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Upgrade Guide

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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 2.5.0.2.0 to 2.5.0.3.0	Explains how to upgrade from Oracle Revenue Management and Billing Version 2.5.0.2.0 to 2.5.0.3.0.
Section 3	Additional Tasks	Lists and describes the additional tasks that you need to perform after upgrading the application.
Appendix A	ORMB 2.5.0.3.0 Patch Numbers	Lists the ORMB Version 2.5.0.3.0 domain-specific patch numbers along with its contents.
Appendix B	Known Issues	Lists the known issues in the current release of the Oracle Revenue Management and Billing application.
Appendix C	Third Party Software Upgrade	Provides a list of third party software that you need to upgrade before upgrading the application.
Appendix D	New Tables Added in 2.5.0.3.0	Lists and describes the tables that are newly added in the Oracle Revenue Management and Billing Version 2.5.0.3.0 database.

Section No.	Section Name	Description
Appendix E	Existing Tables Modified in 2.5.0.3.0	Lists the existing tables and their columns that are modified in the Oracle Revenue Management and Billing Version 2.5.0.3.0 database.
Appendix F	Algorithms and Algorithm Types Dropped in 2.5.0.3.0	Lists the algorithms and algorithm types which are dropped in Oracle Revenue Management and Billing Version 2.5.0.3.0.
Appendix G	Parameters Added or Removed from Algorithm Types in 2.5.0.3.0	Lists the parameters which are added or removed from the algorithm types in Oracle Revenue Management and Billing Version 2.5.0.3.0.
Appendix H	Option Types Added or Removed from Feature Configurations in 2.5.0.3.0	Lists the option types which are added or removed from the feature configurations in Oracle Revenue Management and Billing Version 2.5.0.3.0.
Appendix I	Characteristic Types Dropped in 2.5.0.3.0	Lists the characteristic types which are dropped in Oracle Revenue Management and Billing Version 2.5.0.3.0.
Appendix J	SQL Statements for 2.5.0.2.0 to 2.5.0.3.0 Data Migration	Lists and describes the SQL queries which are used for migrating data from Oracle Revenue Management and Billing Version 2.5.0.2.0 to 2.5.0.3.0.
Appendix K	Changing the DB User Password	Explains how to change the database user password.

Related Documents

You can refer to the following documents for more information:

Document	Description
<i>Oracle Revenue Management and Billing Version 2.5.0.3.0 Release Notes</i>	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.
<i>Oracle Revenue Management and Billing Upgrade Path Guide</i>	Explains the path and pre-requisites for upgrading Oracle Revenue Management and Billing from one version to another.

Change Log

Revision	Last Update	Updated Section	Comments
10.1	20-Aug-2019	Section 2: Upgrading from ORMB Version 2.5.0.2.0 to 2.5.0.3.0	Added Information about the Single-Step Utility

Contents

1. Preparing for Upgrade.....	1
1.1 Upgrade Overview	1
1.2 Upgrade Pre-requisites	3
1.3 Supported Upgrades.....	3
2. Upgrading from ORMB Version 2.5.0.2.0 to 2.5.0.3.0.....	4
2.1 Prerequisites.....	4
2.2 Downloading the ORMB Patches.....	5
2.3 Upgrading Framework on the Database.....	5
2.3.1 Installing Rollup Pack for OUAF Version 4.3.0.1.0	5
2.3.2 Generating Security for Database Objects.....	9
2.4 Installing A Framework A on A the A Application A A da Environment	10
2.4.1 Installing OUAF Version 4.3.0.1.0	10
2.4.2 Installing Rollup Pack for OUAF Version 4.3.0.1.0	16
2.5 Installing the ORMB Application.....	17
2.5.1 Installing ORMB Version 2.5.0.3.0	17
2.5.2 Post Installation Tasks.....	20
2.5.3 Additional Tasks Required for WebSphere Application Server.....	24
2.5.4 Accessing the ORMB Application	29
2.6 Upgrading the ORMB Database.....	29
2.6.1 Installing ORMB Version 2.5.0.3.0	29
2.6.2 Applying the 24516656 Patch	30
2.6.3 Generating Security for Database Objects.....	33
2.7 Migrating Data	34
3. Additional Tasks.....	35
3.1 Generating the Application Viewer	35
3.2 Starting the Thread Pool Worker.....	36
3.3 Building Javadoc Index.....	36
Appendix A : ORMB 2.5.0.3.0 Patch Numbers	37
Appendix B : Known Issues	38
Appendix C : Third Party Software Upgrade	39
Appendix D : New Tables Added in 2.5.0.3.0	40
D.1 C1_FEES	40
D.2 C1_FEES_CALC	41
D.3 C1_FEES_CALC_LN	42
D.4 C1_FEES_CALC_LN_CHAR	43
D.5 C1_FEES_CHAR	44
D.6 C1_FEES_K	45
D.7 C1_FEES_PARAM	46
D.8 C1_FEES_SQ.....	47

D.9	C1_FUNDING_REQ.....	47
D.10	C1_FUNDING_REQ_CHAR.....	48
D.11	C1_FUNDING_REQ_DTLS.....	49
D.12	C1_FUNDING_REQ_DTLS_ADJ.....	50
D.13	C1_FUNDING_REQ_DTLS_EXCP.....	51
D.14	C1_FUNDING_REQ_GAR_SA.....	51
D.15	C1_FUNDING_REQ_K.....	52
D.16	C1_FUNDING_REQ_LOG.....	52
D.17	C1_FUNDING_REQ_LOG_PARAM.....	54
D.18	C1_FUNDING_REQ_TYPE.....	54
D.19	C1_FUNDING_REQ_TYPE_CHAR.....	55
D.20	C1_FUNDING_REQ_TYPE_L.....	56
D.21	C1_HOLD_REQ.....	57
D.22	C1_HOLD_REQ_CHAR.....	58
D.23	C1_HOLD_REQ_DTLS.....	59
D.24	C1_HOLD_REQ_K.....	60
D.25	C1_HOLD_REQ_LOG.....	60
D.26	C1_HOLD_REQ_LOG_PARAM.....	62
D.27	C1_HOLD_REQ_PROC.....	62
D.28	C1_HOLD_REQ_TYPE.....	63
D.29	C1_HOLD_REQ_TYPE_CHAR.....	64
D.30	C1_HOLD_REQ_TYPE_L.....	65
D.31	C1_HOLD_REQ_TYPE_PROC.....	65
D.32	C1_OFFSET_REQ.....	66
D.33	C1_OFFSET_REQ_ADJ.....	67
D.34	C1_OFFSET_REQ_CHAR.....	68
D.35	C1_OFFSET_REQ_DTLS.....	69
D.36	C1_OFFSET_REQ_K.....	69
D.37	C1_OFFSET_REQ_LOG.....	70
D.38	C1_OFFSET_REQ_LOG_PARAM.....	71
D.39	C1_OFFSET_REQ_TYPE.....	72
D.40	C1_OFFSET_REQ_TYPE_CHAR.....	73
D.41	C1_OFFSET_REQ_TYPE_L.....	74
D.42	C1_PRC_SERVICE_LOG.....	74
D.43	C1_PRICELIST_ELIG.....	75
D.44	C1_PRICELIST_ELIG_DETAILS.....	76
D.45	C1_PRICELIST_ELIG_L.....	77
Appendix E : Existing Tables Modified in 2.5.0.3.0		78
E.1	C1_REF_WO_REQ_DTLS.....	78
E.2	CI_ACCUM_ASL_AMT.....	78
E.3	CI_ACCUM_GRP_ASL.....	79
E.4	CI_ACCUM_GRP_SSL.....	79

E.5	CI_ACCUM_SSL_AMT.....	80
E.6	CI_ACCT_APAY.....	81
E.7	CI_B_CHG_LINE	81
E.8	CI_BILL_ACH.....	81
E.9	CI_CUST_CL_CTRL.....	83
E.10	CI_EXCHRATE	83
E.11	CI_PER.....	84
E.12	CI_PP_SCHED_PAY.....	85
E.13	CI_PRC_DFLT_PL_VW	86
E.14	CI_PRCE_CALC	86
E.15	CI_PRICECOMP	87
E.16	CI_PRICEITEM	87
E.17	CI_PRICELIST	88
E.18	CI_PRICE_PARM.....	88
E.19	CI_TXN_CALC_LN.....	89
E.20	CI_UPLD_FLTM	89
E.21	C1_PAY_REQ.....	90
Appendix F :	Algorithms and Algorithm Types Dropped in 2.5.0.3.0	91
F.1	Algorithm Type	91
F.2	Algorithm	91
Appendix G :	Parameters Added or Removed from Algorithms, Algorithm Types and Batches in 2.5.0.3.0	92
G.1	Algorithm Parameter	92
G.2	Batch Parameter	93
Appendix H :	Option Types Added or Removed from Feature Configurations in 2.5.0.3.0	94
Appendix I :	Characteristic Types Dropped in 2.5.0.3.0	95
Appendix J :	SQL Statements for 2.5.0.2.0 to 2.5.0.3.0 Data Migration	96
J.1	PostProcessingScript.sql	96
Appendix K :	Changing the DB User Password.....	97

1. Preparing for Upgrade

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

1.1 Upgrade Overview

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

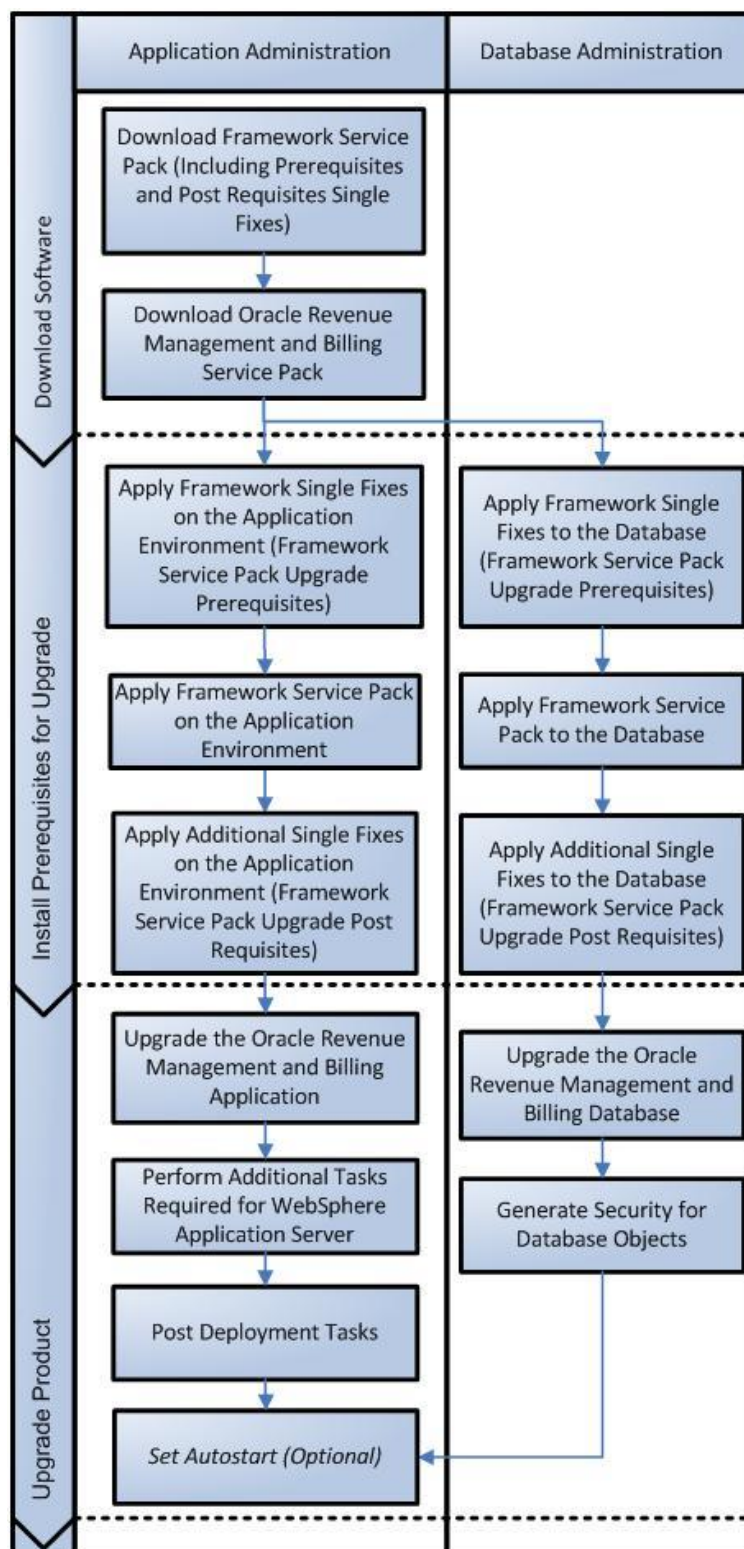


Figure 1 : Upgrade Process

1.2 Upgrade Pre-requisites

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

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

1.3 Supported Upgrades

In this release, we support the following upgrades:

- Upgrade from Oracle Revenue Management and Billing Version 2.5.0.2.0 to 2.5.0.3.0

Note: For upgrading from any other version of Oracle Revenue Management and Billing other than 2.5.0.2.0, consult with Oracle Support, Oracle Partner, or Oracle Consulting that may be supporting your implementation and upgrade process.

2. Upgrading from ORMB Version 2.5.0.2.0 to 2.5.0.3.0

This section explains how to upgrade from Oracle Revenue Management and Billing Version 2.5.0.2.0 to 2.5.0.3.0. The high-level steps include:

1. Downloading the ORMB 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.

You can upgrade the database either manually by following the steps listed in this document or automatically using the single-step utility. Oracle Revenue Management and Billing provides the single-step utility which helps to upgrade the database from any previous version (not older than V2.3.0.2.0) to the current version. You can download the single-step utility from the UTILITIES PROVIDING A SINGLE STEP PROCESS FOR DATABASE UPGRADE patch (Patch Number: 25895460) which is available on [My Oracle Support](#). To understand how to execute the single-step utility, refer to the documentation available in the patch. At present, the single-step utility is only supported on the Windows environment.

To improve the performance of the SQL queries executed for data migration, you can execute a Java utility for setting degree of parallelism. This Java utility must be used in conjunction with the single-step utility. It must be executed before executing the single-step utility. You can download this utility from the JAVA UTILITY FOR SETTING DEGREE OF PARALLELISM IN DATA MIGRATIONS SQLS patch (Patch Number: 28226772) which is available on [My Oracle Support](#). To understand how to execute this Java utility, refer to the documentation available in the patch. At present, this utility is only supported on the Windows environment.

2.1 Prerequisites

If you are already using the Transaction Feed Management feature and want to upgrade to Oracle Revenue Management and Billing Version 2.5.0.3.0, 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 2.5.0.2.0 will not happen successfully.
- Transactions which are uploaded using 2.5.0.2.0 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.

2.2 Downloading the ORMB Patches

For upgrading from Oracle Revenue Management and Billing Version 2.5.0.2.0 to 2.5.0.3.0, you must download the following patches from [My Oracle Support](#):

- RMB V2.5.0.3.0 - <Domain>

Note: For more details about the patch number, refer to [Appendix A: ORMB 2.5.0.3.0 Patch Numbers](#).

- MANDATORY PATCH FOR ORMB 2.5.0.3.0 (Patch Number: 24516656)
- UPDATE 2.5.0.3.0 ONLINE HELP (Patch Number: 24527614)
- UPGRADE FROM 2.5.0.2.0 to 2.5.0.3.0 (Patch Number: 24606002)

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 2.5.0.2.0 to 2.5.0.3.0, you need to install the following on the database:

1. Rollup Pack for Oracle Utilities Application Framework (OUAF) Version 4.3.0.1.0

To install the framework service pack on the database, you must have the following:

- Oracle Database Client 12.1.0.2 installed on the Windows machine from where you want to install the framework service pack
- Ability to connect to the database

2.3.1 Installing Rollup Pack for OUAF Version 4.3.0.1.0

You can install the rollup pack for Oracle Utilities Application Framework Version 4.3.0.1.0 from a Windows machine and UNIX Standalone server. To install the rollup pack for Oracle Utilities Application Framework (OUAF) Version 4.3.0.1.0 on the database:

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

```
mkdir TEMPDIR
```

3. Copy the RMB V2.5.0.3.0 - <Domain> 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.

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

AIX, Linux:

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

Windows:

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

5. Unzip the RMB V2.5.0.3.0 - <Domain> patch 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. For more information about the contents of the RMB V2.5.0.3.0 - <Domain> patch, refer to [Appendix A: ORMB 2.5.0.3.0 Patch Numbers](#).

6. Unzip the RMB-V2.5.0.3.0-FW-PREREQ-MultiPlatform file using the following command:

AIX, Linux:

```
unzip RMB-V2.5.0.3.0-FW-PREREQ-MultiPlatform.zip -d  
<PATH>/<DESTINATION_FOLDER_2>
```

Windows:

```
unzip RMB-V2.5.0.3.0-FW-PREREQ-MultiPlatform.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-V25030-FW-PREREQ-MultiPlatform.jar file.

7. Decompress the JAR file using the following command:

```
jar -xvf ORMB-V25030-FW-PREREQ-MultiPlatform.jar
```

A sub-directory named FW-V4.3.0.1.0-Rollup is extracted. It contains the following two sub-folders:

- Application
- Database

8. Change to the TEMPDIR folder using the following command:

AIX, Linux:

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

Windows:

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

9. Create a directory named dbpatch_tools using the following command:

```
mkdir dbpatch_tools
```


10. Copy the `db_patch_standalone.jar` file to the `dbpatch_tools` folder using the following command:

AIX, Linux:

```
cp <DESTINATION_FOLDER_2>/FW-V4.3.0.1.0-  
Rollup/Database/db_patch_standalone.jar TEMPDIR/dbpatch_tools
```

Windows:

```
copy <DESTINATION_FOLDER_2>\FW-V4.3.0.1.0-  
Rollup\Database\db_patch_standalone.jar TEMPDIR\dbpatch_tools
```

Note: The `<DESTINATION_FOLDER_2>` folder is the location where you have extracted the contents of the `ORMB-V25030-FW-PREREQ-MultiPlatform.jar` file.

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

AIX, Linux:

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

Windows:

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

12. 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`

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

AIX, Linux:

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

Windows:

```
SET TOOLS_BIN=TEMPDIR\dbpatch_tools\bin
```

14. Change to the `Database` directory using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_2>/FW-V4.3.0.1.0-Rollup/Database
```

Windows:

```
cd <DESTINATION_FOLDER_2>\FW-V4.3.0.1.0-Rollup\Database
```

Note: The `<DESTINATION_FOLDER_2>` folder is the location where you have extracted the contents of the `ORMB-V25030-FW-PREREQ-MultiPlatform.jar` file.

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

AIX, Linux:

```
ouafDatabasePatch.sh
```

Windows:

```
ouafDatabasePatch.cmd
```

Note:

In the previous versions of Oracle Revenue Management and Billing, you used to execute the `cdxpatch` utility while installing the rollup pack for Oracle Utilities Application Framework. Henceforth, the `cdxpatch` utility is no longer supported and you need to use the `ouafDatabasePatch` utility.

When you execute the `ouafDatabasePatch` utility from the Window 32-bit or 64-bit desktop, ensure that the Windows desktop has Oracle Database Client 12.1.0.2 (32-bit) and Java Development Kit Version 7.0 installed. The database must be listed in the `tnsnames.ora` file on your local machine.

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 4.3.0.1.0. You will have to first change the database user password. For more information on how to change the database user password, refer to [Appendix K : Changing the DB User Password](#).

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

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

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

2.3.2 Generating Security for Database Objects

Once you apply the framework rollup pack to the database, you need to execute a utility program named `OraGenSec`. This utility program helps you to generate security for all or specific objects in the database.

To generate security for all database objects:

1. Unzip the `RMB-V2.5.0.3.0-Oracle-Database-MultiPlatform` file using the following command:

```
unzip RMB-V2.5.0.3.0-Oracle-Database-MultiPlatform.zip -d
<PATH>\<DESTINATION_FOLDER_3>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_3>` folder. The contents include the following sub-folders:

- FW
- RMB

Note: The `RMB-V2.5.0.3.0-Oracle-Database-MultiPlatform.zip` file is available at the location where you have extracted the contents of the RMB V2.5.0.3.0 - <Domain> patch.

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

```
cd <DESTINATION_FOLDER_3>\FW\FW43010\Install-Upgrade
```

3. Execute the `OraGenSec` utility using the following command:

```
OraGenSec -d <DB_USER>, <DB_USER_PASSWORD>, <DB_NAME> -u
<Database Users> -a A -f oragensec.txt -l oragensec.log
```

Note: Ensure that you execute the `OraGenSec` utility from the Windows 32-bit or 64-bit desktop that has Oracle Database Client 12.1.0.2 (32-bit) and Java Development Kit Version 7.0 installed. The database must be listed in the `tnsnames.ora` file on your local machine.

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

Parameter	Value
Enter the application read-only user or Schema Owner in the database	<DB_USER> Example: CISADM
Enter the password for the <DB_USER> user	<DB_USER_PASSWORD>
Enter the name of the Oracle database	<DB_NAME>
Enter a comma-separated list of Oracle users in which synonyms need to be created (e.g. <code>cisuser, cisread</code>)	<DB_USER> Example: CISUSER, CISREAD

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

Select the following options:

(A/a): Generate security for all objects in the Database?

(O/o): Generate security for specific Objects inputted in this terminal?

(F/f): Generate security for specific objects generated from an input File?

5. Type **A** to generate security for all objects in the database, and then press **Enter**. A message appears indicating that the database connection is established and security is defined for all objects in the database.

2.4 Installing Framework on the Application Environment

Once you install the framework service pack on the database and define security for all database objects, you must install the framework and its service packs on the application environment. You need to install the following on the application environment:

1. Oracle Utilities Application Framework (OUAF) Version 4.3.0.1.0
2. Rollup Pack for Oracle Utilities Application Framework (OUAF) Version 4.3.0.1.0

You cannot perform these steps on the existing environments. You need to 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 4.3.0.1.0

To install Oracle Utilities Application Framework (OUAF) Version 4.3.0.1.0 on the application environment:

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

```
mkdir TEMPDIR
```

3. Copy the RMB V2.5.0.3.0 - <Domain> 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.

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

AIX, Linux:

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

Windows:

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

5. Unzip the RMB V2.5.0.3.0 - <Domain> patch using the following command:

AIX, Linux:

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

Windows:

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

The contents of the zip file are extracted in the `<DESTINATION_FOLDER>` folder. For more information about the contents of the RMB V2.5.0.3.0 - <Domain> patch, refer to [Appendix A: ORMB 2.5.0.3.0 Patch Numbers](#).

6. Unzip the FW-V4.3.0.1.0-MultiPlatform file using the following command:

AIX, Linux:

```
unzip FW-V4.3.0.1.0-MultiPlatform.zip -d  
<PATH>/<DESTINATION_FOLDER_1>
```

Windows:

```
unzip FW-V4.3.0.1.0-MultiPlatform.zip -d  
<PATH>\<DESTINATION_FOLDER_1>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_1>` folder. The contents include `FW-V4.3.0.1.0-MultiPlatform.jar` file.

7. Decompress the `FW-V4.3.0.1.0-MultiPlatform.jar` file using the following command:

```
jar -xvf FW-V4.3.0.1.0-MultiPlatform.jar
```

The contents of the JAR file include a folder named `FW-V4.3.0.1.0-SP1`.

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

9. Set the Java Home path using the following command:

```
export PATH=/<JAVA_HOME>/bin:/<JAVA_HOME>/lib:$PATH
```

Note:

The `<Java_Home>` is the location where you have installed Java 1.7.

The above command is applicable only for UNIX platform.

10. Change to the FW-V4.3.0.1.0-SP1 folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_1>/FW-V4.3.0.1.0-SP1
```

Windows:

```
cd <DESTINATION_FOLDER_1>\FW-V4.3.0.1.0-SP1
```

Note: The <DESTINATION_FOLDER_1> folder is the location where you have extracted the contents of the FW-V4.3.0.1.0-MultiPlatform.jar file.

11. 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 Directory (<Enter> quit):
```

12. Type <ORACLE_CLIENT_HOME>, and then press Enter. The following options 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.

13. 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.

14. Specify the required value for menu options, and then press **Enter**.

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*.

15. 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.

16. Specify the required value for menu options, and then press **Enter**.

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

17. 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.

18. 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 directory named Log File Mount Point. If this output directory 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*.

19. Type **P** to proceed with the installation. The following options 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. SSL Certificate Keystore

Note: The options appear depending on the type of application server that you have selected while configuring the environment installation options. The above options appear when you set the **Web Application Server Type** parameter to **WLS** (i.e. WebLogic). If you set the **Web Application Server Type** parameter to **WAS** (i.e. WebSphere), the following options 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

However, if you set the **Web Application Server Type** parameter to **WASND** (i.e. WebSphere ND), the following options 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

For more information about the menu options that you need to set for each option, refer to the respective worksheet in the Installation and Configuration Worksheets section in *Oracle Revenue Management and Billing Installation Guide*.

20. Type **1**, and then press **Enter**. The utility prompts you to enter the environment description.

21. Specify the environment description, and then press **Enter**.

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

22. 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.

23. Specify the required value for menu options, and then press **Enter**.

24. 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.

25. Specify the required value for menu options, and then press **Enter**.

26. 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.

27. Specify the required value for menu options, and then press **Enter**.

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

28. 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.

29. Specify the required value for menu options, and then press **Enter**.

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

30. Type **6** to define values for the SSL certificate keystore options, and then press **Enter**. The utility prompts you to enter values for a list of menu options.

31. Specify the required value for menu options, and then press **Enter**.

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

32. Type **P** to proceed with the installation. The Oracle Utilities Application Framework Version 4.3.0.1.0 is installed on the application server.

Note:

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

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 `$SPLEBASE/bin` directory. And, on the Windows machine, this utility is available in the `%SPLEBASE%\bin` directory.
2. `splenvron` - The `splenvron` utility sets the environment variables using the `ENVIRON.INI` file. On the UNIX machine, this utility is available in the `$SPLEBASE/bin` directory. And, on the Windows machine, this utility is available in the `%SPLEBASE%\bin` directory. The following are some of the key environment variables that are set using the `splenvron` utility:
 - `$PATH`
 - `$SPLEBASE (%SPLEBASE%)` – Indicates the `<SPLEBASE>/<SPLENVIRON>` directory
 - `$SPLOUTPUT (%SPLOUTPUT%)` - Indicates the `<SPLEBASE>/<SPLENVIRON>` directory
 - `$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/splenvron.sh -e $SPLENVIRON
```

Windows:

```
%SPLEBASE%\bin\splenvron.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 4.3.0.1.0

To install the rollup pack for Oracle Utilities Application Framework Version 4.3.0.1.0 on the application environment:

1. Unzip the RMB-V2.5.0.3.0-FW-PREREQ-MultiPlatform file using the following command:

AIX, Linux:

```
unzip RMB-V2.5.0.3.0-FW-PREREQ-MultiPlatform.zip -d  
<PATH>/<DESTINATION_FOLDER_2>
```

Windows:

```
unzip RMB-V2.5.0.3.0-FW-PREREQ-MultiPlatform.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-V25030-FW-PREREQ-MultiPlatform.jar file.

Note: The RMB-V2.5.0.3.0-FW-PREREQ-MultiPlatform.zip file is available at the location where you have extracted the contents of the RMB V2.5.0.3.0 - <Domain> patch.

2. Decompress the JAR file using the following command:

```
jar -xvf ORMB-V25030-FW-PREREQ-MultiPlatform.jar
```

A sub-directory named FW-V4.3.0.1.0-Rollup is extracted. It contains the following two sub-folders:

- Application
- Database

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

AIX, Linux:

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

Windows:

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

4. Change to the Application directory using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_2>/FW-V4.3.0.1.0-Rollup/Application
```

Windows:

```
cd <DESTINATION_FOLDER_2>\FW-V4.3.0.1.0-Rollup\Application
```

Note: The <DESTINATION_FOLDER_2> folder is the location where you have extracted the contents of the ORMB-V25030-FW-PREREQ-MultiPlatform.jar file.

5. 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)
```

6. 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 2.5.0.3.0

When you install application on the WebLogic application server, the application is deployed automatically on the server. However, when you install application on the WebSphere application server, the application is not deployed automatically on the server. You have to manually deploy the application on the WebSphere application server. For more information, refer to the [Additional Tasks Required for WebSphere Application Server](#) section.

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 2.5.0.3.0

To install Oracle Revenue Management and Billing (ORMB) Version 2.5.0.3.0 on the application environment:

1. Login to the application server using the administrator's credentials.
2. 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%
```

3. Stop the application environment using the following command:

AIX, Linux:

```
$SPLEBASE/bin/spl.sh stop
```

Windows:

```
%SPLEBASE%\bin\spl.cmd stop
```

Note: If you have the WebLogic application server, you need to stop the application environment before you proceed with the installation. However, if you have the WebSphere application server, you need to stop the application server before you proceed with the installation. To stop the application server, use the following command:

```
$WAS_HOME/bin/stopServer.sh <Server_Name>
```

4. Set the Java Home path using the following command:

AIX, Linux:

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

Note:

The <Java_Home> is the location where you have installed Java 1.7.

The above command is applicable only for UNIX platform.

5. Unzip the RMB-V2.5.0.3.0-MultiPlatform file using the following command:

AIX, Linux:

```
unzip RMB-V2.5.0.3.0-MultiPlatform.zip -d  
<PATH>/<DESTINATION_FOLDER_3>
```

Windows:

```
unzip RMB-V2.5.0.3.0-MultiPlatform.zip -d  
<PATH>\<DESTINATION_FOLDER_3>
```

Note: The RMB-V2.5.0.3.0-MultiPlatform.zip file is available at the location where you have extracted the contents of the RMB V2.5.0.3.0 - <Domain> patch.

The contents of the zip file are extracted in the <DESTINATION_FOLDER_3> folder. The contents include ORMB.V2.5.0.3.0 folder.

6. Change to the ORMB.V2.5.0.3.0 folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_3>/ORMB.V2.5.0.3.0
```

Windows:

```
cd <DESTINATION_FOLDER_3>\ORMB.V2.5.0.3.0
```

7. 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:
```

8. Type **Y** and then press **Enter**. A message appears informing you to type P if you want to proceed with the installation.
9. Type **P**, and then press **Enter**. The installation process might take some time to generate the WAR files. Once the build is deployed successfully, the following message appears in the command line:

```
Do you wish to start the environment now? Y/N:
```

10. Type **N** and then press **Enter**.

Note:

If you are installing application on the WebSphere application server, the following message appears before you are prompted to start the environment:

```
Would you wish to deploy web application to WebSphere now? Y/N:
```

Type **N** and then press **Enter**.

If you type **Y**, the installation script will deploy the application on the WebSphere application server using wsadmin tool. If you type **N**, you need to deploy the application on the WebSphere application server manually using WebSphere admin console, or by executing the `genwasdeploy` utility.

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*.

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

AIX, Linux:

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

Windows:

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

12. If you are using demo certificates, execute the following commands before starting the environment:

AIX, Linux:

```
cd $SPLEBASE/bin
perl demo_gen_cert.plx
```

Windows:

```
cd %SPLEBASE%\bin
perl demo_gen_cert.plx
```

2.5.2 Post Installation Tasks

Once you install Oracle Revenue Management and Billing (ORMB) Version 2.5.0.3.0, you need to apply the following patches on the application environment:

- MANDATORY PATCH FOR ORMB 2.5.0.3.0 (Patch Number: 24516656)
- UPDATE 2.5.0.3.0 ONLINE HELP (Patch Number: 24527614)

2.5.2.1 Applying the 24516656 Patch

Once you install ORMB, you need to apply the MANDATORY PATCH FOR ORMB 2.5.0.3.0 (Patch Number: 24516656). To apply the MANDATORY PATCH FOR ORMB 2.5.0.3.0:

1. Copy the MANDATORY PATCH FOR ORMB 2.5.0.3.0 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 MANDATORY PATCH FOR ORMB 2.5.0.3.0 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 24516656 Product Fix Design.pdf.

4. Unzip the MultiPlatform 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 V2.5.0.3.0-24516656_MultiPlatform folder.

5. Change to the V2.5.0.3.0-24516656_MultiPlatform folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_5>/V2.5.0.3.0-24516656_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_5>\V2.5.0.3.0-24516656_MultiPlatform
```

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

The contents include a file named CCB.V2.5.0.3.0-24516656_Multiplatform.jar and a folder named database.

6. Decompress the CCB.V2.5.0.3.0-24516656_Multiplatform.jar file using the following command:

```
jar -xvf CCB.V2.5.0.3.0-24516656_Multiplatform.jar
```

The contents include two folders - META-INF and CCB.V2.5.0.3.0-24516656.

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

AIX, Linux:

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

Windows:

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

8. Change to the CCB.V2.5.0.3.0-24516656 folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_5>/V2.5.0.3.0-  
24516656_MultiPlatform/CCB.V2.5.0.3.0-24516656
```

Windows:

```
cd <DESTINATION_FOLDER_5>\V2.5.0.3.0-  
24516656_MultiPlatform\CCB.V2.5.0.3.0-24516656
```

Note: The V2.5.0.3.0-24516656_MultiPlatform folder is the location where you have extracted the contents of the CCB.V2.5.0.3.0-24516656_Multiplatform.jar file.

9. Install the patch using the following command:

AIX, Linux:

```
./installSF.sh
```

Windows:

```
installSF.cmd
```

2.5.2.2 Applying the 24527614 Patch

Once you apply the MANDATORY PATCH FOR ORMB 2.5.0.3.0, you need to apply the UPDATE 2.5.0.3.0 ONLINE HELP patch (Patch Number: 24527614). To apply the UPDATE 2.5.0.3.0 ONLINE HELP patch:

1. Copy the UPDATE 2.5.0.3.0 ONLINE HELP 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.

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

AIX, Linux:

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

Windows:

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

3. Unzip the UPDATE 2.5.0.3.0 ONLINE HELP 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 three files - README.txt, MultiPlatform.zip, and Bug 24527614 Product Fix Design.pdf.

4. Unzip the MultiPlatform file using the following command:

AIX, Linux:

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

Windows:

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

The contents of the zip file are extracted in the <DESTINATION_FOLDER_7> folder. The contents include the V2.5.0.3.0-24527614_MultiPlatform folder.

5. Change to the V2.5.0.3.0-24527614_MultiPlatform folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_7>/V2.5.0.3.0-24527614_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_7>\V2.5.0.3.0-24527614_MultiPlatform
```

Note: The <DESTINATION_FOLDER_7> folder is the location where you have extracted the contents of the MultiPlatform.zip file.

The contents include a file named CCB.V2.5.0.3.0-24527614_Multiplatform.jar.

6. Decompress the CCB.V2.5.0.3.0-24527614_Multiplatform.jar file using the following command:

```
jar -xvf CCB.V2.5.0.3.0-24527614_Multiplatform.jar
```

The contents include two folders - META-INF and CCB.V2.5.0.3.0-24527614.

7. 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%
```

8. Change to the CCB.V2.5.0.3.0-24527614 folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_7>/V2.5.0.3.0-  
24527614_MultiPlatform/CCB.V2.5.0.3.0-24527614
```

Windows:

```
cd <DESTINATION_FOLDER_7>\V2.5.0.3.0-  
24527614_MultiPlatform\CCB.V2.5.0.3.0-24527614
```

Note: The V2.5.0.3.0-24527614_MultiPlatform folder is the location where you have extracted the contents of the CCB.V2.5.0.3.0-24527614_Multiplatform.jar file.

9. Install the patch using the following command:

AIX, Linux:

```
./installSF.sh
```

Windows:

```
installSF.cmd
```

10. Start the application environment using the following command:

AIX, Linux:

```
$SPLEBASE/bin/spl.sh start
```

Windows:

```
%SPLEBASE%\bin\spl.cmd start
```

A log file is generated. It indicates whether the application environment has started successfully or not. If any error occurred during startup, the same is recorded in the log file. By default, the log file is stored in the \$SPLSYSTEMLOGS (%SPLSYSTEMLOGS% on Windows) directory.

Note: If you have the WebLogic application server, you need to start the application environment. However, if you have the WebSphere application server, you need to start the application server. To start the application server, use the following command:

```
$WAS_HOME/bin/startServer.sh <Server_Name>
```

But, before you start the server, you need to manually deploy the application on the WebSphere application server. For more information, refer to the [Additional Tasks Required for WebSphere Application Server](#) section.

2.5.3 Additional Tasks Required for WebSphere Application Server

Once you upgrade the application, you need to manually deploy the application on WebSphere application server. To deploy the application on WebSphere application server, you need to do the following in the specified order:

1. Deploy the SPLService.ear file
2. Deploy the SPLWeb.ear file
3. Configure the SPLService.ear file
4. Configure the SPLWeb.ear file
5. Map Users or Groups to a Security Role

Note: If the SPLService.ear and SPLWeb.ear files are already deployed on WebSphere application server, you need to first uninstall them.

2.5.3.1 Deploying the SPLService.ear File

To deploy the `SPLService.ear` file on WebSphere application server:

1. Login to the Integrated Solutions Console using the administrator's credentials.
2. In the left pane, click the **Applications** option. A list appears.
3. Click the **Install New Application** link. The **Preparing for the application installation** page appears in the right pane.
4. Select the **Remote file system** option. The **Browse Remote Filesystems** page appears in the right pane.
5. Browse to the `$SPLEBASE\splapp\applications` location. The `applications` folder includes all WAR and EAR files.
6. Select the **SPLService.ear** option and click **OK**. The **Preparing for the application installation** page appears in the right pane.
7. Click **Next**. The **Install New Application** wizard appears in the right pane.
8. Click **Next**. The **Map modules to servers** wizard page appears.
9. Select the clusters or servers on which you want to install the modules that are contained in the application.
10. Select the check box corresponding to the module named **ServiceBean**. This indicates that you want to install the **ServiceBean** module on the selected server.
11. Click **Apply**. The module is mapped to the selected servers.
12. Click **Next**. The **Provide JNDI names for beans** wizard page appears.
13. Enter the Java Naming and Directory Interface (JNDI) name for the **ServiceBean** module. Use the following naming convention:

```
spl-<server name>/servicebean
```
14. Click **Next**. The **Summary** wizard page appears.
15. Click **Finish**. The deployment process starts. It takes some time. A message appears indicating that the `SPLService.ear` file is deployed successfully on WebSphere application server.
16. Click the **Save** link to reflect the changes in the master configuration files.

2.5.3.2 Deploying the SPLWeb.ear File

To deploy the `SPLWeb.ear` file on WebSphere application server:

1. Login to the Integrated Solutions Console using the administrator's credentials.
2. In the left pane, click the **Applications** option. A list appears.
3. Click the **Install New Application** link. The **Preparing for the application installation** page appears in the right pane.
4. Select the **Remote file system** option. The **Browse Remote Filesystems** page appears in the right pane.
5. Browse to the `$SPLEBASE\splapp\applications` location. The `applications` folder includes all WAR and EAR files.
6. Select the **SPLWeb.ear** option and click **OK**. The **Preparing for the application installation** page appears in the right pane.

7. Select the **Show me all installation options and parameters** option and then click **Next**. Additional installation options and parameters appear in the right pane.
8. Click **Next**. The **Install New Application** wizard appears in the right pane.
9. Select the **Precompile JavaServer Pages files** check box and then click **Next**. The **Map modules to servers** wizard page appears.
10. Select the clusters or servers on which you want to install the modules that are contained in the application.
11. Select the check box corresponding to all modules, such as SPLApp.war, XAIApp.war, appViewer.war, and help.war. This indicates that you want to deploy all WAR files on the selected server.
12. Click **Apply**. The modules are mapped to the selected server.
13. Click **Next**. The **Provide options to compile JSPs** wizard page appears.
14. Enter 15 in the **JDK Source Level** field corresponding to all URIs.
15. Click **Next**. The **Provide JSP reloading options for Web modules** wizard page appears.
16. Click **Next**. The **Map shared libraries** wizard page appears.
17. Click **Next**. The **Initialize parameters for servlets** wizard page appear.
18. Click **Next**. The **Map virtual hosts for Web modules** wizard page appears.
19. Click **Next**. The **Map context roots for Web modules** wizard page appears.
20. Click **Next**. The **Map environment entries for Web modules** wizard page appears.
21. Click **Next**. The **Map security roles to users or groups** wizard page appears.
22. Click **Next**. The **Summary** wizard page appears.
23. Click **Finish**. The deployment process starts. It takes some time. A message appears indicating that the `SPLWeb.ear` file is deployed successfully on WebSphere application server.
24. Click the **Save** link to reflect the changes in the master configuration files.

2.5.3.3 Configuring the SPLService.ear File

To configure the `SPLService.ear` file:

1. Login to the Integrated Solutions Console using the administrator's credentials.
2. In the left pane, click the **Applications** option. A list appears.
3. Click the **Enterprise Applications** link. The **Enterprise Applications** page appears in the right pane.
4. Click the application (**SPLService-<Server Name>**) link. The **Configuration** tab appears where you can define settings of the application or its modules.
5. Under the **Modules** section, click the **Manage Modules** link. The **Manage Modules** page appears.
6. Click the **ServiceBean** link in the **Module** column. The **Configuration** tab appears where you can define settings of the module.
7. Enter 1 in the **Starting weight** field. This helps to indicate the startup priority for the `spl-servicebean-<Version Number>.jar` URI.
8. Click **OK**. The **Manage Modules** page appears.

9. Click **OK**. The **Configuration** tab appears where you can define settings of the application or its modules.
10. Click **OK**.
11. Click the **Save** link to reflect the changes in the master configuration files.

2.5.3.4 Configuring the SPLWeb.ear File

To configure the `SPLWeb.ear` file:

1. Login to the Integrated Solutions Console using the administrator's credentials.
2. In the left pane, click the **Applications** option. A list appears.
3. Click the **Enterprise Applications** link. The **Enterprise Applications** page appears in the right pane.
4. Click the application (**SPLWeb-<Server Name>**) link. The **Configuration** tab appears where you can define settings of the application or its modules.
5. Under the **Detail Properties** section, click the **Startup behavior** link.
6. Enter 2 in the **Startup order** field. This helps to indicate the order in which the application should be started.
7. Click **OK**. The **Configuration** tab appears.
8. Under the **Detail Properties** section, click the **Class loading and update detection** link.
9. Enter 0 in the **Polling interval for updated files** field. This helps to indicate the seconds within which the application file system should be scanned for updated files.
10. Click the **Classes loaded with application class loader first** option to indicate that you want class loader to first search application class loader to load a class.
11. Click **OK**. The **Configuration** tab appears.
12. Under the **Modules** section, click the **Manage Modules** link. The **Manage Modules** page appears.
13. Click the **SPLApp.war** link. The **Configuration** tab appears where you can define settings of the module.
14. Enter 10000 in the **Starting weight** field. This helps to indicate the startup priority for the module compared to other modules while starting a server.
15. Select the **Classes loaded with application class loader first** option from the **Class loader order** list. This helps to indicate that you want class loader to first search application class loader to load a class.
16. Click **OK**. The **Manage Modules** page appears.
17. Click the **XAIApp.war** link. The **Configuration** tab appears where you can define settings of the module.
18. Enter 10000 in the **Starting weight** field.
19. Select the **Classes loaded with application class loader first** option from the **Class loader order** list.
20. Click **OK**. The **Manage Modules** page appears.
21. Click the **appViewer.war** link. The **Configuration** tab appears where you can define settings of the module.
22. Enter 10000 in the **Starting weight** field.

23. Select the **Classes loaded with application class loader first** option from the **Class loader order** list.
24. Click **OK**. The **Manage Modules** page appears.
25. Click the **help.war** link. The **Configuration** tab appears where you can define settings of the module.
26. Enter 10000 in the **Starting weight** field.
27. Select the **Classes loaded with application class loader first** option from the **Class loader order** list.
28. Click **OK**. The **Manage Modules** page appears.
29. Click **OK**. The **Configuration** tab appears where you can define settings of the application or its modules.
30. Click **OK**.
31. Click the **Save** link to reflect the changes in the master configuration files.

2.5.3.5 Mapping Users or Groups to a Security Role

Once you deploy the application on WebSphere application server, you need to map users or groups to the `cisusers` role. To map users or groups to the `cisusers` role:

1. Login to the Integrated Solutions Console using the administrator's credentials.
2. In the left pane, click the **Applications** option. A list appears.
3. Click the **Enterprise Applications** link. The **Enterprise Applications** page appears in the right pane.
4. Click the application (**SPLService-<Server Name>**) link. The **Configuration** tab appears where you can define settings of the application or its modules.
5. Under the **Detail Properties** section, click the **Security role to user/group mapping** link.
6. Select the **All authenticated** check box corresponding to the `cisusers` role. This indicates that only authenticated users should be granted access to the `cisusers` role.
7. Select the **Select** check box corresponding to the `cisusers` role and then click **Look up users**. The **Look up users or groups** page appears.
8. Enter `SYSUSER` in the **Search String** field and then click **Search**. The user name appears in the **Available** list.
9. Select **SYSUSER** in the **Available** list and then click the **Move** () button. The selected user is moved to the **Selected** list.
10. Click **OK**. The user is mapped to the `cisusers` role.
11. Click **OK**. The **Configuration** tab appears where you can define settings of the application or its modules.
12. Click **OK**.
13. Click the **Save** link to reflect the changes in the master configuration files.
14. Similarly, repeat the steps from 5 to 13 for **SPLWeb-<Server Name>**.

2.5.4 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
WebSphere	https://<hostname>:<WC_defaulthost_secure>/<context_root>/loginPage.jsp For example, https://oracle:9081/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 2.5.0.2.0 to 2.5.0.3.0, you need to install the following on the database:

1. Oracle Revenue Management and Billing (ORMB) Version 2.5.0.3.0
2. MANDATORY PATCH FOR ORMB 2.5.0.3.0 (Patch Number: 24516656)

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.

2.6.1 Installing ORMB Version 2.5.0.3.0

To install Oracle Revenue Management and Billing (ORMB) Version 2.5.0.3.0 on the database:

1. Login to the database server using the administrator's credentials.
2. Change to the `Install-Upgrade` folder using the following command:

```
cd <DESTINATION_FOLDER_3>\RMB\Upgrade\Oracle\Install-Upgrade
```

Note: The `<DESTINATION_FOLDER_3>` folder is the location where you have extracted the contents of the `RMB-V2.5.0.3.0-Oracle-Database-MultiPlatform.zip` file.

3. Execute the `OraDBI` utility using the following command:

```
OraDBI.exe
```

Note:

The `OraDBI` utility helps to apply the blueprint to the database. In other words, it helps to reflect the metadata changes to the database.

Ensure that you execute the OraDBI utility from the Windows 32-bit or 64-bit desktop that has Oracle Database Client 12.1.0.2 (32-bit) and Java Development Kit Version 7.0 installed. The database must be listed in the `tnsnames.ora` file on your local machine.

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

Parameter	Value
Enter the name of the target database	<DB_NAME>
Enter your database username	<DB_USER> Example: CISADM
Enter your password username	<DB_USER_PASSWORD>
Enter the location for Java Home (e.g. C:\Java\jdk1.6.0_18)	..\jdk1.7.0_21
Enter the TUGBU jarfiles location (e.g. C:\Database-Install\Jarfiles)	..\RMB\jarfiles
Enter the Oracle user with read-write privileges to Database Schema	<DB_USER> Example: CISUSER
Enter the Oracle user with read-only privileges to Database Schema	<DB_USER> Example: CISREAD
Enter the database role with read-write privileges to Database Schema	<DB_USER_ROLE> Example: CIS_USER
Enter the database role with read-only privileges to Database Schema	<DB_USER_ROLE> Example: CIS_READ
Enter the name of the target Schema where you want to install or upgrade	<Schema_Name>
Enter the password for <DB_USER> schema (or hit ENTER to quit)	<DB_USER_PASSWORD>
Re-enter the value	<DB_USER_PASSWORD>

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

```
Ready to upgrade the target database from V2.5.0.2.0 to
V2.5.0.3.0, Do you want to continue (Y/N)?
```

5. Type **Y** and then press **Enter**. The following message appears in the command line:

```
Ready to upgrade the target database, Do you want to continue? (Y/N)
```

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

2.6.2 Applying the 24516656 Patch

Once you install ORMB, you need to apply the MANDATORY PATCH FOR ORMB 2.5.0.3.0 (Patch Number: 24516656). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH FOR ORMB 2.5.0.3.0:

1. Copy the MANDATORY PATCH FOR ORMB 2.5.0.3.0 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 MANDATORY PATCH FOR ORMB 2.5.0.3.0 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 24516656 Product Fix Design.pdf.

4. Unzip the MultiPlatform 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 V2.5.0.3.0-24516656_MultiPlatform folder.

5. Change to the V2.5.0.3.0-24516656_MultiPlatform folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_5>/V2.5.0.3.0-24516656_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_5>\V2.5.0.3.0-24516656_MultiPlatform
```

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

The contents include a file named CCB.V2.5.0.3.0-24516656_Multiplatform.jar and a folder named database.

6. 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.

7. Unzip the CDXPatch file using the following command:

AIX, Linux:

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

Windows:

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

The contents of the zip file are extracted in the <DESTINATION_FOLDER_6> folder. The contents include the 24516656 folder.

8. Change to the 24516656 folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_6>/24516656
```

Windows:

```
cd <DESTINATION_FOLDER_6>\24516656
```

The contents include two folders named CDXPatch and log and a file named Database_Install.doc.

9. Change to the CDXPatch folder using the following command:

AIX, Linux:

```
cd CDXPatch
```

Windows:

```
cd CDXPatch
```

10. Execute the ouafDatabasePatch utility using the following command:

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

2.6.3 Generating Security for Database Objects

Once you upgrade the database, you need to execute a utility program named OraGenSec. This utility program helps you to generate security for all or specific objects in the database.

To generate security for all database objects:

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

```
cd <DESTINATION_FOLDER_3>\RMB\Upgrade\Oracle\Install-Upgrade
```

Note: The <DESTINATION_FOLDER_3> folder is the location where you have extracted the contents of the RMB-V2.5.0.3.0-Oracle-Database-MultiPlatform.zip file.

2. Execute the OraGenSec utility using the following command:

```
OraGenSec -d <DB_USER>, <DB_USER_PASSWORD>, <DB_NAME> -u  
<Database Users> -a A -f oragensec.txt -l oragensec.log
```

Note: Ensure that you execute the OraGenSec utility from the Window 32-bit or 64-bit desktop that has Oracle Database Client 12.1.0.2 (32-bit) and Java Development Kit Version 7.0 installed. The database must be listed in the tnsnames.ora file on your local machine.

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

Parameter	Value
Enter the application read-only user or Schema Owner in the database	<DB_USER> Example: CISADM
Enter the password for the <DB_USER> user	<DB_USER_PASSWORD>
Enter the name of the Oracle database	<DB_NAME>
Enter a comma-separated list of Oracle users in which synonyms need to be created (e.g. cisuser, cisread)	<DB_USER> Example: CISUSER, CISREAD

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

Select the following options:

(A/a): Generate security for all objects in the Database?

(O/o): Generate security for specific Objects inputted in this terminal?

(F/f): Generate security for specific objects generated from an input File?

4. Type **A** to generate security for all objects in the database, and then press **Enter**. A message appears indicating that the database connection is established and security is defined for all objects in the database.

2.7 Migrating Data

Once you upgrade the database, you can migrate the data from Oracle Revenue Management and Billing Version 2.5.0.2.0 to 2.5.0.3.0 using the PostProcessingScript query which is available in the UPGRADE FROM 2.5.0.2.0 to 2.5.0.3.0 patch.

To migrate the data from ORMB Version 2.5.0.2.0 to 2.5.0.3.0:

1. Copy the UPGRADE FROM 2.5.0.2.0 to 2.5.0.3.0 patch to the TEMPDIR folder using the following command:

```
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:

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

3. Unzip the UPGRADE FROM 2.5.0.2.0 to 2.5.0.3.0 patch using the following command:

```
unzip <filename>.zip -d <PATH>\<DESTINATION_FOLDER_7>
```

The contents of the zip file are extracted in the <DESTINATION_FOLDER_7> folder. The contents include two files - README.txt and deploy.zip.

4. Unzip the deploy.zip file using the following command:

```
unzip <DESTINATION_FOLDER_7>\deploy.zip -d  
<PATH>\<DESTINATION_FOLDER_8>
```

The contents of the zip file are extracted in the <DESTINATION_FOLDER_8> folder. The contents include a folder named Migration_From_V2.5.0.2.0_To_V2.5.0.3.0. This folder contains one file named PostProcessingScript.sql.

5. Change to the Migration_From_V2.5.0.2.0_To_V2.5.0.3.0 folder using the following command:

```
cd <DESTINATION_FOLDER_8>\Migration_From_V2.5.0.2.0_To_V2.5.0.3.0
```

6. Connect to the ORMB database using a utility named SQL*Plus and the administrator's (for example, CISADM) credentials.

7. Execute the following query from the Migration_From_V2.5.0.2.0_To_V2.5.0.3.0 folder:

```
PostProcessingScript.sql
```

Note: For more information about the query, refer to the [PostProcessingScript.sql](#) section in Appendix J: SQL Statements for 2.5.0.2.0 to 2.5.0.3.0 Data Migration.

3. Additional Tasks

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

- Generating the Application Viewer
- Starting the Thread Pool Worker
- Building Javadoc Index

3.1 Generating the Application Viewer

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

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

AIX, Linux:

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

Windows:

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

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

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

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

Note: This command helps to process some tasks which require more memory. This command is only applicable for Windows and not for AIX or 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 : ORMB 2.5.0.3.0 Patch Numbers

Oracle Revenue Management and Billing Version 2.5.0.3.0 application service pack (patch) is common for all platforms. The following table lists the contents of each domain-specific patch:

Domain	Patch Number	Contents Include
Banking	<u>24445559</u>	• <u>FW-V4.3.0.1.0-MultiPlatform</u> • <u>RMB-V2.5.0.3.0-MultiPlatform</u> • <u>RMB-V2.5.0.3.0-FW-PREREQ-MultiPlatform</u> • <u>RMB-V2.5.0.3.0-Oracle-Database-MultiPlatform</u>
Insurance	<u>24445779</u>	• <u>FW-V4.3.0.1.0-MultiPlatform</u> • <u>RMB-V2.5.0.3.0-MultiPlatform</u> • <u>RMB-V2.5.0.3.0-FW-PREREQ-MultiPlatform</u> • <u>RMB-V2.5.0.3.0-Oracle-Database-MultiPlatform</u>

Appendix B : Known Issues

To view a list of known issues in the current release, refer to the *Oracle Revenue Management and Billing Version 2.5.0.3.0 Release Notes*.

Appendix C : Third Party Software Upgrade

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

Appendix D : New Tables Added in 2.5.0.3.0

This section lists and describes the tables that are newly added in the Oracle Revenue Management and Billing Version 2.5.0.3.0 database.

D.1 C1_FEES

Purpose:	Used to store total calculated fees.
Total Number of Columns:	15

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FEES_ID	NUMBER(22,0)	Yes	
EXT_TXN_ID	NUMBER(22,0)	Yes	-
ACCT_ID	CHAR (10 BYTE)	No	-
SA_ID	CHAR (10 BYTE)	No	-
PRICEITEM_CD	CHAR (30 BYTE)	No	-
PRICE_ASGN_ID	CHAR (10 BYTE)	No	-
START_DT	DATE	No	-
END_DT	DATE	Yes	-
EFF_DT	DATE	Yes	-
CALC_AMT	NUMBER(15,2)	No	-
CURRENCY_CD	CHAR (3 BYTE)	No	-
CRE_DTTM	DATE	No	-
VERSION	NUMBER(5,0)	No	1
ILM_DT	DATE	Yes	-
ILM_ARCH_SW	CHAR(1 BYTE)	Yes	N

Primary Key:

Key Type	Column Name
SINGLE	FEES_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XT902PO	NORMAL	FEES_ID
2.	XT902FO	NORMAL	ACCT_ID
			PRICEITEM_CD
			START_DT
			END_DT

D.2 C1_FEES_CALC

Purpose:	Used to store the fees header details for fees.
Total Number of Columns:	12

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FEES_ID	NUMBER(22,0)	Yes	-
HEADER_SEQ	NUMBER(3,0),	No	-
RS_CD	CHAR(8 BYTE)	No	-
START_DT	DATE	No	-
END_DT	DATE	Yes	-
EFF_DT	DATE	No	-
CALC_AMT	NUMBER(15,2)	No	-
CURRENCY_CD	CHAR(3 BYTE)	No	-
DESCR_ON_BILL	VARCHAR2(80 BYTE)	No	-
VERSION	NUMBER(5,0)	No	1
ILM_DT	DATE	Yes	-
ILM_ARCH_SW	CHAR(1 BYTE)	No	N

Primary Key:

Key Type	Column Name
COMPOSITE	FEES_ID
	HEADER_SEQ

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XT902FO	NORMAL	FEES_ID
			HEADER_SEQ

D.3 C1_FEES_CALC_LN

Purpose:	Used to store the characteristic details for every eligible price component.
Total Number of Columns:	24

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FEES_ID	NUMBER(22,0)	No	-
HEADER_SEQ	NUMBER(3,0)	No	-
SEQNO	NUMBER(5,0)	No	-
CHAR_TYPE_CD	CHAR(8 BYTE)	No	''
CURRENCY_CD	CHAR(3 BYTE)	No	''
CHAR_VAL	CHAR(16 BYTE)	No	''
UOM_CD	CHAR(4 BYTE)	No	''
TOU_CD	CHAR(8 BYTE)	No	''
RC_SEQ	NUMBER(3,0)	No	''
PRT_SW	CHAR(1 BYTE)	No	''
APP_IN_SUMM_SW	CHAR(1 BYTE)	No	''
CALC_AMT	NUMBER(36,18)	No	0
EXEMPT_AMT	NUMBER(36,18)	No	0
BASE_AMT	NUMBER(36,18)	No	0
SQI_CD	CHAR(8 BYTE)	No	''
DESCR_ON_BILL	VARCHAR2(80 BYTE)	No	''
PRIC_CCY_CD	CHAR(3 BYTE)	No	''
PRIC_AMT	NUMBER(36,18)	No	0
EXCHRATE_ID	CHAR(10 BYTE)	No	''
EXCHRATE	NUMBER(36,18)	Yes	

Column Name	Data Type	Nullable (Yes or No)	Default Value
TOT_AGG_SQ	NUMBER(36,18)	No	0
PRICECOMP_ID	CHAR(10 BYTE)	No	' '
VALUE_AMT	NUMBER(36,18)	Yes	
VERSION	NUMBER(5,0)	No	1
ILM_DT	DATE	Yes	-
ILM_ARCH_SW	CHAR(1 BYTE)	Yes	N

Primary Key:

Key Type	Column Name
COMPOSITE	FEES_ID
	SEQNO
	HEADER_SEQ

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XT904FO	NORMAL	FEES_ID
			HEADER_SEQ
			SEQNO

D.4 C1_FEES_CALC_LN_CHAR

Purpose:	Used to store the details of eligible price component characteristics.
Total Number of Columns:	14

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FEES_ID	NUMBER(22,0)	No	-
HEADER_SEQ	NUMBER(3,0)	No	-
SEQNO	NUMBER(5,0)	No	-
CHAR_TYPE_CD	CHAR(8 BYTE)	No	-
CHAR_VAL	CHAR(16 BYTE)	Yes	-
ADHOC_CHAR_VAL	VARCHAR2(254 BYTE)	Yes	-
CHAR_VAL_FK1	VARCHAR2(50 BYTE)	Yes	-

Column Name	Data Type	Nullable (Yes or No)	Default Value
CHAR_VAL_FK2	VARCHAR2(50 BYTE)	Yes	-
CHAR_VAL_FK3	VARCHAR2(50 BYTE)	Yes	-
CHAR_VAL_FK4	VARCHAR2(50 BYTE)	Yes	-
CHAR_VAL_FK5	VARCHAR2(50 BYTE)	Yes	-
VERSION	NUMBER(5,0)	No	1
ILM_DT	DATE	Yes	-
ILM_ARCH_SW	CHAR(1 BYTE)	Yes	N

Primary Key:

Key Type	Column Name
COMPOSITE	FEES_ID
	HEADER_SEQ
	SEQNO
	CHAR_TYPE_CD

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XT905FO	NORMAL	FEES_ID
			HEADER_SEQ
			SEQNO
			CHAR_TYPE_CD

D.5 C1_FEES_CHAR

Purpose:	Used to store the fees characteristics.
Total Number of Columns:	14

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FEES_ID	NUMBER(22,0)	No	-
HEADER_SEQ	NUMBER(3,0)	No	-
SEQNO	NUMBER(5,0)	No	-
CHAR_TYPE_CD	CHAR(8 BYTE)	No	-

Column Name	Data Type	Nullable (Yes or No)	Default Value
CHAR_VAL	CHAR(16 BYTE)	Yes	-
ADHOC_CHAR_VAL	VARCHAR2(254 BYTE)	Yes	-
CHAR_VAL_FK1	VARCHAR2(50 BYTE)	Yes	-
CHAR_VAL_FK2	VARCHAR2(50 BYTE)	Yes	-
CHAR_VAL_FK3	VARCHAR2(50 BYTE)	Yes	-
CHAR_VAL_FK4	VARCHAR2(50 BYTE)	Yes	-
CHAR_VAL_FK5	VARCHAR2(50 BYTE)	Yes	-
VERSION	NUMBER(5,0)	No	1
ILM_DT	DATE	Yes	-
ILM_ARCH_SW	CHAR(1 BYTE)	Yes	N

Primary Key:

Key Type	Column Name
COMPOSITE	FEES_ID
	CHAR_TYPE_CD
	EFFDT

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XT908FO	NORMAL	FEES_ID
			CHAR_TYPE_CD
			EFFDT

D.6 C1_FEES_K

Purpose:	Used to store the environment variables.
Total Number of Columns:	2

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FEES_ID	CHAR(22 BYTE)	No	-
ENV_ID	NUMBER(6)	Yes	-

Primary Key:

Key Type	Column Name
COMPOSITE	FEES_ID
	ENV_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XT901PO	NORMAL	FEES_ID
			ENV_ID

D.7 C1_FEES_PARAM

Purpose:	Used to store the eligibility parameters of the eligible price component.
Total Number of Columns:	6

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FEES_ID	NUMBER(22,0)	Yes	-
PARM_CD	VARCHAR2(100 BYTE)	No	-
PARM_VAL	VARCHAR2(100 BYTE)	Yes	-
VERSION	NUMBER(5,0)	No	-
ILM_DT	DATE	Yes	-
ILM_ARCH_SW	CHAR(1 BYTE)	Yes	N

Primary Key:

Key Type	Column Name
COMPOSITE	FEES_ID
	PARM_CD

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XT907PO	NORMAL	FEES_ID
			PARM_CD

D.8 C1_FEES_SQ

Purpose:	Used to store the service quantity details for calculated fees.
Total Number of Columns:	9

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FEES_ID	NUMBER(22,0)	No	-
SQI_CD	CHAR(8 BYTE)	No	-
TOU_CD	CHAR(8 BYTE)	No	-
UOM_CD	CHAR(4 BYTE)	No	-
INIT_SQ	NUMBER(36,18)	No	-
FINAL_SQ	NUMBER(36,18)	No	-
VERSION	NUMBER(5,0)	No	1
ILM_DT	DATE	Yes	-
ILM_ARCH_SW	CHAR(1 BYTE)	Yes	N

Primary Key:

Key Type	Column Name
COMPOSITE	FEES_ID
	SQI_CD

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XT906PO	NORMAL	FEES_ID
			SQI_CD

D.9 C1_FUNDING_REQ

Purpose:	19
Total Number of Columns:	Used to store the details of funding requests.

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FUNDING_REQ_ID	CHAR(12)	No	-
FUNDING_REQ_TYPE_CD	CHAR(30)	No	-
BUS_OBJ_CD	CHAR(30)	No	''
BO_STATUS_CD	CHAR(12)	No	''
BO_STATUS_REASON_CD	VARCHAR2(30)	Yes	-
BO_DATA_AREA	CLOB	Yes	-
FUNDING_CRET_MODE_FLG	CHAR(4)	No	AUTO
FUNDING_ADJ_TYPE_CD	CHAR(8)	Yes	-
GARNISH_ADJ_TYPE_CD	CHAR(8)	Yes	-
COMMENTS	VARCHAR2(254)	Yes	''
CRE_DTTM	DATE	Yes	SYSDATE
STATUS_UPD_DTTM	DATE	Yes	-
ILM_ARCH_SW	CHAR(1)	Yes	-
ILM_DT	DATE	Yes	-
VERSION	NUMBER(5)	No	1
TOTAL_DB_AMT	NUMBER(15,2)	No	0
TOTAL_CR_AMT	NUMBER(15,2)	No	0
BATCH_CD	CHAR(8)	Yes	''
BATCH_NBR	NUMBER(10)	Yes	0

Primary Key:

Key Type	Column Name
SINGLE	FUNDING_REQ_ID

Indexes:

There are no indexes for the C1_FUNDING_REQ table.

D.10 C1_FUNDING_REQ_CHAR

Purpose:	Used to store characteristics defined for funding requests.
Total Number of Columns:	12

Column Details:

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

Primary Key:

Key Type	Column Name
COMPOSITE	FUNDING_REQ_ID
	CHAR_TYPE_CD
	EFFDT

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF636S1		SRCH_CHAR_VAL

D.11 C1_FUNDING_REQ_DTLS

Purpose:	Used to store the details of entities for which funding request is created.
Total Number of Columns:	11

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FUNDING_REQ_ID	CHAR(12)	No	-
FUNDING_DTL_ID	CHAR(12)	No	-

Column Name	Data Type	Nullable (Yes or No)	Default Value
BILL_ID	CHAR(12)	No	-
GARNISH_AMT	NUMBER(15,2)	Yes	0
FUNDING_AMT	NUMBER(15,2)	Yes	-
THRESHOLD_RANGE	VARCHAR2(50)	No	''
REC_STATUS_FLG	CHAR(4)	No	-
CAN_RSN_CD_FLG	CHAR(4)	No	''
VERSION	NUMBER(5)	No	1
SEQ_NUM	NUMBER(3)	Yes	0
EXCHRATE	NUMBER(36,18)	No	0

Primary Key:

Key Type	Column Name
SINGLE	FUNDING_DTL_ID

Indexes:

There are no indexes for the C1_FUNDING_REQ_DTLS table.

D.12 C1_FUNDING_REQ_DTLS_ADJ

Purpose:	Used to store the details of adjustments created for the funding request.
Total Number of Columns:	3

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FUNDING_DTL_ID	CHAR(12)	No	-
ADJ_ID	CHAR(12)	No	-
VERSION	NUMBER(5)	No	1

Primary Key:

Key Type	Column Name
COMPOSITE	FUNDING_DTL_ID
	ADJ_ID

Indexes:

There are no indexes for the C1_FUNDING_REQ_DTLS_ADJ table.

D.13 C1_FUNDING_REQ_DTLS_EXCP

Purpose:	Used to store the details of the exception occurred after submitting funding request.
Total Number of Columns:	9

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FUNDING_DTL_ID	CHAR(12)	No	-
MESSAGE_CAT_NBR	NUMBER(5)	No	0
MESSAGE_NBR	NUMBER(5)	No	0
MESSAGE_PARM1	VARCHAR2(2000)	No	''
MESSAGE_PARM2	VARCHAR2(2000)	No	''
MESSAGE_PARM3	VARCHAR2(2000)	No	''
MESSAGE_PARM4	VARCHAR2(2000)	No	''
MESSAGE_PARM5	VARCHAR2(2000)	No	''
VERSION	NUMBER(5)	No	1

Primary Key:

Key Type	Column Name
SINGLE	FUNDING_DTL_ID

Indexes:

There are no indexes for the C1_FUNDING_REQ_DTLS_EXCP table.

D.14 C1_FUNDING_REQ_GAR_SA

Purpose:	Used to store the details of the garnishment contract and its garnishment amount of the funding request.
Total Number of Columns:	4

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FUNDING_DTL_ID	CHAR(12)	No	-
GARNISH_SA_ID	CHAR(10)	No	-
GARNISH_AMT	NUMBER(15,2)	No	0

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

Primary Key:

Key Type	Column Name
COMPOSITE	FUNDING_DTL_ID
	GARNISH_SA_ID

Indexes:

There are no indexes for the C1_FUNDING_REQ_GAR_SA table.

D.15 C1_FUNDING_REQ_K

Purpose:	Used to generate the funding request ID.
Total Number of Columns:	2

Column Details:

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

Primary Key:

Key Type	Column Name
COMPOSITE	FUNDING_REQ_ID
	ENV_ID

Indexes:

There are no indexes for the C1_FUNDING_REQ_K table.

D.16 C1_FUNDING_REQ_LOG

Purpose:	Used to store logs of funding requests.
Total Number of Columns:	20

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FUNDING_REQ_ID	CHAR(12)	No	-
SEQNO	NUMBER(5)	No	-
LOG_DTTM	DATE	No	-
LOG_ENTRY_TYPE_FLG	CHAR(4)	No	''
DESCRLONG	VARCHAR2(4000)	No	''
BO_STATUS_CD	CHAR(12)	No	''
BO_STATUS_REASON_CD	VARCHAR2(30)	No	-
MESSAGE_CAT_NBR	NUMBER(5)	No	-
MESSAGE_NBR	NUMBER(5)	No	-
CHAR_TYPE_CD	CHAR(8)	No	''
CHAR_VAL	CHAR(16)	No	''
ADHOC_CHAR_VAL	VARCHAR2(254)	No	''
CHAR_VAL_FK1	VARCHAR2(50)	No	''
CHAR_VAL_FK2	VARCHAR2(50)	No	''
CHAR_VAL_FK3	VARCHAR2(50)	No	''
CHAR_VAL_FK4	VARCHAR2(50)	No	''
CHAR_VAL_FK5	VARCHAR2(50)	No	''
USER_ID	CHAR(8)	No	''
SRCH_CHAR_VAL	VARCHAR2(254)	No	''
VERSION	NUMBER(5)	No	1

Primary Key:

Key Type	Column Name
COMPOSITE	FUNDING_REQ_ID
	SEQNO

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF637R07		CHAR_TYPE_CD
			CHAR_VAL_FK1

2.	XF637R08		CHAR_TYPE_CD
			CHAR_VAL
3.	XF637R09		SRCH_CHAR_VAL
			CHAR_TYPE_CD

D.17 C1_FUNDING_REQ_LOG_PARAM

Purpose:	Used to store funding requests' log parameters.
Total Number of Columns:	6

Column Details:

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

Primary Key:

Key Type	Column Name
COMPOSITE	FUNDING_REQ_ID
	SEQNO
	PARM_SEQ

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF638P0	Unique	FUNDING_REQ_ID
			SEQNO
			PARM_SEQ

D.18 C1_FUNDING_REQ_TYPE

Purpose:	Used to store the details of funding request types.
Total Number of Columns:	15

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FUNDING_REQ_TYPE_CD	CHAR(30)	No	-
BUS_OBJ_CD	CHAR(30)	No	''
TRANS_BUS_OBJ_CD	CHAR(30)	No	''
BO_DATA_AREA	CLOB	Yes	-
C1_ACTIVE_INACTIVE_FLG	CHAR(4)	No	-
DEF_FUNDING_ADJ_TYPE_CD	CHAR(8)	No	''
DEF_GARNISH_ADJ_TYPE_CD	CHAR(8)	No	''
THRESHOLD_ALG_CD	CHAR(12)	No	''
IS_APPR_REQ	CHAR(1)	Yes	-
C1_SUB_TD_TYPE	CHAR(8)	No	''
C1_SUB_TD_ROLE	CHAR(10)	No	''
VERSION	NUMBER(5)	No	1
DEFER_PROC_COUNT	NUMBER(5)	Yes	0
APPR_PROF_CD	CHAR(30)	No	''
CURRENCY_CD	CHAR(3)	No	''

Primary Key:

Key Type	Column Name
SINGLE	FUNDING_REQ_TYPE_CD

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF641P0	Unique	FUNDING_REQ_TYPE_CD

D.19 C1_FUNDING_REQ_TYPE_CHAR

Purpose:	Used to store characteristics defined for funding request types.
Total Number of Columns:	12

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FUNDING_REQ_TYPE_CD	CHAR(30)	No	-

Column Name	Data Type	Nullable (Yes or No)	Default Value
CHAR_TYPE_CD	CHAR(8)	No	-
SEQ_NUM	NUMBER(5)	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_F3	VARCHAR2(50)	No	''
CHAR_VAL_FK4	VARCHAR2(50)	No	''
CHAR_VAL_FK5	VARCHAR2(50)	No	''
SRCH_CHAR_VAL	VARCHAR2(254)	No	''
VERSION	NUMBER(5)	No	1

Primary Key:

Key Type	Column Name
COMPOSITE	FUNDING_REQ_TYPE_CD
	CHAR_TYPE_CD
	SEQ_NUM

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF643P0	Unique	FUNDING_REQ_TYPE_CD
			CHAR_TYPE_CD
			SEQ_NUM

D.20 C1_FUNDING_REQ_TYPE_L

Purpose:	Used to store description for funding request types.
Total Number of Columns:	5

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
FUNDING_REQ_TYPE_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)	No	1

Primary Key:

Key Type	Column Name
COMPOSITE	FUNDING_REQ_TYPE_CD
	LANGUAGE_CD

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF642P0	Unique	FUNDING_REQ_TYPE_CD
			LANGUAGE_CD

D.21 C1_HOLD_REQ

Purpose:	Used to store the details of hold requests.
Total Number of Columns:	17

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
HOLD_REQ_ID	CHAR(12)	No	-
HOLD_REQ_TYPE_CD	CHAR(30)	No	-
BUS_OBJ_CD	CHAR(30)	No	''
BO_STATUS_CD	CHAR(12)	No	''
BO_STATUS_REASON_CD	VARCHAR2(30)	Yes	-
BO_DATA_AREA	CLOB	Yes	-
START_DT	DATE	Yes	-
END_DT	DATE	Yes	-
HOLD_REASON_FLG	CHAR(4)	Yes	-
HOLD_ENTITY_LVL_FLG	CHAR(4)	Yes	-
HOLD_CRET_MODE_FLG	CHAR(4)	Yes	AUTO
COMMENTS	VARCHAR2(254)	No	''

Column Name	Data Type	Nullable (Yes or No)	Default Value
CRE_DTTM	DATE	Yes	SYSDATE
STATUS_UPD_DTTM	DATE	Yes	-
ILM_ARCH_SW	CHAR(1)	Yes	-
ILM_DT	DATE	Yes	-
VERSION	NUMBER(5)	No	1

Primary Key:

Key Type	Column Name
SINGLE	HOLD_REQ_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF624P0	Unique	HOLD_REQ_ID

D.22 C1_HOLD_REQ_CHAR

Purpose:	Used to store characteristics defined for hold requests.
Total Number of Columns:	12

Column Details:

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

Primary Key:

Key Type	Column Name
COMPOSITE	HOLD_REQ_ID
	CHAR_TYPE_CD
	EFFDT

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF626P0	Unique	HOLD_REQ_ID
			CHAR_TYPE_CD
			EFFDT
2.	XF626S1	Normal	SRCH_CHAR_VAL

D.23 C1_HOLD_REQ_DTLS

Purpose:	Used to store the details of entities for which funding request is created.
Total Number of Columns:	8

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
HOLD_REQ_ID	CHAR(12)	No	-
HOLD_DTL_ID	CHAR(12)	No	-
HOLD_ENTITY_ID	VARCHAR2(14)	No	-
HOLD_AMT	NUMBER(15,2)	No	0
START_DT	DATE	Yes	-
END_DT	DATE	Yes	-
VERSION	NUMBER(5)	No	1
FROM_ARC_SW	CHAR(1)	Yes	N

Primary Key:

Key Type	Column Name
SINGLE	HOLD_DTL_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF629P0	Unique	HOLD_DTL_ID
2.	XF629R01	Normal	HOLD_REQ_ID
3.	XF629S0	Normal	HOLD_ENTITY_ID

D.24 C1_HOLD_REQ_K

Purpose:	Used to generate the hold request ID.
Total Number of Columns:	2

Column Details:

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

Primary Key:

Key Type	Column Name
COMPOSITE	HOLD_REQ_ID
	ENV_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF625P0	Unique	HOLD_REQ_ID
			ENV_ID

D.25 C1_HOLD_REQ_LOG

Purpose:	Used to store logs of hold requests.
Total Number of Columns:	20

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
HOLD_REQ_ID	CHAR(12)	No	-
SEQNO	NUMBER(5)	No	-

Column Name	Data Type	Nullable (Yes or No)	Default Value
LOG_DTTM	DATE	No	''
LOG_ENTRY_TYPE_FLG	CHAR(4)	No	''
DESCRLONG	VARCHAR2(4000)	No	''
BO_STATUS_CD	CHAR(12)	No	''
BO_STATUS_REASON_CD	VARCHAR2(30)	Yes	-
MESSAGE_CAT_NBR	NUMBER(5)	No	''
MESSAGE_NBR	NUMBER(5)	No	-
CHAR_TYPE_CD	CHAR(8)	No	''
CHAR_VAL	CHAR(16)	No	''
ADHOC_CHAR_VAL	VARCHAR2(254)	No	''
CHAR_VAL_FK1	VARCHAR2(50)	No	''
CHAR_VAL_FK2	VARCHAR2(50)	No	''
CHAR_VAL_FK3	VARCHAR2(50)	No	''
CHAR_VAL_FK4	VARCHAR2(50)	No	''
CHAR_VAL_FK5	VARCHAR2(50)	No	''
USER_ID	CHAR(8)	No	''
SRCH_CHAR_VAL	VARCHAR2(254)	No	''
VERSION	NUMBER(5)	No	1

Primary Key:

Key Type	Column Name
COMPOSITE	HOLD_REQ_ID
	SEQNO

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF627P0	Unique	HOLD_REQ_ID
			SEQNO
2.	XF627R07	Normal	CHAR_TYPE_CD
			CHAR_VAL_FK1
3.	XF627R08	Normal	CHAR_TYPE_CD
			CHAR_VAL

D.26 C1_HOLD_REQ_LOG_PARAM

Purpose:	Used to store hold requests' log parameters.
Total Number of Columns:	5

Column Details:

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

Primary Key:

Key Type	Column Name
COMPOSITE	HOLD_REQ_ID
	SEQNO
	PARM_SEQ

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF628P0	Unique	HOLD_REQ_ID
			SEQNO
			PARM_SEQ

D.27 C1_HOLD_REQ_PROC

Purpose:	Used to store the list of processes for hold request.
Total Number of Columns:	5

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
HOLD_REQ_ID	CHAR(12)	No	-
HOLD_PROCESS_FLG	CHAR(4)	No	-
START_DT	DATE	Yes	-

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

Primary Key:

Key Type	Column Name
COMPOSITE	HOLD_REQ_ID
	HOLD_PROCESS_FLG

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF630P0	Unique	HOLD_REQ_ID
			HOLD_PROCESS_FLG

D.28 C1_HOLD_REQ_TYPE

Purpose:	Used to store the details of hold request types.
Total Number of Columns:	7

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
HOLD_REQ_TYPE_CD	CHAR(30)	No	-
BUS_OBJ_CD	CHAR(30)	No	''
TRANS_BUS_OBJ_CD	CHAR(30)	No	''
BO_DATA_AREA	CLOB	No	-
C1_ACTIVE_INACTIVE_FLG	CHAR(4)	No	''
VERSION	NUMBER(5)	No	1
IS_PARTIAL_HOLD_AMT_ALWD	CHAR(1)	No	N

Primary Key:

Key Type	Column Name
SINGLE	HOLD_REQ_TYPE_CD

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF620P0	Unique	HOLD_REQ_TYPE_CD

D.29 C1_HOLD_REQ_TYPE_CHAR

Purpose:	Used to store characteristics defined for hold request types.
Total Number of Columns:	12

Column Details:

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

Primary Key:

Key Type	Column Name
COMPOSITE	HOLD_REQ_TYPE_CD
	CHAR_TYPE_CD
	SEQ_NUM

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF622P0	Unique	HOLD_REQ_TYPE_CD
			CHAR_TYPE_CD
			SEQ_NUM
2.	XF622S1	Normal	SRCH_CHAR_VAL

D.30 C1_HOLD_REQ_TYPE_L

Purpose:	Used to store description for hold request types.
Total Number of Columns:	5

Column Details:

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

Primary Key:

Key Type	Column Name
COMPOSITE	HOLD_REQ_TYPE_CD
	LANGUAGE_CD

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF621P0	Unique	HOLD_REQ_TYPE_CD
			LANGUAGE_CD

D.31 C1_HOLD_REQ_TYPE_PROC

Purpose:	Used to store the list of processes for hold request type.
Total Number of Columns:	3

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
HOLD_REQ_TYPE_CD	CHAR(30)	No	-
HOLD_PROCESS_FLG	CHAR(4)	No	-
VERSION	NUMBER(5)	No	1

Primary Key:

Key Type	Column Name
COMPOSITE	HOLD_REQ_TYPE_CD
	HOLD_PROCESS_FLG

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF623P0	Unique	HOLD_REQ_TYPE_CD
			HOLD_PROCESS_FLG

D.32 C1_OFFSET_REQ

Purpose:	Used to store the details of offset requests.
Total Number of Columns:	20

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
OFFSET_REQ_ID	CHAR(12)	No	-
OFFSET_REQ_TYPE_CD	CHAR(30)	No	-
BUS_OBJ_CD	CHAR(30)	No	''
BO_STATUS_CD	CHAR(12)	No	''
BO_STATUS_REASON_CD	VARCHAR2(30)	Yes	-
BO_DATA_AREA	CLOB	Yes	-
OFFSET_AMOUNT	NUMBER(15,2)	Yes	0
ADJ_TYPE_CD	CHAR(8)	Yes	-
CRE_DTTM	DATE	Yes	SYSDATE
STATUS_UPD_DTTM	DATE	Yes	-
ILM_ARCH_SW	CHAR(1)	Yes	-
ILM_DT	DATE	Yes	-
VERSION	NUMBER(5)	No	1
OFFSET_CRET_MODE_FLG	CHAR(4)	No	AUTO
COMMENTS	VARCHAR2(254)	Yes	''
BATCH_CD	CHAR(8)	No	''
BATCH_NBR	NUMBER(10)	No	0

Column Name	Data Type	Nullable (Yes or No)	Default Value
OFFSET_TYPE	CHAR(1)	No	''
SEL_BILL_ID	CHAR(12)	No	''
CURRENCY_CD	CHAR(3)	No	''

Primary Key:

Key Type	Column Name
SINGLE	OFFSET_REQ_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF613P0	Unique	OFFSET_REQ_ID

D.33 C1_OFFSET_REQ_ADJ

Purpose:	Used to store the details of adjustments created for the offset request.
Total Number of Columns:	4

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
OFFSET_DTL_ID	CHAR(12)	No	-
XFER_ADJ_ID	CHAR(12)	No	-
FROM_BILL_ID	CHAR(12)	No	-
TO_BILL_ID	CHAR(12)	No	-

Primary Key:

Key Type	Column Name
COMPOSITE	OFFSET_DTL_ID
	XFER_ADJ_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF619P0	Unique	OFFSET_DTL_ID
			XFER_ADJ_ID
2.	XF619P0	Normal	XFER_ADJ_ID

D.34 C1_OFFSET_REQ_CHAR

Purpose:	Used to store characteristics defined for offset requests.
Total Number of Columns:	12

Column Details:

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

Primary Key:

Key Type	Column Name
COMPOSITE	OFFSET_REQ_ID
	CHAR_TYPE_CD
	EFFDT

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF617P0	Unique	OFFSET_REQ_ID
			CHAR_TYPE_CD
			EFFDT
2.	XF617S1	Normal	SRCH_CHAR_VAL

D.35 C1_OFFSET_REQ_DTLS

Purpose:	Used to store the details of entities for which offset request is created.
Total Number of Columns:	7

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
OFFSET_REQ_ID	CHAR(12)	No	-
OFFSET_DTL_ID	CHAR(12)	No	-
BILL_ID	CHAR(12)	No	-
CURRENCY_CD	CHAR(3)	Yes	''
OFFSET_AMOUNT	NUMBER(15,2)	Yes	0
VERSION	NUMBER(5)	No	1
EXCHRATE	NUMBER(36,18)	No	0

Primary Key:

Key Type	Column Name
SINGLE	OFFSET_DTL_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF618P0	Unique	OFFSET_DTL_ID
2.	XF618R01	Normal	OFFSET_REQ_ID

D.36 C1_OFFSET_REQ_K

Purpose:	Used to generate the offset request ID.
Total Number of Columns:	2

Column Details:

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

Primary Key:

Key Type	Column Name
COMPOSITE	OFFSET_REQ_ID
	ENV_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF614P0	Unique	OFFSET_REQ_ID
			ENV_ID

D.37 C1_OFFSET_REQ LOG

Purpose:	Used to store logs of offset requests.
Total Number of Columns:	20

Column Details:

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

Column Name	Data Type	Nullable (Yes or No)	Default Value
CHAR_VAL_FK5	VARCHAR2(50)	No	''
USER_ID	CHAR(8)	No	''
SRCH_CHAR_VAL	VARCHAR2(254)	No	''
VERSION	NUMBER(5)	No	1

Primary Key:

Key Type	Column Name
COMPOSITE	OFFSET_REQ_ID
	SEQNO

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF615P0	Unique	OFFSET_REQ_ID
			SEQNO
2.	XF615R07	Normal	CHAR_TYPE_CD
			CHAR_VAL_FK1
3.	XF615R08	Normal	CHAR_TYPE_CD
			CHAR_VAL

D.38 C1_OFFSET_REQ_LOG_PARAM

Purpose:	Used to store offset requests' log parameters.
Total Number of Columns:	6

Column Details:

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

Primary Key:

Key Type	Column Name
COMPOSITE	OFFSET_REQ_ID
	SEQNO
	PARM_SEQ

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF616P0	Unique	OFFSET_REQ_ID
			SEQNO
			PARM_SEQ

D.39 C1_OFFSET_REQ_TYPE

Purpose:	Used to store the details of offset request types.
Total Number of Columns:	14

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
OFFSET_REQ_TYPE_CD	CHAR(30)	No	-
BUS_OBJ_CD	CHAR(30)	No	''
TRANS_BUS_OBJ_CD	CHAR(30)	No	''
BO_DATA_AREA	CLOB	Yes	-
C1_ACTIVE_INACTIVE_FLG	CHAR(4)	No	''
VERSION	NUMBER(5)	No	1
IS_APPR_REQ	CHAR(1)	No	-
C1_APPR_TD_TYPE	CHAR(8)	No	''
C1_APPR_TD_ROLE	CHAR(10)	No	''
XFER_ADJ_TYPE_CD	CHAR(8)	No	''
OFFSET_AMT_ALG_CD	CHAR(12)	No	''
DEFER_PROC_COUNT	NUMBER(5)	Yes	0
C1_SUB_TD_TYPE	CHAR(8)	No	''
C1_SUB_TD_ROLE	CHAR(10)	No	''

Primary Key:

Key Type	Column Name
SINGLE	OFFSET_REQ_TYPE_CD

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF610P0	Unique	OFFSET_REQ_TYPE_CD

D.40 C1_OFFSET_REQ_TYPE_CHAR

Purpose:	Used to store characteristics defined for offset request types.
Total Number of Columns:	12

Column Details:

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

Primary Key:

Key Type	Column Name
COMPOSITE	OFFSET_REQ_TYPE_CD
	CHAR_TYPE_CD
	SEQ_NUM

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF612P0	Unique	OFFSET_REQ_TYPE_CD
			CHAR_TYPE_CD
			SEQ_NUM
2.	XF612S1	Normal	SRCH_CHAR_VAL

D.41 C1_OFFSET_REQ_TYPE_L

Purpose:	Used to store description for offset request types.
Total Number of Columns:	5

Column Details:

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

Primary Key:

Key Type	Column Name
COMPOSITE	OFFSET_REQ_TYPE_CD
	LANGUAGE_CD

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF611P0	Unique	OFFSET_REQ_TYPE_CD
			LANGUAGE_CD

D.42 C1_PRC_SERVICE_LOG

Purpose:	Used to store the request and response of pricing service.
Total Number of Columns:	6

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
BUS_SVC_CD	CHAR(30 BYTE)	Yes	-
USER_ID	CHAR(8 BYTE)	Yes	-
CRE_DTTM	TIMESTAMP (6)	Yes	-
REQUEST	CLOB	Yes	-
RESPONSE	CLOB	Yes	-
ERROR_DETAILS	VARCHAR2(4000 BYTE)	Yes	-

Primary Key:

Key Type	Column Name
COMPOSITE	BUS_SVC_CD
	CRE_DTTM
	USER_ID

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF093S1		BUS_SVC_CD
			CRE_DTTM
			USER_ID

D.43 C1_PRICELIST_ELIG

Purpose:	Used to store the price list eligibility.
Total Number of Columns:	4

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
PRICELIST_ID	CHAR(10 BYTE)	No	-
START_DT	DATE	No	-
END_DT	DATE	No	-
VERSION	NUMBER(5,0)	No	-

Primary Key:

Key Type	Column Name
COMPOSITE	PRICELIST_ID
	START_DT

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF631P0	NORMAL	PRICELIST_ID
			START_DT

D.44 C1_PRICELIST_ELIG_DETAILS

Purpose:	Used to store the price list eligibility with criteria.
Total Number of Columns:	12

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
PRICELIST_ID	CHAR(10 BYTE)	No	-
START_DT	DATE	No	-
SEQUENCE_NUM	NUMBER(5,0)	No	-
LHS_PRICE_PARM_CD	CHAR(30 BYTE)	No	-
OPERATOR	CHAR(10 BYTE)	No	''
RHS_PRICE_PARM_TYPE_FLG	CHAR(4 BYTE)	No	-
RHS_PRICE_PARM_CD	CHAR(30 BYTE)	No	-
RHS_PRICE_PARM_VAL	VARCHAR2(254 BYTE)	No	-
TRUE_FLG	CHAR(4 BYTE)	No	''
FALSE_FLG	CHAR(4 BYTE)	No	''
INSF_FLG	CHAR(4 BYTE)	No	''
VERSION	NUMBER(5,0)	No	1

Primary Key:

Key Type	Column Name
COMPOSITE	PRICELIST_ID
	START_DT
	SEQUENCE_NUM

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF632P0	NORMAL	PRICELIST_ID
			START_DT
			SEQUENCE_NUM

D.45 C1_PRICELIST_ELIG_L

Purpose:	Used to store the price list eligibility description.
Total Number of Columns:	5

Column Details:

Column Name	Data Type	Nullable (Yes or No)	Default Value
PRICELIST_ID	CHAR(10 BYTE)	No	-
START_DT	DATE	No	-
LANGUAGE_CD	CHAR(3 BYTE)	No	-
DESCR	VARCHAR2(60 BYTE)	No	''
VERSION	NUMBER(5,0)	No	1

Primary Key:

Key Type	Column Name
COMPOSITE	PRICELIST_ID
	START_DT
	LANGUAGE_CD

Indexes:

Sr. No.	Index Name	Index Type	Column Name
1.	XF633P0	NORMAL	PRICELIST_ID
			START_DT
			LANGUAGE_CD

Appendix E : Existing Tables Modified in 2.5.0.3.0

This section lists the existing tables which are modified in Oracle Revenue Management and Billing Version 2.5.0.3.0. It also indicates the columns that are newly added, dropped, or modified in these tables.

E.1 C1_REF_WO_REQ_DTLS

The following table lists the columns that are either newly added or modified in the C1_REF_WO_REQ_DTLS table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BILL_ID	Newly Added	-	CHAR(12)	No	-
2.	BILL_LEVEL_FLG	Newly Added	-	CHAR(1)	No	-

E.2 CI_ACCUM_ASL_AMT

The following table lists the columns that are either newly added or modified in the CI_ACCUM_ASL_AMT table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ACCT_ID	Newly Added	-	CHAR(10)	No	-
2.	ASL_CUL_CALC_LIMIT_PCT	Newly Added	-	NUMBER(36,18)	No	-
3.	ASL_CUL_MTH_PAYMNT_LIMIT	Newly Added	-	NUMBER(36,18)	No	-
4.	ASL_LIMIT	Newly Added	-	NUMBER(36,18)	No	-

E.3 CI_ACCUM_GRP_ASL

The following table lists the columns that are either newly added or modified in the CI_ACCUM_GRP_ASL table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PCT_RET_ASL_LIMIT	Newly Added	-	NUMBER(3,0)	No	-
2.	RUN_IN_INCURRED_END_DT	Newly Added	-	DATE	No	-
3.	RUN_IN_INCURRED_START_DT	Newly Added	-	DATE	No	-
4.	RUN_IN_PAID_END_DT	Newly Added	-	DATE	No	-
5.	RUN_IN_PAID_START_DT	Newly Added	-	DATE	No	-
6.	RUN_IN_SW	Newly Added	-	CHAR(1)	No	-
7.	RUN_OUT_INCURRED_END_DT	Newly Added	-	DATE	No	-
8.	RUN_OUT_INCURRED_START_DT	Newly Added	-	DATE	No	-
9.	RUN_OUT_PAID_END_DT	Newly Added	-	DATE	No	-
10.	RUN_OUT_PAID_START_DT	Newly Added	-	DATE	No	-
11.	RUN_OUT_SW	Newly Added	-	CHAR(1)	No	-

E.4 CI_ACCUM_GRP_SSL

The following table lists the columns that are either newly added or modified in the CI_ACCUM_GRP_SSL table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
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Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	UW_REVIEW_SW	Newly Added	-	CHAR(1)	No	-
2.	RUN_IN_INCURRED_END_DT	Newly Added	-	DATE	No	-
3.	RUN_IN_INCURRED_START_DT	Newly Added	-	DATE	No	-
4.	RUN_IN_PAID_END_DT	Newly Added	-	DATE	No	-
5.	RUN_IN_PAID_START_DT	Newly Added	-	DATE	No	-
6.	RUN_IN_SW	Newly Added	-	CHAR(1)	No	-
7.	RUN_OUT_INCURRED_END_DT	Newly Added	-	DATE	No	-
8.	RUN_OUT_INCURRED_START_DT	Newly Added	-	DATE	No	-
9.	RUN_OUT_PAID_END_DT	Newly Added	-	DATE	No	-
10.	RUN_OUT_PAID_START_DT	Newly Added	-	DATE	No	-
11.	RUN_OUT_SW	Newly Added	-	CHAR(1)	No	-

E.5 CI_ACCUM_SSL_AMT

The following table lists the columns that are either newly added or modified in the CI_ACCUM_SSL_AMT table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	SSL_CREDITS_AS_L	Newly Added	-	NUMBER(36,18)	No	-
2.	ACCT_ID	Newly Added	-	CHAR(10)	No	-

E.6 CI_ACCT_APAY

The following table lists the columns that are either newly added or modified in the CI_ACCT_APAY table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
12.	PERCENT	Newly Added	-	NUMBER(5,2)	Yes	UPDATE CI_ACCT_APAY AA SET AA.PERCENT = 100.00 WHERE AA.PERCENT IS NULL
13.	PRIORITY_NUM	Newly Added	-	NUMBER(3)	No	-

E.7 CI_B_CHG_LINE

The following table lists the columns that are either newly added or modified in the CI_B_CHG_LINE table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PRECS_CHARGE_AMT	Newly Added	-	NUMBER(36,18)	No	-

E.8 CI_BILL_ACH

The following table lists the columns that are either newly added or modified in the CI_BILL_ACH table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ACCT_APAY_ID	Newly Added	-	CHAR(10)	Yes	UPDATE CI_BILL_ACH ACH SET ACH.ACCT_APAY_ID = NVL((

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
						SELECT AP.ACCT_APAY_ID FROM CI_ACCT_APAY AP, CI_BILL B WHERE ACH.SETTLEMENT_ACCT_ID = AP.ACCT_ID AND B.BILL_ID = ACH.BILL_ID AND AP.PERCENT = 100.00 AND AP.START_DT <= B.COMPLETE_DTTM AND AP.ACCT_APAY_ID IS NOT NULL AND (AP.END_DT >= B.COMPLETE_DTTM OR AP.END_DT IS NULL)),') WHERE ACH.ACCT_APAY_ID = '' AND ACH.APAY_CRE_DT IS NULL
2.	APAY_CLR_ID	Newly Added	-	CHAR(12)	No	-
3.	SEQ_NUM	Newly Added	-	NUMBER(3)	No	-

E.9 CI_CUST_CL_CTRL

The following table lists the columns that are either newly added or modified in the CI_CUST_CL_CTRL table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	DEFER_AUTO_PAY_SW	Newly Added	-	CHAR(1)	No	-

E.10 CI_EXCHRATE

The following table lists the columns that are either newly added or modified in the CI_EXCHRATE table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BO_DATA_AREA	Newly Added	-	CLOB	No	-
2.	BO_STATUS_CD	Newly Added	-	CHAR(12)	No	-
3.	BO_STATUS_REASON_CD	Newly Added	-	VARCHAR2(30)	No	-
4.	BUS_OBJ_CD	Newly Added	-	CHAR(30)	Yes	The column value is set to C1-ExchangeRate for all existing exchange rates.
5.	CRE_DTTM	Newly Added	-	DATE	No	-
6.	END_DTTM	Newly Added	-	DATE	Yes	The column value is set to the value defined in the END_DT column corresponding to the exchange rate in the CI_EXCHRATE table.

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
7.	EXCH_RATE_SRC_FLG	Newly Added	-	CHAR(4)	No	-
8.	ILM_ARCH_SW	Newly Added	-	CHAR(1)	No	-
9.	ILM_DT	Newly Added	-	DATE	No	-
10.	START_DTTM	Newly Added	-	DATE	Yes	The column value is set to the value defined in the EFFDT column corresponding to the exchange rate in the CI_EXCHRATE table.
11.	STATUS_UPD_DTTM	Newly Added	-	DATE	No	-

E.11 CI_PER

The following table lists the columns that are either newly added or modified in the CI_PER table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BIRTH_DT	Newly Added	-	DATE	No	-
2.	CRE_BY	Newly Added	-	CHAR(8)	No	-
3.	CRE_DTTM	Newly Added	-	DATE	No	-
4.	LAST_UPD_BY	Newly Added	-	CHAR(8)	No	-
5.	LAST_UPD_DTTM	Newly Added	-	DATE	No	-
6.	SINCE_DT	Newly Added	-	DATE	No	-

E.12 CI_PP_SCHED_PAY

The following table lists the columns that are either newly added or modified in the CI_PP_SCHED_PAY table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ACCT_APAY_ID	Newly Added	-	CHAR(10)	Yes	UPDATE CI_PP_SCHED_PAY PPS SET PPS.ACCT_APAY_ID = NVL(SELECT AP.ACCT_APAY_ID FROM CI_ACCT_APAY AP, CI_PP PP WHERE AP.ACCT_ID = PP.PAYOR_ACCT_ID AND AP.PERCENT = 100.00 AND PP.PP_ID = PPS.PP_ID AND PP.PP_STAT_FLG = '20' AND AP.ACCT_APAY_ID IS NOT NULL AND AP.START_DT <= PP.START_DT AND (AP.END_DT >= PP.START_DT OR AP.END_DT IS NULL)), ' ') WHERE PPS.ACCT_APAY_ID = '' AND PPS.APAY_CLR_ID = ''
2.	SEQ_NUM	Newly Added	-	NUMBER(3)	No	-

E.13 CI_PRC_DFLT_PL_VW

The following table lists the columns that are either newly added or modified in the CI_PRC_DFLT_PL_VW table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ADV_PRC_SW	Newly Added	-	-	No	-
2.	PRICEITEM_AVAIL_FOR	Newly Added	-	-	No	-
3.	PRICEITEM_TYPE	Newly Added	-	-	No	-
4.	SCHEDULE_CD	Newly Added	-	-	No	-

E.14 CI_PRCE_CALC

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

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	ILM_ARCH_SW	Newly Added	-	CHAR(1)	No	-
2.	ILM_DT	Newly Added	-	DATE	No	-

E.15 CI_PRICECOMP

The following table lists the columns that are either newly added or modified in the CI_PRICECOMP table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PRICECOMP_DISPLAY_SW	Newly Added	-	CHAR(1)	No	-
2.	PRICECOMP_SEQNO	Newly Added	-	NUMBER(5,0)	Yes	The column value is set to the value defined in the RC_SEQ column corresponding to the rate component map in the CI_RC_MAP table.

E.16 CI_PRICEITEM

The following table lists the columns that are either newly added or modified in the CI_PRICEITEM table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	BEST_OF_FLG	Newly Added	-	CHAR(8)	No	-
2.	PRICEITEM_AVAIL_FOR	Newly Added	-	CHAR(4)	Yes	The column value is set to PRBL for all existing price items. This indicates that the price item is available for pricing and billing.
3.	PRICEITEM_TYPE	Newly Added	-	CHAR(30)	Yes	The column value is set to FEES for all existing price items. This indicates that the type of price item is FEES .

E.17 CI_PRICELIST

The following table lists the columns that are either newly added or modified in the CI_PRICELIST table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PL_AVLBLTY_EN_DT	Newly Added	-	DATE	No	-
2.	PL_AVLBLTY_ST_DT	Newly Added	-	DATE	No	-
3.	PL_TYPE	Newly Added	-	CHAR(4)	Yes	The column value is set to CISP for all existing price lists. This indicates that the price list is a standard price list.
4.	PL_VALDTY_PER	Newly Added	-	NUMBER(5,0)	No	-

E.18 CI_PRICE_PARM

The following table lists the columns that are either newly added or modified in the CI_PRICE_PARM table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PARM_AVL_PE_SW	Newly Added	-	CHAR(1)	No	-
2.	PARM_AVL_PI_SW	Newly Added	-	CHAR(1)	Yes	The column value is set to Y for all existing parameters. This indicates that you can associate the parameter with a price item.
3.	PARM_AVL_PLE_SW	Newly Added	-	CHAR(1)	No	-
4.	SOURCE_ENTITY_FLG	Newly Added	-	CHAR(4)	Yes	The column value is set to TRN for

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
						all existing parameters.
5.	SOURCE_TYPE_CD	Newly Added	-	VARCHAR2(30)	No	-
6.	SOURCE_TYPE_FLG	Newly Added	-	CHAR(4)	No	-
7.	PRICE_PARM_TYPE_FLG	Decreased Column Length	CHAR(30)	CHAR(4)	No	-

E.19 CI_TXN_CALC_LN

The following table lists the columns that are either newly added or modified in the CI_TXN_CALC_LN table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	PRECS_CALC_AMT	Newly Added	-	NUMBER(36,18)	No	-

E.20 CI_UPLD_FLTM

The following table lists the columns that are either newly added or modified in the CI_UPLD_FLTM table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	CUSTOM_MOV_STAG_SW	Newly Added	-	CHAR(1)	No	-

E.21 C1_PAY_REQ

The following table lists the columns that are either newly added or modified in the C1_PAY_REQ table:

Sr. No.	Column Name	Modification Type	Data Type in V2.5.0.2.0	Data Type in V2.5.0.3.0	Data Migration Required (Yes or No)	Column Value After Data Migration
1.	C1_PAY_REQ_TYPE_CD	Changed Data Type	VARCHAR2(30)	CHAR(30)	No	-

Appendix F : Algorithms and Algorithm Types Dropped in 2.5.0.3.0

This section lists the algorithms and algorithm types which are dropped in Oracle Revenue Management and Billing Version 2.5.0.3.0.

F.1 Algorithm Type

No algorithm types are dropped in Oracle Revenue Management and Billing Version 2.5.0.3.0.

F.2 Algorithm

No algorithms are dropped in Oracle Revenue Management and Billing Version 2.5.0.3.0.

Appendix G : Parameters Added or Removed from Algorithms, Algorithm Types and Batches in 2.5.0.3.0

This section lists the parameters which are added in Oracle Revenue Management and Billing Version 2.5.0.3.0. Parameters are not removed from Algorithms and Batches in ORMB Version 2.5.0.3.0.

G.1 Algorithm Parameter

The following table lists the parameters that are newly added for algorithms:

Algorithm Code	Parameter
C1-PDOV-BSDT	How to handle overpayments (D/O)
C1-PDOV-WTOA	To Do Type for Underpayment
C1-PDOV-WTOA	Overpayment Tolerance Amount
C1-PDOV-WTOA	Allow Payment Distribution Beyond Threshold Limit(applicable to Batch process)
C1-PDOV-WTOA	Underpayment Tolerance Percentage
C1-PDOV-WTOA	Underpayment Adjustment Type
C1-PDOV-WTOA	To Do Type for Overpayment
C1-PDOV-WTOA	Overpayment Tolerance Percentage
C1-PDOV-WTOA	How to handle overpayments (D/O)
C1-PDOV-WTOA	Underpayment Tolerance Amount
C1-PDOV-WTOA	Overpayment Adjustment Type
C1_RATE_STEP	Stacking Required
C1_RATE_STEP	Characteristic Code for Account Exclusion for aggregation
C1_RATE_STEP	Characteristic type for Account where Price Assignment was found
C1_RATE_STEP	Use Product/UOM Relationship
C1_RATE_STEP	Person Relationship Type Sequence Algorithm
C1_RATE_STEP	Person relationship type sequence algorithm
C1_RATE_STEP	Characteristic type for Person where Price Assignment was found
C1_RATE_STEP	Characteristic type for Price Component Id
C1_RATE_STEP	Characteristic Type for Price Assignment ID

G.2 Batch Parameter

The following table lists the parameters that are newly added for batches:

Batch Code	Parameter
C1-ACFEE	priceltemCd
C1-ACFEE	division
C1-ACFEE	DIST-THD-POOL
C1-ACFEE	productCd
C1-APACH	FILE-PATH
C1-APACH	BUS-OR-CAL-DAYS
C1-APACH	NBR-DAYS
C1-APACH	MAX-ERRORS
C1-APACH	FILE-NAME
C1-APACH	DIST-THD-POOL
C1-BCASL	DIST-THD-POOL
C1-BCASL	manualSettlementBillAfterDate
C1-BCSSL	DIST-THD-POOL
C1-BCSSL	manualSettlementBillAfterDate
C1-SLACU	disaggTxnsFromDt
C1-SLACU	billCycleCd
C1-SLACU	DIST-THD-POOL
C1-SLACU	division
C1-SLACU	accountId

Appendix H : Option Types Added or Removed from Feature Configurations in 2.5.0.3.0

The following table lists the option types which are added or removed from the feature configurations in Oracle Revenue Management and Billing Version 2.5.0.3.0:

Feature Configuration	Option Types (Removed from 2.5.0.3.0)	Option Types (Added in 2.5.0.3.0)
C1-HOLDSRCH	-	Account FK Ref
		Bill FK Ref
		Person FK Ref
C1-OFFSETREQ	-	Allow Offsetting Across Persons
C1-PYREQSRT	-	Bill
		Bill Segment
		Contract

Appendix I : Characteristic Types Dropped in 2.5.0.3.0

No characteristic types are dropped in Oracle Revenue Management and Billing Version 2.5.0.3.0.

Appendix J : SQL Statements for 2.5.0.2.0 to 2.5.0.3.0 Data Migration

This section describes the following queries which are used for migrating data from Oracle Revenue Management and Billing Version 2.5.0.2.0 to 2.5.0.3.0:

- PostProcessingScript.sql

J.1 PostProcessingScript.sql

The PostProcessingScript.sql query does the following:

- Updates the column values of the records in the respective table:

Table Name	Column Name	Column Value After Data Migration
CI_ACCT_APAY	PERCENT	The column value is set to 100.00 for all existing Automatic Payment records of an Account.
CI_BILL_ACH	ACCT_APAY_ID	The column value is set to the value defined in the APAY_ID column of the CI_ACCT_APAY table for all existing Automatic Clearing records which are not yet processed.
CI_PP_SCHED_PAY	ACCT_APAY_ID	The column value is set to the value defined in the APAY_ID column of the CI_ACCT_APAY table for all existing active Promise to Pay Schedule records.

Appendix K : Changing the DB User Password

If you have changed the database user password, you need to execute the following steps before installing the rollup pack for Oracle Utilities Application Framework Version 4.3.0.1.0:

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
```