,0)	No	1
F1_BI_HIER_DEFN	VARCHAR2(4000)	Yes	-
F1_BI_NAME	VARCHAR2(100)	No	NULL

**Primary Key:**

Key Type	Column Name
Simple	F1_BI_TBL_NAME

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C768P0	Unique	F1_BI_TBL_NAME

## K.29 F1\_MD\_BI\_TBL\_FLD

<b>Purpose:</b>	Used to store the fields included in an analytics table.
<b>Total Number of Columns:</b>	17

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
F1_BI_TBL_NAME	CHAR(30)	No	NULL
SEQ_NUM	NUMBER(3,0)	No	1
F1_BI_FLD_TYPE_FLG	CHAR(4)	No	NULL
FLD_NAME	CHAR(30)	No	NULL
OVRD_FLD_NAME	CHAR(30)	Yes	-
F1_DISP_SEQ_NUM	NUMBER(3,0)	Yes	-
F1_INTERNAL_SW	CHAR(1)	No	NULL
F1_AGG_RULE_FLG	CHAR(4)	No	NULL
F1_CALC_EXP	VARCHAR2(4000)	Yes	-

Column Name	Data Type	Nullable (Yes or No)	Default Value
F1_PROC_OPT_FLG	CHAR(4)	No	NULL
F1_DEGENERATE_SW	CHAR(1)	No	NULL
F1_HIDE_TIME_SW	CHAR(1)	No	NULL
F1_BUCKET_BO	VARCHAR2(30)	Yes	-
OWNER_FLG	CHAR(4)	No	NULL
VERSION	NUMBER(5,0)	No	1
BI_ELEM_NAME	VARCHAR2(60)	No	-
LOGICAL_DM_NAME	VARCHAR2(60)	Yes	-

**Primary Key:**

Key Type	Column Name
Composite	F1_BI_TBL_NAME
	SEQ_NUM

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C770P0	Unique	F1_BI_TBL_NAME
			SEQ_NUM

## K.30 F1\_MD\_BI\_TBL\_L

<b>Purpose:</b>	Used to store the description of an analytics table.
<b>Total Number of Columns:</b>	6

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
F1_BI_TBL_NAME	CHAR(30)	No	NULL
LANGUAGE_CD	CHAR(3)	No	NULL
DESCR100	VARCHAR2(100)	No	NULL
DESCRLONG	VARCHAR2(4000)	Yes	-
OWNER_FLG	CHAR(4)	No	NULL
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	F1_BI_TBL_NAME
	LANGUAGE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C769P0	Unique	F1_BI_TBL_NAME
			LANGUAGE_CD

## K.31 F1\_MO\_UPD

<b>Purpose:</b>	Used to store the details of a data export.
<b>Total Number of Columns:</b>	7

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
MAINT_OBJ_CD	CHAR(12)	No	-
PK_VALUE1	VARCHAR2(254)	No	-
PK_VALUE2	VARCHAR2(254)	Yes	-
PK_VALUE3	VARCHAR2(254)	Yes	-
PK_VALUE4	VARCHAR2(254)	Yes	-
PK_VALUE5	VARCHAR2(254)	Yes	-
ENT_KEY_HASH	NUMBER(5,0)	No	-

**Primary Key:**

None

**Indexes:**

None

## K.32 F1\_TREE

<b>Purpose:</b>	Used to store the details of a tree.
<b>Total Number of Columns:</b>	5



**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
TREE_CD	CHAR(30)	No	-
BUS_OBJ_CD	CHAR(30)	No	-
APPLY_HEADER_STYLE_FLG	CHAR(4)	Yes	-
OWNER_FLG	CHAR(4)	No	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Simple	TREE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C790P0	Unique	TREE_CD

## K.33 F1\_TREE\_L

<b>Purpose:</b>	Used to store the description of a tree.
<b>Total Number of Columns:</b>	5

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
TREE_CD	CHAR(30)	No	-
LANGUAGE_CD	CHAR(3)	No	-
DESCR100	VARCHAR2(100)	No	-
OWNER_FLG	CHAR(4)	No	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	TREE_CD
	LANGUAGE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C791P0	Unique	TREE_CD
			LANGUAGE_CD

## K.34 F1\_TREE\_NODE

<b>Purpose:</b>	Used to store the nodes of a tree.
<b>Total Number of Columns:</b>	14

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
TREE_CD	CHAR(30)	No	-
NODE_NAME	CHAR(30)	No	-
PARENT_NODE_NAME	CHAR(30)	Yes	-
SEQNO	NUMBER(5,0)	No	1
DISP_ICON_CD	CHAR(12)	Yes	-
NODE_TEXT_LABEL	CHAR(30)	Yes	-
BROADCAST_NODE_FLG	CHAR(4)	Yes	-
INITIALLY_EXPAND_FLG	CHAR(4)	Yes	-
CTXT_MENU_USAGE_FLG	CHAR(4)	Yes	-
CONTEXT_MENU_NAME	CHAR(30)	Yes	-
NODE_NAVIGATION_FLG	CHAR(4)	Yes	-
NODE_TEXT_FORMAT	VARCHAR2(2000)	Yes	-
OWNER_FLG	CHAR(4)	No	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	TREE_CD
	NODE_NAME

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	F1C792P0	Unique	TREE_CD

Sr. No.	Index Name	Index Type	Column Name
			NODE_NAME

## K.35 F1\_TREE\_NODE\_ALG

<b>Purpose:</b>	Used to store the algorithms associated with a tree node.
<b>Total Number of Columns:</b>	7

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
TREE_CD	CHAR(30)	No	-
NODE_NAME	CHAR(30)	No	-
TREE_NODE_SEVT_FLG	CHAR(4)	No	-
SEQ_NUM	NUMBER(3,0)	No	1
ALG_CD	CHAR(12)	Yes	-
OWNER_FLG	CHAR(4)	No	-
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	TREE_CD
	NODE_NAME
	TREE_NODE_SEVT_FLG
	SEQ_NUM

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	F1C794P0	Unique	TREE_CD
			NODE_NAME
			TREE_NODE_SEVT_FLG
			SEQ_NUM

## K.36 F1\_TREE\_NODE\_L

<b>Purpose:</b>	Used to store the description of a tree node.
<b>Total Number of Columns:</b>	6

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
TREE_CD	CHAR(30)	No	-
NODE_NAME	CHAR(30)	No	-
LANGUAGE_CD	CHAR(3)	No	-
DESCR100	VARCHAR2(100)	No	-
OWNER_FLG	CHAR(4)	No	-
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	TREE_CD
	NODE_NAME
	LANGUAGE_CD

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	F1C793P0	Unique	TREE_CD
			NODE_NAME
			LANGUAGE_CD

## Appendix L : Existing Tables Modified in OUAF Version 4.4.0.3.0

This section lists the existing tables which are modified in Oracle Utilities Application Framework Version 4.4.0.3.0. It indicates the columns that are newly added, dropped, or modified in these tables.

### L.1 CI\_BATCH\_INST

The following table lists the columns that are newly added, modified, or dropped in the CI\_BATCH\_INST table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	END_DTTM	Newly Added	-	DATE	No	-
2.	FILE_DETAILS	Newly Added	-	CLOB	No	-
3.	START_DTTM	Newly Added	-	DATE	No	-

### L.2 CI\_BATCH\_JOB

The following table lists the columns that are newly added, modified, or dropped in the CI\_BATCH\_JOB table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	SUBMIT_METH_FLG	Newly Added	-	CHAR(4)	No	-
2.	SUBMIT_USER_ID	Newly Added	-	CHAR(8)	No	-

## L.3 CI\_CHAR\_TYPE

The following table lists the columns that are newly added, modified, or dropped in the CI\_CHAR\_TYPE table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	FLD_NAME	Newly Added	-	CHAR(30)	No	-

## L.4 CI\_MD\_FLD\_L

The following table lists the columns that are newly added, modified, or dropped in the CI\_MD\_FLD\_L table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	CONTEXT_LABEL1	Newly Added	-	VARCHAR2(60)	No	-
2.	CONTEXT_LABEL2	Newly Added	-	VARCHAR2(60)	No	-
3.	CONTEXT_LABEL3	Newly Added	-	VARCHAR2(60)	No	-
4.	CONTEXT_LABEL_TYPE1	Newly Added	-	CHAR(4)	No	-
5.	CONTEXT_LABEL_TYPE2	Newly Added	-	CHAR(4)	No	-
6.	CONTEXT_LABEL_TYPE3	Newly Added	-	CHAR(4)	No	-
7.	OVRD_CONTEXT_LABEL1	Newly Added	-	VARCHAR2(60)	No	-
8.	OVRD_CONTEXT_LABEL2	Newly Added	-	VARCHAR2(60)	No	-
9.	OVRD_CONTEXT_LABEL3	Newly Added	-	VARCHAR2(60)	No	-

## L.5 CI\_MD\_TBL

The following table lists the columns that are newly added, modified, or dropped in the CI\_MD\_TBL table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	KEY_PREFIX_FLD_NAME	Newly Added	-	CHAR(1)	No	-

## L.6 CI\_TD\_ENTRY\_OPEN\_VW

The following table lists the columns that are newly added, modified, or dropped in the CI\_TD\_ENTRY\_OPEN\_VW table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	DKSQ1	Newly Added	-	CHAR(1)	No	-
2.	DKSQ2	Newly Added	-	NUMBER	No	-
3.	DKSQ3	Newly Added	-	NUMBER	No	-
4.	DKSQ4	Newly Added	-	NUMBER	No	-
5.	DKSQ5	Newly Added	-	NUMBER	No	-
6.	SKSQ1	Newly Added	-	NUMBER	No	-
7.	SKSQ2	Newly Added	-	NUMBER	No	-
8.	SKSQ3	Newly Added	-	NUMBER	No	-
9.	SKSQ4	Newly Added	-	NUMBER	No	-

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
10.	SKSQ5	Newly Added	-	NUMBER	No	-

## L.7 F1\_CAL\_FISC\_PERIOD\_D

The following table lists the columns that are newly added, modified, or dropped in the F1\_CAL\_FISC\_PERIOD\_D table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	F1_FISC_QUARTER_FLG	Newly Added	-	CHAR(4)	No	-
2.	F1_FISC_QUARTER_END_DT	Newly Added	-	DATE	No	-
3.	F1_FISC_QUARTER_KEY	Newly Added	-	NUMBER(5)	No	-
4.	F1_FISC_QUARTER_START_DT	Newly Added	-	DATE	No	-
5.	F1_FISC_QUARTER_IN_YEAR	Newly Added	-	NUMBER(1)	No	-
6.	F1_FISC_YEAR	Newly Added	-	NUMBER(4)	No	-
7.	F1_FISC_YEAR_END_DT	Newly Added	-	DATE	No	-
8.	F1_FISC_YEAR_START_DT	Newly Added	-	DATE	No	-
9.	F1_FISC_PERIOD_FLG	Newly Added	-	CHAR(4)	No	-
10.	F1_FISC_PERIOD_END_DT	Newly Added	-	DATE	No	-
11.	F1_FISC_PERIOD_KEY	Newly Added	-	NUMBER(6)	No	-
12.	F1_FISC_PERIOD_START_DT	Newly Added	-	DATE	No	-



Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
13.	F1_FISC_PERIOD_IN_QUARTER	Newly Added	-	NUMBER(1)	No	-
14.	F1_FISC_PERIOD_IN_YEAR	Newly Added	-	NUMBER(2)	No	-

## L.8 F1\_CAL\_FISC\_QUARTER\_D

The following table lists the columns that are newly added, modified, or dropped in the F1\_CAL\_FISC\_QUARTER\_D table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	F1_FISC_QUARTER_FLG	Newly Added	-	CHAR(4)	No	-
2.	F1_FISC_QUARTER_END_DT	Newly Added	-	DATE	No	-
3.	F1_FISC_QUARTER_KEY	Newly Added	-	NUMBER(5)	No	-
4.	F1_FISC_QUARTER_START_DT	Newly Added	-	DATE	No	-
5.	F1_FISC_QUARTER_IN_YEAR	Newly Added	-	NUMBER(1)	No	-
6.	F1_FISC_YEAR	Newly Added	-	NUMBER(4)	No	-
7.	F1_FISC_YEAR_END_DT	Newly Added	-	DATE	No	-
8.	F1_FISC_YEAR_START_DT	Newly Added	-	DATE	No	-

## L.9 F1\_CAL\_FISC\_YEAR\_D

The following table lists the columns that are newly added, modified, or dropped in the F1\_CAL\_FISC\_YEAR\_D table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	F1_FISC_YEAR	Newly Added	-	NUMBER(4)	No	-
2.	F1_FISC_YEAR_END_DT	Newly Added	-	DATE	No	-
3.	F1_FISC_YEAR_START_DT	Newly Added	-	DATE	No	-

## L.10 F1\_CAL\_MONTH\_D

The following table lists the columns that are newly added, modified, or dropped in the F1\_CAL\_MONTH\_D table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	F1MONTH_ABBR	Newly Added	-	CHAR(4)	No	-
2.	F1_MONTH_END_DT	Newly Added	-	DATE	No	-
3.	F1_MONTH_KEY	Newly Added	-	NUMBER(6)	No	-
4.	F1_MONTH_START_DT	Newly Added	-	DATE	No	-
5.	F1_MONTH_IN_QUARTER	Newly Added	-	NUMBER(1)	No	-
6.	F1_MONTH_IN_YEAR	Newly Added	-	NUMBER(2)	No	-
7.	F1_CAL_QUARTER_FLG	Newly Added	-	CHAR(4)	No	-
8.	F1_CAL_QUARTER_END_DT	Newly Added	-	DATE	No	-

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
9.	F1_CAL_QUARTER_KEY	Newly Added	-	NUMBER(5)	No	-
10.	F1_CAL_QUARTER_START_DT	Newly Added	-	DATE	No	-
11.	F1_CAL_QUARTER_IN_YEAR	Newly Added	-	NUMBER(1)	No	-
12.	F1_CAL_YEAR	Newly Added	-	NUMBER(4)	No	-
13.	F1_CAL_YEAR_END_DT	Newly Added	-	DATE	No	-
14.	F1_CAL_YEAR_NAME	Newly Added	-	CHAR(4)	No	-
15.	F1_CAL_YEAR_START_DT	Newly Added	-	DATE	No	-

## L.11 F1\_CAL\_QUARTER\_D

The following table lists the columns that are newly added, modified, or dropped in the F1\_CAL\_QUARTER\_D table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	F1_CAL_QUARTER_FLG	Newly Added	-	CHAR(4)	No	-
2.	F1_CAL_QUARTER_END_DT	Newly Added	-	DATE	No	-
3.	F1_CAL_QUARTER_KEY	Newly Added	-	NUMBER(5)	No	-
4.	F1_CAL_QUARTER_START_DT	Newly Added	-	DATE	No	-
5.	F1_CAL_QUARTER_IN_YEAR	Newly Added	-	NUMBER(1)	No	-
6.	F1_CAL_YEAR	Newly Added	-	NUMBER(4)	No	-

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
7.	F1_CAL_YEAR_END_DT	Newly Added	-	DATE	No	-
8.	F1_CAL_YEAR_NAME	Newly Added	-	CHAR(4)	No	-
9.	F1_CAL_YEAR_START_DT	Newly Added	-	DATE	No	-

## L.12 F1\_CAL\_WEEK\_D

The following table lists the columns that are newly added, modified, or dropped in the F1\_CAL\_WEEK\_D table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	F1_WEEK_END_DT	Newly Added	-	DATE	No	-
2.	F1_WEEK_KEY	Newly Added	-	NUMBER(6)	No	-
3.	F1_WEEK_NAME	Newly Added	-	CHAR(7)	No	-
4.	F1_WEEK_START_DT	Newly Added	-	DATE	No	-
5.	F1_WEEK_IN_YEAR	Newly Added	-	NUMBER(2)	No	-

## L.13 F1\_CAL\_YEAR\_D

The following table lists the columns that are newly added, modified, or dropped in the F1\_CAL\_YEAR\_D table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	F1_CAL_YEAR	Newly Added	-	NUMBER(4)	No	-
2.	F1_CAL_YEAR_END_DT	Newly Added	-	DATE	No	-
3.	F1_CAL_YEAR_NAME	Newly Added	-	CHAR(4)	No	-
4.	F1_CAL_YEAR_START_DT	Newly Added	-	DATE	No	-

## L.14 F1\_IWS\_SVC

The following table lists the columns that are newly added, modified, or dropped in the F1\_IWS\_SVC table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	IWS_REST_VER_FLG	Newly Added	-	CHAR(4)	No	-

## L.15 F1\_LGCY\_OBJ

The following table lists the columns that are newly added, modified, or dropped in the F1\_LGCY\_OBJ table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	LGCY_CAT_FLG	Newly Added	-	CHAR(4)	No	-
2.	CHANGE_REF_NAME	Newly Added	-	VARCHAR2(30)	No	-

## L.16 F1\_MIGR\_DATA\_ST\_TBL

The following table lists the columns that are newly added, modified, or dropped in the F1\_MIGR\_DATA\_ST\_TBL table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	RECORD_COUNT	Newly Added	-	NUMBER(9)	No	-

## L.17 SC\_USER

The following table lists the columns that are newly added, modified, or dropped in the SC\_USER table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	DASHBOARD_LOC_FLG	Newly Added	-	CHAR(4)	No	-
2.	DASHBOARD_STATE_FLG	Newly Added	-	CHAR(4)	No	-

## L.18 CI\_ALG\_PARM

The following table lists the columns that are newly added, modified, or dropped in the CI\_ALG\_PARM table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ALG_PARM_VAL	Format Change	VARCHAR2(2000)	VARCHAR2(32767)	No	-

## L.19 CI\_ZONE\_PRM

The following table lists the columns that are newly added, modified, or dropped in the CI\_ZONE\_PRM table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ZONE_PARM_VAL	Format Change	VARCHAR2(4000)	VARCHAR2(32767)	No	-

## L.20 F1\_MIGR\_DATA\_ST

The following table lists the columns that are newly added, modified, or dropped in the F1\_MIGR\_DATA\_ST table:

Sr. No.	Column Name	Modification Type	Data Type in V4.4.0.2.0	Data Type in V4.4.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	MIGR_FILEVERSION	Newly Added	-	NUMBER(2)	No	-