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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 3.0.0.0.0 to 3.1.0.0.0	Explains how to upgrade from Oracle Revenue Management and Billing Version 3.0.0.0.0 to 3.1.0.0.0.
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 3.1.0.0.0.
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 3.1.0.0.0	Lists and describes the tables that are newly added in Oracle Revenue Management and Billing Version 3.1.0.0.0.
Appendix D	Existing Tables Modified in ORMB Version 3.1.0.0.0	Lists the existing tables and their columns that are modified in Oracle Revenue Management and Billing Version 3.1.0.0.0.

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Section No.	Section Name	Description
Appendix E	Algorithms and Algorithm Types Dropped in ORMB Version 3.1.0.0.0	Lists the algorithms and algorithm types which are dropped in Oracle Revenue Management and Billing Version 3.1.0.0.0.
Appendix F	Parameters Added or Removed from Algorithm Types in ORMB Version 3.1.0.0.0	Lists the parameters which are added or removed from the algorithm types in Oracle Revenue Management and Billing Version 3.1.0.0.0.
Appendix G	Option Types Added or Removed from Feature Configurations in ORMB Version 3.1.0.0.0	Lists the option types which are added or removed from the feature configurations in Oracle Revenue Management and Billing Version 3.1.0.0.0.
Appendix H	Characteristic Types Dropped in ORMB Version 3.1.0.0.0	Lists the characteristic types which are dropped in Oracle Revenue Management and Billing Version 3.1.0.0.0.
Appendix I	Changing the DB User Password	Explains how to change the database user password.
Appendix J	ORMB V3.1.0.0.0 Rollup Packs	Lists the rollup packs available for Oracle Revenue Management and Billing Version 3.1.0.0.0. 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
boldface	Boldface indicates graphical user interface elements associated with an action, or terms defined in the text.
italic	Italic indicates a document or book title.
`monospace`	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.

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Acronyms

The following acronyms are used in this document:

Acronym	Meaning
ORMB	Oracle Revenue Management and Billing
OUAF	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
Oracle Revenue Management and Billing Version 3.1.0.0.0 Release Notes	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.
Oracle Revenue Management and Billing Upgrade Path Guide	Explains the path and pre-requisites for upgrading Oracle Revenue Management and Billing from one version to another.
Oracle Revenue Management and Billing Direct Database Upgrade Guide	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.

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Change Log

Revision	Last Update	Updated Section	Comments
20.1	30-Sep-2021	Section 2.7: Migrating Data	Added Information
20.2	29-Oct-2021	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 V3.1.0.0.0 Rollup Packs	Updated Information
		Section 2.7: Migrating Data	Updated Information
		Appendix G: Option Types Added or Removed from Feature Configurations in ORMB Version 3.1.0.0.0	Updated Information
		Appendix L.13: F1_CAL_YEAR_D	Updated Information
		Appendix D.7: C1_MODEL_PRICEITEM	Updated Information
		Appendix D.14: CI_MEMBERSHIP_PER	Updated Information
		Appendix D.22: CI_TXN_DTL_PRITM	Updated Information
		Appendix D.23: CI_TXN_DTL_PRITM_STG	Updated Information
20.3	14-Jan-2022	-	Added Bookmarks in PDF
20.4	04-Mar-2022	Section 2.3.1: Installing OUAF Version 4.4.0.3.0	Updated Information
		Section 2.6.1: Installing ORMB Version 3.1.0.0.0	Updated Information
20.5	17-Nov-2022	Section 2.3.1: Installing OUAF Version 4.4.0.3.0	Updated Information
		Section 2.6.1: Installing ORMB Version 3.1.0.0.0	Updated Information
20.6	07-Feb-2023	Section 2.7: Migrating Data	Updated Information

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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.

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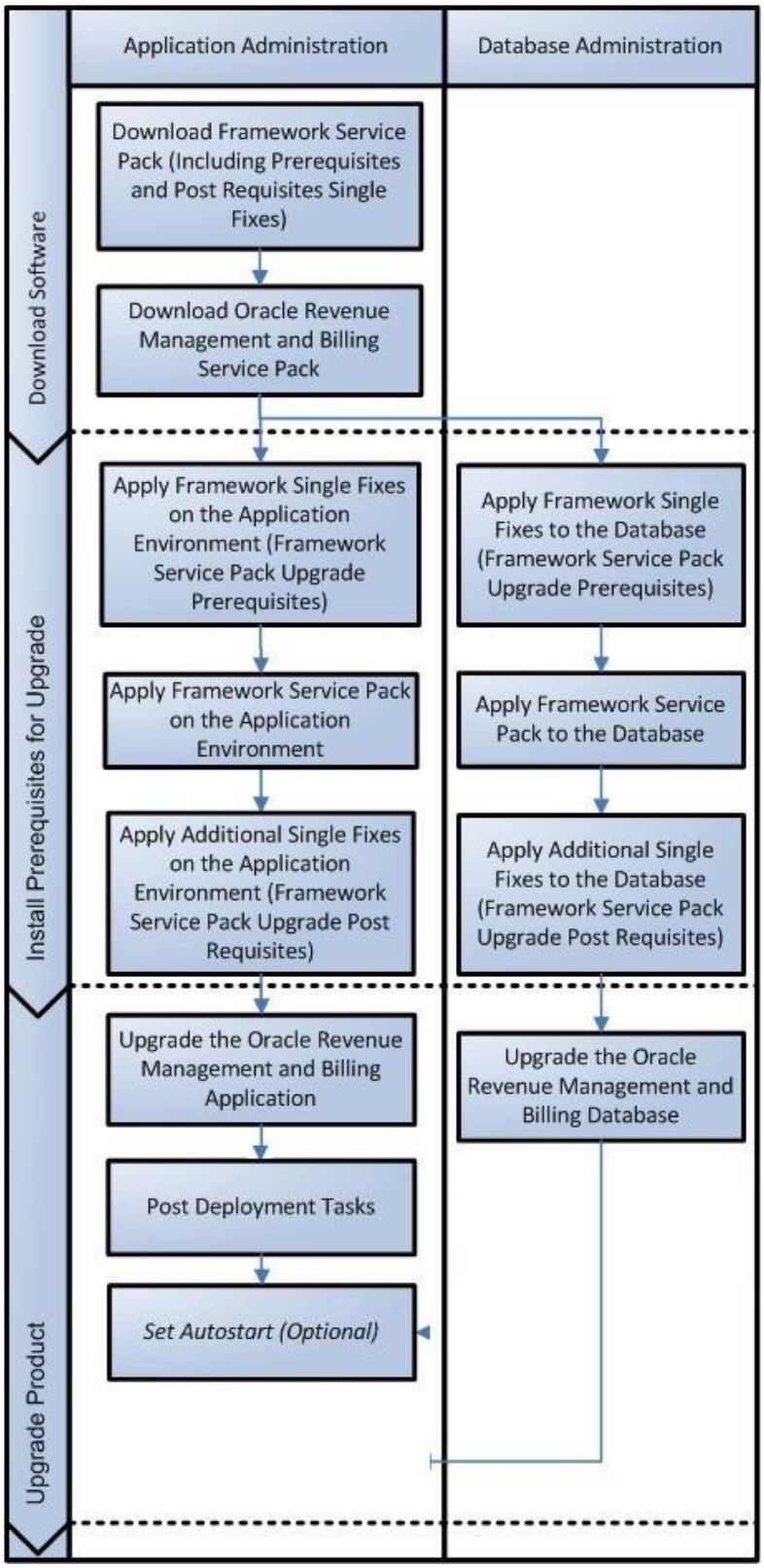

Figure 1: Upgrade Process

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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 3.0.0.0.0 to 3.1.0.0.0

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2. Upgrading from ORMB Version 3.0.0.0.0 to 3.1.0.0.0

This section explains how to upgrade from Oracle Revenue Management and Billing Version 3.0.0.0.0 to 3.1.0.0.0. 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 3.1.0.0.0, 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 3.0.0.0.0 will not happen successfully.
- Transactions which are uploaded using 3.0.0.0.0 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 3.0.0.0.0 to 3.1.0.0.0, you must download the following packages from the Oracle Revenue Management and Billing 3.1.0.0.0 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 V3.1.0.0.0
- Oracle Revenue Management and Billing V3.1.0.0.0 Multiplatform
- Oracle Revenue Management and Billing V3.1.0.0.0 Oracle Database

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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 3.0.0.0.0 to 3.1.0.0.0, you need to install the following on the database:

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

To install the framework and its service packs on the database, you must have ability to connect to the database.

2.3.1 Installing OUAF Version 4.4.0.3.0

To install Oracle Utilities Application Framework (OUAF) Version 4.4.0.3.0:

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

   ```
   mkdir TEMPDIR
   ```

3. Copy the **Oracle Revenue Management and Billing V3.1.0.0.0 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
   ```

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5. Unzip the **Oracle Revenue Management and Billing V3.1.0.0.0 Oracle Database** 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 following sub-folders:

   - FW
   - RMB

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_1>/FW/jarfiles
   ```

Note:

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

The <DESTINATION_FOLDER_1> folder is the location where you have extracted the contents of the **Oracle Revenue Management and Billing V3.1.0.0.0 Oracle Database** package.

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_1>\FW\jarfiles\*
   ```


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

   AIX, Linux:

   ```
   cd <DESTINATION_FOLDER_1>/FW/Install-Upgrade
   ```

   Windows:

   ```
   cd <DESTINATION_FOLDER_1>\FW\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 V4.4.0.2.0 to V4.4.0.3.0,
    do you want to continue (Y/N)?
    ```

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

2.3.2 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 V3.1.0.0.0** 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.

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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 V3.1.0.0.0** 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-V31000-FW-PREREQ-MultiPlatform.jar file.

5. Change to the <DESTINATION_FOLDER_2> folder using the following command:

   AIX, Linux:

   ```
   cd <PATH>/<DESTINATION_FOLDER_2>
   ```

   Windows:

   ```
   cd <PATH>\<DESTINATION_FOLDER_2>
   ```

6. Decompress the JAR file using the following command:

   ```
   jar -xvf ORMB-V31000-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.

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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 `TOOLSBIN` environment variable using the following command:

    AIX, Linux:

    ```
    export TOOLSBIN=/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_2>/FW-V4.4.0.3.0-Rollup/Database
    ```

    Windows:

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

Note: The `<DESTINATION_FOLDER_2>` folder is the location where you have extracted the contents of the `ORMB-V31000-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)

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Parameter	Value
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
   ```

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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.

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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.

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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*.

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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.

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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 `<SPLDIR>/<SPLENVIRON>` folder
   - → $SPLOUTPUT (%SPLOUTPUT%) - Indicates the `<SPLDIROUT>/<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 V3.1.0.0.0** package to the `TEMPDIR` folder using the following command:

   AIX, Linux:

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

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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 V3.1.0.0.0** 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-V31000-FW-PREREQ-MultiPlatform.jar file.

4. Decompress the JAR file using the following command:

   ```
   jar -xvf ORMB-V31000-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:

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

   Windows:

   ```
   %SPLEBASE%\bin\splenviron.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-V31000-FW-PREREQ-MultiPlatform.jar file.

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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 3.1.0.0.0
2. Oracle Revenue Management and Billing (ORMB) Version 3.1.0.0.0 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 3.1.0.0.0

To install Oracle Revenue Management and Billing (ORMB) Version 3.1.0.0.0 on the application environment:

1. Login to the application server using the administrator's credentials.
2. Copy the **Oracle Revenue Management and Billing V3.1.0.0.0 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.

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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 V3.1.0.0.0 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.V3.1.0.0.0 folder.

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

   AIX, Linux:

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

   Windows:

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

6. Stop the managed server where the application is hosted using the Oracle WebLogic Console.
7. Change to the ORMB.V3.1.0.0.0 folder using the following command:

   AIX, Linux:

   ```
   cd <DESTINATION_FOLDER_3>/ORMB.V3.1.0.0.0
   ```

   Windows:

   ```
   cd <DESTINATION_FOLDER_3>\ORMB.V3.1.0.0.0
   ```

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**.

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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 3.1.0.0.0, 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 V3.1.0.0.0 Patch Guide (Document ID: 2815177.1)* 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 V3.1.0.0.0 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 `V3.1.0.0.0-<PATCH_NUMBER>_MultiPlatform` folder.

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4. Change to the V3.1.0.0.0-<PATCH_NUMBER>_MultiPlatform folder using the following command:

   AIX, Linux:

   ```
   cd <DESTINATION_FOLDER_5>/V3.1.0.0.0-<PATCH_NUMBER>_MultiPlatform
   ```

   Windows:

   ```
   cd <DESTINATION_FOLDER_5>\V3.1.0.0.0-<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.V3.1.0.0.0-<PATCH_NUMBER>.jar and a directory named database.

5. Decompress the CCB.V3.1.0.0.0-<PATCH_NUMBER>.jar file using the following command:

   ```
   jar -xvf CCB.V3.1.0.0.0-<PATCH_NUMBER>.jar
   ```

   The contents include two sub-folders - META-INF and CCB.V3.1.0.0.0-<PATCH_NUMBER>.

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

   AIX, Linux:

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

   Windows:

   ```
   %SPLEBASE%\bin\splenviron.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.

7. Change to the CCB.V3.1.0.0.0-<PATCH_NUMBER> folder using the following command:

   AIX, Linux:

   ```
   cd <DESTINATION_FOLDER_5>/V3.1.0.0.0-
   <PATCH_NUMBER>_MultiPlatform/CCB.V3.1.0.0.0-<PATCH_NUMBER>
   ```

   Windows:

   ```
   cd <DESTINATION_FOLDER_5>\V3.1.0.0.0-
   <PATCH_NUMBER>_MultiPlatform\CCB.V3.1.0.0.0-<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.

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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 3.0.0.0.0 to 3.1.0.0.0, you need to install the following on the database:

1. Oracle Revenue Management and Billing (ORMB) Version 3.1.0.0.0
2. Oracle Revenue Management and Billing (ORMB) Version 3.1.0.0.0 Post Requisite Patches

Note:

To view the list of patches that you need to apply on the database, refer to the *ORMB V3.1.0.0.0 Patch Guide (Document ID: 2815177.1)* 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 V3.1.0.0.0 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 3.1.0.0.0 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;
   ```

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6. 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**:

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

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

2. Set the MAX_STRING_SIZE parameter to EXTENDED using the following command:

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

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

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

4. Create the `utl32k_cdb_pdbs_output` folder to store the log files using the following command:

```
mkdir /scratch/mydir/utl32k_cdb_pdbs_output
```

5. 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_pdbs_output' -b
utl32k_cdb_pdbs_output utl32k.sql
```

6. 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 3.1.0.0.0

To install Oracle Revenue Management and Billing (ORMB) Version 3.1.0.0.0:

1. 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>
```


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

2. Set the JAR_PATH environment variable using the following command:

   AIX, Linux:

   ```
   export JAR_PATH=<DESTINATION_FOLDER_1>/RMB/jarfiles
   ```

Note:

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

The <DESTINATION_FOLDER_1> folder is the location where you have extracted the contents of the **Oracle Revenue Management and Billing V3.1.0.0.0 Oracle Database** package.

3. 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_1>\RMB\jarfiles\*
   ```

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

   AIX, Linux:

   ```
   cd <DESTINATION_FOLDER_1>/RMB/Upgrade/Oracle/Install-Upgrade
   ```

   Windows:

   ```
   cd <DESTINATION_FOLDER_1>\RMB\Upgrade\Oracle\Install-Upgrade
   ```

5. 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
   ```

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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 V3.0.0.0.0 to
V3.1.0.0.0, do you want to continue (Y/N)?
```

6. 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 3.1.0.0.0, you need to apply all patches listed in the *ORMB V3.1.0.0.0 Patch Guide (Document ID: 2815177.1)*. 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 `V3.1.0.0.0-<PATCH_NUMBER>_MultiPlatform` folder.

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4. Change to the V3.1.0.0.0-<PATCH_NUMBER>_MultiPlatform folder using the following command:

   AIX, Linux:

   ```
   cd <DESTINATION_FOLDER_4>/V3.1.0.0.0-<PATCH_NUMBER>_MultiPlatform
   ```

   Windows:

   ```
   cd <DESTINATION_FOLDER_4>\V3.1.0.0.0-<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.V3.1.0.0.0-<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
   ```

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2.7 Migrating Data

While upgrading from Oracle Revenue Management and Billing Version 3.0.0.0.0 to 3.1.0.0.0, you need to execute the following batches to migrate the data from the previous version to the new version:

If you are using the following feature in ORMB…	Then…
Fully-Insured Group or Fully-Insured Individual	You need to execute the **C1-LSUB** batch. For more information, refer to the C1-LSUB section.
Bill Group Derivation and Pricing Parameters	You need to execute the **C1-BLUPG** batch. For more information, refer to the C1-BLUPG section.
Deal Management	You need to execute the **C1-PITEM** batch. For more information, refer to the C1-PITEM section.

Note: Irrespective of the feature that you are using in ORMB, you need to execute the **F1-BTIDT** batch while upgrading from Oracle Revenue Management and Billing Version 3.0.0.0.0 to 3.1.0.0.0. For more information about the **F1-BTIDT** batch, refer to the **Start Date, End Date, and Time Added to Batch Thread Instance** section in the *Oracle Revenue Management and Billing Version 3.1.0.0.0 Release Notes* or refer to the detailed description of the batch in the application.

2.7.1 Update Create Date for Membership Person (C1-LSUB)

The **Update Create Date for Membership Person (C1-LSUB)** batch is used to derive the creation date of all member persons for the existing group and individual memberships. This batch is a one-time batch and must be executed while upgrading to ORMB Version 3.1.0.0.0.

This batch is a multi-threaded batch. The multi-threading is based on the membership ID and the chunks for multi-threading are created based on each unique date. You can specify the following parameters while executing this batch:

Parameter Name	Mandatory (Yes or No)	Description
Membership ID	No	Used when you want to derive the creation date of member persons who belong to a particular membership.
Chunk Size	No	Used to specify the number of records you want to execute in each work unit. **Note:** If you do not specify any value, by default, the parameter value is set to **2**.

Note: If the **Update Create Date for Membership Person (C1-LSUB)** batch fails or aborts due to some reason, you can restart the batch over and over again with the same set of parameters.

Post Execution Check/Clean Up:

On successful completion of this batch, the creation date of a member person is stamped against the corresponding record in the **CRE_DTTM** column of the **CI_MEMBERSHIP_PER** table.

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2.7.2 Transaction Upgrade - Stamp Bill Level ID (C1-BLUPG)

The **Transaction Upgrade - Stamp Bill Level ID (C1-BLUPG)** batch is used to stamp the bill level ID of the derivation and pricing parameters against the transaction legs in the **CI_TXN_DTL_PRITM** and **CI_TXN_DTL_PRITM_STG** tables. For each transaction leg, the system derives the Bill Group Derivation algorithm defined on the pricing rule type which is associated with the respective transaction record type. This algorithm determines the bill level ID of the derivation and pricing parameters which are used to derive the bill group. Once the bill level ID is determined, the system stamps it against the transaction leg. This batch is a one-time batch and must be executed while upgrading to ORMB Version 3.1.0.0.0.

This batch is a multi-threaded batch. The multi-threading for records in the **CI_TXN_DTL_PRITM** table is based on the **CURR_SYS_PRCS_DT** column and the multi-threading for records in the **CI_TXN_DTL_PRITM_STG** table is based on the **LAST_SYS_PRCS_DT** column. The chunks for multi-threading are created based on each unique date. You can specify the following parameters while executing this batch:

Parameter Name	Mandatory (Yes or No)	Description
Processing Date	No	Used when you want to update records whose **CURR_SYS_PRCS_DT** or **LAST_SYS_PRCS_DT** is earlier than or equal to the specified date. **Note:** You must specify the date in the **YYYY-MM-DD** format.
Account ID	No	Used when you want to update the transactions belonging to a particular account.
Division	No	Used when you want to update the transactions which are mapped to accounts of a particular division.

Note: If the **Transaction Upgrade - Stamp Bill Level ID (C1-BLUPG)** batch fails or aborts due to some reason, you can restart the batch over and over again with the same set of parameters.

Post Execution Check/Clean Up:

On successful completion of this batch, the bill level ID is stamped corresponding to the records in the **BILL_LVL_ID** column of the **CI_TXN_DTL_PRITM** and **CI_TXN_DTL_PRITM_STG** tables.

2.7.3 Update Price Item Group ID (C1-PITEM)

The **Update Price Item Group ID** (**C1-PITEM)** batch is used to check whether the price item parameter group of a price item in a deal version matches the price item parameter group of the corresponding record in the **C1_DEAL_SIMULATION_DTL** table. If the system finds one record for a price item with different price item parameter group in the **C1_DEAL_SIMULATION_DTL** table, the system updates the price item parameter group of the price item in the **C1_MODEL_PRICEITEM** table. If the system finds multiple records for a price item with different price item parameter groups in the **C1_DEAL_SIMULATION_DTL** table, the system adds the missing price item and price item parameter group records in the **C1_MODEL_PRICEITEM** table. This batch is a one-time batch and must be executed while upgrading to ORMB Version 3.1.0.0.0.

Note: You can execute this batch only after you apply the **MANDATORY PATCH 1 FOR ORMB VERSION 3.1.0.0.0** patch (Patch Number: 33378669).

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This batch is a multi-threaded batch. The multi-threading is based on deal version ID and chunks for multi-threading are created based on numerical distribution of deal version ID. You can specify the following parameters while executing this batch:

Parameter Name	Mandatory (Yes or No)	Description
Thread Pool Name	No	Used to specify the thread pool on which you want to execute the batch.
Override Maximum Number of Errors	No	Used to override the maximum number of errors after which the batch must be terminated.

Note: If the **Update Price Item Group ID** (**C1-PITEM)** batch fails or aborts due to some reason, you can restart the batch over and over again with the same set of parameters.

Post Execution Check/Clean Up:

On successful completion of this batch, either new records are added or the **PRICEITEM_PRAM_GRP_ID** column is updated for the existing records in the **C1_MODEL_PRICEITEM** table.

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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/splenviron.sh -e $SPLENVIRON
   ```

   Windows:

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

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

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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.

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Appendix A : Known Issues

To view a list of known issues in the current release, refer to the *Oracle Revenue Management and Billing Version 3.1.0.0.0 Release Notes*.

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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.*

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Appendix C : New Tables Added in ORMB Version 3.1.0.0.0

This section lists and describes the tables that are newly added in Oracle Revenue Management and Billing Version 3.1.0.0.0.

C.1 C1_ACCOUNT_ANOMALY_DETECTED

Purpose:	Used to store the anomalies detected at the account or bill level.
Total Number of Columns:	33

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ERROR_ID	CHAR(15)	No	-
ACCT_ID	CHAR(12)	Yes	-
INVOICE_ACCT_ID	CHAR(12)	Yes	-
BILL_ID	CHAR(12)	No	-
BATCH_CD	CHAR(8)	Yes	-
USER_ID	CHAR(8)	Yes	-
TD_ENTRY_ID	CHAR(14)	Yes	-
MESSAGE_CAT_NBR	NUMBER(5,0)	Yes	-
MESSAGE_NBR	NUMBER(5,0)	Yes	-
EXP_MSG	VARCHAR2(254)	Yes	-
MESSAGE_PARM1	VARCHAR2(2000)	Yes	-
MESSAGE_PARM2	VARCHAR2(2000)	Yes	-
MESSAGE_PARM3	VARCHAR2(2000)	Yes	-
MESSAGE_PARM4	VARCHAR2(2000)	Yes	-
MESSAGE_PARM5	VARCHAR2(2000)	Yes	-
MESSAGE_PARM6	VARCHAR2(2000)	Yes	-
MESSAGE_PARM7	VARCHAR2(2000)	Yes	-
MESSAGE_PARM8	VARCHAR2(2000)	Yes	-
MESSAGE_PARM9	VARCHAR2(2000)	Yes	-
CRE_DTTM	DATE	No	-
PROCESS_DT	DATE	Yes	-

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Column Name	Data Type	Nullable (Yes or No)	Default Value
COMMENTS	VARCHAR2(254)	Yes	-
ANOMALY_STATUS_FLG	CHAR(8)	Yes	-
ILM_ARCH_SW	CHAR(1)	Yes	-
ILM_DT	DATE	Yes	-
ANOMALY_SCORE	NUMBER(10,2)	Yes	-
ANOMALY_USR_SW	CHAR(1)	Yes	-
LAST_UPD_DTTM	TIMESTAMP(6)	Yes	-
BATCH_RERUN_NBR	NUMBER(10,0)	Yes	-
BATCH_RUN_NBR	NUMBER(10,0)	Yes	-
VERSION	NUMBER(5,0)	Yes	-
ANOMALY_SW	CHAR(1)	Yes	-
TRIAL_BILL_SW	CHAR(1)	Yes	-

Primary Key:

Key Type	Column Name
Simple	ERROR_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM744P0	Unique	ERROR_ID

C.2 C1_BILL_ANOMALY_REQUEST

Purpose:	Used to store the bill details for anomaly processing.
Total Number of Columns:	20

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ANOMALY_REQ_ID	CHAR(20)	No	-
BILL_ID	CHAR(12)	No	-
ACCT_ID	CHAR(10)	No	-
BATCH_CD	CHAR(8)	No	-
BATCH_NBR	NUMBER(10,0)	No	-
BATCH_RERUN_NBR	NUMBER(10,0)	No	-

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Column Name	Data Type	Nullable (Yes or No)	Default Value
ANOMALY_STATUS_FLG	CHAR(4)	No	-
ANOMALY_SW	CHAR(1)	Yes	-
ANOMALY_SCORE	NUMBER(10,2)	Yes	-
ANOMALY_PRED_DETAILS	XMLTYPE	Yes	-
TRIAL_BILL_SW	CHAR(1)	No	-
VERSION	NUMBER(5,0)	No	1
ILM_DT	DATE	Yes	trunc(CURRENT_DATE)
ILM_ARCH_SW	CHAR(1)	Yes	'N'
CRE_DTTM	DATE	Yes	-
LAST_UPDATE_DTTM	DATE	Yes	-
MESSAGE_CAT_NBR	NUMBER(5,0)	Yes	-
MESSAGE_NBR	NUMBER(5,0)	Yes	-
WORKER_NAME	VARCHAR2(100)	Yes	-
SYNC_ID	NUMBER(10,0)	Yes	-

Primary Key:

Key Type	Column Name
Simple	ANOMALY_REQ_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XC991P0	Unique	ANOMALY_REQ
2.	XC991S1	Unique	BILL_ID
			BATCH_CD
			BATCH_NBR
			BATCH_RERUN_NBR
3.	XC991S2	Non Unique	BILL_ID

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C.3 C1_BILL_ANOMALY_REQUEST_K

Purpose:	Used to store the bill anomaly request ID.
Total Number of Columns:	2

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ANOMALY_REQ_ID	CHAR(20)	No	-
ENV_ID	NUMBER(6,0)	No	-

Primary Key:

Key Type	Column Name
Composite	ANOMALY_REQ_ID
	ENV_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XC994P0	Unique	ANOMALY_REQ
			ENV_ID

C.4 C1_BSEG_ANOMALY_DETECTED

Purpose:	Used to store the anomalies detected at the bill segment level.
Total Number of Columns:	34

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ERROR_ID	CHAR(15)	No	-
ACCT_ID	CHAR(12)	Yes	-
INVOICE_ACCT_ID	CHAR(12)	Yes	-
BILL_ID	CHAR(12)	Yes	-
BATCH_CD	CHAR(8)	Yes	-
USER_ID	CHAR(8)	Yes	-
BSEG_ID	CHAR(12)	No	-
TD_ENTRY_ID	CHAR(14)	Yes	-

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Column Name	Data Type	Nullable (Yes or No)	Default Value
MESSAGE_CAT_NBR	NUMBER(5,0)	Yes	-
MESSAGE_NBR	NUMBER(5,0)	Yes	-
EXP_MSG	VARCHAR2(254)	Yes	-
MESSAGE_PARM1	VARCHAR2(2000)	Yes	-
MESSAGE_PARM2	VARCHAR2(2000)	Yes	-
MESSAGE_PARM3	VARCHAR2(2000)	Yes	-
MESSAGE_PARM4	VARCHAR2(2000)	Yes	-
MESSAGE_PARM5	VARCHAR2(2000)	Yes	-
MESSAGE_PARM6	VARCHAR2(2000)	Yes	-
MESSAGE_PARM7	VARCHAR2(2000)	Yes	-
MESSAGE_PARM8	VARCHAR2(2000)	Yes	-
MESSAGE_PARM9	VARCHAR2(2000)	Yes	-
CRE_DTTM	DATE	No	-
PROCESS_DT	DATE	Yes	-
COMMENTS	VARCHAR2(254)	Yes	-
ANOMALY_STATUS_FLG	CHAR(8)	Yes	-
ILM_ARCH_SW	CHAR(1)	Yes	-
ILM_DT	DATE	Yes	-
ANOMALY_SCORE	NUMBER(10,2)	Yes	-
ANOMALY_USR_SW	CHAR(1)	Yes	-
LAST_UPD_DTTM	TIMESTAMP(6)	Yes	-
BATCH_RERUN_NBR	NUMBER(10,0)	Yes	-
BATCH_RUN_NBR	NUMBER(10,0)	Yes	-
VERSION	NUMBER(5,0)	Yes	-
ANOMALY_SW	CHAR(1)	Yes	-
TRIAL_BILL_SW	CHAR(1)	Yes	-

Primary Key:

Key Type	Column Name
Simple	ERROR_ID

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Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM743P0	Unique	ERROR_ID

C.5 C1_BSEG_ANOMALY_REQUEST

Purpose:	Used to store the bill segment details for anomaly processing.
Total Number of Columns:	20

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ANOMALY_REQ_ID	CHAR(20)	No	-
BILL_ID	CHAR(12)	No	-
ACCT_ID	CHAR(10)	No	-
BATCH_CD	CHAR(8)	No	-
BATCH_NBR	NUMBER(10,0)	No	-
BATCH_RERUN_NBR	NUMBER(10,0)	No	-
ANOMALY_STATUS_FLG	CHAR(4)	No	-
ANOMALY_SW	CHAR(1)	Yes	-
ANOMALY_SCORE	NUMBER(10,2)	Yes	-
ANOMALY_PRED_DETAILS	XMLTYPE	Yes	-
TRIAL_BILL_SW	CHAR(1)	No	-
VERSION	NUMBER(5,0)	No	1
ILM_DT	DATE	Yes	trunc(CURRENT_DATE)
ILM_ARCH_SW	CHAR(1)	Yes	'N'
CRE_DTTM	DATE	Yes	-
LAST_UPDATE_DTTM	DATE	Yes	-
MESSAGE_CAT_NBR	NUMBER(5,0)	Yes	-
MESSAGE_NBR	NUMBER(5,0)	Yes	-
WORKER_NAME	VARCHAR2(100)	Yes	-
SYNC_ID	NUMBER(10,0)	Yes	-

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Primary Key:

Key Type	Column Name
Simple	ANOMALY_REQ_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XC991P0	Unique	ANOMALY_REQ
2.	XC991S1	Unique	BILL_ID
			BATCH_CD
			BATCH_NBR
			BATCH_RERUN_NBR
3.	XC991S2	Unique	BILL_ID

C.6 C1_BSEG_ANOMALY_REQUEST_K

Purpose:	Used to store the bill segment anomaly request ID.
Total Number of Columns:	2

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ANOMALY_REQ_ID	CHAR(20)	No	-
ENV_ID	NUMBER(6,0)	No	-

Primary Key:

Key Type	Column Name
Composite	ANOMALY_REQ_ID
	ENV_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XC994P0	Unique	ANOMALY_REQ_ID
			ENV_ID

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C.7 C1_BUS_RULE_RATE_GUARANTEE

Purpose:	Used to store the details of a rate guarantee business rule.
Total Number of Columns:	8

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
BUS_RULE_ID	CHAR(15)	No	-
RATE_GUARANTEE_APPL_SW	CHAR(1)	No	-
RATE_GUARANTEE_PERIOD	NUMBER(3,0)	Yes	-
UDF_1	VARCHAR2(254)	Yes	-
UDF_2	VARCHAR2(254)	Yes	-
UDF_3	VARCHAR2(254)	Yes	-
UDF_4	VARCHAR2(254)	Yes	-
VERSION	NUMBER(5,0)	No	1

Primary Key:

Key Type	Column Name
Simple	BUS_RULE_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM722P0	Unique	BUS_RULE_ID

C.8 C1_ENROLLED_PROD

Purpose:	Used to store the enrollment details of a product.
Total Number of Columns:	7

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ENROLLMENT_ID	CHAR(10)	No	-
ENTITY_TYPE	CHAR(4)	No	-
ENTITY_CODE	CHAR(30)	No	-
START_DT	DATE	No	-

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Column Name	Data Type	Nullable (Yes or No)	Default Value
END_DT	DATE	Yes	-
PRIORITY	NUMBER(3,0)	No	1
VERSION	NUMBER(5,0)	No	1

Primary Key:

Key Type	Column Name
Composite	ENROLLMENT_ID
	ENTITY_TYPE
	ENTITY_CODE

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XS792P0	Unique	ENROLLMENT_ID
			ENTITY_TYPE
			ENTITY_CODE

C.9 C1_GL_DL_DTL

Purpose:	Used to store the details of the flat files created through the **GLDL** batch.
Total Number of Columns:	41

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
GL_DL_DTL_ID	CHAR(12)	No	-
GL_DL_HDR_ID	CHAR(12)	No	-
REC_TYPE	CHAR(4)	Yes	-
GL_DIVISION	CHAR(5)	No	-
CURRENCY_CD	CHAR(3)	No	-
GL_ACCT	VARCHAR2(254)	No	-
ACCT_PERD	NUMBER(6,0)	No	-
FINANCIAL_AMOUNT	NUMBER(15,2)	No	-
STAT_CODE	CHAR(10)	Yes	-
STAT_AMOUNT	NUMBER(36,18)	Yes	-

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Column Name	Data Type	Nullable (Yes or No)	Default Value
DST_ID	CHAR(10)	Yes	-
TOT_AMT_SW	CHAR(1)	Yes	-
CRE_DTTM	DATE	Yes	-
UDF_AMT1	NUMBER(15,2)	Yes	-
UDF_CURRENCY_CD1	CHAR(3)	Yes	-
UDF_AMT2	NUMBER(15,2)	Yes	-
UDF_CURRENCY_CD2	CHAR(3)	Yes	-
UDF_AMT3	NUMBER(15,2)	Yes	-
UDF_CURRENCY_CD3	CHAR(3)	Yes	-
UDF_AMT4	NUMBER(15,2)	Yes	-
UDF_CURRENCY_CD4	CHAR(3)	Yes	-
UDF_AMT5	NUMBER(15,2)	Yes	-
UDF_CURRENCY_CD5	CHAR(3)	Yes	-
UDF_CHAR1	VARCHAR2(254)	Yes	-
UDF_CHAR2	VARCHAR2(254)	Yes	-
UDF_CHAR3	VARCHAR2(254)	Yes	-
UDF_CHAR4	VARCHAR2(254)	Yes	-
UDF_CHAR5	VARCHAR2(254)	Yes	-
UDF_CHAR6	VARCHAR2(254)	Yes	-
UDF_CHAR7	VARCHAR2(254)	Yes	-
UDF_CHAR8	VARCHAR2(254)	Yes	-
UDF_CHAR9	VARCHAR2(254)	Yes	-
UDF_CHAR10	VARCHAR2(254)	Yes	-
UDF_CHAR11	VARCHAR2(254)	Yes	-
UDF_CHAR12	VARCHAR2(254)	Yes	-
UDF_CHAR13	VARCHAR2(254)	Yes	-
UDF_CHAR14	VARCHAR2(254)	Yes	-
UDF_CHAR15	VARCHAR2(254)	Yes	-
ILM_ARCH_SW	CHAR(1)	Yes	-
ILM_DT	DATE	Yes	-
VERSION	NUMBER(5,0)	No	-

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Primary Key:

Key Type	Column Name
Simple	GL_DL_DTL_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM727P0	Unique	GL_DL_DTL_ID
2.	XM727S0	Non Unique	GL_DIVISION
3.	XM727S1	Non Unique	CURRENCY_CD
4.	XM727S2	Non Unique	GL_ACCT

C.10 C1_GL_DL_DTL_K

Purpose:	Used to store the GLDL detail ID.
Total Number of Columns:	2

Column Details:

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

Primary Key:

Key Type	Column Name
Composite	GL_DL_DTL_ID
	ENV_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM729P0	Unique	GL_DL_DTL_ID
			ENV_ID

C.11 C1_GL_DL_HDR

Purpose:	Used to store the header details of the flat files created through the **GLDL** batch.
Total Number of Columns:	22

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Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
GL_DL_HDR_ID	CHAR(12)	No	-
BATCH_CD	CHAR(8)	No	-
BATCH_NBR	NUMBER(10,0)	No	-
BATCH_RERUN_NBR	NUMBER(10,0)	Yes	-
EXTRACT_DTTM	DATE	No	-
REC_TYPE	CHAR(4)	No	-
DETAIL_REC_CNT	NUMBER(12,0)	No	-
DETAIL_REC_TOTAL_DR	NUMBER(15,2)	No	-
DETAIL_REC_TOTAL_CR	NUMBER(15,2)	No	-
GL_DIVISION	CHAR(5)	No	-
UDF_CHAR1	VARCHAR2(256)	Yes	-
UDF_CHAR2	VARCHAR2(256)	Yes	-
UDF_CHAR3	VARCHAR2(256)	Yes	-
UDF_CHAR4	VARCHAR2(256)	Yes	-
UDF_CHAR5	VARCHAR2(256)	Yes	-
UDF_CHAR6	VARCHAR2(256)	Yes	-
ILM_DT	DATE	Yes	-
ILM_ARCH_SW	CHAR(1)	Yes	-
BUS_OBJ_CD	CHAR(30)	No	-
BO_STATUS_CD	CHAR(30)	No	-
VERSION	NUMBER(5,0)	No	-
FILE_NAME_GLDL	CHAR(254)	No	-

Primary Key:

Key Type	Column Name
Simple	GL_DL_HDR_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM726P0	Unique	GL_DL_HDR_ID
2.	XM726S0	Non Unique	BATCH_NBR

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Sr. No.	Index Name	Index Type	Column Name
3.	XM726S1	Non Unique	BATCH_CD
4.	XM726S2	Non Unique	GL_DIVISION

C.12 C1_GL_DL_HDR_K

Purpose:	Used to store the GLDL header ID.
Total Number of Columns:	2

Column Details:

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

Primary Key:

Key Type	Column Name
Composite	GL_DL_DTL_ID
	ENV_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM729P0	Unique	GL_DL_DTL_ID
			ENV_ID

C.13 C1_PRODUCT_DTLS

Purpose:	Used to store the details of a market product, offer and bundle.
Total Number of Columns:	10

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ENTITY_CODE	CHAR(30)	No	-
ENTITY_TYPE	CHAR(4)	No	-
START_DT	DATE	No	-
END_DT	DATE	Yes	-

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Column Name	Data Type	Nullable (Yes or No)	Default Value
PRODUCT_CD	CHAR(30)	Yes	-
TC_TYPE_CD	CHAR(12)	Yes	-
BO_DATA_AREA	CLOB	Yes	-
BO_STATUS_CD	CHAR(12)	Yes	-
BUS_OBJ_CD	CHAR(30)	Yes	-
VERSION	NUMBER(5,0)	No	-

Primary Key:

Key Type	Column Name
Composite	ENTITY_CODE
	ENTITY_TYPE

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM730P0	Unique	ENTITY_CODE
			ENTITY_TYPE

C.14 C1_PRODUCT_DTLS_CHAR

Purpose:	Used to store the characteristics of a market product, offer and bundle.
Total Number of Columns:	13

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ENTITY_CODE	CHAR(30)	No	-
ENTITY_TYPE	CHAR(4)	No	-
CHAR_TYPE_CD	CHAR(8)	No	-
CHAR_EFFDT	DATE	No	-
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	-

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Column Name	Data Type	Nullable (Yes or No)	Default Value
CHAR_VAL_FK4	VARCHAR2(50)	Yes	-
CHAR_VAL_FK5	VARCHAR2(50)	Yes	-
SRCH_CHAR_VAL	VARCHAR2(254)	Yes	-
VERSION	NUMBER(5,0)	No	-

Primary Key:

Key Type	Column Name
Composite	ENTITY_CODE
	ENTITY_TYPE
	CHAR_TYPE_CD
	CHAR_EFFDT

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM731P0	Unique	ENTITY_CODE
			ENTITY_TYPE
			CHAR_TYPE_CD
			CHAR_EFFDT

C.15 C1_PRODUCT_DTLS_DIV

Purpose:	Used to store the divisions associated with a market product, offer and bundle.
Total Number of Columns:	4

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ENTITY_TYPE	CHAR(4)	No	-
ENTITY_CODE	CHAR(30)	No	-
CIS_DIVISION	CHAR(5)	No	-
VERSION	NUMBER(5,0)	No	1

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Primary Key:

Key Type	Column Name
Composite	ENTITY_TYPE
	ENTITY_CODE
	CIS_DIVISION

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM735P0	Unique	ENTITY_TYPE
			ENTITY_CODE
			CIS_DIVISION

C.16 C1_PRODUCT_DTLS_ELIG

Purpose:	Used to store the eligibility rules of a market product, offer and bundle.
Total Number of Columns:	6

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ENTITY_CODE	CHAR(30)	No	-
ENTITY_TYPE	CHAR(4)	No	-
ELIG_RULE_FLG	CHAR(4)	No	-
START_DT	DATE	No	-
END_DT	DATE	Yes	-
VERSION	NUMBER(5,0)	No	-

Primary Key:

Key Type	Column Name
Composite	ENTITY_CODE
	ENTITY_TYPE
	ELIG_RULE_FLG
	START_DT

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Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM732P0	Unique	ENTITY_CODE
			ENTITY_TYPE
			ELIG_RULE_FLG
			START_DT

C.17 C1_PRODUCT_DTLS_ELIG_DTL

Purpose:	Used to store the eligibility rule criteria of a market product, offer and bundle.
Total Number of Columns:	14

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ENTITY_CODE	CHAR(30)	No	-
ENTITY_TYPE	CHAR(4)	No	-
ELIG_RULE_FLG	CHAR(4)	No	-
START_DT	DATE	No	-
SEQUENCE_NUM	NUMBER(5,0)	No	-
LHS_PRICE_PARM_CD	VARCHAR2(30)	No	-
OPERATOR	CHAR(10)	No	-
RHS_PRICE_PARM_CD	VARCHAR2(30)	Yes	-
RHS_PRICE_PARM_TYPE_FLG	CHAR(4)	No	-
RHS_PRICE_PARM_VAL	VARCHAR2(254)	Yes	-
TRUE_FLG	CHAR(4)	No	-
FALSE_FLG	CHAR(4)	No	-
INSF_FLG	CHAR(4)	No	-
VERSION	NUMBER(5,0)	No	-

Primary Key:

Key Type	Column Name
Composite	ENTITY_TYPE
	ENTITY_CODE

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Key Type	Column Name
	ELIG_RULE_FLG
	START_DT
	SEQUENCE_NUM

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM733P0	Unique	ENTITY_CODE
			ELIG_RULE_FLG
			START_DT
			SEQUENCE_NUM
			ENTITY_TYPE

C.18 C1_PRODUCT_DTLS_ELIG_L

Purpose:	Used to store the description of the market product, offer and bundle eligibility rule.
Total Number of Columns:	7

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ENTITY_CODE	CHAR(30)	No	-
ENTITY_TYPE	CHAR(4)	No	-
ELIG_RULE_FLG	CHAR(4)	No	-
START_DT	DATE	No	-
LANGUAGE_CD	CHAR(3)	No	-
DESCR	VARCHAR2(60)	No	-
VERSION	NUMBER(5,0)	No	-

Primary Key:

Key Type	Column Name
Composite	ENTITY_CODE
	ENTITY_TYPE
	ELIG_RULE_FLG

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Key Type	Column Name
	START_DT
	LANGUAGE_CD

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM734P0	Unique	ENTITY_CODE
			ENTITY_TYPE
			ELIG_RULE_FLG
			START_DT
			LANGUAGE_CD

C.19 C1_PRODUCT_DTLS_L

Purpose:	Used to store the description of a market product, offer and bundle.
Total Number of Columns:	6

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ENTITY_CODE	CHAR(30)	No	-
ENTITY_TYPE	CHAR(4)	No	-
LANGUAGE_CD	CHAR(3)	No	-
DESCR	VARCHAR2(60)	No	-
VERSION	NUMBER(5,0)	No	1
DESCRLONG	VARCHAR2(4000)	Yes	-

Primary Key:

Key Type	Column Name
Composite	ENTITY_CODE
	ENTITY_TYPE
	LANGUAGE_CD

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Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM737P0	Unique	ENTITY_CODE
			ENTITY_TYPE
			LANGUAGE_CD

C.20 C1_PRODUCT_DTLS_LINK

Purpose:	Used to store the market product details of an offer and bundle.
Total Number of Columns:	7

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ENTITY_CODE	CHAR(30)	No	-
ENTITY_TYPE	CHAR(4)	No	-
LINKED_ENTITY_CODE	CHAR(30)	No	-
LINKED_ENTITY_TYPE	CHAR(4)	No	-
START_DT	DATE	No	-
END_DT	DATE	Yes	-
VERSION	NUMBER(5,0)	No	1

Primary Key:

Key Type	Column Name
Composite	ENTITY_CODE
	ENTITY_TYPE
	LINKED_ENTITY_CODE
	LINKED_ENTITY_TYPE
	START_DT

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM736P0	Unique	ENTITY_CODE
			ENTITY_TYPE
			LINKED_ENTITY_CODE

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Sr. No.	Index Name	Index Type	Column Name
			LINKED_ENTITY_TYPE
			START_DT

C.21 C1_PRODUCT_DTLS_LOG

Purpose:	Used to store the logs of a market product, offer and bundle.
Total Number of Columns:	21

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ENTITY_CODE	CHAR(30)	No	-
ENTITY_TYPE	CHAR(4)	No	-
SEQNO	NUMBER(5,0)	No	-
LOG_ENTRY_TYPE_FLG	CHAR(4)	No	-
BO_STATUS_CD	CHAR(12)	Yes	-
LOG_DTTM	DATE	No	-
DESCRLONG	VARCHAR2(4000)	Yes	-
MESSAGE_CAT_NBR	NUMBER(5,0)	Yes	-
MESSAGE_NBR	NUMBER(5,0)	Yes	-
CHAR_TYPE_CD	CHAR(8)	Yes	-
CHAR_VAL	CHAR(16)	Yes	-
ADHOC_CHAR_VAL	VARCHAR2(254)	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(254)	Yes	-
BO_STATUS_REASON_CD	VARCHAR2(30)	Yes	-
VERSION	NUMBER(5,0)	No	-
USER_ID	CHAR(8)	No	-

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Primary Key:

Key Type	Column Name
Composite	ENTITY_CODE
	ENTITY_TYPE
	SEQNO

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM738P0	Unique	ENTITY_CODE
			ENTITY_TYPE
			SEQNO

C.22 C1_PRODUCT_DTLS_LOG_PARM

Purpose:	Used to store the log parameters of a market product, offer and bundle.
Total Number of Columns:	7

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ENTITY_CODE	CHAR(30)	No	-
ENTITY_TYPE	CHAR(4)	No	-
SEQNO	NUMBER(5,0)	No	-
PARM_SEQ	NUMBER(3,0)	No	-
MSG_PARM_TYP_FLG	CHAR(4)	No	-
MESSAGE_PARM	VARCHAR2(2000)	No	-
VERSION	NUMBER(5,0)	No	-

Primary Key:

Key Type	Column Name
Composite	ENTITY_CODE
	ENTITY_TYPE
	SEQNO
	PARM_SEQ

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Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM739P0	Unique	ENTITY_CODE
			ENTITY_TYPE
			SEQNO
			PARM_SEQ

C.23 C1_PRODUCT_DTLS_PLIST

Purpose:	Used to store the price lists associated with a market product, offer and bundle.
Total Number of Columns:	11

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ENTITY_CODE	CHAR(30)	No	-
ENTITY_TYPE	CHAR(4)	No	-
PRICELIST_ID	CHAR(10)	No	-
VERSION	NUMBER(5,0)	No	-
VALIDITY_FLG	CHAR(4)	No	-
NO_OF_DAYS	CHAR(3)	Yes	-
START_DT	DATE	Yes	-
END_DT	DATE	Yes	-
PRIORITY	NUMBER(3,0)	No	-
SOURCE_ENTITY_TYPE	CHAR(4)	Yes	-
SOURCE_ENTITY_CODE	CHAR(30)	Yes	-

Primary Key:

Key Type	Column Name
Composite	ENTITY_CODE
	ENTITY_TYPE
	PRICELIST_ID

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Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM740P0	Unique	ENTITY_CODE
			ENTITY_TYPE
			PRICELIST_ID

C.24 C1_PRODUCT_DTLS_SVC

Purpose:	Used to store the product service details of a market product, offer and bundle.
Total Number of Columns:	10

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ENTITY_CODE	CHAR(30)	No	-
ENTITY_TYPE	CHAR(4)	No	-
SERVICE_CD	CHAR(30)	No	-
SEQUENCE_NUM	NUMBER(5,0)	No	-
MANDATORY_SW	CHAR(1)	No	-
VERSION	NUMBER(5,0)	No	-
SOURCE_ENTITY_TYPE	CHAR(4)	Yes	-
SOURCE_ENTITY_CODE	CHAR(30)	Yes	-
START_DT	DATE	No	-
END_DT	DATE	Yes	-

Primary Key:

Key Type	Column Name
Composite	ENTITY_CODE
	ENTITY_TYPE
	SERVICE_CD
	START_DT

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Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM741P0	Unique	ENTITY_CODE
			ENTITY_TYPE
			SERVICE_CD
			START_DT

C.25 C1_PRODUCT_SVC

Purpose:	Used to store the product service details of a retail banking product.
Total Number of Columns:	6

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
PRODUCT_CD	CHAR(30)	No	-
SERVICE_CD	CHAR(30)	No	-
START_DT	DATE	No	-
END_DT	DATE	Yes	-
MANDATORY_SW	CHAR(1)	No	-
VERSION	NUMBER(5,0)	No	1

Primary Key:

Key Type	Column Name
Composite	PRODUCT_CD
	SERVICE_CD
	START_DT

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM742P0	Unique	PRODUCT_CD
			SERVICE_CD
			START_DT

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C.26 CI_ACCUM_SSL_MEMBER_DETAILS

Purpose:	Used to store the SSL accumulation details at the member level.
Total Number of Columns:	5

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
MEMBER_SUBSCRIBER_ID	VARCHAR2(254)	No	-
WIN_START_DT	DATE	No	-
SSL_CUL_MEMBER_AGG_AMT	NUMBER(36,18)	Yes	-
CUL_MEMBER_SSL_CREDITS	NUMBER(36,18)	Yes	-
VERSION	NUMBER(5,0)	No	1

Primary Key:

Key Type	Column Name
Composite	MEMBER_SUBSCRIBER_ID
	WIN_START_DT

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM725P0	Unique	MEMBER_SUBSCRIBER_ID
			WIN_START_DT

C.27 CI_MEMBERSHIP_RATE_GUARANTEE

Purpose:	Used to store the rate guarantee details of an individual membership.
Total Number of Columns:	7

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
MEMBERSHIP_ID	CHAR(15)	No	-
START_DT	DATE	No	-
END_DT	DATE	No	-
RATE_GRNT_STATUS_FLG	CHAR(4)	No	-
CRE_DTTM	DATE	Yes	-

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Column Name	Data Type	Nullable (Yes or No)	Default Value
UPD_DTTM	DATE	Yes	-
VERSION	NUMBER(5,0)	No	1

Primary Key:

Key Type	Column Name
Composite	MEMBERSHIP_ID
	START_DT

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM724P0	Unique	MEMBERSHIP_ID
			START_DT

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Appendix D : Existing Tables Modified in ORMB Version 3.1.0.0.0

This section lists the existing tables which are modified in Oracle Revenue Management and Billing Version 3.1.0.0.0. It indicates the columns that are newly added, dropped, or modified in these tables.

D.1 C1_BILL_LVL

The following table lists the columns that are newly added, modified, or dropped in the C1_BILL_LVL table:

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	IS_REFERRED_SW	Newly Added	-	CHAR(1)	No	-

D.2 C1_ENRL_ENTITY

The following table lists the columns that are newly added, modified, or dropped in the C1_ENRL_ENTITY table:

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ENROLL_END_BY_SYS_SW	Newly Added	-	CHAR(1)	No	-
2.	ENROLLMENT_ID	Newly Added	-	CHAR(10)	No	-
3.	ENTITY_CODE	Newly Added	-	CHAR(30)	No	-
4.	ENTITY_TYPE	Newly Added	-	CHAR(4)	No	-
5.	END_DT	Newly Added	-	DATE	No	-
6.	PRIORITY	Newly Added	-	NUMBER(3,0)	No	-

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Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
7.	START_DT	Newly Added	-	DATE	No	-
8.	VERSION	Newly Added	-	NUMBER(5,0)	No	-

D.3 C1_EXTRACT_TEMPLATE

The following table lists the columns that are newly added, modified, or dropped in the C1_EXTRACT_TEMPLATE table:

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	AUDIT_LOG	Newly Added	-	CHAR(1)	No	-
2.	ERROR_LOG_SW	Newly Added	-	CHAR(1)	No	-

D.4 C1_EXTRACT_TEMPLATE_FORMAT

The following table lists the columns that are newly added, modified, or dropped in the C1_EXTRACT_TEMPLATE_FORMAT table:

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	FILE_LEVEL_FLG	Newly Added	-	CHAR(4)	No	-
2.	PAYLOAD_LOG_SW	Newly Added	-	CHAR(1)	No	-
3.	XML_NAMESPACE	Newly Added	-	VARCHAR2(500)	No	-

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D.5 C1_EXTRACT_TEMPLATE_LIST_DTL

The following table lists the columns that are newly added, modified, or dropped in the C1_EXTRACT_TEMPLATE_LIST_DTL table:

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	FILE_NAME_FORMAT	Newly Added	-	VARCHAR2(254)	No	-
2.	XML_NAMESPACE	Newly Added	-	VARCHAR2(254)	No	-

D.6 C1_EXTRACT_TEMPLATE_MAPPING

The following table lists the columns that are newly added, modified, or dropped in the C1_EXTRACT_TEMPLATE_MAPPING table:

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	RECORD_IDENTIFIER_SW	Newly Added	-	CHAR(1)	No	-
2.	REQUIRED_SW	Newly Added	-	CHAR(1)	No	-

D.7 C1_MODEL_PRICEITEM

The following table lists the columns that are newly added, modified, or dropped in the C1_MODEL_PRICEITEM table:

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PRICEITEM_PARM_GRP_ID	Newly Added	-	NUMBER(22,0)	Yes	For more information, refer to the C1-PITEM section.

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D.8 C1_PRC_RULE_TYPE_PRICEITEM

The following table lists the columns that are newly added, modified, or dropped in the C1_PRC_RULE_TYPE_PRICEITEM table:

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	RATEGRNT_SW	Newly Added	-	CHAR(1)	No	-
2.	SPONSORED_SW	Newly Added	-	CHAR(1)	No	-

D.9 C1_PRODUCT

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PROD_MNGR	Newly Added	-	CHAR(8)	No	-
2.	PROD_TYP_FLG	Newly Added	-	CHAR(4)	No	-
3.	TC_TYPE_CD	Newly Added	-	CHAR(12)	No	-

D.10 CI_APAY_CLR_STG

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	C1_RETRY_COUNT	Newly Added	-	NUMBER(10,0)	No	-

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D.11 CI_APAY_STAGE_UP

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	LAST_EXTRACT_DT	Newly Added	-	DATE	No	-

D.12 CI_DATA_EX_REQ

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	FILENAME	Newly Added	-	CHAR(100)	No	-

D.13 CI_FT_GL

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	GL_DL_DTL_ID	Newly Added	-	CHAR(12)	No	-

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D.14 CI_MEMBERSHIP_PER

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	CRE_DTTM	Newly Added	-	DATE	Yes	For more information, refer to the C1-LSUB section.

D.15 CI_POLICY

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ADV_LF_ELIG_SW	Newly Added	-	CHAR(1)	No	-

D.16 CI_POLICY_PLAN_PRO_RULE

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PRO_MEMB_TYPE_FLG	Newly Added	-	CHAR(4)	No	-

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D.17 CI_PRCE_CALC

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	MEMO_SW	Newly Added	-	CHAR(1)	No	-
2.	NOWAVE_AMT	Newly Added	-	NUMBER(36,18)	No	-
3.	PRIMARY_PRICING_RULE_ID	Newly Added	-	CHAR(15)	No	-
4.	RATE_GRNT_PRICING_RULE_ID	Newly Added	-	CHAR(15)	No	-

D.18 CI_PRCE_CALC_LN

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	NEW_BORN_CMT_FLG	Newly Added	-	CHAR(4)	No	-

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D.19 CI_REPRC_REQ_DTL

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	MEMO_SW	Newly Added	-	CHAR(1)	No	-
2.	PRIMARY_PRICING_RULE_ID	Newly Added	-	CHAR(15)	No	-
3.	RATE_GRNT_PRICING_RULE_ID	Newly Added	-	CHAR(15)	No	-

D.20 CI_TRL_FT_GL

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	GL_DL_DTL_ID	Newly Added	-	CHAR(12)	No	-

D.21 CI_TXN_CALC_ACCUM_GRP

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ACCT_ID	Newly Added	-	CHAR(10)	No	-

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D.22 CI_TXN_DTL_PRITM

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BILL_LVL_ID	Newly Added	-	CHAR(10)	Yes	For more information, refer to the C1-BLUPG section.

D.23 CI_TXN_DTL_PRITM_STG

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BILL_LVL_ID	Newly Added	-	CHAR(10)	No	For more information, refer to the C1-BLUPG section.

D.24 CI_TXN_REC_TYPE_L_UNPIVOT_VW

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

Sr. No.	Column Name	Modification Type	Data Type in V3.0.0.0.0	Data Type in V3.1.0.0.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	LANGUAGE_CD	Format Change	VARCHAR2(3)	CHAR(3)	No	-

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Appendix E : Algorithms and Algorithm Types Dropped in ORMB Version 3.1.0.0.0

This section lists the algorithms and algorithm types which are dropped in Oracle Revenue Management and Billing Version 3.1.0.0.0.

E.1 Algorithm Type

No algorithm types are dropped in Oracle Revenue Management and Billing Version 3.1.0.0.0.

E.2 Algorithm

No algorithms are dropped in Oracle Revenue Management and Billing Version 3.1.0.0.0.

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Appendix F : Parameters Added or Removed from Algorithm Types in ORMB Version 3.1.0.0.0

No parameters are newly added or removed from the existing algorithm types in Oracle Revenue Management and Billing Version 3.1.0.0.0.

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Appendix G : Option Types Added or Removed from Feature Configurations in ORMB Version 3.1.0.0.0

This section lists the option types which are newly added or removed from the existing feature configurations in Oracle Revenue Management and Billing Version 3.1.0.0.0.

Feature Configuration	Option Type (Removed from 3.1.0.0.0)	Option Type (Added in 3.1.0.0.0)
C1_FINTRANOP	-	Hide Debt Class Details On Account Main Page
C1_PRASNORDR	-	Referred Price Assignment Edit
C1_PRICING	-	Skip Bill Segment Dates
C1-ASOBLLNG	-	Late Setup Threshold in Days
	-	Monitor Late Setup
	-	New Born Distributed SQI
	-	New Born Waiver Credit Calculation
	-	New Born Waiver Credit SQI
	-	New Born Waiver SQI
	-	Retiree Bill Message Code
	-	Retiree Billing Arrangement
	-	Sponsor Account Identifier Type Char Type
	-	Sponsor Account Identifier Value Char Type
	-	Sponsors Billing Arrangement
	-	SSL Member Movement Configuration
C1-DEAL	-	Applied or Processed
C1-PAYPORTAL	-	Skip method for Unbill Adjustment

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Appendix H : Characteristic Types Dropped in ORMB Version 3.1.0.0.0

No characteristic types are dropped in Oracle Revenue Management and Billing Version 3.1.0.0.0.

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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
    ```

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Appendix J : ORMB V3.1.0.0.0 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 V3.1.0.0.0 Patch Guide (Document ID: 2815177.1)* on My Oracle Support.

J.1 Applying a Rollup Pack on the Application Environment

Once you install Oracle Revenue Management and Billing Version 3.1.0.0.0, you need to apply the rollup packs listed in the *ORMB V3.1.0.0.0 Patch Guide (Document ID: 2815177.1)*. 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_V3.1.0.0.0_App_Rollup`, `RMB_V3.1.0.0.0_DB_Rollup`, and `RMB_V3.1.0.0.0_PFDs`.
3. Initialize the application environment (on which you want to install the rollup pack) using the following command:

   AIX, Linux:

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

   Windows:

   ```
   %SPLEBASE%\bin\splenviron.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_V3.1.0.0.0_App_Rollup` folder using the following command:

   AIX, Linux:

   ```
   cd <DESTINATION_FOLDER_1>/RMB_V3.1.0.0.0_App_Rollup
   ```

   Windows:

   ```
   cd <DESTINATION_FOLDER_1>\RMB_V3.1.0.0.0_App_Rollup
   ```

Note: The `<DESTINATION_FOLDER_1>` folder is the location where you have extracted the contents of the rollup pack.

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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 3.1.0.0.0, you need to apply the rollup packs listed in the *ORMB V3.1.0.0.0 Patch Guide (Document ID: 2815177.1)*. 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_V3.1.0.0.0_App_Rollup`, `RMB_V3.1.0.0.0_DB_Rollup`, and `RMB_V3.1.0.0.0_PFDs`.

3. Change to the `RMB_V3.1.0.0.0_DB_Rollup` folder using the following command:

   AIX, Linux:

   ```
   cd <DESTINATION_FOLDER_1>/RMB_V3.1.0.0.0_DB_Rollup
   ```

   Windows:

   ```
   cd <DESTINATION_FOLDER_1>\RMB_V3.1.0.0.0_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
   ```

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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

Purpose:	Used to store the To Do types associated with an access group.
Total Number of Columns:	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

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

Column Details:

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

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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

Purpose:	Used to store the characteristics of an action method.
Total Number of Columns:	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 BYTE)	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

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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

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

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
ACTION_METHOD_CD	VARCHAR2(30)	No	NULL
LANGUAGE_CD	CHAR(3 BYTE)	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

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K.5 F1_COLOR_OPT

Purpose:	Used to store the details of a color option.
Total Number of Columns:	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	' '
FOREGROUND_COLOR_XFLG	VARCHAR2(30)	No	' '
BACKGROUND_COLOR_XFLG	VARCHAR2(30)	Yes	-
OWNER_FLG	CHAR(4 BYTE)	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

Purpose:	Used to store the foreground and background colors defined in a color option.
Total Number of Columns:	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	' '

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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

Purpose:	Used to store the description of a color option.
Total Number of Columns:	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

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Sr. No.	Index Name	Index Type	Column Name
			LANGUAGE_CD

K.8 F1_DATA_EXPORT_CTRL

Purpose:	Used to store the details of a data export control.
Total Number of Columns:	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
2.	F1C765S1	Unique	MAINT_OBJ_CD

K.9 F1_DATA_EXPORT_CTRL_LOG

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

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Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
F1_DATA_EXPORT_CD	VARCHAR2(30 BYTE)	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
2.	F1C766S1	Non Unique	CHAR_TYPE_CD
			CHAR_VAL_FK1
3.	F1C766S2	Non Unique	CHAR_TYPE_CD
			CHAR_VAL

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K.10 F1_DATA_EXPORT_CTRL_LOG_PARM

Purpose:	Used to store the log parameters of a data export control.
Total Number of Columns:	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	-
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	F1_DATA_EXPORT_CD
	SEQNO
	PARM_SEQ

Indexes:

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

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K.11 F1_FILE_INT_REC

Purpose:	Used to store the details of a file integration record.
Total Number of Columns:	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 BYTE)	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

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K.12 F1_FILE_INT_REC_ALG

Purpose:	Used to store the algorithms associated with a file integration record.
Total Number of Columns:	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 BYTE)	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

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K.13 F1_FILE_INT_REC_L

Purpose:	Used to store the description of a file integration record.
Total Number of Columns:	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 BYTE)	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

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

Column Details:

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

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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

Purpose:	Used to store the description of a file integration type.
Total Number of Columns:	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

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Key Type	Column Name
	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

Purpose:	Used to store the details of an insight group.
Total Number of Columns:	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

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

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
INSIGHT_GRP_CD	VARCHAR2(30)	No	-

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Column Name	Data Type	Nullable (Yes or No)	Default Value
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

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

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
INSIGHT_GRP_CD	VARCHAR2(30)	No	-

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Column Name	Data Type	Nullable (Yes or No)	Default Value
LANGUAGE_CD	CHAR(3 BYTE)	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

Purpose:	Used to store the details of an insight group type.
Total Number of Columns:	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

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Sr. No.	Index Name	Index Type	Column Name
			INSIGHT_TYPE_CD

K.20 F1_INSIGHT_GRP_VISUAL_STR

Purpose:	Used to store the visual structures of an insight group.
Total Number of Columns:	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

Purpose:	Used to store the details of an insight type.
Total Number of Columns:	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	-

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Column Name	Data Type	Nullable (Yes or No)	Default Value
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

Purpose:	Used to store the algorithms associated with an insight type.
Total Number of Columns:	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
	INSIGHT_SEVT_FLG
	SEQ_NUM

Indexes:

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

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Sr. No.	Index Name	Index Type	Column Name
			INSIGHT_SEVT_FLG
			SEQ_NUM

K.23 F1_INSIGHT_TYPE_CHAR

Purpose:	Used to store the characteristics of an insight type.
Total Number of Columns:	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
	CHAR_TYPE_CD
	SEQ_NUM

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	F1C781P0	Unique	INSIGHT_TYPE_CD

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

K.24 F1_INSIGHT_TYPE_L

Purpose:	Used to store the description of an insight type.
Total Number of Columns:	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 BYTE)	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

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

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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

Purpose:	Used to store the algorithms associated with an insight type user action.
Total Number of Columns:	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 BYTE)	No	-
SEQ_NUM	NUMBER(3,0)	No	1
ALG_CD	CHAR(12 BYTE)	No	-
OWNER_FLG	CHAR(4 BYTE)	No	-

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Column Name	Data Type	Nullable (Yes or No)	Default Value
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

Purpose:	Used to store the visual settings of an insight type.
Total Number of Columns:	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

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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

Purpose:	Used to store the details of an analytics table.
Total Number of Columns:	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

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K.29 F1_MD_BI_TBL_FLD

Purpose:	Used to store the fields included in an analytics table.
Total Number of Columns:	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	-
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 BYTE)	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

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K.30 F1_MD_BI_TBL_L

Purpose:	Used to store the description of an analytics table.
Total Number of Columns:	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

Purpose:	Used to store the details of a data export.
Total Number of Columns:	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	-

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Column Name	Data Type	Nullable (Yes or No)	Default Value
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

Purpose:	Used to store the details of a tree.
Total Number of Columns:	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

Purpose:	Used to store the description of a tree.
Total Number of Columns:	5

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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

Purpose:	Used to store the nodes of a tree.
Total Number of Columns:	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	-

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Column Name	Data Type	Nullable (Yes or No)	Default Value
CONTEXT_MENU_NAME	CHAR(30)	Yes	-
NODE_NAVIGATION_FLG	CHAR(4)	Yes	-
NODE_TEXT_FORMAT	VARCHAR2(2000)	Yes	-
OWNER_FLG	CHAR(4 BYTE)	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
			NODE_NAME

K.35 F1_TREE_NODE_ALG

Purpose:	Used to store the algorithms associated with a tree node.
Total Number of Columns:	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

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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

Purpose:	Used to store the description of a tree node.
Total Number of Columns:	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

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Indexes:

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

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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	-

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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	-

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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	-

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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	-

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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	-

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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	-

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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	-

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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	-

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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	-

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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	-

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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	-

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