

# **Oracle® Revenue Management and Billing**

Version 2.9.0.1.0

## **Upgrade Guide**

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## Oracle Revenue Management and Billing Upgrade Guide

F34174-01

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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 2.9.0.0.0 to 2.9.0.1.0	Explains how to upgrade from Oracle Revenue Management and Billing Version 2.9.0.0.0 to 2.9.0.1.0.
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 the current release of the Oracle Revenue Management and Billing application.
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 2.9.0.1.0	Lists and describes the tables that are newly added in the Oracle Revenue Management and Billing Version 2.9.0.1.0 database.
Appendix D	Existing Tables Modified in 2.9.0.1.0	Lists the existing tables and their columns that are modified in the Oracle Revenue Management and Billing Version 2.9.0.1.0 database.

Section No.	Section Name	Description
Appendix E	Algorithms and Algorithm Types Dropped in 2.9.0.1.0	Lists the algorithms and algorithm types which are dropped in Oracle Revenue Management and Billing Version 2.9.0.1.0.
Appendix F	Parameters Added or Removed from Algorithm Types in 2.9.0.1.0	Lists the parameters which are added or removed from the algorithm types in Oracle Revenue Management and Billing Version 2.9.0.1.0.
Appendix G	Option Types Added or Removed from Feature Configurations in 2.9.0.1.0	Lists the option types which are added or removed from the feature configurations in Oracle Revenue Management and Billing Version 2.9.0.1.0.
Appendix H	Characteristic Types Dropped in 2.9.0.1.0	Lists the characteristic types which are dropped in Oracle Revenue Management and Billing Version 2.9.0.1.0.
Appendix I	Changing the DB User Password	Explains how to change the database user password.
Appendix J	ORMB V2.9.0.1.0 Rollup Packs	Lists the rollup packs available for Oracle Revenue Management and Billing Version 2.9.0.1.0. It also explains how to apply a rollup pack on the application environment and database.
Appendix K	SQL Statements for 2.9.0.0.0 to 2.9.0.1.0 Data Migration	Lists and describes the SQL query which is used for migrating data from Oracle Revenue Management and Billing Version 2.9.0.0.0 to 2.9.0.1.0.

## Related Documents

You can refer to the following documents for more information:

Document	Description
Oracle Revenue Management and Billing Version 2.9.0.1.0 Release Notes	Provides a brief description about the new features, enhancements, UI and database level changes, supported platforms, framework upgrade, supported upgrades, and technology upgrade made in this release. It also highlights the discontinued features, bug fixes, and known issues in this 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.

## Conventions

The following conventions are used across the document:

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

## Change Log

Revision	Last Update	Updated Section	Comments
18.1	05-Feb-2021	Section 2.5.2: Post Installation Tasks	Updated Information
		Section 2.6: Upgrading the ORMB Database	Updated Information
		Section 2.6.2: Apply the ORMB Patches	Updated Information
		Appendix J: ORMB V2.9.0.1.0 Rollup Packs	Updated Information
18.2	23-Apr-2021	Section 2: Upgrading from ORMB Version 2.9.0.0.0 to 2.9.0.1.0	Removed Information
18.3	17-May-2021	Section 2.3.1: Installing OUAF Version 4.4.0.2.0	Updated Information
		Section 2.6.1: Installing ORMB Version 2.9.0.1.0	Updated Information
18.4	18-Jan-2022	-	Added Bookmarks in PDF

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# 1. Preparing for Upgrade

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

## 1.1 Upgrade Overview

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

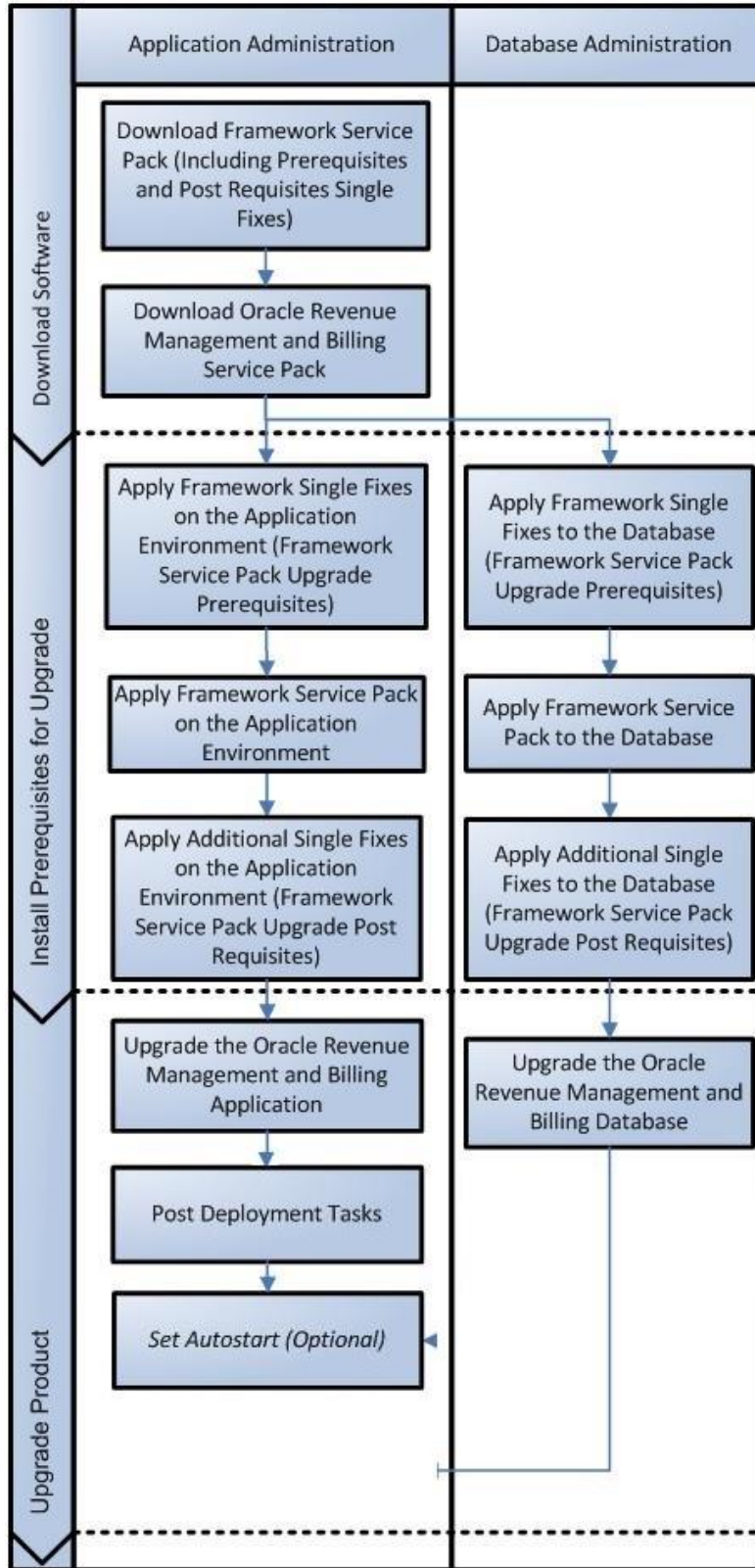


Figure 1: Upgrade Process

## 1.2 Upgrade Pre-requisites

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

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

## 1.3 Supported Upgrades

In this release, we support the following upgrades:

- Upgrade from Oracle Revenue Management and Billing Version 2.9.0.0.0 to 2.9.0.1.0

## 2. Upgrading from ORMB Version 2.9.0.0.0 to 2.9.0.1.0

This section explains how to upgrade from Oracle Revenue Management and Billing Version 2.9.0.0.0 to 2.9.0.1.0. 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 2.9.0.1.0, 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 2.9.0.0.0 will not happen successfully.
- Transactions which are uploaded using 2.9.0.0.0 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 2.9.0.0.0 to 2.9.0.1.0, you must download the following packages from the Oracle Revenue Management and Billing 2.9.0.1.0 media pack which is available on [Oracle Software Delivery Cloud](#):

- Oracle Utilities Application Framework V4.4.0.2.0 Single Fix Prerequisite Rollup for RMB V2.9.0.1.0
- Oracle Revenue Management and Billing V2.9.0.1.0 Multiplatform
- Oracle Revenue Management and Billing V2.9.0.1.0 Oracle Database

You must also download the following package from the Oracle Utilities Customer Care and Billing 2.7.0.3.0 media pack which is available on [Oracle Software Delivery Cloud](#):

- Oracle Utilities Application Framework 4.4.0.2.0

In addition, you must download the following patch from [My Oracle Support](#):

- UPGRADE FROM 2.9.0.0.0 TO 2.9.0.1.0 (Patch Number: 32359347)

The downloaded files will be in the ZIP format.

## 2.3 Upgrading Framework on the Database

While upgrading from Oracle Revenue Management and Billing Version 2.9.0.0.0 to 2.9.0.1.0, you need to install the following on the database:

1. [Oracle Utilities Application Framework \(OUAF\) Version 4.4.0.2.0](#)
2. [Rollup Pack for Oracle Utilities Application Framework \(OUAF\) Version 4.4.0.2.0](#)

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 4.4.0.2.0

To install Oracle Utilities Application Framework (OUAF) Version 4.4.0.2.0:

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 V2.9.0.1.0 Oracle Database** package to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

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

**Windows:**

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

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

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

**AIX, Linux:**

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

**Windows:**

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

5. Unzip the **Oracle Revenue Management and Billing V2.9.0.1.0 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/FW44020/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 V2.9.0.1.0 Oracle Database** package.

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

**AIX, Linux:**

```
export CLASS_PATH=${JAR_PATH}/commons-cli-1.3.1.jar:${JAR_PATH}/commons-codec-1.9.jar:${JAR_PATH}/commons-collections-3.2.2.jar:${JAR_PATH}/jackson-annotations-2.8.5.jar:${JAR_PATH}/jackson-core-2.8.5.jar:${JAR_PATH}/jackson-databind-2.8.5.jar:${JAR_PATH}/log4j-api-2.11.0.jar:${JAR_PATH}/log4j-core-2.11.0.jar:${JAR_PATH}/ojdbc8-12.2.0.1.jar:${JAR_PATH}/oradbi.jar:${JAR_PATH}/spl-shared-4.4.0.2.0.jar
```

**Windows:**

```
SET CLASS_PATH=<DESTINATION_FOLDER_1>\FW\FW44020\jarfiles\*
```

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

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_1>/FW/FW44020/Install-Upgrade
```

**Windows:**



```
cd <DESTINATION_FOLDER_1>\FW\FW44020\Install-Upgrade
```

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

**AIX, Linux:**

```
java -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 -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 V4.4.0.0.0 to V4.4.0.2.0,
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 4.4.0.2.0

You can install the rollup pack for Oracle Utilities Application Framework Version 4.4.0.2.0 from a Windows machine or UNIX Standalone server. To install the rollup pack for Oracle Utilities Application Framework (OUAF) Version 4.4.0.2.0 on the database:

1. Login to the database server using the administrator's credentials.
2. Copy the **Oracle Utilities Application Framework V4.4.0.2.0 Single Fix Prerequisite Rollup for RMB V2.9.0.1.0** package to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

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

**Windows:**

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

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

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

**AIX, Linux:**

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

**Windows:**

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

4. Unzip the **Oracle Utilities Application Framework V4.4.0.2.0 Single Fix Prerequisite Rollup for RMB V2.9.0.1.0** 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-V29010-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-V29010-FW-PREREQ-MultiPlatform.jar
```

A sub-folder named `FW-V4.4.0.2.0-Rollup` is extracted. It contains the following two sub-folders:

- Application
- Database

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

**AIX, Linux:**

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

**Windows:**

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

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

```
mkdir dbpatch_tools
```

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

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

**AIX, Linux:**

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

**Windows:**

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

11. Decompress the JAR file using the following command:

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

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

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

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

**AIX, Linux:**

```
export TOOLS_BIN=/TMPDIR/dbpatch_tools/bin
```

**Windows:**

```
SET TOOLS_BIN=TMPDIR\dbpatch_tools\bin
```

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

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_2>/FW-V4.4.0.2.0-Rollup/Database
```

**Windows:**

```
cd <DESTINATION_FOLDER_2>\FW-V4.4.0.2.0-Rollup\Database
```

**Note:** The `<DESTINATION_FOLDER_2>` folder is the location where you have extracted the contents of the `ORMB-V29010-FW-PREREQ-MultiPlatform.jar` file.

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

**AIX, Linux:**

```
ouafDatabasePatch.sh
```

**Windows:**

```
ouafDatabasePatch.cmd
```

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

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

**Note:** If you have changed the database user password, you will not be able to install the rollup pack for Oracle Utilities Application Framework Version 4.4.0.2.0. 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 4.4.0.2.0](#)
2. [Rollup Pack for Oracle Utilities Application Framework \(OUAF\) Version 4.4.0.2.0](#)

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 4.4.0.2.0

To install Oracle Utilities Application Framework (OUAF) Version 4.4.0.2.0 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 4.4.0.2.0** package to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

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

**Windows:**

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

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

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

**AIX, Linux:**

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

**Windows:**

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

- Unzip the **Oracle Utilities Application Framework 4.4.0.2.0** 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-V4.4.0.2.0-MultiPlatform.jar` file.

- Decompress the `FW-V4.4.0.2.0-MultiPlatform.jar` file using the following command:

```
jar -xvf FW-V4.4.0.2.0-MultiPlatform.jar
```

The contents of the JAR file include a folder named `FW-V4.4.0.2.0-SP2`.

- 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*.

- 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.

- Change to the `FW-V4.4.0.2.0-SP2` folder using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_1>/FW-V4.4.0.2.0-SP2
```

**Windows:**

```
cd <DESTINATION_FOLDER_1>\FW-V4.4.0.2.0-SP2
```

**Note:** The <DESTINATION\_FOLDER\_1> folder is the location where you have extracted the contents of the `FW-V4.4.0.2.0-MultiPlatform.jar` file.

- 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 *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 *Oracle Revenue Management and Billing Installation Guide*.

16. Type **50** to define values for the environment installation options, and then press **Enter**. The utility prompts you to enter values for a list of menu options.

17. Specify the required value for menu options, and then press **Enter**. The specified values are stored in the `$SPLEBASE/etc/ENVIRON.INI` file.

**Note:**

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

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

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

27. Type **5** to define values for the general configuration options, and then press **Enter**. The utility prompts you to enter values for a list of menu options.

28. Specify the required value for menu options, and then press **Enter**. The specified values are stored in the `$SPLEBASE/etc/ENVIRON.INI` file.

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

31. Type **P** to proceed with the installation. The Oracle Utilities Application Framework Version 4.4.0.2.0 is installed on the application server.

**Note:**

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

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

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

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

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

- `$PATH`
- `$SPLEBASE (%SPLEBASE%)` - Indicates the `<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 4.4.0.2.0

To install the rollup pack for Oracle Utilities Application Framework Version 4.4.0.2.0 on the application environment:

1. Copy the **Oracle Utilities Application Framework V4.4.0.2.0 Single Fix Prerequisite Rollup for RMB V2.9.0.1.0** package to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

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

**Windows:**

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

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

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

**AIX, Linux:**

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

**Windows:**

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

3. Unzip the **Oracle Utilities Application Framework V4.4.0.2.0 Single Fix Prerequisite Rollup for RMB V2.9.0.1.0** 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-V29010-FW-PREREQ-MultiPlatform.jar` file.

4. Decompress the JAR file using the following command:

```
jar -xvf ORMB-V29010-FW-PREREQ-MultiPlatform.jar
```

A sub-folder named `FW-V4.4.0.2.0-Rollup` is extracted. It contains the following two sub-folders:

- `Application`
- `Database`

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

**AIX, Linux:**

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

**Windows:**

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

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

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_2>/FW-V4.4.0.2.0-Rollup/Application
```

**Windows:**

```
cd <DESTINATION_FOLDER_2>\FW-V4.4.0.2.0-Rollup\Application
```

**Note:** The `<DESTINATION_FOLDER_2>` folder is the location where you have extracted the contents of the `ORMB-V29010-FW-PREREQ-MultiPlatform.jar` file.

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

**AIX, Linux:**

```
chmod a+x installSFgroup.sh
```

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

```
./installSFgroup.sh
```

**Windows:**

```
installSFgroup.cmd
```

The following message appears in the command line:

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

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

## 2.5 Installing the ORMB Application

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

1. [Oracle Revenue Management and Billing \(ORMB\) Version 2.9.0.1.0](#)
2. [Post Installation Tasks](#)
3. [Accessing the ORMB Application](#)

**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.

### 2.5.1 Installing ORMB Version 2.9.0.1.0

To install Oracle Revenue Management and Billing (ORMB) Version 2.9.0.1.0 on the application environment:

1. Login to the application server using the administrator's credentials.
2. Copy the **Oracle Revenue Management and Billing V2.9.0.1.0 Multiplatform** package to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

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

**Windows:**

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

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

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

**AIX, Linux:**

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

**Windows:**

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

4. Unzip the **Oracle Revenue Management and Billing V2.9.0.1.0 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.V2.9.0.1.0` 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 WebLogic Console.
7. Change to the `ORMB.V2.9.0.1.0` folder using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_3>/ORMB.V2.9.0.1.0
```

**Windows:**

```
cd <DESTINATION_FOLDER_3>\ORMB.V2.9.0.1.0
```

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

**AIX, Linux:**

```
./install.sh
```

**Windows:**

```
install.cmd
```

The following message appears in the command line:

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

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

**Note:**

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

**AIX, Linux:**

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

**Windows:**

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

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

## 2.5.2 Post Installation Tasks

Once you install Oracle Revenue Management and Billing (ORMB) Version 2.9.0.1.0, 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 *ORMB V29010 Patch Guide (Doc ID: 2749067.1)* 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 V2.9.0.1.0 Rollup Packs](#).

### 2.5.2.1 Applying the ORMB Patches

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 V2.9.0.1.0-<PATCH\_NUMBER>\_MultiPlatform folder.

4. Change to the V2.9.0.1.0-<PATCH\_NUMBER>\_MultiPlatform directory using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_5>/V2.9.0.1.0-<PATCH_NUMBER>_MultiPlatform
```

**Windows:**

```
cd <DESTINATION_FOLDER_5>\V2.9.0.1.0-<PATCH_NUMBER>_MultiPlatform
```

**Note:** The <DESTINATION\_FOLDER\_5> directory is the location where you have extracted the contents of the MultiPlatform.zip file.

The contents include a file named CCB.V2.9.0.1.0-<PATCH\_NUMBER>.jar and a directory named database.

5. Decompress the CCB.V2.9.0.1.0-<PATCH\_NUMBER>.jar file using the following command:

```
jar -xvf CCB.V2.9.0.1.0-<PATCH_NUMBER>.jar
```

The contents include two directories - META-INF and CCB.V2.9.0.1.0-<PATCH\_NUMBER>.

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

**AIX, Linux:**

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

**Windows:**

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

Where,

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

7. Change to the CCB.V2.9.0.1.0-<PATCH\_NUMBER> directory using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_5>/V2.9.0.1.0-
<PATCH_NUMBER>_MultiPlatform/CCB.V2.9.0.1.0-<PATCH_NUMBER>
```

**Windows:**

```
cd <DESTINATION_FOLDER_5>/V2.9.0.1.0-
<PATCH_NUMBER>_MultiPlatform\CCB.V2.9.0.1.0-<PATCH_NUMBER>
```

8. Install the patch using the following command:

**AIX, Linux:**

```
./installSF.sh
```

**Windows:**

```
installSF.cmd
```

9. Start the managed server using the WebLogic Console.

## 2.5.3 Accessing the ORMB Application

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

Application Server	URL
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 2.9.0.0.0 to 2.9.0.1.0, you need to install the following on the database:

1. [Oracle Revenue Management and Billing \(ORMB\) Version 2.9.0.1.0](#)
2. [Apply the ORMB Patches](#) or [Apply the ORMB Rollup Packs](#)

**Note:**

To view the list of patches that you need to apply on the database, refer to *ORMB V29010 Patch Guide (Doc ID: 2749067.1)* 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 V2.9.0.1.0 Rollup Packs](#).

There might be situations when you do not want to recreate one or more table indexes. You can skip the recreation process of one or more table indexes by adding the following line in the <DESTINATION\_FOLDER\_1>/RMB/Upgrade/Oracle/Install-Upgrade/CDXSchUpg.inp file:

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

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

**Note:** The <DESTINATION\_FOLDER\_1> folder is the location where you have extracted the contents of the **Oracle Revenue Management and Billing V2.9.0.1.0 Oracle Database** package.

**Note:**

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 2.9.0.1.0 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;
```

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_pdb_output` folder to store the log files using the following command:

```
mkdir /scratch/mydir/utl32k_cdb_pdb_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_pdb_output' -b
utl32k_cdb_pdb_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 2.9.0.1.0

To install Oracle Revenue Management and Billing (ORMB) Version 2.9.0.1.0:

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>
```

**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 V2.9.0.1.0 Oracle Database** package.

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

**AIX, Linux:**

```
export CLASS_PATH=${JAR_PATH}/commons-cli-
1.3.1.jar:${JAR_PATH}/commons-codec-1.9.jar:${JAR_PATH}/commons-
collections-3.2.2.jar:${JAR_PATH}/jackson-annotations-
2.8.5.jar:${JAR_PATH}/jackson-core-2.8.5.jar:${JAR_PATH}/jackson-
databind-2.8.5.jar:${JAR_PATH}/log4j-api-
2.11.0.jar:${JAR_PATH}/log4j-core-2.11.0.jar:${JAR_PATH}/ojdbc8-
```



```
12.2.0.1.jar:${JAR_PATH}/oradbi.jar:${JAR_PATH}/spl-shared-4.4.0.2.0.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 -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 -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 V2.9.0.0.0 to
V2.9.0.1.0, 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 Apply the ORMB Patches

Once you install Oracle Revenue Management and Billing Version 2.9.0.1.0, you need to apply all patches listed in *ORMB V29010 Patch Guide (Doc ID: 2749067.1)*. You can apply a patch from a Windows machine and 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 V2.9.0.1.0-<PATCH\_NUMBER>\_MultiPlatform folder.

4. Change to the V2.9.0.1.0-<PATCH\_NUMBER>\_MultiPlatform folder using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_4>/V2.9.0.1.0-<PATCH_NUMBER>_MultiPlatform
```

**Windows:**

```
cd <DESTINATION_FOLDER_4>\V2.9.0.1.0-<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.V2.9.0.1.0-<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>.

- Execute the `ouafDatabasePatch` utility using the following command:

**Windows:**

```
ouafDatabasePatch.cmd
```

**AIX, Linux:**

```
ouafDatabasePatch.sh
```

## 2.7 Migrating Data

Once you upgrade the database, you can migrate the data from Oracle Revenue Management and Billing Version 2.9.0.0.0 to 2.9.0.1.0 using the `PostProcessingScript` query which is available in the **UPGRADE FROM 2.9.0.0.0 TO 2.9.0.1.0** patch.

To migrate the data from ORMB Version 2.9.0.0.0 to 2.9.0.1.0:

- Copy the **UPGRADE FROM 2.9.0.0.0 TO 2.9.0.1.0** patch 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.

- Change to the `TEMPDIR` folder using the following command:

**AIX, Linux:**

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

**Windows:**

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

- Unzip the **UPGRADE FROM 2.9.0.0.0 TO 2.9.0.1.0** patch using the following command:

**AIX, Linux:**

```
unzip <filename>.zip -d <PATH>/<DESTINATION_FOLDER_6>
```

**Windows:**

```
unzip <filename>.zip -d <PATH>\<DESTINATION_FOLDER_6>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_6>` folder. The contents include two files - `README.txt` and `deploy.zip`.

- Unzip the `deploy.zip` file using the following command:

**AIX, Linux:**

```
unzip <DESTINATION_FOLDER_6>/deploy.zip -d  
<PATH>/<DESTINATION_FOLDER_7>
```

**Windows:**

```
unzip <DESTINATION_FOLDER_6>\deploy.zip -d  
<PATH>\<DESTINATION_FOLDER_7>
```

The contents of the zip file are extracted in the <DESTINATION\_FOLDER\_7> folder. The contents include a folder named `deploy`.

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

```
cd <DESTINATION_FOLDER_7>\deploy
```

The contents include a folder named `Migration_From_V2.9.0.0.0_To_V2.9.0.1.0`. This folder contains one file named `PostProcessingScript.sql`.

6. Change to the `Migration_From_V2.9.0.0.0_To_V2.9.0.1.0` folder using the following command:

```
cd  
<DESTINATION_FOLDER_7>\deploy\Migration_From_V2.9.0.0.0_To_V2.9.0.1.0
```

7. Connect to the ORMB database using a utility named SQL\*Plus and the administrator's (for example, `CISADM`) credentials.
8. Execute the following query from the `Migration_From_V2.9.0.0.0_To_V2.9.0.1.0` folder:

```
PostProcessingScript.sql
```

**Note:** For more information about the query, refer to the [PostProcessingScript.sql](#) section in Appendix K: SQL Statements for 2.9.0.0.0 to 2.9.0.1.0 Data Migration.

## 3. Additional Tasks

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

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

### 3.1 Generating the Application Viewer

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

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

**AIX, Linux:**

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

**Windows:**

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

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

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

**Windows:**

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

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

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

**AIX, Linux:**

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

**Windows:**

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

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

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

**AIX, Linux:**

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

**Windows:**

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

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

The `initialSetup` utility updates the configuration files including the WAR files on the system.

## 3.2 Starting the Thread Pool Worker

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

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

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

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

**AIX, Linux:**

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

**Windows:**

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

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

## 3.3 Building Javadoc Index

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

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

**AIX, Linux:**

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

**Windows:**

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

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

## Appendix A : Known Issues

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To view a list of known issues in the current release, refer to *Oracle Revenue Management and Billing Version 2.9.0.1.0 Release Notes*.

## Appendix B : Third Party Software Upgrade

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



## Appendix C : New Tables Added in 2.9.0.1.0

This section lists and describes the tables that are newly added in the Oracle Revenue Management and Billing Version 2.9.0.1.0 database.

### C.1 C1\_BENEFITS

<b>Purpose:</b>	Used to store the details of a benefit.
<b>Total Number of Columns:</b>	19

#### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
BENEFIT_ID	CHAR(12)	No	-
MEMBERSHIP_ID	CHAR(15)	No	-
PER_ID	CHAR(10)	No	-
BENEFIT_SRC_FLG	CHAR(4)	No	''
BENEFIT_TYPE_FLG	CHAR(4)	No	''
START_DT	DATE	No	-
END_DT	DATE	Yes	-
CRE_DTTM	DATE	No	-
PBP_ID	CHAR(10)	Yes	-
BENEFIT_AMT	NUMBER(15,2)	Yes	-
BO_STATUS_CD	CHAR(12)	No	''
BO_STATUS_REASON_CD	VARCHAR2(30)	Yes	-
BO_DATA_AREA	CLOB	Yes	-
BUS_OBJ_CD	VARCHAR2(30)	No	-
STATUS_UPD_DTTM	DATE	Yes	-
ILM_ARCH_SW	CHAR(1)	Yes	-
ILM_DT	DATE	Yes	-
VERSION	NUMBER(5,0)	No	1
BENEFIT_SUB_TYPE_FLG	CHAR(4)	No	''

#### Primary Key:

Key Type	Column Name
Simple	BENEFIT_ID

**Indexes:**

Sr.No.	Index Name	Index Type	Column Name
1.	XM660P0	Unique	BENEFIT_ID
2.	XM660S1	Non Unique	MEMBERSHIP_ID
			PER_ID
3.	XM660S3	Non Unique	BENEFIT_TYPE_FLG
4.	XM660S4	Non Unique	MEMBERSHIP_ID
			PER_ID
			BENEFIT_SUB_TYPE_FLG
5.	XM660S5	Non Unique	BUS_OBJ_CD
			BO_STATUS_CD
			BENEFIT_ID

## C.2 C1\_BENEFITS\_CHAR

<b>Purpose:</b>	Used to store the characteristics of a benefit.
<b>Total Number of Columns:</b>	12

**Column Details:**

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

**Primary Key:**

Key Type	Column Name
Composite	BENEFIT_ID
	CHAR_TYPE_CD
	EFFDT

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM662P0	Unique	BENEFIT_ID
			CHAR_TYPE_CD
			EFFDT
2.	XM662S1	Non Unique	SRCH_CHAR_VAL

## C.3 C1\_BENEFITS\_K

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

**Column Details:**

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

**Primary Key:**

Key Type	Column Name
Composite	BENEFIT_ID
	ENV_ID

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM661P0	Unique	BENEFIT_ID
			ENV_ID

## C.4 C1\_BENEFITS\_LOG

<b>Purpose:</b>	Used to store the logs of a benefit.
<b>Total Number of Columns:</b>	20

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
BENEFIT_ID	CHAR(12)	No	-
SEQNO	NUMBER(5,0)	No	-
LOG_ENTRY_TYPE_FLG	CHAR(4)	No	' '
LOG_DTTM	DATE	No	-
BO_STATUS_CD	CHAR(12)	No	' '
DESCRLONG	VARCHAR2(4)	No	' '
MESSAGE_CAT_NBR	NUMBER(5,0)	No	0
MESSAGE_NBR	NUMBER(5,0)	No	0
CHAR_TYPE_CD	CHAR(8)	No	-
CHAR_VAL	VARCHAR2(254)	No	' '
ADHOC_CHAR_VAL	VARCHAR2(25)	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	' '
USER_ID	CHAR(8)	No	-
BO_STATUS_REASON_CD	VARCHAR2(30)	Yes	-
SRCH_CHAR_VAL	VARCHAR2(254)	No	-
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	BENEFIT_ID
	SEQNO

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM663P0	Unique	BENEFIT_ID
			SEQNO

**C.5 C1\_BENEFITS\_LOG\_PARM**

<b>Purpose:</b>	Used to store the benefit log parameters.
<b>Total Number of Columns:</b>	6

**Column Details:**

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

**Primary Key:**

Key Type	Column Name
Composite	BENEFIT_ID
	SEQNO
	PARM_SEQ

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM664P0	Unique	BENEFIT_ID
			SEQNO
			PARM_SEQ

## C.6 C1\_CHARGE\_AGGR

<b>Purpose:</b>	Used to store the pass through charge information of an account retrieved through the PREAGGR batch for all deal frequencies.
<b>Total Number of Columns:</b>	15

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
CHARGE_AGGR_ID	CHAR(12)	No	-
AGGR_DATE	DATE	Yes	-
DEAL_ENTITY_ID	CHAR(10)	Yes	-
DEAL_ENTITY_TYPE_FLG	CHAR(4)	Yes	-
PRICEITEM_CD	CHAR(30)	Yes	-
PRICEITEM_PARM_GRP_ID	NUMBER(22,0)	Yes	1
REC_TYPE	CHAR(4)	No	-
MONTH_AMT	NUMBER(36,18)	Yes	-
QUARTER_AMT	NUMBER(36,18)	Yes	-
HALF_ANNUAL_AMT	NUMBER(36,18)	Yes	-
ANNUAL_AMT	NUMBER(36,18)	Yes	-
CURRENCY_CD	CHAR(3)	Yes	-
ILM_DT	DATE	Yes	trunc(current_date)
ILM_ARCH_SW	CHAR(1)	Yes	'N'
VERSION	NUMBER(5,0)	Yes	1

### Primary Key:

Key Type	Column Name
Simple	CHARGE_AGGR_ID

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM644P0	Unique	CHARGE_AGGR_ID

## C.7 C1\_DEAL\_PRODUCT

<b>Purpose:</b>	Used to store the recommended products of a deal.
<b>Total Number of Columns:</b>	3

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
DEAL_ID	CHAR(10)	No	-
PRODUCT_CD	CHAR(30)	No	-
VERSION	NUMBER(5,0)	Yes	1

### Primary Key:

Key Type	Column Name
Composite	DEAL_ID
	PRODUCT_CD

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM717P0	Unique	DEAL_ID
			PRODUCT_CD

## C.8 C1\_DEAL\_TEMPLATE

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

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
DEAL_TEMPLATE_CD	CHAR(12)	No	-
CIS_DIVISION	CHAR(5)	No	-
CUST_SEG_FLG	CHAR(4)	No	-
CUST_TIER_FLG	CHAR(4)	No	-
BUS_OBJ_CD	CHAR(30)	Yes	-
BO_DATA_AREA	CLOB	Yes	-
BO_STATUS_CD	CHAR(12)	Yes	-

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

**Primary Key:**

Key Type	Column Name
Simple	DEAL_TEMPLATE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM703P0	Unique	DEAL_TEMPLATE_CD

## C.9 C1\_DEAL\_TEMPLATE\_DTL

<b>Purpose:</b>	Used to store the field information of a deal template.
<b>Total Number of Columns:</b>	7

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
DEAL_TEMPLATE_CD	CHAR(12)	No	-
FLD_NAME	CHAR(30)	No	-
DEFAULT_VALUE_CHAR	CHAR(16)	Yes	-
DEFAULT_VALUE_DATE	DATE	Yes	-
MANDATORY_SW	CHAR(1)	Yes	-
DISABLE_SW	CHAR(1)	Yes	-
VERSION	NUMBER(5,0)	Yes	1

**Primary Key:**

Key Type	Column Name
Composite	DEAL_TEMPLATE_CD
	FLD_NAME

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM704P0	Unique	DEAL_TEMPLATE_CD
			FLD_NAME



## C.10 C1\_DEAL\_TEMPLATE\_L

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

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
DEAL_TEMPLATE_CD	CHAR(12)	No	-
LANGUAGE_CD	CHAR(3)	No	-
DESCR	VARCHAR2(60)	No	' '
DESCRLONG	VARCHAR2(4000)	No	' '
VERSION	NUMBER(5,0)	Yes	1

### Primary Key:

Key Type	Column Name
Composite	DEAL_TEMPLATE_CD
	LANGUAGE_CD

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM705P0	Unique	DEAL_TEMPLATE_CD
			LANGUAGE_CD

## C.11 C1\_EXTRACT\_TEMPLATE

<b>Purpose:</b>	Used to store the details of an extract template.
<b>Total Number of Columns:</b>	13

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
EXTRACT_TEMPLATE_CD	CHAR(20)	No	-
STATUS_CD	CHAR(12)	No	-
FILE_FOOTER_SW	CHAR(1)	No	'N'
FILE_HEADER_SW	CHAR(1)	No	'N'
FILE_ENCRYPT_SW	CHAR(1)	No	'N'

Column Name	Data Type	Nullable (Yes or No)	Default Value
FILE_ARCHIVE_SW	CHAR(1)	No	'N'
CLIENT_DT_FMT	CHAR(40)	No	' '
ALG_CD	CHAR(12)	No	' '
CRE_DTTM	DATE	Yes	-
UPD_DTTM	DATE	Yes	-
CREATED_BY	VARCHAR2(254)	No	-
BUS_OBJ_CD	CHAR(30)	No	' '
VERSION	NUMBER(5,0)	No	'1'

**Primary Key:**

Key Type	Column Name
Simple	EXTRACT_TEMPLATE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XC1012P0	Unique	EXTRACT_TEMPLATE_CD

## C.12 C1\_EXTRACT\_TEMPLATE\_FORMAT

<b>Purpose:</b>	Used to store the extract file formats for a given extract template.
<b>Total Number of Columns:</b>	11

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
EXTRACT_TEMPLATE_CD	CHAR(20)	No	-
FILE_FORMAT	CHAR(4)	No	-
FILE_EXTENSION	CHAR(10)	No	' '
ROOT_XML_TAG	CHAR(50)	No	' '
HEADER_XML_TAG	CHAR(50)	No	' '
FOOTER_XML_TAG	CHAR(50)	No	' '
BUS_OBJ_CD	CHAR(30)	No	' '
VERSION	NUMBER(5,0)	No	'1'
ENCLOSED_QUOTES_REQ_SW	CHAR(1)	No	'N'

Column Name	Data Type	Nullable (Yes or No)	Default Value
COLUMN_HDR_REQUIRED_SW	CHAR(1)	No	'N'
SAME_AS_SOURCE_XML_SW	CHAR(1)	No	'N'

**Primary Key:**

Key Type	Column Name
Composite	EXTRACT_TEMPLATE_CD
	FILE_FORMAT

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XC1013P0	Unique	EXTRACT_TEMPLATE_CD
			FILE_FORMAT
2.	XC1013S1	Non Unique	EXTRACT_TEMPLATE_CD

## C.13 C1\_EXTRACT\_TEMPLATE\_L

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

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
EXTRACT_TEMPLATE_CD	CHAR(20)	No	-
DESCR	VARCHAR2(60)	No	-
DESCRLONG	VARCHAR2(4000)	No	''
LANGUAGE_CD	CHAR(3)	No	-
VERSION	NUMBER(5,0)	No	'1'

**Primary Key:**

Key Type	Column Name
Composite	EXTRACT_TEMPLATE_CD
	LANGUAGE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XC1017P0	Unique	EXTRACT_TEMPLATE_CD
			LANGUAGE_CD
2.	XC1017S1	Non Unique	EXTRACT_TEMPLATE_CD

## C.14 C1\_EXTRACT\_TEMPLATE\_LIST\_DTL

<b>Purpose:</b>	Used to store the extract list details for a given extract template.
<b>Total Number of Columns:</b>	5

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
EXTRACT_TEMPLATE_CD	CHAR(20)	No	-
TARGET_FIELD_PATH	VARCHAR2(255)	No	-
RECORDS_COUNT	NUMBER(10,0)	No	-
BUS_OBJ_CD	CHAR(30)	No	' '
VERSION	NUMBER(5,0)	No	'1'

**Primary Key:**

Key Type	Column Name
Composite	EXTRACT_TEMPLATE_CD
	TARGET_FIELD_PATH

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XC1015P0	Unique	EXTRACT_TEMPLATE_CD
			TARGET_FIELD_PATH
2.	XC1015S1	Non Unique	EXTRACT_TEMPLATE_CD

## C.15 C1\_EXTRACT\_TEMPLATE\_MAPPING

<b>Purpose:</b>	Used to store the extract field mappings for a given extract template.
<b>Total Number of Columns:</b>	14

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
EXTRACT_TEMPLATE_CD	CHAR(20)	No	-
FILE_SEGMENT_TYPE	CHAR(4)	No	-
OBJ_PROPERTY_NAME	VARCHAR2(60)	No	-
SEQ_NUM	NUMBER(3,0)	No	-
START_POSITION	NUMBER(5,0)	Yes	-
END_POSITION	NUMBER(5,0)	Yes	-
SOURCE_FIELD_PATH	VARCHAR2(255)	Yes	-
TARGET_FIELD_PATH	VARCHAR2(255)	No	''
DEFAULT_VALUE	VARCHAR2(2000)	No	''
DO_NOT_EXTRACT_SW	CHAR(1)	No	'N'
CLIENT_DT_FMT	CHAR(40)	No	''
EDIT_FLD_VALUE_SW	CHAR(1)	No	'N'
BUS_OBJ_CD	CHAR(30)	No	''
VERSION	NUMBER(5,0)	No	'1'

### Primary Key:

Key Type	Column Name
Composite	EXTRACT_TEMPLATE_CD
	FILE_SEGMENT_TYPE
	OBJ_PROPERTY_NAME

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XC1016P0	Unique	EXTRACT_TEMPLATE_CD
			FILE_SEGMENT_TYPE
			OBJ_PROPERTY_NAME
2.	XC1016S1	Non Unique	EXTRACT_TEMPLATE_CD

## C.16 C1\_EXTRACT\_TEMPLATE\_SERVICE

<b>Purpose:</b>	Used to store the extract fetch services for a given extract template.
<b>Total Number of Columns:</b>	8

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
EXTRACT_TEMPLATE_CD	CHAR(20)	No	-
SEQ_NUM	NUMBER(3,0)	No	-
SERVICE_TYPE	CHAR(30)	No	-
SCHEMA_NAME	CHAR(30)	No	-
POST_ALG_CD	CHAR(12)	No	''
BUS_OBJ_CD	CHAR(30)	No	''
VERSION	NUMBER(5,0)	No	'1'
DEPENDENT_SCHEMA_NAME	CHAR(30)	No	''

### Primary Key:

Key Type	Column Name
Composite	EXTRACT_TEMPLATE_CD
	SEQ_NUM

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XC1014P0	Unique	EXTRACT_TEMPLATE_CD
			SEQ_NUM
2.	XC1014S1	Non Unique	EXTRACT_TEMPLATE_CD

## C.17 C1\_FIELD\_CAT\_MAPPING

<b>Purpose:</b>	Used to store the details of a preference category.
<b>Total Number of Columns:</b>	2

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
FIELD_CAT_FLG	CHAR(4)	No	-
FIELD_NAME_FLG	CHAR(4)	No	-

**Primary Key:**

Key Type	Column Name
Composite	FIELD_CAT_FLG
	FIELD_NAME_FLG

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM659P0	Unique	FIELD_CAT_FLG
			FIELD_NAME_FLG

## C.18 C1\_FIELD\_MAP

<b>Purpose:</b>	Used to define a preference.
<b>Total Number of Columns:</b>	6

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
FIELD_MAP_CD	CHAR(30)	No	-
FIELD_STATUS_FLG	CHAR(4)	No	-
BUS_OBJ_CD	CHAR(30)	No	' '
BO_DATA_AREA	CLOB	Yes	-
VERSION	NUMBER(5,0)	No	1
FIELD_CAT_FLG	CHAR(4)	No	-

**Primary Key:**

Key Type	Column Name
Simple	FIELD_MAP_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM655P0	Unique	FIELD_MAP_CD

## C.19 C1\_FIELD\_MAP\_CONFIG

<b>Purpose:</b>	Used to store the configurable items of a preference.
<b>Total Number of Columns:</b>	3

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FIELD_NAME_FLG	CHAR(4)	No	-
FIELD_SRC_FLG	CHAR(4)	No	-
FIELD_SRC_ENTITY	VARCHAR2(254)	No	' '

### Primary Key:

Key Type	Column Name
Simple	FIELD_NAME_FLG

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM658P0	Unique	FIELD_NAME_FLG

## C.20 C1\_FIELD\_MAP\_DTL

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

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FIELD_MAP_CD	CHAR(30)	No	-
MAP_ENTITY_FLG	CHAR(4)	No	' '
FIELD_NAME_FLG	CHAR(4)	No	-
FIELD_MAP_VALUE	VARCHAR2(254)	No	-
VERSION	NUMBER(5,0)	No	1



**Primary Key:**

Key Type	Column Name
Composite	FIELD_MAP_CD
	FIELD_NAME_FLG
	FIELD_MAP_VALUE

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM657P0	Unique	FIELD_MAP_CD
			FIELD_NAME_FLG
			FIELD_MAP_VALUE

## C.21 C1\_FIELD\_MAP\_L

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

**Column Details:**

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

**Primary Key:**

Key Type	Column Name
Composite	FIELD_MAP_CD
	LANGUAGE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM656P0	Unique	FIELD_MAP_CD
			LANGUAGE_CD

## C.22 C1\_GEO\_RATING\_AREA

<b>Purpose:</b>	Used to store the details of a geographic rating area.
<b>Total Number of Columns:</b>	16

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
RATING_ID	CHAR(10)	No	-
GEO_RATING_AREA	VARCHAR2(5)	No	-
STATE	CHAR(6)	No	-
ZIP_FROM	CHAR(5)	No	-
ZIP_PLUS4_FROM	CHAR(4)	No	-
ZIP_TO	CHAR(5)	No	-
ZIP_PLUS4_TO	CHAR(4)	No	-
START_DT	DATE	No	-
END_DT	DATE	Yes	-
BUS_OBJ_CD	CHAR(30)	No	''
BO_DATA_AREA	CLOB	Yes	-
BO_STATUS_CD	CHAR(12)	No	''
BO_STATUS_REASON_CD	VARCHAR2(30)	Yes	-
CRE_DTTM	DATE	No	current_date
STATUS_UPD_DTTM	DATE	Yes	-
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Simple	RATING_ID

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM646P0	Unique	RATING_ID
2.	XM646S0	Unique	GEO_RATING_AREA
			STATE
			ZIP_FROM

Sr. No.	Index Name	Index Type	Column Name
			ZIP_PLUS4_FROM
			ZIP_TO
			ZIP_PLUS4_TO
			START_DT
			BO_STATUS_CD

## C.23 C1\_GEO\_RATING\_AREA\_K

<b>Purpose:</b>	Used to store the geographic rating area ID.
<b>Total Number of Columns:</b>	2

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
RATING_ID	CHAR(10)	No	-
ENV_ID	NUMBER(6,0)	No	-

### Primary Key:

Key Type	Column Name
Composite	RATING_ID
	ENV_ID

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM647P0	Unique	RATING_ID
			ENV_ID

## C.24 C1\_GEO\_RATING\_AREA\_REL\_OBJ

<b>Purpose:</b>	Used to store the policy plan information of a geographic rating area.
<b>Total Number of Columns:</b>	7

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
RATING_ID	CHAR(10)	No	-
SEQNO	NUMBER(5,0)	No	-

Column Name	Data Type	Nullable (Yes or No)	Default Value
POLICY_NBR	VARCHAR2(64)	No	' '
SRC_SYSTEM_CD	CHAR(10)	No	' '
PLAN_NBR	VARCHAR2(30)	No	' '
PRODUCT_CD	VARCHAR2(30)	No	' '
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	RATING_ID
	SEQNO

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM648P0	Unique	RATING_ID
			SEQNO
2.	XM648S0	Non Unique	SRC_SYSTEM_CD
			POLICY_NBR
3.	XM648S2	Non Unique	PLAN_NBR
4.	XM648S3	Non Unique	PRODUCT_CD

## C.25 C1\_IWS\_HIST

<b>Purpose:</b>	Used to store the response history of an inbound web service.
<b>Total Number of Columns:</b>	10

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
RMB_ENTITY_TYPE_FLG	CHAR(4)	No	-
RMB_ENTITY_ID	VARCHAR2(30)	No	-
C1_EXT_TRANS_ID	VARCHAR2(64)	Yes	' '
EXT_SOURCE_ID	CHAR(30)	Yes	' '
USER_ID	CHAR(8)	No	' '
OUTMSG_ID	CHAR(12)	No	-
ILM_DT	DATE	No	-

Column Name	Data Type	Nullable (Yes or No)	Default Value
ILM_ARCH_SW	CHAR(1)	No	-
NT_XID_CD	CHAR(30)	Yes	' '
SVC_NAME	CHAR(20)	No	-

**Primary Key:**

Key Type	Column Name
Simple	OUTMSG_ID

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM650P0	Unique	OUTMSG_ID

## C.26 C1\_MODEL\_CHG\_LINE

<b>Purpose:</b>	Used to store the pass through charge information of the entities for which the deal is created.
<b>Total Number of Columns:</b>	15

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
MODEL_ID	CHAR(10)	No	-
DEAL_ENTITY_ID	CHAR(10)	No	-
DEAL_ENTITY_TYPE_FLG	CHAR(4)	No	-
PRICEITEM_CD	CHAR(30)	Yes	-
PRICEITEM_PARM_GRP_ID	NUMBER(22,0)	Yes	-
SQI_TYPE_FLG	CHAR(4)	No	-
SEQNO	NUMBER(5,0)	No	1
DEAL_CHARGE_AMT	NUMBER(15,2)	Yes	-
ACCT_CHARGE_AMT	NUMBER(15,2)	Yes	-
DEAL_CURRENCY_CD	CHAR(3)	Yes	-
ACCT_CURRENCY_CD	CHAR(3)	Yes	-
ILM_DT	DATE	Yes	trunc(current_date)
ILM_ARCH_SW	CHAR(1)	Yes	'N'
CRE_DT	DATE	Yes	-

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

**Primary Key:**

Key Type	Column Name
Composite	DEAL_ENTITY_ID
	DEAL_ENTITY_TYPE_FLG
	SEQNO
	SQI_TYPE_FLG

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM623P0	Unique	DEAL_ENTITY_ID
			DEAL_ENTITY_TYPE_FLG
			SEQNO
			SQI_TYPE_FLG

## C.27 C1\_MODEL\_RECM\_PRICEASGN

<b>Purpose:</b>	Used to store the recommended price assignments of a deal.
<b>Total Number of Columns:</b>	12

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
PRICE_ASGN_ID	CHAR(10)	No	-
MODEL_ID	CHAR(10)	No	-
DEAL_ENTITY_ID	CHAR(10)	No	-
DEAL_ID	CHAR(30)	Yes	-
DEAL_ENTITY_TYPE_FLG	CHAR(4)	Yes	-
ROLE_ID	CHAR(10)	No	-
CRE_DTTM	DATE	Yes	-
UPDT_DTTM	DATE	Yes	-
VERSION	NUMBER(5,0)	No	1
ILM_DT	DATE	Yes	-
ILM_ARCH_SW	CHAR(1)	Yes	-

Column Name	Data Type	Nullable (Yes or No)	Default Value
RE_SIM_REQD_SW	CHAR(1)	Yes	-

**Primary Key:**

Key Type	Column Name
Composite	PRICE_ASGN_ID
	MODEL_ID
	DEAL_ENTITY_ID

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM569P0	Unique	PRICE_ASGN_ID
			MODEL_ID
			DEAL_ENTITY_ID

## C.28 C1\_PRICEASGN\_NEG\_FLR\_CL

<b>Purpose:</b>	Used to store the negotiability floor and ceil values of a price assignment.
<b>Total Number of Columns:</b>	4

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
CIS_DIVISION	CHAR(5)	No	-
PRICE_ASGN_ID	CHAR(10)	No	-
CEIL	NUMBER(15,2)	Yes	-
FLOOR	NUMBER(15,2)	Yes	-

**Primary Key:**

Key Type	Column Name
Composite	CIS_DIVISION
	PRICE_ASGN_ID

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM702P0	Unique	CIS_DIVISION
			PRICE_ASGN_ID

## C.29 C1\_PRICEITEM\_NEG\_FLR\_CL

<b>Purpose:</b>	Used to store the negotiability floor and ceil values of a price item.
<b>Total Number of Columns:</b>	5

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
CIS_DIVISION	CHAR(5)	No	-
PRICEITEM_CD	CHAR(30)	No	-
CEIL	NUMBER(15,2)	Yes	-
FLOOR	NUMBER(15,2)	Yes	-
CURRENCY_CD	CHAR(3)	No	-

### Primary Key:

Key Type	Column Name
Composite	CIS_DIVISION
	PRICEITEM_CD
	CURRENCY_CD

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM701P0	Unique	CIS_DIVISION
			PRICEITEM_CD
			CURRENCY_CD

## C.30 C1\_PRICEITEM\_TC\_DTLS

<b>Purpose:</b>	Used to store the terms and conditions associated with a price Item or hierarchy entity.
<b>Total Number of Columns:</b>	6

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
PRICEITEM_TC_ID	CHAR(10)	No	-
TC_TYPE_CD	CHAR(12)	No	-
START_DT	DATE	Yes	-



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

**Primary Key:**

Key Type	Column Name
Composite	PRICEITEM_TC_ID
	TC_TYPE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM645P0	Unique	PRICEITEM_TC_ID
			TC_TYPE_CD

## C.31 C1\_PRICEITEM\_TC\_MAP

<b>Purpose:</b>	Used to store the terms and conditions mapping details of a price Item or hierarchy entity.
<b>Total Number of Columns:</b>	5

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
PRICEITEM_TC_ID	CHAR(10)	No	-
TC_MAP_ENTITY_TYPE_FLG	CHAR(4)	Yes	-
TC_MAP_ENTITY_CD	CHAR(30)	Yes	-
VERSION	NUMBER(5,0)	Yes	1
BUS_OBJ_CD	CHAR(30)	Yes	-

**Primary Key:**

Key Type	Column Name
Simple	PRICEITEM_TC_ID

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM642P0	Unique	PRICEITEM_TC_ID

## C.32 C1\_PRICEITEM\_TC\_MAP\_K

<b>Purpose:</b>	Used to store the terms and conditions mapping ID.
<b>Total Number of Columns:</b>	2

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
PRICEITEM_TC_ID	CHAR(10)	No	-
ENV_ID	NUMBER(6,0)	No	-

### Primary Key:

Key Type	Column Name
Composite	PRICEITEM_TC_ID
	ENV_ID

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM643P0	Unique	PRICEITEM_TC_ID
			ENV_ID

## C.33 C1\_PRICELIST\_SIM

<b>Purpose:</b>	Used to store the details of a price list simulation.
<b>Total Number of Columns:</b>	15

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
PRICELIST_SIM_ID	CHAR(12)	No	-
PRICELIST_ID	CHAR(10)	Yes	-
CURRENCY_CD	CHAR(3)	Yes	-
SHORT_DESC	VARCHAR2(60)	Yes	-
LONG_DESC	VARCHAR2(4000)	Yes	-
BUS_OBJ_CD	CHAR(30)	Yes	-
BO_DATA_AREA	CLOB	Yes	-
BO_STATUS_CD	CHAR(12)	Yes	-

Column Name	Data Type	Nullable (Yes or No)	Default Value
BO_STATUS_REASON_CD	VARCHAR2(30)	Yes	-
STATUS_UPD_DTTM	DATE	Yes	-
CRE_DTTM	DATE	Yes	-
ILM_ARCH_SW	CHAR(1)	Yes	-
ILM_DT	DATE	Yes	-
VERSION	NUMBER(5,0)	Yes	1
PL_SIM_PERIOD_FLG	CHAR(4)	Yes	-

**Primary Key:**

Key Type	Column Name
Simple	PRICELIST_SIM_ID

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM667P0	Unique	PRICELIST_SIM_ID

## C.34 C1\_PRICELIST\_SIM\_DETAIL

<b>Purpose:</b>	Used to store the detailed calculation of a price list simulation.
<b>Total Number of Columns:</b>	16

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
PRICELIST_SIM_ID	CHAR(12)	No	-
PRICELIST_ID	CHAR(10)	No	-
PRODUCT_CD	CHAR(30)	No	-
PRICEITEM_CD	CHAR(30)	No	-
PRICE_ASGN_ID	CHAR(10)	No	-
ACCT_ID	CHAR(10)	No	-
PER_ID	CHAR(10)	Yes	-
VALUE_AMT	NUMBER(36,18)	Yes	-
SQI_CD	CHAR(8)	Yes	-
SVC_QTY	NUMBER(36,18)	Yes	-
ORIG_REVENUE	NUMBER(15,2)	Yes	-

Column Name	Data Type	Nullable (Yes or No)	Default Value
DESCR4000	VARCHAR2(4000)	Yes	-
CRE_DTTM	DATE	Yes	-
STATUS_UPD_DTTM	DATE	Yes	-
VERSION	NUMBER(5,0)	Yes	1
PARM_STRING	VARCHAR2(500)	No	-

**Primary Key:**

Key Type	Column Name
Composite	PRICELIST_SIM_ID
	PRICELIST_ID
	PRODUCT_CD
	PRICEITEM_CD
	PARM_STRING
	ACCT_ID
	PRICE_ASGN_ID

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM669P0	Unique	PRICELIST_SIM_ID
			PRICELIST_ID
			PRODUCT_CD
			PRICEITEM_CD
			PARM_STRING
			ACCT_ID
			PRICE_ASGN_ID

## C.35 C1\_PRICELIST\_SIM\_DETAIL\_TEMP

<b>Purpose:</b>	Used to store the temporary data created before performing the price list simulation.
<b>Total Number of Columns:</b>	16

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
PRICELIST_SIM_TEMP_ID	CHAR(12)	No	-
PRICELIST_ID	CHAR(10)	No	-
PRODUCT_CD	CHAR(30)	No	-
PRICEITEM_CD	CHAR(30)	No	-
PRICE_ASGN_ID	CHAR(10)	No	-
ACCT_ID	CHAR(10)	No	-
PER_ID	CHAR(10)	Yes	-
VALUE_AMT	NUMBER(36,18)	Yes	-
SQI_CD	CHAR(8)	Yes	-
SVC_QTY	NUMBER(36,18)	Yes	-
ORIG_REVENUE	NUMBER(15,2)	Yes	-
DESCR4000	VARCHAR2(4000)	Yes	-
CRE_DTTM	DATE	Yes	-
STATUS_UPD_DTTM	DATE	Yes	-
VERSION	NUMBER(5,0)	Yes	1
PARAM_STRING	VARCHAR2(500)	No	-

### Primary Key:

Key Type	Column Name
Composite	PRICELIST_SIM_ID
	PRICELIST_ID
	PRODUCT_CD
	PRICEITEM_CD
	PARAM_STRING
	ACCT_ID
	PRICE_ASGN_ID

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM700P0	Unique	PRICELIST_SIM_ID
			PRICELIST_ID
			PRODUCT_CD
			PRICEITEM_CD
			PARM_STRING
			ACCT_ID
			PRICE_ASGN_ID

## C.36 C1\_PRICELIST\_SIM\_SUMMARY

<b>Purpose:</b>	Used to store the overall summary details of a price list simulation.
<b>Total Number of Columns:</b>	26

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
PRICELIST_SIM_ID	CHAR(12)	No	-
PRICELIST_ID	CHAR(10)	No	-
PRODUCT_CD	CHAR(30)	No	-
PRICEITEM_CD	CHAR(30)	No	-
PRICE_ASGN_ID	CHAR(10)	Yes	-
VALUE_AMT	NUMBER(36,18)	Yes	-
SQI_CD	CHAR(8)	Yes	-
SVC_QTY	NUMBER(36,18)	Yes	-
ORIG_REVENUE	NUMBER(15,2)	Yes	-
ORIG_COST	NUMBER(15,2)	Yes	-
ORIG_PROFITABILITY	NUMBER(15,2)	Yes	-
PRPD_VALUE_AMT	NUMBER(36,18)	Yes	-
PRPD_SQI_CD	CHAR(8)	Yes	-
PRPD_SVC_QTY	NUMBER(36,18)	Yes	-
PRPD_REVENUE	NUMBER(15,2)	Yes	-
PRPD_PROFITABILITY	NUMBER(15,2)	Yes	-

Column Name	Data Type	Nullable (Yes or No)	Default Value
PRPD_REVENUE_IMPACT	NUMBER(15,2)	Yes	-
COMMENTS	VARCHAR2(254)	Yes	-
DESCR4000	VARCHAR2(4000)	Yes	-
CRE_DTTM	DATE	Yes	-
STATUS_UPD_DTTM	DATE	Yes	-
PRPD_PRICE_ASGN_ID	CHAR(10)	Yes	-
PRPD_PRICE	NUMBER(18,2)	Yes	-
VERSION	NUMBER(5,0)	Yes	1
PARM_STRING	VARCHAR2(500)	No	-
PRPSD_COST	NUMBER(15,2)	Yes	-

**Primary Key:**

Key Type	Column Name
Composite	PRICELIST_SIM_ID
	PRICELIST_ID
	PRODUCT_CD
	PRICEITEM_CD
	PARM_STRING

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM668P0	Unique	PRICELIST_SIM_ID
			PRICELIST_ID
			PRODUCT_CD
			PRICEITEM_CD
			PARM_STRING

## C.37 C1\_QUESTION

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

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
QUESTION_TEMP_CD	CHAR(12)	No	-
QUESTION_CD	CHAR(8)	No	-
DISP_SEQ	NUMBER(3,0)	No	-
ANS_DISPLAY_TYPE_FLG	CHAR(60)	No	-
SOURCE_VAL_REF	CHAR(1)	No	-
SOURCE_DATA	VARCHAR2(20)	Yes	-
SOURCE_COLUMN	VARCHAR2(20)	Yes	-
SOURCE_CRITERIA	VARCHAR2(254)	Yes	-
VALIDATION_RULE	VARCHAR2(20)	Yes	-
DEFAULT_ANS	VARCHAR2(60)	Yes	-
MANDATORY_SW	CHAR(1)	Yes	-
PARAMETER_REF	VARCHAR2(20)	No	-
RULE_TYPE	VARCHAR2(20)	Yes	-
VERSION	NUMBER(5,0)	No	0

### Primary Key:

Key Type	Column Name
Composite	QUESTION_TEMP_CD
	QUESTION_CD

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM711P0	Unique	QUESTION_TEMP_CD
			QUESTION_CD



## C.38 C1\_QUESTION\_ANSWER

<b>Purpose:</b>	Used to store the answer details of a question.
<b>Total Number of Columns:</b>	9

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
QUEST_ENTITY_ID	CHAR(10)	No	-
QUEST_ENTITY_TYPE	CHAR(4)	No	-
QUESTION_TEMP_CD	CHAR(12)	No	-
QUESTION_CD	CHAR(8)	No	-
ANS_TEXT	VARCHAR2(4000)	Yes	-
ANS_DATE	DATE	Yes	-
ANS_NUM	NUMBER(15,2)	Yes	-
VERSION	NUMBER(5,0)	Yes	1
NEXT_QUESTION_CD	CHAR(8)	Yes	-

### Primary Key:

Key Type	Column Name
Composite	QUEST_ENTITY_ID
	QUEST_ENTITY_TYPE
	QUESTION_TEMP_CD
	QUESTION_CD

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM716P0	Unique	QUEST_ENTITY_ID
			QUEST_ENTITY_TYPE
			QUESTION_TEMP_CD
			QUESTION_CD

## C.39 C1\_QUESTION\_APPLICABLE

<b>Purpose:</b>	Used to store the applicability details of a question.
<b>Total Number of Columns:</b>	4

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
QUESTION_TEMP_CD	CHAR(12)	No	-
QUESTION_CD	CHAR(8)	No	-
QUESTION_APPLICABILITY	CHAR(4)	No	-
VERSION	NUMBER(5,0)	No	0

### Primary Key:

Key Type	Column Name
Composite	QUESTION_TEMP_CD
	QUESTION_CD
	QUESTION_APPLICABILITY

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM713P0	Unique	QUESTION_TEMP_CD
			QUESTION_CD
			QUESTION_APPLICABILITY

## C.40 C1\_QUESTION\_L

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

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
QUESTION_TEMP_CD	CHAR(12)	No	-
QUESTION_CD	CHAR(8)	No	-
LANGUAGE_CD	CHAR(3)	No	-
DESCR	VARCHAR2(60)	Yes	NULL

Column Name	Data Type	Nullable (Yes or No)	Default Value
DESCRLONG	VARCHAR2(4000)	Yes	-
VERSION	NUMBER(5,0)	No	0

**Primary Key:**

Key Type	Column Name
Composite	QUESTION_TEMP_CD
	QUESTION_CD
	LANGUAGE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM712P0	Unique	QUESTION_TEMP_CD
			QUESTION_CD
			LANGUAGE_CD

## C.41 C1\_QUESTION\_PREFD\_SRC

<b>Purpose:</b>	Used to store the predefined answer list of a question.
<b>Total Number of Columns:</b>	4

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
QUESTION_TEMP_CD	CHAR(12)	No	-
QUESTION_CD	CHAR(8)	No	-
SOURCE_DATA_VAL	VARCHAR2(20)	No	-
VERSION	NUMBER(5,0)	No	0

**Primary Key:**

Key Type	Column Name
Composite	QUESTION_TEMP_CD
	QUESTION_CD
	SOURCE_DATA_VAL

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM714P0	Unique	QUESTION_TEMP_CD
			QUESTION_CD
			SOURCE_DATA_VAL

**C.42 C1\_QUESTION\_PREFD\_SRC\_L**

<b>Purpose:</b>	Used to store the description of a predefined answer.
<b>Total Number of Columns:</b>	7

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
QUESTION_TEMP_CD	CHAR(12)	No	-
QUESTION_CD	CHAR(8)	No	-
LANGUAGE_CD	CHAR(3)	No	-
DESCR	VARCHAR2(60)	Yes	NULL
DESCRLONG	VARCHAR2(4000)	Yes	-
VERSION	NUMBER(5,0)	No	0
SOURCE_DATA_VAL	VARCHAR2(20)	No	-

**Primary Key:**

Key Type	Column Name
Composite	QUESTION_TEMP_CD
	QUESTION_CD
	LANGUAGE_CD
	SOURCE_DATA_VAL

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM715P0	Unique	QUESTION_TEMP_CD
			QUESTION_CD
			LANGUAGE_CD
			SOURCE_DATA_VAL

## C.43 C1\_QUESTION\_TMPLT

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

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
QUESTION_TEMP_CD	CHAR(12)	No	-
START_DT	DATE	No	-
END_DT	DATE	Yes	-
QUE_DISPLAY_ORDER	VARCHAR2(38)	Yes	-
VERSION	NUMBER(5,0)	No	0

### Primary Key:

Key Type	Column Name
Simple	QUESTION_TEMP_CD

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM709P0	Unique	QUESTION_TEMP_CD

## C.44 C1\_QUESTION\_TMPLT\_L

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

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
QUESTION_TEMP_CD	CHAR(12)	No	-
LANGUAGE_CD	CHAR(3)	No	-
DESCR	VARCHAR2(60)	Yes	NULL
DESCRLONG	VARCHAR2(4000)	Yes	-
VERSION	NUMBER(5,0)	No	0

**Primary Key:**

Key Type	Column Name
Composite	QUESTION_TEMP_CD
	LANGUAGE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM710P0	Unique	QUESTION_TEMP_CD
			LANGUAGE_CD

## C.45 C1\_REL\_STRUCTURE

<b>Purpose:</b>	Used to store the details of a member relationship or subscription tier structure.
<b>Total Number of Columns:</b>	7

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
STRUCTURE_CD	CHAR(30)	No	-
MAX_MEMBER_CNT	NUMBER(3,0)	No	0
BUS_OBJ_CD	CHAR(30)	No	''
BO_DATA_AREA	CLOB	Yes	-
BO_STATUS_CD	CHAR(12)	No	''
BO_STATUS_REASON_CD	VARCHAR2(30)	Yes	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Simple	STRUCTURE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM651P0	Unique	STRUCTURE_CD

## C.46 C1\_REL\_STRUCTURE\_CRIT

<b>Purpose:</b>	Used to store the criteria details of a member relationship or subscription tier structure.
<b>Total Number of Columns:</b>	7

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
STRUCTURE_CD	CHAR(30)	No	-
CRITERIA_CD	VARCHAR2(30)	No	-
NUM_OF_SELF	NUMBER(2,0)	No	0
NUM_OF_SPOUSE	NUMBER(2,0)	No	0
NUM_OF_DEPEN	NUMBER(2,0)	No	0
NUM_OF_YOUNG_ADULT	NUMBER(2,0)	No	0
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	STRUCTURE_CD
	CRITERIA_CD

### Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XM653P0	Unique	STRUCTURE_CD
			CRITERIA_CD

## C.47 C1\_REL\_STRUCTURE\_L

<b>Purpose:</b>	Used to store the description of the member relationship or subscription tier structure.
<b>Total Number of Columns:</b>	5

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
STRUCTURE_CD	CHAR(30)	No	-
LANGUAGE_CD	CHAR(3)	No	-

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

**Primary Key:**

Key Type	Column Name
Composite	STRUCTURE_CD
	LANGUAGE_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM652P0	Unique	STRUCTURE_CD
			LANGUAGE_CD

## C.48 C1\_REL\_STRUCTURE\_MAP

<b>Purpose:</b>	Used to store the relationship matrix of a member relationship or subscription tier structure.
<b>Total Number of Columns:</b>	5

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
STRUCTURE_CD	CHAR(30)	No	-
RELATION_FLG	CHAR(4)	No	-
SA_REL_TYPE_CD	CHAR(8)	No	-
RELATION_MAP_FLG	CHAR(4)	No	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	STRUCTURE_CD
	RELATION_FLG
	SA_REL_TYPE_CD
	RELATION_MAP_FLG



**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM654P0	Unique	STRUCTURE_CD
			RELATION_FLG
			SA_REL_TYPE_CD
			RELATION_MAP_FLG

**C.49 C1\_RM\_ACCT\_STATS**

<b>Purpose:</b>	Used to store the aggregated amount and usage values of each account for a period.
<b>Total Number of Columns:</b>	44

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
ACCT_ID	CHAR(10)	No	-
START_DATE	DATE	No	-
END_DATE	DATE	No	-
PER_ID	CHAR(10)	No	-
CIS_DIVISION	CHAR(5)	No	-
CURRENCY_CD	CHAR(3)	Yes	-
DELQ_FLG	CHAR(4)	Yes	-
REL_MGR	CHAR(8)	Yes	-
UPDATE_DTTM	DATE	No	-
LAST_TXN_DATE	DATE	Yes	-
RECV_AMT	NUMBER(15,2)	Yes	-
UNPAID_AMT	NUMBER(15,2)	Yes	-
UNPAID_INV_CNT	NUMBER(7,0)	Yes	-
INV_CNT	NUMBER(7,0)	Yes	-
TAX_AMT	NUMBER(15,2)	Yes	-
UNPAID_TAX_AMT	NUMBER(15,2)	Yes	-
REV_AMT	NUMBER(15,2)	Yes	-
REV_VAR_PERC	NUMBER(5,2)	Yes	-
TOT_CNCL_AMT	NUMBER(15,2)	Yes	-

Column Name	Data Type	Nullable (Yes or No)	Default Value
CNCL_CNT	NUMBER(7,0)	Yes	-
TOT_ADJ_AMT	NUMBER(15,2)	Yes	-
TOTAL_REF_WO_AMT	NUMBER(15,2)	Yes	-
WRITE_OFF_ADJ_AMT	NUMBER(15,2)	Yes	-
COMM_REV_AMT	NUMBER(15,2)	Yes	-
PAYMENTS_CNT	NUMBER(7,0)	Yes	-
BILL_CHG_CNT	NUMBER(7,0)	Yes	-
TOTAL_AGREED_AMT	NUMBER(15,2)	Yes	-
TOTAL_STND_AMT	NUMBER(15,2)	Yes	-
AGREED_CHG_CNT	NUMBER(7,0)	Yes	-
IGNR_CHG_CNT	NUMBER(7,0)	Yes	-
ZERO_CHG_CNT	NUMBER(7,0)	Yes	-
PRICE_ITEMS_CNT	NUMBER(7,0)	Yes	-
PRODUCTS_CNT	NUMBER(7,0)	Yes	-
CRET_TODO_CNT	NUMBER(7,0)	Yes	-
CMP_TODO_CNT	NUMBER(7,0)	Yes	-
OPEN_TODO_CNT	NUMBER(7,0)	Yes	-
BILLCHG_VAR	NUMBER(15,2)	Yes	-
CNCL_VAR	NUMBER(15,2)	Yes	-
PAY_VAR	NUMBER(15,2)	Yes	-
RECV_VAR	NUMBER(15,2)	Yes	-
TODO_VAR	NUMBER(15,2)	Yes	-
WO_VAR	NUMBER(15,2)	Yes	-
REFUND_VAR	NUMBER(15,2)	Yes	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	ACCT_ID
	START_DATE
	END_DATE

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM718P0	Unique	ACCT_ID
			START_DATE
			END_DATE

## C.50 C1\_RM\_PERSON\_STATS

<b>Purpose:</b>	Used to store the aggregated amount and usage values of each customer for a period.
<b>Total Number of Columns:</b>	49

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
PER_ID	CHAR(10)	No	-
START_DATE	DATE	No	-
END_DATE	DATE	No	-
CIS_DIVISION	CHAR(5)	No	-
CUST_SEG_FLG	CHAR(4)	Yes	-
CUST_TIER_FLG	CHAR(4)	Yes	-
CUST_STAT_FLG	CHAR(4)	Yes	-
REL_MGR	CHAR(8)	Yes	-
RM_CURR_CD	CHAR(10)	No	-
NO_OF_ACCTS_DEL	NUMBER(5,0)	Yes	-
UNPAID_REVAMT_RM_CURR	NUMBER(15,2)	Yes	-
REV_AMT_RM_CURR	NUMBER(15,2)	Yes	-
UPDATE_DTTM	DATE	No	-
LAST_TXN_DT	DATE	Yes	-
LEAST_TXN_DT	DATE	Yes	-
RECV_AMT	NUMBER(15,2)	Yes	-
UNPAID_AMT	NUMBER(15,2)	Yes	-
UNPAID_INV_CNT	NUMBER(7,0)	Yes	-
INV_CNT	NUMBER(7,0)	Yes	-
TAX_AMT	NUMBER(15,2)	Yes	-

Column Name	Data Type	Nullable (Yes or No)	Default Value
UNP_TAX_AMT	NUMBER(15,2)	Yes	-
REV_AMT	NUMBER(15,2)	Yes	-
REV_VAR_PERC	NUMBER(5,2)	Yes	-
TOT_CNCL_AMT	NUMBER(15,2)	Yes	-
CNCL_CNT	NUMBER(7,0)	Yes	-
TOT_ADJ_AMT	NUMBER(15,2)	Yes	-
TOTAL_REF_WO_AMT	NUMBER(15,2)	Yes	-
WRITE_OFF_ADJ_AMT	NUMBER(15,2)	Yes	-
COMM_REV_AMT	NUMBER(15,2)	Yes	-
PAYMENTS_CNT	NUMBER(7,0)	Yes	-
BILL_CHG_CNT	NUMBER(7,0)	Yes	-
TOTAL_AGREED_AMT	NUMBER(15,2)	Yes	-
TOTAL_STND_AMT	NUMBER(15,2)	Yes	-
AGREED_CHG_CNT	NUMBER(7,0)	Yes	-
IGNR_CHG_CNT	NUMBER(7,0)	Yes	-
ZERO_CHG_CNT	NUMBER(7,0)	Yes	-
PRICE_ITEMS_CNT	NUMBER(7,0)	Yes	-
PRODUCTS_CNT	NUMBER(7,0)	Yes	-
CRET_TODO_CNT	NUMBER(7,0)	Yes	-
CMP_TODO_CNT	NUMBER(7,0)	Yes	-
OPEN_TODO_CN	NUMBER(7,0)	Yes	-
BILLCHG_VAR	NUMBER(15,2)	Yes	-
CNCL_VAR	NUMBER(15,2)	Yes	-
PAY_VAR	NUMBER(15,2)	No	-
RECV_VAR	NUMBER(15,2)	Yes	-
TODO_VAR	NUMBER(15,2)	Yes	-
WO_VAR	NUMBER(15,2)	Yes	-
REFUND_VAR	NUMBER(15,2)	Yes	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	PER_ID
	START_DATE
	END_DATE

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM719P0	Unique	PER_ID
			START_DATE
			END_DATE

## C.51 C1\_RM\_PRICING\_STATS

<b>Purpose:</b>	Used to store the aggregated amount and usage values of product, price list and price item for each division, customer segment, and customer tier combination for a period.
<b>Total Number of Columns:</b>	22

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
CIS_DIVISION	CHAR(5)	No	-
CUST_SEG_FLG	CHAR(4)	No	-
CUST_TIER_FLG	CHAR(4)	No	-
REL_MGR	CHAR(8)	No	-
PRICEITEM_CD	CHAR(30)	No	-
PRICEITEM_TYPE	CHAR(30)	Yes	-
PRICELIST_ID	CHAR(10)	No	-
PRODUCT_CD	CHAR(30)	No	-
PRODUCT_CAT_FLG	CHAR(4)	Yes	-
PRODUCT_TYP_FLG	CHAR(4)	Yes	-
REV_AMT_DIV_CUR	NUMBER(15,2)	Yes	-
REV_AMT_RM_CUR	NUMBER(15,2)	Yes	-
REV_VAR_PERC	NUMBER(5,2)	Yes	-
PARAM_STR	VARCHAR2(30)	Yes	-

Column Name	Data Type	Nullable (Yes or No)	Default Value
BILL_SEG_CNT	NUMBER(7,0)	Yes	-
BILL_CHG_CNT	NUMBER(7,0)	Yes	-
CUST_CNT	NUMBER(7,0)	Yes	-
ACCT_CNT	NUMBER(7,0)	Yes	-
START_DATE	DATE	No	-
END_DATE	DATE	No	-
UPDATE_DTTM	DATE	No	-
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	CIS_DIVISION
	CUST_SEG_FLG
	CUST_TIER_FLG
	REL_MGR
	PRICEITEM_CD
	PRICELIST_ID
	PRODUCT_CD
	START_DATE
	END_DATE

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM720P0	Unique	CIS_DIVISION
			CUST_SEG_FLG
			CUST_TIER_FLG
			REL_MGR
			PRICEITEM_CD
			PRICELIST_ID
			PRODUCT_CD
			START_DATE
			END_DATE

## C.52 C1\_RM\_PRICING\_USAGE\_STATS

<b>Purpose:</b>	Used to store the aggregated amount and usage values of product, price list, price item, and service quantity for each division, customer segment, and customer tier combination for a period.
<b>Total Number of Columns:</b>	16

### Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
CIS_DIVISION	CHAR(5)	No	-
CUST_SEG_FLG	CHAR(4)	No	-
CUST_TIER_FLG	CHAR(4)	No	-
REL_MGR	CHAR(8)	No	-
PRICEITEM_CD	CHAR(30)	No	-
PRICEITEM_TYPE	CHAR(30)	Yes	-
PRICELIST_ID	CHAR(10)	No	-
PRODUCT_CD	CHAR(30)	No	-
PRODUCT_CAT_FLG	CHAR(4)	Yes	-
SQI_CD	CHAR(8)	Yes	-
SVC_QTY_DIV_CURR	NUMBER(36,18)	Yes	-
SVC_QTY_RM_CURR	NUMBER(36,18)	Yes	-
START_DATE	DATE	No	-
END_DATE	DATE	No	-
UPDATE_DTTM	DATE	No	-
VERSION	NUMBER(5,0)	No	1

### Primary Key:

Key Type	Column Name
Composite	CIS_DIVISION
	CUST_SEG_FLG
	CUST_TIER_FLG
	REL_MGR
	PRICEITEM_CD
	PRICELIST_ID

Key Type	Column Name
	PRODUCT_CD
	START_DATE
	END_DATE

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM721P0	Unique	CIS_DIVISION
			CUST_SEG_FLG
			CUST_TIER_FLG
			REL_MGR
			PRICEITEM_CD
			PRICELIST_ID
			PRODUCT_CD
			START_DATE
			END_DATE

## C.53 C1\_RULE\_TYPE\_PARM

<b>Purpose:</b>	Used to store the input parameters of a rule type.
<b>Total Number of Columns:</b>	6

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
RULE_TYPE_CD	CHAR(12)	No	-
SEQUENCE_NUM	NUMBER(5,0)	No	-
PARM_CD	VARCHAR2(30)	No	-
IN_OUT_SW	CHAR(1)	No	-
RULE_PARM_SRCH_ZONE	CHAR(12)	No	' '
VERSION	NUMBER(5,0)	No	1



**Primary Key:**

Key Type	Column Name
Composite	RULE_TYPE_CD
	SEQUENCE_NUM
	PARM_CD

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM665P0	Unique	RULE_TYPE_CD
			SEQUENCE_NUM
			PARM_CD

## C.54 CI\_POLICY\_PLAN\_PRO\_RULE

<b>Purpose:</b>	Used to store the proration rules of a policy plan.
<b>Total Number of Columns:</b>	6

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
PLAN_ID	CHAR(15)	No	-
EFF_DT	DATE	No	-
PRORATION_EVT_TYPE_FLG	CHAR(4)	No	-
PRORATION_TYPE_FLG	CHAR(4)	No	-
NBR_DAYS	NUMBER(3,0)	No	0
VERSION	NUMBER(5,0)	No	1

**Primary Key:**

Key Type	Column Name
Composite	PLAN_ID
	EFF_DT
	PRORATION_EVT_TYPE_FLG
	PRORATION_TYPE_FLG

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM708P0	Unique	PLAN_ID
			EFF_DT
			PRORATION_EVT_TYPE_FLG
			PRORATION_TYPE_FLG

## C.55 CI\_STM\_CNST\_CHAR

<b>Purpose:</b>	Used to store the characteristics of a statement construct.
<b>Total Number of Columns:</b>	12

**Column Details:**

Column Name	Data Type	Nullable (Yes or No)	Default Value
STM_CNST_ID	CHAR(10)	No	-
CHAR_TYPE_CD	CHAR(8)	No	-
EFFDT	DATE	No	-
CHAR_VAL	CHAR(16)	No	"
ADHOC_CHAR_VAL	VARCHAR2(254)	No	"
CHAR_VAL_FK1	VARCHAR2(50)	No	"
CHAR_VAL_FK2	VARCHAR2(50)	No	"
CHAR_VAL_FK3	VARCHAR2(50)	No	"
CHAR_VAL_FK4	VARCHAR2(50)	No	"
CHAR_VAL_FK5	VARCHAR2(50)	No	"
SRCH_CHAR_VAL	VARCHAR2(50)	No	"
VERSION	NUMBER(5,0)	No	'1'

**Primary Key:**

Key Type	Column Name
Composite	STM_CNST_ID
	CHAR_TYPE_CD
	EFFDT

**Indexes:**

Sr. No.	Index Name	Index Type	Column Name
1.	XM666P0	Unique	STM_CNST_ID
			CHAR_TYPE_CD
			EFFDT

## Appendix D : Existing Tables Modified in 2.9.0.1.0

This section lists the existing tables which are modified in Oracle Revenue Management and Billing Version 2.9.0.1.0. It also indicates the columns that are newly added, dropped, or modified in these tables.

### D.1 C1\_ACCUM\_MIN\_PREM\_AMT

The following table lists the columns that are either newly added, modified, or dropped in the C1\_ACCUM\_MIN\_PREM\_AMT table:

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	MIN_PREM_ADJ_AMT	Newly Added	-	NUMBER(36,18)	No	-

### D.2 C1\_CUST\_REG

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	STM_CNST_DATA	Newly Added	-	CLOB	No	-

## D.3 C1\_DEAL

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	DEAL_TEMPLATE_CD	Newly Added	-	CHAR(12)	No	-
2.	REVIEW_TODO_DATE	Newly Added	-	DATE	No	-
3.	SKIP_QUESEN_SW	Newly Added	-	CHAR(1)	No	-

## D.4 C1\_DEAL\_APPROVAL

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PROD_ACT_SEQ_NUM	Newly Added	-	NUMBER(5)	No	-

## D.5 C1\_DEAL\_PRICEITEM\_APPR

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PRODUCT_CD	Newly Added	-	CHAR(30)	No	-

## D.6 C1\_DEAL\_PRICELIST

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	DEAL_MAP_ID	Newly Added	-	CHAR(10)	No	-
2.	CIS_DIVISION	Dropped	CHAR(5)	-	No	-
3.	CUST_SEG_FLG	Dropped	CHAR(4)	-	No	-
4.	CUST_TIER_FLG	Dropped	CHAR(4)	-	No	-
5.	PRICELIST_MAP_ID	Dropped	CHAR(10)	-	No	-

## D.7 C1\_DEAL\_SIMULATION\_DTL

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	LOCAL_AVERAGE_PRICE	Newly Added	-	NUMBER(15,2)	No	-
2.	LOCAL_COST	Newly Added	-	NUMBER(15,2)	No	-
3.	LOCAL_CURRENCY_CD	Newly Added	-	CHAR(3)	No	-
4.	LOCAL_REVENUE	Newly Added	-	NUMBER(15,2)	No	-

## D.8 C1\_DEAL\_SIMULATION\_SMRY

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	LOCAL_COST	Newly Added	-	NUMBER(15,2)	No	-
2.	LOCAL_CURRENCY_CD	Newly Added	-	CHAR(3)	No	-
3.	LOCAL_REVENUE	Newly Added	-	NUMBER(15,2)	No	-

## D.9 C1\_DEAL\_TYPE

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PROD_LVL_APPR_REQ_SW	Newly Added	-	CHAR(1)	No	-
2.	QUESTION_TEMP_CD	Newly Added	-	CHAR(12)	No	-
3.	TD_HIGH_PRIORITY_DAYS	Newly Added	-	NUMBER(3)	No	-
4.	TODO_REMINDER_DAYS	Newly Added	-	NUMBER(3)	No	-

## D.10 C1\_DEAL\_TYPE\_CST\_AHCY

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PRODUCT_CD	Newly Added	-	CHAR(30)	No	-

## D.11 C1\_MODEL

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	RE_SIM_REQD_SW	Newly Added	-	CHAR(1)	No	-

## D.12 C1\_MODEL\_FIN\_SUMMARY

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	LOCAL_CURRENCY_CD	Newly Added	-	CHAR(3)	No	-
2.	LOCAL_ACTIVE_COST	Newly Added	-	NUMBER(15,2)	No	-
3.	LOCAL_ACTIVE_PROFITABILITY	Newly Added	-	NUMBER(15,2)	No	-
4.	LOCAL_ACTIVE_REVENUE	Newly Added	-	NUMBER(15,2)	No	-



Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
5.	LOCAL_PROPOSED_COST	Newly Added	-	NUMBER(15,2)	No	-
6.	LOCAL_PROPOSED_PROFITABILITY	Newly Added	-	NUMBER(15,2)	No	-
7.	LOCAL_PROPOSED_REVENUE	Newly Added	-	NUMBER(15,2)	No	-
8.	LOCAL_RECM_PROFITABILITY_AMT	Newly Added	-	NUMBER(15,2)	No	-
9.	LOCAL_RECM_REVENUE	Newly Added	-	NUMBER(15,2)	No	-
10.	PRODUCT_CD	Newly Added	-	CHAR(30)	No	-
11.	RECM_PROFITABILITY_AMT	Newly Added	-	NUMBER(15,2)	No	-
12.	RECM_PROFITABILITY	Newly Added	-	NUMBER(15,2)	No	-
13.	OVERALL_RECM_REVENUE	Newly Added	-	NUMBER(15,2)	No	-

## D.13 C1\_MODEL\_SQI

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	AGG_SVC_QTY	Newly Added	-	NUMBER(36,18)	No	-

## D.14 C1\_PRC\_RULE

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PRC_TYPE_FLG	Newly Added	-	CHAR(4)	No	-
2.	VERSION_NUM	Newly Added	-	NUMBER(5)	No	-

## D.15 C1\_PRC\_RULE\_CHAR

The following table lists the columns that are either newly added, modified, or dropped in the C1\_PRC\_RULE\_CHAR table:

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	VERSION_NUM	Newly Added	-	NUMBER(5)	No	-

## D.16 C1\_PRC\_RULE\_ENTITY

The following table lists the columns that are either newly added, modified, or dropped in the C1\_PRC\_RULE\_ENTITY table:

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	VERSION_NUM	Newly Added	-	NUMBER(5)	No	-

## D.17 C1\_PRC\_RULE\_K

The following table lists the columns that are either newly added, modified, or dropped in the C1\_PRC\_RULE\_K table:

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	VERSION_NUM	Newly Added	-	NUMBER(5)	No	-

## D.18 C1\_PRC\_RULE\_LOG

The following table lists the columns that are either newly added, modified, or dropped in the C1\_PRC\_RULE\_LOG table:

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	VERSION_NUM	Newly Added	-	NUMBER(5)	No	-

## D.19 C1\_PRC\_RULE\_LOG\_PARM

The following table lists the columns that are either newly added, modified, or dropped in the C1\_PRC\_RULE\_LOG\_PARM table:

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	VERSION_NUM	Newly Added	-	NUMBER(5)	No	-

## D.20 C1\_PRC\_RULE\_SEC

The following table lists the columns that are either newly added, modified, or dropped in the C1\_PRC\_RULE\_SEC table:

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	VERSION_NUM	Newly Added	-	NUMBER(5)	No	-

## D.21 C1\_PRODUCT\_VER

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	MARKET_PROD_CD	Newly Added	-	CHAR(30)	No	-

## D.22 CI\_ACCT\_PER\_VW

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ACCT_ID	Newly Added	-	CHAR(10)	No	-
2.	DIV	Newly Added	-	CHAR(5)	No	-
3.	PER_ID	Newly Added	-	CHAR(10)	No	-

## D.23 CI\_ACCUM\_GRP

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	VERSION_NUM	Newly Added	-	NUMBER(5)	No	-

## D.24 CI\_DISAGG\_BCHG\_DETAIL

The following table lists the columns that are either newly added, modified, or dropped in the CI\_DISAGG\_BCHG\_DETAIL table:

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	VERSION_NUM	Newly Added	-	NUMBER(5)	No	-

## D.25 CI\_DISAGG\_TXN\_PRITM\_DETAIL

The following table lists the columns that are either newly added, modified, or dropped in the CI\_DISAGG\_TXN\_PRITM\_DETAIL table:

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	VERSION_NUM	Newly Added	-	NUMBER(5)	No	-

## D.26 CI\_DIV\_PRICEITEM

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	NEGOTIABILITY_SW	Newly Added	-	CHAR(1)	No	-
2.	ONLY_WITHIN_RANGE_SW	Newly Added	-	CHAR(1)	No	-

## D.27 CI\_MEMBERSHIP

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	MEMBERSHIP_TYPE_FLG	Newly Added	-	CHAR(4)	No	-

## D.28 CI\_MEMBERSHIP\_PER

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	EXT_MEDICARE_BENF_ID	Newly Added	-	VARCHAR2(100)	No	-

## D.29 CI\_PER\_VW

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	DIV	Newly Added	-	CHAR(5)	No	-
2.	NAME1	Newly Added	-	VARCHAR2(254)	No	-
3.	PER_ID	Newly Added	-	CHAR(10)	No	-
4.	PBFLG	Newly Added	-	CHAR(20)	No	-
5.	LSFLG	Newly Added	-	CHAR(20)	No	-

## D.30 CI\_POLICY\_PLAN

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BENEFIT_TYPE_FLG	Newly Added	-	CHAR(4)	No	-

## D.31 CI\_PRCE\_CALC

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	COV_END_DT	Newly Added	-	DATE(10)	No	-
2.	COV_START_DT	Newly Added	-	DATE(10)	No	-
3.	DIS_AMT	Newly Added	-	NUMBER(15,2)	No	-
4.	PRIMARY_PRT_CD	Newly Added	-	CHAR(30)	No	-
5.	VERSION_NUM	Newly Added	-	NUMBER(5)	No	-

## D.32 CI\_PRCE\_CALC\_LN

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BASE_AMT	Newly Added	-	NUMBER(36,18)	No	-
2.	BENEFIT_ID	Newly Added	-	CHAR(12)	No	-
3.	SM_DIST_AMT	Newly Added	-	NUMBER(36,18)	No	-
4.	NO_OF_MONTH	Newly Added	-	NUMBER(2)	No	-
5.	PRO_FACTOR	Newly Added	-	NUMBER(6,4)	No	-
6.	TOT_CALC_AMT	Newly Added	-	NUMBER(36,18)	No	-



## D.33 CI\_PRICE\_PARM

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PARM_AVL_RT_SW	Newly Added	-	CHAR(1)	No	-

## D.34 CI\_PRICEASGN\_VW

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ADV_PRC_SW	Newly Added	-	CHAR(1)	No	-
2.	SCHEDULE_CD	Newly Added	-	CHAR(12)	No	-
3.	DO_NOT_AGG_SW	Newly Added	-	CHAR(1)	No	-
4.	IGNORE_SW	Newly Added	-	CHAR(1)	No	-
5.	OWNER_ID	Newly Added	-	CHAR(10)	No	-
6.	PA_USAGE_FLG	Newly Added	-	CHAR(2)	No	-
7.	PRICE_ASGN_ID	Newly Added	-	CHAR(10)	No	-
8.	PA_OWNER_TYPE_FLG	Newly Added	-	CHAR(4)	No	-
9.	PA_TYPE_FLAG	Newly Added	-	CHAR(4)	No	-
10.	PRICEITEM_CD	Newly Added	-	CHAR(30)	No	-

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
11.	PRICE_CURRENCY_CD	Newly Added	-	CHAR(3)	No	-
12.	ELIGIBILITY_SW	Newly Added	-	CHAR(1)	No	-
13.	PRICING_RULE_TYPE_CD	Newly Added	-	CHAR(30)	No	-
14.	PRICE_STATUS_FLAG	Newly Added	-	VARCHAR2(4)	No	-
15.	PRINT_IF_ZERO_SW	Newly Added	-	CHAR(1)	No	-
16.	RS_CD	Newly Added	-	CHAR(8)	No	-
17.	TXN_RATING_CRITERIA	Newly Added	-	CHAR(4)	No	-
18.	TOU_CD	Newly Added	-	CHAR(8)	No	-

## D.35 CI\_REPRC\_REQ\_DTL

The following table lists the columns that are either newly added, modified, or dropped in the CI\_REPRC\_REQ\_DTL table:

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BENEFIT_ID	Newly Added	-	CHAR(12)	No	-
2.	COV_END_DT	Newly Added	-	DATE(10)	No	-
3.	COV_START_DT	Newly Added	-	DATE(10)	No	-
4.	PRIMARY_PRT_CD	Newly Added	-	CHAR(30)	No	-
5.	RECURRING_FLG	Newly Added	-	CHAR(4)	No	-

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
6.	RECURRING_VAL	Newly Added	-	CHAR(8)	No	-
7.	VERSION_NUM	Newly Added	-	NUMBER(5)	No	-

## D.36 CI\_RULE\_TYPE

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	RULE_TYPE_CAT_FLG	Newly Added	-	CHAR(4)	No	-

## D.37 CI\_STM\_CNST

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	STMT_CNST_IDFT	Newly Added	-	VARCHAR2(50)	No	-

## D.38 CI\_SUB\_RULE

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PRICE_PARM_CD	Newly Added	-	VARCHAR2(30)	No	-
2.	RHS_PRICE_PARM_CD	Newly Added	-	VARCHAR2(30)	No	-
3.	RHS_PRICE_PARM_TYPE_FLG	Newly Added	-	VARCHAR2(30)	No	-
4.	RHS_PARM_FLD_NAME	Newly Added	-	VARCHAR2(254)	No	-

## D.39 CI\_TC

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	TC_MAPPING_LVL_FLG	Newly Added	-	CHAR(4)	No	-
2.	TC_PURPOSE_FLG	Newly Added	-	CHAR(4)	No	-

## D.40 CI\_TXN\_DTL\_PRITM

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	VERSION_NUM	Newly Added	-	NUMBER(5)	No	-

## D.41 CI\_TXN\_DTL\_PRITM\_STG

The following table lists the columns that are either newly added, modified, or dropped in the CI\_TXN\_DTL\_PRITM\_STG table:

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	VERSION_NUM	Newly Added	-	NUMBER(5)	No	-

## D.42 C1\_BSEG\_DEAL

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BILL_CYC_CD	Dropped	CHAR(4)	-	-	-
2.	BILL_SCNR_ID	Dropped	CHAR(4)	-	-	-
3.	BSEG_ID	Dropped	CHAR(12)	-	-	-
4.	BSEG_STAT_FLG	Dropped	CHAR(2)	-	-	-

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
5.	CAN_BSEG_ID	Dropped	CHAR(12)	-	-	-
6.	CAN_RSN_CD	Dropped	CHAR(4)	-	-	-
7.	CLOSING_BSEG_SW	Dropped	CHAR(1)	-	-	-
8.	DEAL_ID	Dropped	CHAR(12)	-	-	-
9.	EST_SW	Dropped	CHAR(1)	-	-	-
10.	ITEM_OVERRIDE_SW	Dropped	CHAR(1)	-	-	-
11.	MASTER_BSEG_ID	Dropped	CHAR(12)	-	-	-
12.	MODEL_CD	Dropped	VARCHAR2(8)	-	-	-
13.	MODEL_ID	Dropped	CHAR(10)	-	-	-
14.	PREM_ID	Dropped	CHAR(10)	-	-	-
15.	QUOTE_DTL_ID	Dropped	CHAR(12)	-	-	-
16.	REBILL_SEG_ID	Dropped	CHAR(12)	-	-	-
17.	SA_ID	Dropped	CHAR(10)	-	-	-
18.	SQ_OVERRIDE_SW	Dropped	CHAR(1)	-	-	-
19.	WIN_START_DT	Dropped	DATE	-	-	-

## D.43 C1\_BSEG\_DEAL\_CALC

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BILLABLE_CHG_ID	Dropped	CHAR(12)	-	-	-
2.	BSEG_ID	Dropped	CHAR(12)	-	-	-
3.	CALC_AMT	Dropped	NUMBER(15,2)	-	-	-
4.	DESCR_ON_BILL	Dropped	VARCHAR2(80)	-	-	-
5.	HEADER_SEQ	Dropped	NUMBER(3)	-	-	-
6.	RS_CD	Dropped	CHAR(8)	-	-	-

## D.44 C1\_BSEG\_DEAL\_CL\_CHAR

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BSEG_ID	Dropped	CHAR(12)	-	-	-
2.	HEADER_SEQ	Dropped	NUMBER(3)	-	-	-

## D.45 C1\_BSEG\_DEAL\_EXCP

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BSEG_EXCP_FLG	Dropped	CHAR(2)	-	-	-
2.	BSEG_ID	Dropped	CHAR(12)	-	-	-

## D.46 C1\_BSEG\_DEAL\_EXT

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BSEG_ID	Dropped	CHAR(12)	-	-	-
2.	BSEG_TYPE_FLG	Dropped	CHAR(4)	-	-	-
3.	CONSTRUCT_ID	Dropped	CHAR(14)	-	-	-
4.	PRICEITEM_CD	Dropped	CHAR(30)	-	-	-
5.	PRICEITEM_PARM_GRP_ID	Dropped	NUMBER(22)	-	-	-
6.	PRICE_ASGN_ID	Dropped	CHAR(10)	-	-	-
7.	PRIORITY_NUM	Dropped	NUMBER(5)	-	-	-
8.	SETTLEMENT_ACCT_ID	Dropped	CHAR(10)	-	-	-
9.	SETTLEMENT_ID_NBR	Dropped	VARCHAR2(20)	-	-	-



Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
10.	SET_CONSTRUCT_ID	Dropped	CHAR(14)	-	-	-
11.	SET_VERSION_NUM	Dropped	NUMBER(5)	-	-	-
12.	TEMPLATE_PURPOSE_FLG	Dropped	CHAR(4)	-	-	-
13.	TOU_CD	Dropped	CHAR(8)	-	-	-
14.	USAGE_ACCT_ID	Dropped	CHAR(10)	-	-	-
15.	VERSION_NUM	Dropped	NUMBER(5)	-	-	-

## D.47 C1\_BSEG\_DEAL\_ITEM

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BSEG_ID	Dropped	CHAR(12)	-	-	-
2.	ITEM_CNT	Dropped	NUMBER(11,2)	-	-	-
3.	ITEM_ID	Dropped	CHAR(10)	-	-	-
4.	ITEM_TYPE_CD	Dropped	CHAR(8)	-	-	-
5.	SVC_QTY	Dropped	NUMBER(18,6)	-	-	-
6.	UOM_CD	Dropped	CHAR(4)	-	-	-

## D.48 C1\_BSEG\_DEAL\_K

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BSEG_ID	Dropped	CHAR(12)	-	-	-

## D.49 C1\_BSEG\_DEAL\_MSG

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BILL_MSG_CD	Dropped	CHAR(4)	-	-	-
2.	BSEG_ID	Dropped	CHAR(12)	-	-	-

## D.50 C1\_BSEG\_DEAL\_READ

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BSEG_ID	Dropped	CHAR(12)	-	-	-
2.	END_READ_DTTM	Dropped	DATE	-	-	-
3.	END_REG_READING	Dropped	NUMBER(15,6)	-	-	-

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
4.	END_REG_READ_ID	Dropped	CHAR(12)	-	-	-
5.	FINAL_REG_QTY	Dropped	NUMBER(18,6)	-	-	-
6.	FINAL_SQI_CD	Dropped	CHAR(8)	-	-	-
7.	FINAL_TOU_CD	Dropped	CHAR(8)	-	-	-
8.	FINAL_UOM_CD	Dropped	CHAR(4)	-	-	-
9.	HOW_TO_USE_FLG	Dropped	CHAR(2)	-	-	-
10.	MSR_PEAK_QTY_SW	Dropped	CHAR(1)	-	-	-
11.	MSR_QTY	Dropped	NUMBER(18,6)	-	-	-
12.	REG_CONST	Dropped	NUMBER(12,6)	-	-	-
13.	SP_ID	Dropped	CHAR(10)	-	-	-
14.	SQI_CD	Dropped	CHAR(8)	-	-	-
15.	START_READ_DTTM	Dropped	DATE	-	-	-
16.	START_REG_READING	Dropped	NUMBER(15,6)	-	-	-
17.	START_REG_READ_ID	Dropped	CHAR(12)	-	-	-
18.	TOU_CD	Dropped	CHAR(8)	-	-	-
19.	UOM_CD	Dropped	CHAR(4)	-	-	-
20.	USAGE_FLG	Dropped	CHAR(2)	-	-	-
21.	USE_PCT	Dropped	NUMBER(3)	-	-	-

## D.51 C1\_BSEG\_DEAL\_SQ

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BILL_SQ	Dropped	NUMBER(36,18)	-	-	-
2.	BSEG_ID	Dropped	CHAR(12)	-	-	-
3.	INIT_SQ	Dropped	NUMBER(36,18)	-	-	-
4.	SQI_CD	Dropped	CHAR(8)	-	-	-
5.	TOU_CD	Dropped	CHAR(8)	-	-	-
6.	UOM_CD	Dropped	CHAR(4)	-	-	-

## D.52 C1\_DEAL\_PRICELIST\_K

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PRICELIST_MAP_ID	Dropped	CHAR(10)	-	-	-

## D.53 C1\_DEAL\_PRICELIST\_L

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PRICELIST_MAP_ID	Dropped	CHAR(10)	-	-	-

## D.54 C1\_AUDIT\_EVENT\_TYPE\_ELEMENTS

The following table lists the columns that are either newly added, modified, or dropped in the C1\_AUDIT\_EVENT\_TYPE\_ELEMENTS table:

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	AUDIT_ELEMENT_NAME	Format Change	VARCHAR2(100)	VARCHAR2(254)	No	-

## D.55 C1\_PRC\_RULE\_TYPE\_AUDIT\_EVENT

The following table lists the columns that are either newly added, modified, or dropped in the C1\_PRC\_RULE\_TYPE\_AUDIT\_EVENT table:

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ELEMENT_NAME	Format Change	VARCHAR2(100)	VARCHAR2(254)	No	-

## D.56 C1\_UPLOAD\_REQ\_DTLS

The following table lists the columns that are either newly added, modified, or dropped in the C1\_UPLOAD\_REQ\_DTLS table:

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ENTITY_ID	Format Change	CHAR(14)	CHAR(20)	No	-

## D.57 CI\_TC\_L

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

Sr. No.	Column Name	Modification Type	Data Type in V2.9.0.0.0	Data Type in V2.9.0.1.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	TC_TYPE_TXT	Format Change	VARCHAR2(2000)	VARCHAR2(4000)	-	-

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## Appendix E : Algorithms and Algorithm Types Dropped in 2.9.0.1.0

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This section lists the algorithms and algorithm types which are dropped in Oracle Revenue Management and Billing Version 2.9.0.1.0.

### E.1 Algorithm Type

No algorithm types are dropped in Oracle Revenue Management and Billing Version 2.9.0.1.0.

### E.2 Algorithm

No algorithms are dropped in Oracle Revenue Management and Billing Version 2.9.0.1.0.

## **Appendix F : Parameters Added or Removed from Algorithm Types in 2.9.0.1.0**

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No parameters are newly added or removed from the existing algorithm types in Oracle Revenue Management and Billing Version 2.9.0.1.0.



## Appendix G : Option Types Added or Removed from Feature Configurations in 2.9.0.1.0

This section lists the option types which are newly added or removed from the existing feature configurations in Oracle Revenue Management and Billing Version 2.9.0.1.0.

Feature Name	Option Type (Removed from 2.9.0.1.0)	Option Type (Added in 2.9.0.1.0)
C1-ASOBLNG	-	Billing Arrangement
		Bill Cycle Rule Code
		Benefit Billing Arrangement
		Geographic Rating Area Field Mapping
		Relation Structure Code Field Mapping
		TPA Policy Person Role
		TPA Person Relationship Type
C1-DEAL	-	Deal Compare Report
		Deal Profitability Export Report
		Pricing Filter UI Pagination Limit
C1-PERSTYPE	-	TPA Person Type
C1_FINTRANOP	-	Account Financial History Details Switch
C1_FM	-	Allow Duplicate Summary ID
		Price Item Determination Batch Description
		Parallel Query Degree
		Transaction Detail Account Validation

Feature Name	Option Type (Removed from 2.9.0.1.0)	Option Type (Added in 2.9.0.1.0)
EXT_MSG_CFG	-	XSL Location
ZZCBMASK	-	Field Masking

## **Appendix H : Characteristic Types Dropped in 2.9.0.1.0**

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No characteristic types are dropped in Oracle Revenue Management and Billing Version 2.9.0.1.0.

## Appendix I : Changing the DB User Password

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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 4.4.0.2.0:

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

**AIX, Linux:**

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

**Windows:**

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

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

**AIX, Linux:**

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

**Windows:**

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

## Appendix J : ORMB V2.9.0.1.0 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 *ORMB V29010 Patch Guide (Doc ID: 2749067.1)* on [My Oracle Support](#).

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

Once you install Oracle Revenue Management and Billing Version 2.9.0.1.0, you need to apply the rollup packs listed in *ORMB V29010 Patch Guide (Doc ID: 2749067.1)*. 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_V2.9.0.1.0_App_Rollup`, `RMB_V2.9.0.1.0_DB_Rollup`, and `RMB_V2.9.0.1.0_PFDs`.

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

**AIX, Linux:**

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

**Windows:**

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

Where,

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

4. Change to the `RMB_V2.9.0.1.0_App_Rollup` folder using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_1>/RMB_V2.9.0.1.0_App_Rollup
```

**Windows:**

```
cd <DESTINATION_FOLDER_1>\RMB_V2.9.0.1.0_App_Rollup
```

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

5. Install the patch using the following command:

**AIX, Linux:**

```
./installSFgroup.sh
```

**Windows:**

```
installSFgroup.cmd
```

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

Once you install Oracle Revenue Management and Billing Version 2.9.0.1.0, you need to apply the rollup packs listed in *ORMB V29010 Patch Guide (Doc ID: 2749067.1)*. You can apply a rollup pack from a Windows machine and 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_V2.9.0.1.0_App_Rollup`, `RMB_V2.9.0.1.0_DB_Rollup`, and `RMB_V2.9.0.1.0_PFDs`.

3. Change to the `RMB_V2.9.0.1.0_DB_Rollup` folder using the following command:

**AIX, Linux:**

```
cd <DESTINATION_FOLDER_1>/RMB_V2.9.0.1.0_DB_Rollup
```

**Windows:**

```
cd <DESTINATION_FOLDER_1>\RMB_V2.9.0.1.0_DB_Rollup
```

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

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

**Windows:**

```
ouafDatabasePatch.cmd
```

**AIX, Linux:**

```
ouafDatabasePatch.sh
```

## Appendix K : SQL Statements for 2.9.0.0.0 to 2.9.0.1.0 Data Migration

This section describes the `PostProcessingScript` query which is used for migrating data from Oracle Revenue Management and Billing Version 2.9.0.0.0 to 2.9.0.1.0.

### K.1 PostProcessingScript.sql

The `PostProcessingScript.sql` query does the following:

- Moves those terms and conditions associated with a price item or hierarchy entity which are not yet used in any deal from the `C1_DEAL_PRICE_ASGN_TC` table to the newly introduced tables named `C1_PRICEITEM_TC_MAP` and `C1_PRICEITEM_TC_DTLS`.
- Sets the rule type category for the existing rule types.
- Updates the CLOB data of those pricing rule types where the pricing rule type category is set to **Age Based** or **Tier Based**.
- Updates those terms and conditions associated with a price item or hierarchy entity which are used in a deal.

It updates the following column values of the records in the respective table:

Table Name	Column Name	Column Value After Data Migration
C1_PRICEITEM_TC_MAP	PRICEITEM_TC_ID	The column value is set to the value stored in the <code>DEAL_PRI_TC_ID</code> column corresponding to the record in the <code>C1_DEAL_PRICE_ASGN_TC</code> table.
	TC_MAP_ENTITY_TYPE_FLG	The column value is set to either of the following: <ul style="list-style-type: none"> <li>• <b>PRTM</b> – When the terms and conditions is associated with a price item</li> <li>• <b>PPTM</b> - When the terms and conditions is associated with a non-root level hierarchy entity</li> <li>• <b>PRTG</b> - When the terms and conditions is associated with a root level hierarchy entity</li> </ul>

Table Name	Column Name	Column Value After Data Migration
	TC_MAP_ENTITY_CD	If the TC_MAP_ENTITY_TYPE_FLG column is set to <b>PRTM</b> , the TC_MAP_ENTITY_CD column is set to the value stored in the PRICEITEM_CD column corresponding to the record in the C1_DEAL_PRICE_ASGN_TC table. However, If the TC_MAP_ENTITY_TYPE_FLG column is set to <b>PPTM</b> or <b>PRTG</b> , the TC_MAP_ENTITY_CD column is set to the value stored in the PRICE_ITEM_GRP_CD column corresponding to the record in the C1_DEAL_PRICE_ASGN_TC table.
	BUS_OBJ_CD	The column value is set to <b>C1-PRCITM_TC_BO</b> .
C1_PRICEITEM_TC_DTLS	PRICEITEM_TC_ID	The column value is set to the value stored in the DEAL_PRI_TC_ID column corresponding to the record in the C1_DEAL_PRICE_ASGN_TC table.
	TC_TYPE_CD	The column value is set to the value stored in the TC_TYPE_CD column corresponding to the record in the C1_DEAL_PRICE_ASGN_TC table.
	START_DT	The column value is set to <b>01-JAN-1950</b> .
	DEFAULT_SW	The column value is set to the value stored in the DEFAULT_SW column corresponding to the record in the C1_DEAL_PRICE_ASGN_TC table. The column value can be either <b>Y</b> or <b>N</b> .
C1_PRICEITEM_TC_MAP_K	PRICEITEM_TC_ID	The column value is set to the value stored in the DEAL_PRI_TC_ID column corresponding to the record in the C1_DEAL_PRICE_ASGN_TC table.
	ENV_ID	The column value is set to <b>999999</b> .
CI_RULE_TYPE	RULE_TYPE_CAT_FLG	If the column value is NULL, it is set to <b>FILD</b> .
C1_PRC_RULE_TYPE	BO_DATA_AREA	If the PRC_RULE_TYPE_CAT column value is set to <b>AGE</b> or <b>TIER</b> , then add 'primaryFlag to true' to the CLOB data stored in the BO_DATA_AREA column corresponding to the record.
CI_TC	BO_STATUS_CD	The column value is set to <b>C1AC</b> (i.e. Active).
	TC_PURPOSE_FLG	The column value is set to <b>BOTH</b> (i.e. Invoice and Deal).



Table Name	Column Name	Column Value After Data Migration
	TC_MAPPING_LVL_FLG	If the terms and conditions is associated with a price item, the column value is set to <b>PRTM</b> . If the terms and conditions is associated with a non-root level hierarchy entity, the column value is set to <b>PPTM</b> . And, if the terms and conditions is associated with a root level hierarchy entity, the column value is set to <b>PRTG</b> .