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Database Administrator's Guide

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Preface

About This Document

This document will help you to understand how to install and maintain the Oracle Revenue Management and Billing (ORMB) database.

Intended Audience

This document is intended for the following audience:

- End-Users
- Database 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	Database Overview	Lists the database server supported on each platform. It also lists the dos and don'ts while maintaining a database.
Section 2	Installing Oracle Revenue Management and Billing Version 2.9.0.0.0 Database	Explains how to install the Oracle Revenue Management and Billing database.
Section 3	Database Design	Lists the naming conventions for various database objects. It also lists and describes the column data types and foreign key constraints.
Section 4	Exadata Database Settings	Lists a set of activities that you need to perform if you are using the Oracle Exadata Database machine as the database server.
Section 5	Database Implementation Guidelines	Lists and describes the general guidelines for configuring various objects in the database and implementing Oracle Database.
Appendix A	New Objects in the Oracle Revenue Management and Billing V2.9.0.0.0 Database	Lists the objects that are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database.

Section No.	Section Name	Description
Appendix B	Application Services Configured for Default User Group	Lists the application services configured for the default user groups shipped with Oracle Revenue Management and Billing Version 2.9.0.0.0.
Appendix C	Changing the DB User Password	Explains how to change the database user password.
Appendix D	New Objects in the Oracle Utilities Application Framework V4.4.0.0.0 Database	Lists the objects that are newly added in the Oracle Utilities Application Framework V4.4.0.0.0 database.
Appendix E	Oracle Utilities Application Framework System Table Guide	Lists the system tables owned by Oracle Utilities Application Framework V4.4.0.0.0 and explains the standards and guidelines to be followed while updating the data in the system tables.
Appendix F	ORMB V2.9.0.0.0 Rollup Packs	Lists the rollup packs available for Oracle Revenue Management and Billing Version 2.9.0.0.0. It also explains how to apply a rollup pack.
Appendix G	License and Copyright Notices	Lists all notices with reference to usage of third party products.

Related Documents

You can refer to the following documents for more information:

Document	Description
<i>Oracle Revenue Management and Billing Version 2.9.0.0.0 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 Installation Guide</i>	Lists the application server pre-requisites, supported platforms, and software and hardware requirements for installing the Oracle Revenue Management and Billing application. It explains how to install the Oracle Revenue Management and Billing application.
<i>Oracle Revenue Management and Billing Quick Installation Guide</i>	Provides high-level information on how to install the Oracle Revenue Management and Billing (ORMB) application and selected additional software.

Document	Description
<i>Oracle Revenue Management and Billing Server Administration Guide</i>	Explains the Oracle Revenue Management and Billing (ORMB) architecture and technical know-how required for configuring and using the ORMB application. It explains how to configure and deploy web and business application servers. In addition, it explains how to monitor client machines, web and/or business application servers, and database connections.
<i>Oracle Revenue Management and Billing Security Guide</i>	Lists the security features available in the Oracle Revenue Management and Billing application. It explains how to configure security for the Oracle Revenue Management and Billing application using the default security features.

Conventions

The following conventions are used across this document:

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

Change Log

Revision	Last Update	Updated Section	Comments
17.1	12-Apr-2020	Appendix A: New Objects in the Oracle Revenue Management and Billing V2.9.0.0.0 Database	Updated Information
		Appendix B: Application Services Configured for Default User Group	Updated Information
		Appendix D: New Objects in the Oracle Utilities Application Framework V4.4.0.0.0 Database	Updated Information
17.2	14-May-2020	Section 2.3.1.1: Copying and Decompressing Install Media	Updated Information
		Section 2.3.1.2: Creating the Database	Updated Information
		Section 2.3.1.4: Installing Oracle Utilities Application Framework	Added Information

Revision	Last Update	Updated Section	Comments
		Section 2.3.1.5: Installing Oracle Revenue Management and Billing	Updated Information
		Section 2.3.1.6: Post Installation Tasks	Added Information
		Section 2.3.2: Configuring Security	Updated Information
		Appendix F: ORMB V2.9.0.0.0 Rollup Packs	Added Appendix
17.3	18-May-2020	Organization of the Document (Preface)	Updated Information
17.4	29-May-2020	Section 2.1: Installation Overview	Updated Information
		Section 2.3: Oracle Database Installation	Updated Information
		Section 2.3.1.6: Post Installation Tasks	Added Information
		Section 2.3.2: Demo Install	Added Section
		Appendix F: ORMB V2.9.0.0.0 Rollup Packs	Added Information
17.5	31-Aug-2020	Section 2.3.1.6: Post Installation Tasks	Added Information
		Section 2.3.2.5: Post Demo Database Creation Tasks	Added Information
		Appendix F: ORMB V2.9.0.0.0 Rollup Packs	Added Information
17.6	03-Dec-2020	Section 2.3.1.6: Post Installation Tasks	Updated information in the following sections: <ul style="list-style-type: none"> • Increase INITRANS Values • Generate Database Statistics
		Section 2.3.2.5: Post Demo Database Creation Tasks	Updated information in the Generate Database Statistics section
		Section 3.1.2: Naming Standards	Updated the Sequence information
		Section 3.2.11: Foreign Key Constraints	Updated Information
		Section 5.1.1: Index	Updated Information
		Section 5.1.2: Temporary and Undo Tablespace	Updated Information
		Section 5.1.3: Transparent Data Encryption Recommendations	Updated Information

Revision	Last Update	Updated Section	Comments
		Section 5.1.4: Data Compression Recommendations	Removed the Exadata Hardware section
		Section 5.1.6: Oracle Fuzzy Search Support	Removed Section
		Section 5.1.6.1: SecureFile for Storing LOBs	Updated Information
		Section 5.1.9: Database Initialization Parameters	Updated Information
		Section 5.1.10: Shrink Tables	Updated Information
		Section 5.1.11: Listener.ora Settings	Added Section
		Section 5.2.1: Oracle Partitioning	Removed Section
		Section 5.2.2: Database Statistics	Removed Section
		Section 5.2.2: Table Partitioning Strategy	Added Section
		Section 5.2.3: Performance Monitoring	Added Section
		Section 5.2.4: Local Undo Mode in Oracle Database 12c Release 2	Added Section
		Section 5.2.5: Memory Resource Management for PDBs in Oracle Database 12c Release 2	Added Section
		Section 5.2.6: Global Optimizer Statistics Settings	Added Section
		Section 5.2.7: Optimizer Statistics Advisor	Added Section
		Section 5.2.8: Using the Segment Advisor	Added Section
17.7	09-Dec-2020	Section 5.1.9: Database Initialization Parameters	Updated Information
		Section 5.2.6.4: Automatic Statistics Gathering	Updated Information
		Section 5.2.8.1: Manually Generating Segment Advisor Advice	Updated Information
17.8	16-Jan-2021	Section 2.3.1.6: Post Installation Tasks	Updated Information
		Section 5.1.1: Index	Added Information
		Section 5.1.9: Database Initialization Parameters	Updated Information

Revision	Last Update	Updated Section	Comments
		Section 5.1.10: Shrink Tables	Added Information
		Section 5.2.1: Materialized View	Updated Information
		Section 5.2.2: Increase INITRANS Values	Added Section
		Section 5.2.3: Table Partitioning Strategy	Added Information
17.9	19-Jan-2022	-	Added Bookmarks in PDF

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1. Database Overview

This section provides an overview of the Oracle Revenue Management and Billing database, including:

- [Supported Database Platforms](#)
- [Database Maintenance Rules](#)

1.1 Supported Database Platforms

This section defines the platforms on which Oracle Revenue Management and Billing is verified to operate.

1.1.1 Supported Platforms Summary Table

Oracle Revenue Management and Billing (ORMB) is supported on the following platforms:

Platform	Database Server
AIX 7.2 TL0+ ¹ (64-bit)	Oracle Database Server 18c (12.2.0.2) SP1+ Oracle Database Server 19c
Oracle Linux 7.x ² (64-bit)	Oracle Database Server 18c (12.2.0.2) SP1+ Oracle Database Server 19c
Red Hat Enterprise Linux ³ 7.x ² (64-bit)	Oracle Database Server 18c (12.2.0.2) SP1+ Oracle Database Server 19c
Oracle Solaris 11.3+ ¹ (SPARC 64-bit)	Oracle Database Server 18c (12.2.0.2) SP1+ Oracle Database Server 19c
Windows Server 2012 R2 (64-bit)	Oracle Database Server 18c (12.2.0.2) SP1+ Oracle Database Server 19c

¹ Version numbers suffixed with "+" are the MINIMUM version supported. That version and all future 4th digit updates will be supported.

² Here, **x** represents the vendor supported version.

³ Oracle Revenue Management and Billing is tested and certified on Oracle Linux 7.x. Oracle Linux is 100% userspace-compatible with Red Hat Enterprise Linux, and therefore Oracle Revenue Management and Billing is supported on Red Hat Enterprise Linux.

Note:

Oracle Corporation distributes Oracle Linux with the following two kernels:

>> **Red Hat Compatible Kernel** – This kernel is identical to the kernel shipped in Red Hat Enterprise Linux.

>> **Unbreakable Enterprise Kernel** – This kernel is based on a later Linux 2.6-series kernel, with Oracle's own enhancements for OLTP, InfiniBand, SSD disk access, NUMA-optimizations, Reliable Datagram Sockets (RDS), async I/O, OCFS2, and networking.

Oracle claims that the Unbreakable Enterprise Kernel is compatible with Red Hat Enterprise Linux; and Oracle middleware and third-party Red Hat Enterprise Linux-certified applications can be installed and run unchanged on Unbreakable Enterprise Kernel. However, for users requiring strict compatibility with Red Hat or for users running kernel modules dependent on specific kernel versions, the Red Hat Compatible Kernel offers 100% compatibility with Red Hat Enterprise Linux.

The following Oracle Database Server Editions are supported:

- Oracle Database Enterprise Edition

Oracle Database Client 18c or 19c is required as a pre-requisite for installing the Oracle Revenue Management and Billing application.

Note:

Oracle Database Enterprise Edition with the **Advanced Compression and Partitioning** options is strongly recommended in all situations.

We strongly recommend you to install Oracle Revenue Management and Billing (ORMB) on Windows platform only for non-production activities, such as User Acceptance Testing (UAT), development setup, and so on.

1.1.2 Support for Software Patches and Upgrades

Due to the ongoing nature of software improvement, vendors will issue patches and service packs for the operating systems, application servers and database servers on top of specific versions that Oracle Revenue Management and Billing has been tested with.

If it is necessary to apply an upgrade, please do so in a test environment that is running on the same platform as your production environment prior to updating the Oracle Revenue Management and Billing production environment.

The exception from this rule is Hibernate Version 4.1 GA. This version should not be upgraded.

Always contact Oracle Support prior to applying vendor updates that do not guarantee backward compatibility.

1.2 Database Maintenance Rules

The database supplied with the product consists of the following elements:

- A set of users to administrate, execute and read the database schema provided.
- A set of database roles to implement security for each of the users provided.
- A tablespace and a schema containing the base database objects used by the product.

The installation of these components is outlined in the installation section of this document.

1.2.1 Permitted Database Changes

During and after installation of the product the following changes may be performed by the database administrator personnel on site:

- Users supplied by product may be changed according to the site standards.
- Database objects may be added to the schema according to database naming standards outlined later in this document.
- Database views and indexes may be created against base database objects. Please make sure to prefix them with "CM" (for customer modification).
- Database storage attributes for base indexes and base tables may be changed according to site standards and hardware used.
- Tablespace names, attributes and locations may be changed according to site standards.
- Database topology (that is, base table/index to tablespace, tablespace to data file, data file to location) may be altered according to tuning and/or site standards.
- Database triggers may be created against base database objects unless they attempt to contravene base data integrity rules.
- Database initialization and parameter settings may be altered according to site standards unless otherwise advised by Oracle Support or outlined in this document.

1.2.2 Non-Permitted Database Changes

In order to maintain operability and upgradeability of the product, during and after the installation of the product, the following changes may not be performed by the database administration personnel on site:

- Base objects must not be removed or altered in the following ways:
 - Columns in base tables must not be altered in anyway (altered, removed or added).
 - Columns in Indexes must not be altered or removed.
 - Tables must not be renamed or removed.
 - Base views must not be renamed or removed.
 - Base Triggers and Sequences must not be renamed or removed.
 - Base indexes must not be altered or removed.

2. Installing Oracle Revenue Management and Billing Version 2.9.0.0.0 Database

This section provides the instructions for installing the Oracle Revenue Management and Billing database. This section includes the following topics:

- [Installation Overview](#)
- [Creating the Database](#)
- [Oracle Database Installation](#)

2.1 Installation Overview

Note: Refer to the [Supported Database Platforms](#) section for information about the supported platforms on which Oracle Revenue Management and Billing is verified to operate.

The following types of installation are available for Oracle Revenue Management and Billing:

- Initial Install — a database without demo data
- Demo Install — a database with demo data

The database installation requires Java Development Kit Version 8.0 where the install package is staged and run from.

2.2 Creating the Database

For an initial install, you will create an empty database on a Linux or Windows database server on which you operate the production instance of Oracle Revenue Management and Billing.

To create the database:

1. Create the database using the Database Configuration Assistant (DBCA). Refer to the *Master Note: Overview of Database Configuration Assistant (DBCA) (Doc ID: 1488770.1)* article on [My Oracle Support](#) for more information.
2. Ensure that you set the database character set to AL32UTF8.

Note: In the prior versions of the product, the `cdxdba` utility (`cdxdba.plx` for Linux and `CDXDBA.exe` for Windows) was included in the package. However, it is no longer supported. Instead of using the `cdxdba` utility, use the **Database Configuration Assistant** to create the database.

3. Enable the following mandatory software options:
 - Oracle Spatial OR Oracle Locator
 - Oracle Text
4. Execute the following SQL command to verify whether the above mandatory software options are enabled:

```
SELECT COMP_NAME, STATUS FROM DBA_REGISTRY WHERE COMP_NAME IN ('Spatial','Oracle Text');
```

5. Create default tablespace named CISTS_01 using the following command:

```
CREATE TABLESPACE CISTS_01 LOGGING DATAFILE
'<db_file_location>/oradata/<DB_NAME>/cists01.dbf' SIZE 1024M
REUSE AUTOEXTEND ON NEXT 8192K MAXSIZE UNLIMITED EXTENT
MANAGEMENT LOCAL UNIFORM SIZE 1M;
```
6. Create the CIS_ADM, CIS_USER, and CIS_READ roles using the following commands:

```
CREATE ROLE CIS_ADM NOT IDENTIFIED;
CREATE ROLE CIS_USER NOT IDENTIFIED;
CREATE ROLE CIS_READ NOT IDENTIFIED;
```
7. Assign the privileges to the CIS_ADM role using the following commands:

```
GRANT CREATE TABLE TO CIS_ADM;
GRANT CREATE VIEW TO CIS_ADM;
GRANT CREATE SYNONYM TO CIS_ADM;
GRANT CREATE MATERIALIZED VIEW TO CIS_ADM;
GRANT CREATE SEQUENCE TO CIS_ADM;
GRANT CREATE INDEXTYPE TO CIS_ADM;
GRANT CREATE ROLE TO CIS_ADM;
GRANT CREATE TRIGGER TO CIS_ADM;
GRANT CREATE PROCEDURE TO CIS_ADM;
```
8. Assign the privileges to the CIS_USER role using the following command:

```
GRANT CREATE SYNONYM TO CIS_USER;
```
9. Assign the privileges to the CIS_READ role using the following command:

```
GRANT CREATE SYNONYM TO CIS_READ;
```
10. Create the CISADM, CISUSER, CISOPR, and CISREAD users using the following commands:

```
CREATE USER CISADM IDENTIFIED BY CISADM DEFAULT TABLESPACE
CISTS_01 TEMPORARY TABLESPACE TEMP PROFILE DEFAULT;
ALTER USER CISADM QUOTA UNLIMITED ON CISTS_01;
GRANT CREATE SESSION TO CISADM;
GRANT CREATE TABLESPACE TO CISADM;
GRANT READ on DBA_TABLESPACES TO CISADM;
GRANT ALTER TABLESPACE TO CISADM;
GRANT UNLIMITED TABLESPACE TO CISADM;
GRANT DROP TABLESPACE TO CISADM;
GRANT EXECUTE on DBMS_UTILITY TO CISADM;
GRANT SELECT_CATALOG_ROLE TO CISADM;
GRANT EXECUTE_CATALOG_ROLE TO CISADM;
GRANT CIS_ADM TO CISADM;
```

```
CREATE USER CISUSER PROFILE DEFAULT IDENTIFIED BY CISUSER DEFAULT
TABLESPACE CISTS_01 TEMPORARY TABLESPACE TEMP;
ALTER USER CISUSER QUOTA UNLIMITED ON CISTS_01;
GRANT CIS_USER to CISUSER;
GRANT CREATE SESSION TO CISUSER;
```

```
CREATE USER CISREAD IDENTIFIED BY CISREAD DEFAULT TABLESPACE
CISTS_01 TEMPORARY TABLESPACE TEMP;
ALTER USER CISREAD QUOTA UNLIMITED ON CISTS_01;
GRANT CIS_READ to CISREAD;
GRANT CREATE SESSION TO CISREAD;
```

```
CREATE USER CISOPR PROFILE DEFAULT IDENTIFIED BY OPRPLUS DEFAULT
TABLESPACE CISTS_01 TEMPORARY TABLESPACE TEMP;
GRANT CREATE SESSION, EXP_FULL_DATABASE TO CISOPR;
```

11. Review the `Storage.xml` file under the `FW\FW44000\Install-Upgrade` folder prior to initial install. This file allocates all base tables and indexes to the default tablespace (`CISTS_01`) and the required users and roles. Information in this file is used by `OraDBI.jar` while installing the Oracle Revenue Management and Billing database objects. Refer to the [Updating Storage.xml](#) section for more information on how to update the `Storage.xml` file.

Note: You will need to review the `Storage.xml` file, prior to an initial install, to update the default values to custom values (for example, TableSpace Name). The `OraDBI.jar` can be executed by a non-schema owner in order to upgrade the database. The Initial Install still needs to be done by the schema owner.

If you decide to allocate some tables or indexes outside of the default tablespace, change the tablespace name from the default value to a custom value in the `Storage.xml` file.

For instance, if you decide to allocate the `CI_ACCT` table in the `MyTablespace` tablespace, change `Storage.xml` as shown:

```
<CI_ACCT>
  <TABLESPACE>MyTablespace</TABLESPACE>
</CI_ACCT>
```

For optimum storage allocation, database administrators should create multiple tablespaces with extents sized to store different types of tables/indexes. They can then edit the `storage.xml` file before install process, to spread tables and indexes across these tablespaces. Tables and indexes can be created in parallel by editing degree of parallelism. Tablespace, storage options, secure file options, Advanced Compression, and parallel information are used only for new objects. Therefore, for initial installs, information for each object should be reviewed. Be careful while editing this file. Make sure that tablespace names being used exist in the database. Do not change the basic format of this file.

Note: Prior to the installation of the database schema for the product, please ensure that the Database Management System software is installed according to your site standards and the installation guide provided by the database vendor. Also please make sure that you have necessary licenses to use some of the advanced database features, such as Advanced Compression.

2.3 Oracle Database Installation

This section describes how to install Oracle Database for Oracle Revenue Management and Billing Version 2.9.0.0.0. It contains the following topics:

- [Initial Install, or Installing Version 2.9.0.0.0 for the First Time](#)
- [Demo Install](#)
- [Configuring Security](#)
- [Populating Language Data](#)
- [Installing Service Packs and Patches](#)

Note: The installation tools outlined in this guide run on Windows and Linux only. Please refer to the [Supported Database Platforms](#) section for more information on supported platforms.

2.3.1 Initial Install, or Installing Version 2.9.0.0.0 for the First Time

This section describes how to install the database components of Oracle Revenue Management and Billing. It includes the following topics:

- [Copying and Decompressing Install Media](#)
- [Creating the Database](#)
- [Setting the MAX_STRING_SIZE Parameter to EXTENDED](#)
- [Installing Oracle Utilities Application Framework](#)
- [Installing Oracle Revenue Management and Billing](#)
- [Post Installation Tasks](#)

Note: You must have a supported version of the Java Development Kit installed on the Windows and Linux desktop where you stage and run the database installation package. Refer to *Oracle Revenue Management and Billing Installation Guide* for more information.

Before you begin with the installation, ensure that you have Oracle Database Client installed on the Windows desktop.

2.3.1.1 Copying and Decompressing Install Media

To download and decompress the ORMB Database package:

1. Download the **Oracle Revenue Management and Billing V2.9.0.0.0 Oracle Database** package from the **Oracle Revenue Management and Billing V2.9.0.0.0** media pack which is available on [Oracle Software Delivery Cloud](#). A zip file is downloaded.
2. Create a temporary folder named `TEMPDIR` on your local machine.
3. Unzip the downloaded file in the `TEMPDIR` folder. The contents include the following sub-folders:
 - FW
 - RMB

2.3.1.2 Creating the Database

Note: You must have Oracle Database Server 18c (12.2.0.2) SP1+ and 19c installed on your machine in order to create the database.

The Linux and Windows database creation utilities create an empty database with AL32UTF8 character set and at least one tablespace for storing the application objects before running the installation. The default name of the application tablespace is `CISTS_01`.

Creating the Database on Linux

Create the database using the Database Configuration Assistant (DBCA). Refer to the *Master Note: Overview of Database Configuration Assistant (DBCA) (Doc ID: 1488770.1)* article on [My Oracle Support](#) for more information. Ensure that you set the database character set to AL32UTF8.

For more information on how to create the database, refer to the [Creating the Database](#) section.

Creating the Database on Windows

The files for creating the database are located in the `DatabaseCreation/Windows` folder of the media pack.

You should be logged in as a user who is a member of the local `ORA_DBA` group on that server. The `ORA_DBA` group should have “administrator” privileges assigned to it.

Create the database using the Database Configuration Assistant (DBCA). Refer to the *Master Note: Overview of Database Configuration Assistant (DBCA) (Doc ID: 1488770.1)* article on [My Oracle Support](#) for more information. Ensure that you set the database character set to AL32UTF8.

For more information on how to create the database, refer to the [Creating the Database](#) section.

2.3.1.3 Setting the `MAX_STRING_SIZE` Parameter to `EXTENDED`

If you have created a non-container database, you need to perform the following steps to set the `MAX_STRING_SIZE` parameter to `EXTENDED`:

1. Set the `ORACLE_HOME` and `ORACLE_SID` environment variables.
2. Shutdown the target database using the following command:

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

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

```
alter system set max_string_size=extended scope=both;
```
5. Execute the `utl32k.sql` file using the following command:

```
@?/rdbms/admin/utl32k.sql;
```
6. Restart the database in the Normal mode using the following commands:

```
shutdown immediate  
startup
```

However, if you have created a container database, you need to perform the following steps to set the `MAX_STRING_SIZE` parameter to `EXTENDED`:

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

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

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

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

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

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

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

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

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

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

6. Restart the database in the Normal mode using the following commands:

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

2.3.1.4 Installing Oracle Utilities Application Framework

Please note that before this step the database creation should have been completed. Also the storage.xml file is reviewed and edited as per requirements. You need to install Oracle Utilities Application Framework Version 4.4.0.0.0 prior to Oracle Revenue Management and Billing Version 2.9.0.0.0. The files for Oracle Utilities Application Framework installation are located in the `FW\FW44000` folder. The installation process will prompt you to provide the following information:

- The target database name in which the product is to be installed.
- A database user that will own the application schema (for example, `CISADM`).
- A database user that has read-write (select, update, insert, and delete) privileges to the objects in the application schema (for example, `CISUSER`). The application will access the database as this user.
- A database user with read-only privileges to the objects in the application schema. (For example, `CISREAD`).
- A database role that has read-write (select, update, insert, and delete) privileges to the objects in the application schema. The application will access the database as this user. (For example, `CIS_USER`).
- A database role with read-only privileges to the objects in the application schema (for example, `CIS_READ`).
- Location of the jar files. (The Jar files are bundled with the database package.)
- Java Home (for example, `C:\Java\jdk1.8.0_201`)

To install Oracle Utilities Application Framework (OUAF), you need to install the following in the specified order:

1. [Oracle Utilities Application Framework Version 4.4.0.0.0](#)
2. [Rollup Pack for Oracle Utilities Application Framework Version 4.4.0.0.0](#)

Installing Oracle Utilities Application Framework Version 4.4.0.0.0

To install the schema for Oracle Utilities Application Framework Version 4.4.0.0.0, you should have the following:

- Java Development Kit 8.0
- Oracle Database
- Schema such as CISADM should exist in the database

To install Oracle Utilities Application Framework (OUAF) Version 4.4.0.0.0:

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

Windows:

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

AIX, Linux:

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

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

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

AIX, Linux:

```
export JAR_PATH=TEMPDIR/FW/FW44000/jarfiles
```

Note:

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

The `TEMPDIR` folder is the location where you have extracted the contents of the **Oracle Revenue Management and Billing V2.9.0.0.0 Oracle Database** package.

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

Windows:

```
SET CLASS_PATH=TEMPDIR\FW\FW44000\jarfiles\*
```

AIX, Linux:

```
export CLASS_PATH=${JAR_PATH}/commons-cli-1.3.1.jar:${JAR_PATH}/commons-codec-1.9.jar:${JAR_PATH}/commons-collections-3.2.2.jar:${JAR_PATH}/log4j-api-2.11.0.jar:${JAR_PATH}/log4j-core-2.11.0.jar:${JAR_PATH}/ojdbc8-12.2.0.1.jar:${JAR_PATH}/oradbi.jar:${JAR_PATH}/spl-shared-4.4.0.0.0.jar
```

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

Windows:

```
cd TEMPDIR\FW\FW44000\Install-Upgrade
```

AIX, Linux:

```
cd TEMPDIR/FW/FW44000/Install-Upgrade
```

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

Windows:

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

AIX, Linux:

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

A message appears indicating that the process is completed successfully.

Note: While executing the OraDBI utility, you may receive the following message in the display output or logs. This error can be safely ignored and the process should proceed to completion.

```
-          2016-05-23          16:31:38,315          [main]          ERROR
(common.cryptography.KeyStoreWrapperFactory)          The          keystore          file
'<filename>' does not exist....
...
This file is either provided by the com.oracle.ouaf.system.keystore.file property or
expected to exist at the default file location null Attempting to use the legacy cryptography.
- 2016-05-23 16:31:38,566 [main] INFO (oem.install.OraDBI)
```

On installing Oracle Utilities Application Framework Version 4.4.0.0.0, various objects are created in the database under CISADM schema. The following table lists the number of objects that are created when you install framework:

Object Type	Count
INDEX	858
SEQUENCE	4
TABLE	593
TRIGGER	1
VIEW	9

Note: You should use the above object count for verification only when you are doing fresh installation on the database server and not when you are upgrading the database.

Ideally, the Oracle Utilities Application Framework Version 4.4.0.0.0 installation should approximately finish in 5 minutes. The execution time can vary to great extent depending on network speed between local machine and server location.

After setting up roles and users, the utility continues upgrading schema and system data definitions. If an error occurs while executing an SQL or another utility, it logs and displays the error message and allows you to re-execute the current step.

Note:

OraDBI performs the following tasks:

>> Interacts with the user to collect information about the name of Oracle account that will own the application schema (for example, `CISADM`), password of this account, and the name of the Oracle account that the application user will use (for example, `CISUSER`), and the name of the Oracle account that will be assigned read-only privileges to the application schema (for example, `CISREAD`).

>> Verifies whether tablespace names already exist in the `Storage.xml` file (if not, the process will abort).

>> Installs the schema, installs the system data, and configures security.

>> Maintains upgrade log tables in the database.

>> Updates release ID when the upgrade is completed successfully.

>> If an error occurs while executing a SQL script or another utility, it logs and displays the error message and allows you to re-execute the current step. Log files `OraDBI###.log` are created in the same folder as OraDBI and contains all the SQL commands executed against the database along with the results. The log files are incremental so that the results are never overwritten. If warning messages are generated during the upgrade, OraDBI prompts the user at the end of the process. Users should check the log files to verify the warning messages.

>> Warning messages are only alerts and do not necessary mean a problem exists.

>> Stores the Schema owner and password in the feature configuration table. The password is stored in encrypted format.

>> OraDBI can be executed by a non-schema owner.

Installing Rollup Pack for Oracle Utilities Application Framework Version 4.4.0.0

You can install the rollup pack for Oracle Utilities Application Framework Version 4.4.0.0 from a Windows machine or Linux Standalone server. To install the rollup pack for Oracle Utilities Application Framework Version 4.4.0.0:

1. Do the following:

If you are using the following application server...	Then...
IBM WebSphere	<ol style="list-style-type: none"> a. Download the WAS CHANGES FOR FW 4.4.0.0 WITH FW PRE-REQUIRES patch (Patch Number: 30779997) from My Oracle Support. A zip file is downloaded. b. Unzip the downloaded file in your local folder. The contents include one folder named <code>WAS_FW44000</code>. c. Change to the <code>WAS_FW44000</code> folder. It contains three files:

If you are using the following application server...	Then...
	<ul style="list-style-type: none"> • Files.zip • ORMB-V29000-FW-PREREQ-MultiPlatform.jar • README.txt <p>d. Copy the ORMB-V29000-FW-PREREQ-MultiPlatform.jar file from the WAS_FW44000 folder to the TEMPDIR folder.</p>
Oracle WebLogic	<p>a. Download the Oracle Utilities Application Framework V4.4.0.0.0 Single Fix Prerequisite Rollup for RMB V2.9.0.0.0 package from the Oracle Revenue Management and Billing V2.9.0.0.0 media pack which is available on Oracle Software Delivery Cloud. A zip file is downloaded.</p> <p>b. Unzip the downloaded file in the TEMPDIR folder. The contents include the ORMB-V29000-FW-PREREQ-MultiPlatform.jar file.</p>

- Decompress the JAR file using the following command:

```
cd TEMPDIR
jar -xvf ORMB-V29000-FW-PREREQ-MultiPlatform.jar
```

A sub-folder named FW-V4.4.0.0.0-Rollup is extracted. It contains the following two sub-folders:

- Application
- Database

- Create a folder named dbpatch_tools in the TEMPDIR folder.
- Copy the db_patch_standalone.jar file to the dbpatch_tools folder.
- Decompress the JAR file using the following command:

Windows:

```
cd TEMPDIR\dbpatch_tools
jar -xvf db_patch_standalone.jar
```

AIX, Linux:

```
cd TEMPDIR/dbpatch_tools
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

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

Windows:

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

AIX, Linux:

```
export TOOLSBIN=/TEMPDIR/dbpatch_tools/bin
```

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

Windows:

```
cd TEMPDIR\FW-V4.4.0.0.0-Rollup\Database
```

AIX, Linux:

```
cd TEMPDIR/FW-V4.4.0.0.0-Rollup/Database
```

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

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.

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:DB_PORT:DB_SID>

Note: If you have changed the database user password, you will not be able to install the rollup pack for Oracle Utilities Application Framework Version 4.4.0.0.0. You will have to first change the database user password. For more information on how to change the database user password, refer to [Appendix C: Changing the DB User Password](#).

9. Enter the required parameter value. The following message appears in the command line:

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

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

On installing the rollup pack for Oracle Utilities Application Framework Version 4.4.0.0.0, various objects are created in the database under CISADM schema. The following table lists the number of objects that are created when you install the framework rollup pack:

Object Type	Count
INDEX	858
SEQUENCE	4
TABLE	593
TRIGGER	1
VIEW	9

Note: You should use the above object count for verification only when you are doing fresh installation on the database server and not when you are upgrading the database.

Ideally, the framework rollup pack installation should approximately finish in 5 minutes. The execution time can vary to great extent depending on network speed between local machine and server location.

2.3.1.5 Installing Oracle Revenue Management and Billing

To install Oracle Revenue Management and Billing (ORMB) Version 2.9.0.0.0:

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

Windows:

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

AIX, Linux:

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

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

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

AIX, Linux:

```
export JAR_PATH=TEMPDIR/RMB/jarfiles
```

Note:

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

The `TEMPDIR` folder is the location where you have extracted the contents of the **Oracle Revenue Management and Billing V2.9.0.0.0 Oracle Database** package.

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

Windows:

```
SET CLASS_PATH=TEMPDIR\RMB\jarfiles\*
```

AIX, Linux:

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

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

Windows:

```
cd TEMPDIR\RMB\Upgrade\Oracle\Install-Upgrade
```

AIX, Linux:

```
cd TEMPDIR/RMB/Upgrade/Oracle/Install-Upgrade
```

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

Windows:

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

AIX, Linux:

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

A message appears indicating that the process is completed successfully.

On installing Oracle Revenue Management and Billing Version 2.9.0.0.0, various objects are created in the database under CISADM schema. The following table lists the number of objects that are created when you install ORMB:

Object Type	Count
FUNCTION	54
INDEX	3749
PACKAGE	4
PACKAGE BODY	4
PROCEDURE	2
SEQUENCE	39
TABLE	2357
TRIGGER	1

Object Type	Count
TYPE	12
TYPE BODY	1
VIEW	175

Note: You should use the above object count for verification only when you are doing fresh installation on the database server and not when you are upgrading the database.

Ideally, the Oracle Revenue Management and Billing Version 2.9.0.0.0 installation should approximately finish in 15 minutes. The execution time can vary to great extent depending on network speed between local machine and server location.

2.3.1.6 Post Installation Tasks

Once you install the Oracle Revenue Management and Billing Version 2.9.0.0.0 database, you need to do the following:

1. [Apply the 31066976 Patch](#)
2. [Apply the 31074070 Patch](#)
3. [Apply the 31122862 Patch](#)
4. [Apply the 31130102 Patch](#)
5. [Apply the 31190091 Patch](#)
6. [Apply the 31172781 Patch](#)
7. [Apply the 31222633 Patch](#)
8. [Apply the 31248602 Patch](#)
9. [Apply the 31313821 Patch](#)
10. [Apply the 31314417 Patch](#)
11. [Enable USER_LOCK Package](#)
12. [Grant Permissions to the DBMS_LOCK Package and Recompile Database Objects](#)
13. [Generate Database Statistics](#)

Note:

The above patch list is not comprehensive. For the complete list of patches that you need to apply on the database, refer to the *ORMB V29000 Patch Guide (Doc ID: 2704165.1)* article on [My Oracle Support](#).

Alternatively, instead of individually applying the above listed patches, you can download and install the rollup packs, if available, to apply a set of patches at once. For more information about the rollup packs, refer to [Appendix F: ORMB V2.9.0.0.0 Rollup Packs](#).

Apply the 31066976 Patch

Once you install Oracle Revenue Management and Billing Version 2.9.0.0.0, you need to apply the MANDATORY PATCH 1 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31066976). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 1 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 1 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31066976) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31066976_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31066976_MultiPlatform` folder.
4. Change to the `V2.9.0.0.0-31066976_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_1>/V2.9.0.0.0-31066976_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_1>\V2.9.0.0.0-31066976_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_1>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31066976.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

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

Windows:

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

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_2>` folder. The contents include utility files and a folder named `31066976`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31074070 Patch

Once you apply the MANDATORY PATCH 1 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 2 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31074070). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 2 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 2 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31074070) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31074070_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31074070_MultiPlatform` folder.
4. Change to the `V2.9.0.0.0-31074070_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_3>/V2.9.0.0.0-31074070_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_3>\V2.9.0.0.0-31074070_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_3>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31074070.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

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

Windows:

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

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_4>` folder. The contents include utility files and a folder named `31074070`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31122862 Patch

Once you apply the MANDATORY PATCH 2 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 3 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31122862). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 3 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 3 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31122862) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31122862_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31122862_MultiPlatform` folder.
4. Change to the `V2.9.0.0.0-31122862_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_5>/V2.9.0.0.0-31122862_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_5>\V2.9.0.0.0-31122862_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.V2.9.0.0.0-31122862.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

6. Unzip the `CDXPatch` 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 utility files and a folder named `31122862`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31130102 Patch

Once you apply the MANDATORY PATCH 3 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 4 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31130102). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 4 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 4 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31130102) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31130102_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31130102_MultiPlatform` folder.
4. Change to the `V2.9.0.0.0-31130102_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_7>/V2.9.0.0.0-31130102_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_7>\V2.9.0.0.0-31130102_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.V2.9.0.0.0-31130102.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

```
unzip CDXPatch.zip -d <PATH>/<DESTINATION_FOLDER_8>
```

Windows:

```
unzip CDXPatch.zip -d <PATH>\<DESTINATION_FOLDER_8>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_8>` folder. The contents include utility files and a folder named `31130102`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31190091 Patch

Once you apply the MANDATORY PATCH 4 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 5 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31190091). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 5 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 5 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31190091) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31190091_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31190091_MultiPlatform` folder.
4. Change to the `V2.9.0.0.0-31190091_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_9>/V2.9.0.0.0-31190091_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_9>\V2.9.0.0.0-31190091_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_9>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31190091.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

```
unzip CDXPatch.zip -d <PATH>/<DESTINATION_FOLDER_10>
```

Windows:

```
unzip CDXPatch.zip -d <PATH>\<DESTINATION_FOLDER_10>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_10>` folder. The contents include utility files and a folder named `31190091`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31172781 Patch

Once you apply the MANDATORY PATCH 5 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 6 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31172781). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 6 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 6 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31172781) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31172781_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31172781_MultiPlatform` folder.
4. Change to the `V2.9.0.0.0-31172781_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_11>/V2.9.0.0.0-31172781_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_11>\V2.9.0.0.0-31172781_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_11>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31172781.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

```
unzip CDXPatch.zip -d <PATH>/<DESTINATION_FOLDER_12>
```

Windows:

```
unzip CDXPatch.zip -d <PATH>\<DESTINATION_FOLDER_12>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_12>` folder. The contents include utility files and a folder named `31172781`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31222633 Patch

Once you apply the MANDATORY PATCH 6 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 7 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31222633). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 7 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 7 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31222633) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31222633_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31222633_MultiPlatform` folder.
4. Change to the `V2.9.0.0.0-31222633_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_13>/V2.9.0.0.0-31222633_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_13>\V2.9.0.0.0-31222633_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_13>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31222633.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

```
unzip CDXPatch.zip -d <PATH>/<DESTINATION_FOLDER_14>
```

Windows:

```
unzip CDXPatch.zip -d <PATH>\<DESTINATION_FOLDER_14>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_14>` folder. The contents include utility files and a folder named `31222633`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31248602 Patch

Once you apply the MANDATORY PATCH 7 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 8 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31248602). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 8 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 8 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31248602) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31248602_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31248602_MultiPlatform` folder.
4. Change to the `V2.9.0.0.0-31248602_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_15>/V2.9.0.0.0-31248602_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_15>\V2.9.0.0.0-31248602_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_15>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31248602.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

```
unzip CDXPatch.zip -d <PATH>/<DESTINATION_FOLDER_16>
```

Windows:

```
unzip CDXPatch.zip -d <PATH>\<DESTINATION_FOLDER_16>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_16>` folder. The contents include utility files and a folder named `31248602`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31313821 Patch

Once you apply the MANDATORY PATCH 8 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 9 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31313821). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 9 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 9 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31313821) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31313821_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31313821_MultiPlatform` folder.
4. Change to the `V2.9.0.0.0-31313821_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_17>/V2.9.0.0.0-31313821_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_17>\V2.9.0.0.0-31313821_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_17>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31313821.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

```
unzip CDXPatch.zip -d <PATH>/<DESTINATION_FOLDER_18>
```

Windows:

```
unzip CDXPatch.zip -d <PATH>\<DESTINATION_FOLDER_18>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_18>` folder. The contents include utility files and a folder named `31313821`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31314417 Patch

Once you apply the MANDATORY PATCH 9 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 10 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31314417). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 10 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 10 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31314417) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31314417_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31314417_MultiPlatform` folder.
4. Change to the `V2.9.0.0.0-31314417_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_19>/V2.9.0.0.0-31314417_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_19>\V2.9.0.0.0-31314417_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_19>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31314417.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

```
unzip CDXPatch.zip -d <PATH>/<DESTINATION_FOLDER_20>
```

Windows:

```
unzip CDXPatch.zip -d <PATH>\<DESTINATION_FOLDER_20>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_20>` folder. The contents include utility files and a folder named `31314417`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Enable USER_LOCK Package

To enable inbound web services, you must grant permissions to the `USER_LOCK` package. This is a one-time activity. To grant permissions to the `USER_LOCK` package:

1. Login as `SYS` user.
2. On SQL prompt, execute the following SQL:

```
@?/rdbms/admin/userlock.sql
```

3. Grant permission using the following SQL command:

```
grant execute on USER_LOCK to public;
```

Note: You can also grant permission to a specific database user (for example, CISADM or CISUSER) instead of granting permissions to all database users.

Grant Permissions to the DBMS_LOCK Package and Recompile Database Objects

To grant permissions to the DBMS_LOCK package, execute the following commands:

AIX, Linux:

```
export ORACLE_SID=[DB_NAME]
sqlplus /nolog
conn sys as sysdba
```

Note: On executing the above command, you will be prompted to enter the SYS user password.

```
grant EXECUTE, DEBUG on DBMS_LOCK to <DB_USER/[CISADM]>;
```

Note:

These commands should be executed using Oracle SQL Developer.

If you have created the database using any user other than CISADM, you need to specify the respective user name in the above grant statement.

After executing the above `grant` statement, recompile the invalid objects, if any, in the database. You can recompile all invalid objects at once using the following commands:

```
export ORACLE_SID=[DB_NAME]
sqlplus /nolog
conn sys as sysdba
SQL> @?/rdbms/admin/utlsp.sql;
```

Windows:

```
set ORACLE_SID=[DB_NAME]
sqlplus /nolog
conn sys as sysdba
```

Note: On executing the above command, you will be prompted to enter the SYS user password.

```
grant EXECUTE, DEBUG on DBMS_LOCK to <DB_USER/[CISADM]>;
```

Note:

These commands should be executed using Oracle SQL Developer.

If you have created the database using any user other than CISADM, you need to specify the respective user name in the above alter and grant statements.

After executing the above `grant` statement, recompile the invalid objects, if any, in the database. You can recompile all invalid objects at once using the following commands:

```
export ORACLE_SID=[DB_NAME]
```

```
sqlplus /nolog
conn sys as sysdba
SQL> @?/rdbms/admin/utlrp.sql;
```

Generate Database Statistics

During the installation process, new database objects may be added to the target database. Before you use the target database, we recommend you to gather statistics for the database objects. You can gather schema level statistics using the following statement:

```
BEGIN
DBMS_STATS.GATHER_SCHEMA_STATS(OWNNAME=>'CISADM', METHOD_OPT=>'FOR ALL
COLUMNS SIZE AUTO', GRANULARITY=>'ALL', CASCADE=>TRUE, DEGREE=>16);
END;
```

You can also gather the statistics for individual tables using the following statement:

```
BEGIN
DBMS_STATS.GATHER_TABLE_STATS(OWNNAME=>'CISADM',
TABNAME=>'<Table_Name>', GRANULARITY=>'ALL', CASCADE=>TRUE,
METHOD_OPT=>'FOR ALL COLUMNS SIZE AUTO', DEGREE=>32);
END;
```

We strongly recommend you to schedule batch jobs to gather the schema level statistics on the daily basis in the non-peak hours. Please note that the statistics should not be gathered while the application batches are running because this will degrade the application batch performance.

2.3.2 Demo Install

This section describes how to install the demo database components of Oracle Revenue Management and Billing. It includes the following topics:

- [Copying and Decompressing Demo Dump Patch](#)
- [Creating the Database](#)
- [Setting the MAX_STRING_SIZE Parameter to EXTENDED](#)
- [Importing the Demo Dump File](#)
- [Post Demo Database Creation Tasks](#)

2.3.2.1 Copying and Decompressing Demo Dump Patch

To download and decompress the Demo Dump patch:

1. Download the **DEMO DUMP FOR ORMB VERSION 2.9.0.0.0** patch (Patch Number: 31355500) from [My Oracle Support](#). A zip file is downloaded.
2. Create a temporary directory named `TEMPDIR` on your local machine.
3. Unzip the downloaded file in the `TEMPDIR` directory. The contents include the `Demo_dump` folder. There are two DMP files in the `Demo_dump` folder – `GTB29000_demodump.dmp` and `HC29000_demodump.dmp`.

2.3.2.2 Creating the Database

Note: You must have Oracle Database Server 18c (12.2.0.2) SP1+ and 19c installed on your machine in order to create the database.

Creating the Database on UNIX

Create the database using the Database Configuration Assistant (DBCA). Refer to the *Master Note: Overview of Database Configuration Assistant (DBCA) (Doc ID: 1488770.1)* article on [My Oracle Support](#) for more information. Ensure that you set the database character set to AL32UTF8.

For more information on how to create the database, refer to the [Creating the Database](#) section.

Creating the Database on Windows

The files for creating the database are located in the `DatabaseCreation/Windows` directory of the media pack.

You should be logged in as a user who is a member of the local ORA_DBA group on that server. The ORA_DBA group should have “administrator” privileges assigned to it.

Create the database using the Database Configuration Assistant (DBCA). Refer to the *Master Note: Overview of Database Configuration Assistant (DBCA) (Doc ID: 1488770.1)* article on [My Oracle Support](#) for more information. Ensure that you set the database character set to AL32UTF8.

For more information on how to create the database, refer to the [Creating the Database](#) section.

2.3.2.3 Setting the MAX_STRING_SIZE Parameter to EXTENDED

If you have created a non-container database, you need to perform the following steps to set the MAX_STRING_SIZE parameter to EXTENDED:

1. Set the ORACLE_HOME and ORACLE_SID environment variables.
2. Shutdown the target database using the following command:

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

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

```
alter system set max_string_size=extended scope=both;
```
5. Execute the `utl32k.sql` file using the following command:

```
@?/rdbms/admin/utl32k.sql;
```
6. Restart the database in the Normal mode using the following commands:

```
shutdown immediate  
startup
```

However, if you have created a container database, you need to perform the following steps to set the `MAX_STRING_SIZE` parameter to `EXTENDED`:

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

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

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


```
alter system set max_string_size=extended scope=spfile;
```
3. Start all pluggable databases in the Upgrade mode using the following command:


```
shutdown immediate
startup upgrade
alter pluggable database all open upgrade;
exit
```
4. Create the `utl32k_cdb_pdb_output` folder to store the log files using the following command:


```
mkdir /scratch/mydir/utl32k_cdb_pdb_output
```
5. Execute the `utl32k.sql` from the `catcon.pl` file for all pluggable databases using the following command:


```
cd $ORACLE_HOME/rdbms/admin
$ORACLE_HOME/perl/bin/perl $ORACLE_HOME/rdbms/admin/catcon.pl -u
SYS -d $ORACLE_HOME/rdbms/admin -
l '/scratch/mydir/utl32k_cdb_pdb_output' -b
utl32k_cdb_pdb_output utl32k.sql
```
6. Restart the database in the Normal mode using the following commands:


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

2.3.2.4 Importing the Demo Dump File

Once you create the database, you can import the demo dump file. To import the demo dump file:

1. Create a database directory named `data_pump_dir` (if not available) and then copy the `GTB29000_demodump.dmp` or `HC29000_demodump.dmp` file from the `TEMPDIR\Demo_dump` folder to the `data_pump_dir` folder.

Note: If you belong from the financial services industry, use the `GTB29000_demodump.dmp` file. And, if you belong from the insurance industry, use the `HC29000_demodump.dmp` file.

2. Set the `ORACLE_SID` and `ORACLE_HOME` environment variables.
3. If the target schema is `CISADM`, then use the following command to import demo dump:


```
impdp system/<pwd>@<dbname> NOLOGFILE=N DIRECTORY=DATA_PUMP_DIR
DUMPFILE=<dumpFilename>.dmp SCHEMAS=CISADM
```
4. If the target schema is other than `CISADM` (for example, `TRGSCHM`), then use the following command to import demo dump:


```
impdp system/<pwd>@<dbname> NOLOGFILE=N DIRECTORY=DATA_PUMP_DIR
DUMPFILE=<dumpFilename>.dmp REMAP_SCHEMA=CISADM:TRGSCHM
```

2.3.2.5 Post Demo Database Creation Tasks

Once you import the demo dump file, you need to do the following:

1. [Apply the 31066976 Patch](#)
2. [Apply the 31074070 Patch](#)
3. [Apply the 31122862 Patch](#)
4. [Apply the 31130102 Patch](#)
5. [Apply the 31190091 Patch](#)
6. [Apply the 31172781 Patch](#)
7. [Apply the 31222633 Patch](#)
8. [Apply the 31248602 Patch](#)
9. [Apply the 31313821 Patch](#)
10. [Apply the 31314417 Patch](#)
11. [Enable USER_LOCK Package](#)
12. [Grant Permissions to the DBMS_LOCK Package and Recompile Database Objects](#)
13. [Generate Database Statistics](#)

Note:

The above patch list is not comprehensive. For the complete list of patches that you need to apply on the database, refer to the *ORMB V29000 Patch Guide (Doc ID: 2704165.1)* article on [My Oracle Support](#).

Alternatively, instead of individually applying the above listed patches, you can download and install the rollup packs, if available, to apply a set of patches at once. For more information about the rollup packs, refer to [Appendix F: ORMB V2.9.0.0.0 Rollup Packs](#).

Apply the 31066976 Patch

Once you install Oracle Revenue Management and Billing Version 2.9.0.0.0, you need to apply the MANDATORY PATCH 1 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31066976). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 1 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 1 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31066976) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31066976_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31066976_MultiPlatform` folder.

4. Change to the `V2.9.0.0.0-31066976_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_1>/V2.9.0.0.0-31066976_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_1>\V2.9.0.0.0-31066976_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_1>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31066976.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

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

Windows:

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

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_2>` folder. The contents include utility files and a folder named `31066976`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31074070 Patch

Once you apply the MANDATORY PATCH 1 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 2 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31074070). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 2 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 2 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31074070) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31074070_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31074070_MultiPlatform` folder.

4. Change to the `V2.9.0.0.0-31074070_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_3>/V2.9.0.0.0-31074070_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_3>\V2.9.0.0.0-31074070_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_3>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31074070.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

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

Windows:

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

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_4>` folder. The contents include utility files and a folder named `31074070`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31122862 Patch

Once you apply the MANDATORY PATCH 2 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 3 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31122862). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 3 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 3 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31122862) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31122862_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31122862_MultiPlatform` folder.

4. Change to the `V2.9.0.0.0-31122862_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_5>/V2.9.0.0.0-31122862_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_5>\V2.9.0.0.0-31122862_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.V2.9.0.0.0-31122862.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

6. Unzip the `CDXPatch` 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 utility files and a folder named `31122862`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31130102 Patch

Once you apply the MANDATORY PATCH 3 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 4 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31130102). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 4 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 4 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31130102) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31130102_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31130102_MultiPlatform` folder.

4. Change to the `V2.9.0.0.0-31130102_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_7>/V2.9.0.0.0-31130102_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_7>\V2.9.0.0.0-31130102_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.V2.9.0.0.0-31130102.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

```
unzip CDXPatch.zip -d <PATH>/<DESTINATION_FOLDER_8>
```

Windows:

```
unzip CDXPatch.zip -d <PATH>\<DESTINATION_FOLDER_8>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_8>` folder. The contents include utility files and a folder named `31130102`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31190091 Patch

Once you apply the MANDATORY PATCH 4 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 5 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31190091). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 5 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 5 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31190091) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31190091_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31190091_MultiPlatform` folder.

4. Change to the `V2.9.0.0.0-31190091_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_9>/V2.9.0.0.0-31190091_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_9>\V2.9.0.0.0-31190091_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_9>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31190091.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

```
unzip CDXPatch.zip -d <PATH>/<DESTINATION_FOLDER_10>
```

Windows:

```
unzip CDXPatch.zip -d <PATH>\<DESTINATION_FOLDER_10>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_10>` folder. The contents include utility files and a folder named `31190091`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31172781 Patch

Once you apply the MANDATORY PATCH 5 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 6 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31172781). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 6 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 6 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31172781) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31172781_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31172781_MultiPlatform` folder.

4. Change to the `V2.9.0.0.0-31172781_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_11>/V2.9.0.0.0-31172781_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_11>\V2.9.0.0.0-31172781_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_11>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31172781.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

```
unzip CDXPatch.zip -d <PATH>/<DESTINATION_FOLDER_12>
```

Windows:

```
unzip CDXPatch.zip -d <PATH>\<DESTINATION_FOLDER_12>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_12>` folder. The contents include utility files and a folder named `31172781`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31222633 Patch

Once you apply the MANDATORY PATCH 6 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 7 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31222633). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 7 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 7 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31222633) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31222633_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31222633_MultiPlatform` folder.

4. Change to the `V2.9.0.0.0-31222633_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_13>/V2.9.0.0.0-31222633_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_13>\V2.9.0.0.0-31222633_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_13>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31222633.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

```
unzip CDXPatch.zip -d <PATH>/<DESTINATION_FOLDER_14>
```

Windows:

```
unzip CDXPatch.zip -d <PATH>\<DESTINATION_FOLDER_14>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_14>` folder. The contents include utility files and a folder named `31222633`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31248602 Patch

Once you apply the MANDATORY PATCH 7 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 8 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31248602). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 8 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 8 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31248602) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31248602_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31248602_MultiPlatform` folder.

4. Change to the `V2.9.0.0.0-31248602_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_15>/V2.9.0.0.0-31248602_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_15>\V2.9.0.0.0-31248602_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_15>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31248602.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

```
unzip CDXPatch.zip -d <PATH>/<DESTINATION_FOLDER_16>
```

Windows:

```
unzip CDXPatch.zip -d <PATH>\<DESTINATION_FOLDER_16>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_16>` folder. The contents include utility files and a folder named `31248602`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31313821 Patch

Once you apply the MANDATORY PATCH 8 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 9 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31313821). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 9 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 9 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31313821) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31313821_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31313821_MultiPlatform` folder.

4. Change to the `V2.9.0.0.0-31313821_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_17>/V2.9.0.0.0-31313821_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_17>\V2.9.0.0.0-31313821_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_17>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31313821.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

```
unzip CDXPatch.zip -d <PATH>/<DESTINATION_FOLDER_18>
```

Windows:

```
unzip CDXPatch.zip -d <PATH>\<DESTINATION_FOLDER_18>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_18>` folder. The contents include utility files and a folder named `31313821`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Apply the 31314417 Patch

Once you apply the MANDATORY PATCH 9 FOR ORMB VERSION 2.9.0.0.0 patch, you need to apply the MANDATORY PATCH 10 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31314417). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 10 FOR ORMB VERSION 2.9.0.0.0 patch:

1. Download the MANDATORY PATCH 10 FOR ORMB VERSION 2.9.0.0.0 patch (Patch Number: 31314417) from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include three files - `README.txt`, `MultiPlatform.zip`, and `Bug_31314417_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.9.0.0.0-31314417_MultiPlatform` folder.

4. Change to the `V2.9.0.0.0-31314417_MultiPlatform` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_19>/V2.9.0.0.0-31314417_MultiPlatform
```

Windows:

```
cd <DESTINATION_FOLDER_19>\V2.9.0.0.0-31314417_MultiPlatform
```

Note: The `<DESTINATION_FOLDER_19>` folder is the location where you have extracted the contents of the `MultiPlatform.zip` file.

The contents include a file named `CCB.V2.9.0.0.0-31314417.jar` and a folder named `database`.

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

AIX, Linux:

```
cd database/ORACLE
```

Windows:

```
cd database\ORACLE
```

The contents include a zip file named `CDXPatch`.

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

AIX, Linux:

```
unzip CDXPatch.zip -d <PATH>/<DESTINATION_FOLDER_20>
```

Windows:

```
unzip CDXPatch.zip -d <PATH>\<DESTINATION_FOLDER_20>
```

The contents of the zip file are extracted in the `<DESTINATION_FOLDER_20>` folder. The contents include utility files and a folder named `31314417`.

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

Enable USER_LOCK Package

To enable inbound web services, you must grant permissions to the `USER_LOCK` package. This is a one-time activity. To grant permissions to the `USER_LOCK` package:

1. Login as `SYS` user.
2. On SQL prompt, execute the following SQL:

```
@?/rdbms/admin/userlock.sql
```
3. Grant permission using the following SQL command:

```
grant execute on USER_LOCK to public;
```

Note: You can also grant permission to a specific database user (for example, `CISADM` or `CISUSER`) instead of granting permissions to all database users.

Grant Permissions to the DBMS_LOCK Package and Recompile Database Objects

To grant permissions to the DBMS_LOCK package, execute the following commands:

UNIX:

```
export ORACLE_SID=[DB_NAME]
sqlplus /nolog
conn sys as sysdba
```

Note: On executing the above command, you will be prompted to enter the **SYS** user password.

```
grant EXECUTE, DEBUG on DBMS_LOCK to <DB_USER/[CISADM]>;
```

Note:

These commands should be executed using Oracle SQL Developer.

If you have created the database using any user other than CISADM, you need to specify the respective user name in the above alter and grant statements.

After executing the above **grant** statement, recompile the invalid objects, if any, in the database. You can recompile all invalid objects at once using the following commands:

```
export ORACLE_SID=[DB_NAME]
sqlplus /nolog
conn sys as sysdba
SQL> @?/rdbms/admin/utlpr.sql;
```

Windows:

```
set ORACLE_SID=[DB_NAME]
sqlplus /nolog
conn sys as sysdba
```

Note: On executing the above command, you will be prompted to enter the **SYS** user password.

```
grant EXECUTE, DEBUG on DBMS_LOCK to <DB_USER/[CISADM]>;
```

Note:

These commands should be executed using Oracle SQL Developer.

If you have created the database using any user other than CISADM, you need to specify the respective user name in the above alter and grant statements.

After executing the above **grant** statement, recompile the invalid objects, if any, in the database. You can recompile all invalid objects at once using the following commands:

```
export ORACLE_SID=[DB_NAME]
sqlplus /nolog
conn sys as sysdba
SQL> @?/rdbms/admin/utlpr.sql;
```

Generate Database Statistics

During the installation process, new database objects may be added to the target database. Before you use the target database, we recommend you to gather statistics for the database objects. You can gather schema level statistics using the following statement:

```
BEGIN
DBMS_STATS.GATHER_SCHEMA_STATS(OWNNAME=>'CISADM', METHOD_OPT=>'FOR ALL
COLUMNS SIZE AUTO', GRANULARITY=>'ALL', CASCADE=>TRUE, DEGREE=>16);
END;
```

You can also gather the statistics for individual tables using the following statement:

```
BEGIN
DBMS_STATS.GATHER_TABLE_STATS(OWNNAME=>'CISADM',
TABNAME=>'<Table_Name>', GRANULARITY=>'ALL', CASCADE=>TRUE,
METHOD_OPT=>'FOR ALL COLUMNS SIZE AUTO', DEGREE=>32);
END;
```

We strongly recommend you to schedule batch jobs to gather the schema level statistics on the daily basis in the non-peak hours. Please note that the statistics should not be gathered while the application batches are running because this will degrade the application batch performance.

2.3.3 Configuring Security

The security configuration utility and scripts are already available in the `TEMPDIR/FW/jarfiles` folder. It can be executed from a Linux or Windows machine.

Points to Note:

- >> The `TEMPDIR` folder is the location where you have extracted the contents of the **Oracle Revenue Management and Billing V2.9.0.0.0 Oracle Database** package.
- >> Database Vault must be disabled before executing the security configuration utility.
- >> Interactive mode for this utility is currently not working.
- >> `-f` parameter is not working and will be deprecated soon.

This utility configures security for the application owner schema objects. `Oragensec`, by default, grants permissions to `CIS_USER` and `CIS_READ` roles. To use site-specific roles, execute `Oragensec` after providing the command line options and specifying the specific roles.

OraGenSec Java Usage

```
java OraGenSec [-a <arg>] [-d <arg>] [-f <arg>] [-h] [-l <arg>] [-o
<arg>] [-p <arg>] [-q] [-r <arg>] [-u <arg>]
```

The following table describes the above command line options:

Command Line Option	Description
<code>-a <arg></code>	Generates security for all objects in the database.
<code>-d <arg></code>	Enables to connect to the database.

Command Line Option	Description
-f <arg>	Generates security for specific objects listed in the input file.
-h	Provides information about the utility.
-l <arg>	Maintains logs in the specified file.
-o <arg>	Generates security for comma-separated list of objects.
-p <arg>	Executes the command in the silent mode.
-r <arg>	Enables you to specify the roles for which you want to grant permissions. For example, CIS_READ, CIS_USER, and so on.
-u <arg>	Enables you to specify a comma-separated list of Oracle users for which you want to create synonyms.

To execute the OraGenSec utility:

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

Windows:

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

AIX, Linux:

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

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

2. Set the `PATH` environment variable using the following command:

Windows:

```
SET PATH=%JAVA_HOME%\bin;%PATH%
```

AIX, Linux:

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

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

Windows:

```
SET CLASS_PATH=TEMPDIR\FW\jarfiles\*
```

AIX, Linux:

```
export CLASS_PATH=TEMPDIR\FW\jarfiles\*
```

Note: The `TEMPDIR` folder is the location where you have extracted the contents of the **Oracle Revenue Management and Billing V2.9.0.0.0 Oracle Database** package.

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

Windows:

```
java -Xmx1500M com.oracle.ouaf.oem.install.OraGenSec -d
<DB_USER>, <DB_PASSWORD>,
jdbc:oracle:thin:@<DB_SERVER_Name>:<DB_PORT>/<DB_SID> -u
<READWRITE_USER>, <READONLY_USER> -r <READWRITE_USER_ROLE>,
<READONLY_USER_ROLE> -a A -p <READWRITE_USER_PASSWORD>,
<READONLY_USER_PASSWORD> -l <LOG_FILE_NAME>
```

AIX, Linux:

```
java -Xmx1500M com.oracle.ouaf.oem.install.OraGenSec -d
<DB_USER>, <DB_PASSWORD>,
jdbc:oracle:thin:@<DB_SERVER_Name>:<DB_PORT>/<DB_SID> -u
<READWRITE_USER>, <READONLY_USER> -r <READWRITE_USER_ROLE>,
<READONLY_USER_ROLE> -a A -p <READWRITE_USER_PASSWORD>,
<READONLY_USER_PASSWORD> -l <LOG_FILE_NAME>
```

2.3.4 Populating Language Data

Please note that this database contains data in the ENGLISH language only. If you use any other supported language, you can run the F1-LANG batch program to duplicate the entries for new language records. For more information on running this batch program, refer to the user documentation section “Defining Background Processes.”

Please contact your Oracle representative to receive information on these packages.

2.3.5 Installing Service Packs and Patches

Periodically, Oracle Utilities releases a service pack of single fixes for its products. A service pack is an update to an existing release that includes solutions to known problems and other product enhancements. A service pack is not a replacement for an installation, but a pack consisting of a collection of changes and additions for it. The service pack may include changes to be applied to the application server, the database, or both. The service pack includes all files necessary for installing the collection of changes, including installation instructions. Please note that from FW 410 SP1 onwards a Service pack consists of a complete database install.

Between services packs, Oracle Utilities releases patches to fix individual bugs. For information on installing patches, refer to the *How To Install Patches On Oracle Utilities Application Framework Based Products (Doc ID: 974985.1)* article on [My Oracle Support](#).

Service packs and patches can be downloaded from [My Oracle Support](#).

3. Database Design

This section provides a standard for database objects such as tables, columns, and indexes, for products using Oracle Utilities Application Framework. This standard helps smooth integration and upgrade processes by ensuring clean database design, promoting communications, and reducing errors. Just as Oracle Utilities Application Framework goes through innovation in every release of the software, it is also inevitable that the product will take advantage of various database vendors' new features in each release. The recommendations in the database installation section include only the ones that have been proved by vigorous QA processes, field tests and benchmarks. This section includes:

- [Database Object Standard](#)
- [Column Data Type and Constraints](#)
- [Standard Columns](#)

3.1 Database Object Standard

This section discusses the rules applied to naming database objects and the attributes that are associated with these objects.

3.1.1 Categories of Data

A table can belong to one of the three categories:

- Control (admin)
- Master
- Transaction

For purposes of physical table space design, metadata and control tables can belong to the same category.

Example of tables in each category:

- Control: SC_USER, CI_ADJ_TYPE, F1_BUS_OBJ
- Master: CI_PER, CI_PREM
- Transaction: F1_FACT, CI_FT

All tables have the category information in their index name. The second letter of the index carries this information. Refer to the [Indexes](#) section for more information.

3.1.2 Naming Standards

The following naming standards must be applied to database objects.

Table

Table names are prefixed with the owner flag value of the product. For customer modification CM must prefix the table name. The length of the table names must be less than or equal to 30 characters. A language table should be named by suffixing _L to the main table. The key table name should be named by suffixing _K to the main table.

It is recommended to start a table name with the 2-3 letter acronym of the subsystem name that the table belongs to. For example, MD stands for metadata subsystem and all metadata table names start with CI_MD.

Some examples are:

- CI_ADJ_TYPE
- CI_ADJ_TYPE_L

A language table stores language sensitive columns such as a description of a code. The primary key of a language table consists of the primary key of the code table plus language code (LANGAGUE_CD).

A key table accompanies a table with a surrogate key column. A key value is stored with the environment id that the key value resides in the key table.

The tables prior to V2.0.0 are prefixed with CI_ or SC_.

Columns

The length of a column name must be less than or equal to 30 characters. For customer modification, CM must be prefixed in the column name. The following conventions apply when you define special types of columns in the database.

- Use the suffix FLG to define a lookup table field. Flag columns must be CHAR(4). Choose lookup field names carefully as these column names are defined in the lookup table (CI_LOOKUP_FIELD) and must be prefixed by the product owner flag value.
- Use the suffix CD to define user-defined codes. User-defined codes are primarily found as the key column of the admin tables.
- Use the suffix ID to define system assigned key columns.
- Use the suffix SW to define Boolean columns. The valid values of the switches are 'Y' or 'N'. The switch columns must be CHAR(1)
- Use the suffix DT to define Date columns.
- Use the suffix DTTM to define Date Time columns.
- Use the suffix TM to define Time columns.

Some examples are:

- ADJ_STATUS_FLG
- CAN_RSN_CD

Indexes

Index names are composed of the following parts:

[OF][application specific prefix][C/M/T]NNN[P/S]n

- OF- Owner Flag. The standard is to use the two characters of the product's owner flag. Note that there may be some older indexes that use only the first character of the owner flag. For client specific implementation of index, use CM for Owner Flag. If implementation creates a CM Index on table-columns for which the base product already provides an Index, then the CM Index will be overridden by the Base Index.
- Application specific prefix could be C, F, T or another letter.
- C/M/T - The second character can be either C or M or T. C is used for control tables

- (Admin tables). M is for the master tables. T is reserved for the transaction tables.
- NNN - A three-digit number that uniquely identifies the table on which the index is defined.
- P/S - P indicates that this index is the primary key index. S is used for indexes other than primary keys.
- n is the index number, unique across all indexes on a given table (0 for primary and 1, 2, etc., for the secondary indexes).

Some examples are:

- F1C066P0
- F1C066S1
- CMT206S2

Warning! Do not use index names in the application as the names can change due to unforeseeable reasons.

Updating Storage.xml

The `storage.xml` file that comes with the product allocates all base tables and indexes to the default tablespace CISTS_01. If you decide to allocate some tables or indexes outside of the default tablespace, then this has to be reflected in the `storage.xml` file by changing the tablespace name from the default value to a custom value, according to the format shown below:

Format:

```
<Table_Name>
  <TABLESPACE>CISTS_01</TABLESPACE>
  <PARALLEL>1</PARALLEL>
  <LOB>
    <Column Name>
      <TABLESPACE>CISTS_01</TABLESPACE>
      <SECUREFILE>Y</SECUREFILE>
      <CHUNK>8192</CHUNK>
      <CACHE>N</CACHE>
      <LOGGING>Y</LOGGING>
      <INROW>Y</INROW>
      <COMPRESS>N</COMPRESS>
    </Column Name>
  </LOB>
</Table_Name>
```

Where Parallel defines the number of threads, that Oracle DB Server will use to access a table or create an index.

We recommend you to create CLOBs and store them in SECUREFILE with medium compression and cache enabled. Note that, by default, medium compression is turned-off and must be enabled only if you have the Advanced Compression license.

For instance, if a DBA decided to allocate table CI_ACCT in a tablespace MyTablespace, then they would have to change the storage.xml as follows:

```
<CI_ACCT>
  <TABLESPACE>MyTablespace</TABLESPACE>
</CI_ACCT>
```

The OraDBI process uses the `storage.xml` file to place the new database objects into defined tablespaces. A tablespace referenced in the `storage.xml` file must exist in the database.

The storage.xml file must be updated before each upgrade and/or new installation as required to allocate the tables and indexes across those tablespaces.

Table name is included as a comment for each of the indexes for clarity.

For an initial install, information for each object should be reviewed by a DBA. For each upgrade, only tablespace information for the objects added in the new release needs to be reviewed by a DBA.

Be careful while editing this file. Make sure that the tablespace names being used exist in the database. Do not change the basic format of this file.

Sequence

We recommend you to use the following settings while creating a sequence:

- Set minimum CACHE size to 5000 to enhance performance
- Use NOORDER option so that the database does not generate sequence numbers in order of request

The base sequence name must be prefixed with the owner flag value of the product. For customer modification CM must prefix the sequence name. The sequence numbers should be named as below:

1. If the sequence is used for a specific table, then use the following sequence name:
[OF] [C/M/T]NNN_SEQ
 - OF stands for Owner Flag. For example, F1 stands for Framework. Other examples are M1, C1, D1, D2, etc.
 - C/M/T stands for Control (Admin)/Master/Transaction Tables.
 - NNN is a three digit unique Identifier for a table on which the sequence is defined.

For Example: F1T220_SEQ

2. If more than one sequence is used for a specific table then use the following sequence Name:
[OF] [C/M/T]NNN_Column_Name_SEQ
 - OF stands for Owner Flag. For example, F1 stands for framework. Other examples are M1, C1, D1, D2, etc.
 - C/M/T stands for Control (Admin)/Master/Transaction tables.
 - NNN is a three digit unique identifier for a table on which the sequence is defined.

For Example: F1T220_BO_STATUS_CD_SEQ and F1T220_BUS_OBJ_CD_SEQ.

3. If sequence is used for a generic requirement and not specific to a table, then use the following sequence name: `[OF]Column_Name_SEQ`
 - OF stands for Owner Flag. For example, F1 stands for framework. Other examples are M1, C1, D1, D2, etc. For Example: F1FKVALID_SEQ

Trigger

The base trigger name must be prefixed with the owner flag value of the product. When implementers add database objects, such as tables, triggers and sequences, the name of the objects should be prefixed by CM.

3.2 Column Data Type and Constraints

This section discusses the rules applied to column data type and constraints, and the attributes that are associated with these objects.

3.2.1 User Defined Code

User Defined Codes are defined as CHAR type. The length can vary by the business requirements but a minimum of eight characters is recommended. You will find columns defined in less than eight characters but with internationalization in mind, new columns should be defined as CHAR(10) or CHAR(12). Also note that when the code is referenced in the application the descriptions are shown to users in most cases.

3.2.2 System Assigned Identifier

System assigned random numbers are defined as CHAR type. The length of the column varies to meet the business requirements. Number type key columns are used when a sequential key assignment is allowed or number type is required to interface with external software. For example, Notification Upload Staging ID is a Number type because most EDI software uses a sequential key assignment mechanism. For sequential key assignment implementation, the DBMS sequence generator is used in conjunction with Number Type ID columns.

3.2.3 Date/Time/Timestamp

Date, Time and Timestamp columns are defined physically as DATE in Oracle.

3.2.4 Number

Numeric columns are implemented as NUMBER type in Oracle. The precision of the number should always be defined. The scale of the number might be defined. Non-null constraints are implemented for all number columns.

3.2.5 Fixed Length/Variable Length Character Columns

When a character column is a part of the primary key of a table define the column in CHAR type. For the non-key character columns, the length should be the defining factor. If the column length should be greater than 10, use VARCHAR2 type in Oracle.

3.2.6 Null Column Support

The product supports Nullable columns. This means that the application can write NULLs instead of a blank space or zero (for numeric columns) by using `NULLABLE_SW` on `CI_MD_TBL_FLD`. If `REQUIRED_SW` is set to 'N' and the `NULLABLE_SW` is set to 'Y', the application will write a NULL in that column. The artifact generator will create hibernate mapping files with appropriate parameters so that the framework hibernate mapping types will know if a given property supports a null value.

`NULLABLE_SW` is not new, but has previously been used for certain fields such as dates, and some string and number foreign-key columns. Because of this, there is the possibility that there is incorrect metadata for some columns, and that turning on this new feature could result in incorrect behavior when using that metadata. The upgrade script released with the product fixes the metadata to make sure that the existing tables will not be affected.

This new feature only supports tables maintained by Java. Thus, enhancing any existing tables to use null columns must be done only after making sure that the tables are maintained by Java, and not COBOL.

3.2.7 XMLType Support

The product supports XMLType. XMLType provides following advantages:

1. The ability to use XQuery for querying nodes in the XML document stored within a column defined as XMLType.
2. The option to use the XML engine, which is built into the Oracle Database, to create indexes using nodes within the XML document stored in the XMLType column.

3.2.8 Cache and Key Validation Flags

By default, the Cache Flag is set to NONE. For most of the admin tables the CACHE Flag should be 'Cached for Batch'. This specifies that the table is cached as L2 cache to reduce database trips.

By default the Key Validation Flag is set to ALL. For tables which have the user defined keys, the `KEY_VALIDATION_FLG` should be set as 'ALL'. This checks the existence of the key before inserting a new one.

3.2.9 Table Classification and Table Volume Flags

There are multiple types of tables in the application, namely Admin system tables, Admin non-system tables, master tables and transaction tables. The Table Classification flag (`TBL_CLASSIFICATION_FLG`) sets the appropriate value for this lookup field to give a better view of the table classification.

Table Volume flag (`TBL_VOLUME_FLG`) is a customer modifiable field which is initially populated by product, but can be overridden by implementation. The field gives an idea of the relative data volume (categorized as highVolume, lowVolume and mediumVolume) of the table to make informed decisions.

3.2.10 Default Value Setting

The rules for setting the database default values are as follows:

- When a predefined default value is not available, set the default value of Non-null CHAR or VARCHAR columns to blank except the primary key columns.
- When a predefined default value is not available, set the default value Non-null Number columns to 0 (zero) except the primary key columns.
- No database default values should be assigned to the Non Null Date, Time, and Timestamp columns.

3.2.11 Foreign Key Constraints

Referential integrity is enforced by the application. You should not define foreign key constraints in the database except for the tables where the partition is required. Indexes are created on most of Foreign Key columns to increase performance.

3.3 Standard Columns

This section discusses the rules applied to standard columns and the attributes that are associated with these objects.

3.3.1 Owner Flag

Owner Flag (OWNER_FLG) columns exist on the system tables that are shared by multiple products. Oracle Utilities Application Framework limits the data modification of the tables that have owner flag to the data owned by the product.

3.3.2 Version

The Version column is used to for optimistic concurrency control in the application code. Add the Version column to all tables that are maintained by a Row Maintenance program.

4. Exadata Database Settings

If you are using the Oracle Exadata Database machine as the database server, ensure that you do the following:

- Use the Write-Back Flash Cache feature to leverage the Exadata Flash hardware
- Use the Exadata Smart Flash Logging feature

Note: By default, 512 MB of the Exadata flash is allocated to Smart Flash Logging. This is sufficient enough to handle the load of 300 million transactions daily in TFM.

- Set the temporary tablespace size to at least 600 GB
- Create `CISTS_01` tablespace to store the `cisadm` objects using the `BIGFILE` and `EXTENT MANAGEMENT LOCAL AUTOALLOCATE` clauses. For example:

```
CREATE BIGFILE TABLESPACE CISTS_01 DATAFILE
'+DATAC1/DBNAME/datafile/cists01.dbf' SIZE 800G AUTOEXTEND ON
EXTENT MANAGEMENT LOCAL AUTOALLOCATE;
```

Note: Exadata servers can have two types of disks – High Capacity and High Performance. The Exadata throughput may vary depending on the disk type.

5. Database Implementation Guidelines

The following section outlines the general implementation guidelines for the database components, including:

- [Configuration Guidelines](#)
- [Implementation Guidelines](#)

5.1 Configuration Guidelines

This section includes general recommendations for configuring various database objects and includes a brief syntax overview. It covers the general aspects of the database objects and does not cover any specific implementation requirements. This section includes the following topics:

- [Index](#)
- [Temporary and Undo Tablespace](#)
- [Transparent Data Encryption Recommendations](#)
- [Data Compression Recommendations](#)
- [Database Vault Recommendations](#)
- [Storage Recommendations](#)
- [Database Configuration Recommendations](#)
- [Database Syntax](#)
- [Database Initialization Parameters](#)
- [Shrink Tables](#)
- [Listener.ora Settings](#)

5.1.1 Index

Index recommendations specify points that need to be considered when creating indexes on a table:

1. Indexes on a table should be created according to the functional requirements of the table and not in order to perform SQL tuning.

Note: If the implementation creates a CM index on table-columns for which the product already provides an index, then the CM index will be overridden by the base index.

Table indexes become fragmented over time. This affects the database performance. Therefore, you need to rebuild indexes periodically using the following SQL commands:

```
ALTER INDEX MY_IDX REBUILD ONLINE PARALLEL 63 NOLOGGING;  
ALTER INDEX MY_IDX NOPARALLEL;  
ALTER INDEX MY_IDX LOGGING;
```

5.1.2 Temporary and Undo Tablespace

To begin with, we recommend you to set the temporary tablespace to at least 100 GB auto extendable till 500 GB and the undo tablespace to at least 100 GB auto extendable till 600 GB. The upper limit of both the tablespaces will vary as per the volume of the data and preferred chunk size of the batch. In addition, we recommend you to set the value of undo retention to 50000.

5.1.3 Transparent Data Encryption Recommendations

Oracle Utilities supports Oracle Transparent Data Encryption (TDE). Oracle TDE is available by default in Oracle Database Enterprise Edition, but you have to purchase an Oracle Advanced Security license to use it. The application supports tablespace level encryption for all application data. Make sure that the hardware resources are sufficiently sized for this as TDE uses additional hardware resources. The Oracle Advanced Security license is a prerequisite for using TDE.

Please consider the following when implementing TDE:

- Create a wallet folder to store the master key. By default, the wallet folder should be created under `$ORACLE_BASE/admin/<sid>`.
- The wallet containing the master key can be created using the following command:

```
alter system set encryption key authenticated by "keypasswd"
```
- The wallet can be closed or opened using the following commands:

```
alter system set wallet open identified by "keypasswd";  
alter system set wallet close;
```
- Column level encryption can be achieved using the following commands:

```
create table <table_name>  
  (name varchar2(200) default ' ' not null,  
  bo_data_area CLOB encrypt using 'AES128',  
  bo_status_cd char(12) encrypt using 'AES128')  
  lob (bo_data_area) store as securefile (cache compress)  
  tablespace <tablespace_name>;
```
- AES128 is the default encryption algorithm.
- Tablespace level encryption is also supported using the following command:

```
Create tablespace <tablespace_name> logging datafile '<datafile  
location>' size <initial size> reuse autoextend on next <next  
size> maxsize unlimited extent management local uniform size  
<uniform size> encryption using 'AES128' default  
storage(encrypt);
```
- Indexed columns can only be encrypted using the NO SALT Option. Salt is a way to strengthen the security of encrypted data. It is a random string added to the data before it is encrypted, causing repetition of text in the clear to appear different when encrypted.

5.1.4 Data Compression Recommendations

Oracle Utilities supports Advanced Data Compression, available with Oracle 11gR1 onwards, to reduce the database storage footprint. Make sure that your resources are sufficiently sized for this as it uses additional system resources. Compression can be enabled at the Tablespace level or at the Table level.

5.1.4.1 Non-Exadata Hardware

For non-Exadata hardware the recommendations are the same as above, except that you cannot use HCC compression (it is only available in Exadata database machine). Instead of HCC, you can use any other compression tool available to you for non-Exadata hardware.

5.1.4.2 CLOB Fields

All CLOB fields should be stored as SecureFiles and Medium compressed. This requires a separate license for Advanced Data Compression. As a part of the schema, we create the product- owned tables with compression turned OFF at the LOB level. If you have the license for Advanced Data Compression, you can enable compression by updating the storage.xml.

Oracle 12c onwards:

- Admin and Master Data tables and their indexes will NOT be compressed.
- All Transactional Tables, including ILM enabled MOs shall be compressed.
- Compression will be done at the tablespace level.
- All multicolumn indexes on transactional/ILM tables will be compressed.
Use 'compress advanced low'

5.1.5 Database Vault Recommendations

The product supports Database Vault. All non-application User IDs can be prevented from using DDL or DML statements against the application schema. So SYS and SYSTEM cannot issue DDL or DML statements against CISADM schema. The application-specific administration account can issue DDL statements but should not be able to perform any DML or DCL statements. Application user must be given DML only permissions. Database Vault can be used to control access during patch process and Install/Upgrade process.

5.1.6 Storage Recommendations

This section specifies recommended options for storing the database objects.

5.1.6.1 SecureFile for Storing LOBs

The DB_SECUREFILE parameter is used to specify how to store large objects (LOBs) in the database. LOBs can now be stored as SecureFiles or BasicFiles. By default, the value for this parameter is set to PERMITTED in Oracle Database Server 12c or higher. It means the LOBs are allowed to be created as SecureFiles.

Points to Note:

- The storage options with SecureFiles for Heap Tables should be ENABLE STORAGE IN ROW, CACHE and COMPRESS.
- For the IOT Table the PCTTHRESHOLD 50 OVERFLOW clause should be specified and the storage options with SecureFiles should be ENABLE STORAGE IN ROW, CACHE and COMPRESS.
- The PCTTHRESHOLD should be specified as a percentage of the block size. This value defines the maximum size of the portion of the row that is stored in the Index block when an overflow segment is used.

- The CHUNK option for storage, which is the data size used when accessing or modifying LOB values, can be set to higher than one database block size if big LOBs are used in the IO Operation.
- The Tablespace where you are creating the SecureFiles should be enabled with Automatic Segment Space Management (ASSM). In Oracle Database 11g onwards, the default mode of Tablespace creation is ASSM so it may already be set for the Tablespace. If it's not, then you have to create the SecureFiles on a new ASSM Tablespace.

Note:

To enable compression on SecureFiles, you must have an Oracle Advanced Compression license in addition to Oracle Database Enterprise Edition. This feature is not available for the standard edition of Oracle Database.

If you are using Oracle Database Enterprise Edition, you must ensure that the COMPRESS flag is set to Y in the `Storage.xml` file. Refer to the [Database Syntax](#) section for more information on SecureFiles.

5.1.7 Database Configuration Recommendations

This section specifies the recommended methods for configuring the database with a focus on specific functional area.

5.1.7.1 Large Redo Log File Sizes

The Redo Log files are written by the Log Writer Background process. These log files are written in a serial manner. Once a log file is full, a log switch occurs and the next log file starts getting populated.

It is recommended that the size of the Redo Log files should be sufficiently high so that you do not see frequent Log Switches in the alert logs of the database. Frequent Log Switches impact the IO performance and can be avoided by having a larger Redo Log File size.

We recommend you to set the redo log file size to at least 4GB or more depending on the volume of transactions. This will help you to ensure that there are not more than 5 to 6 log switches per hour.

5.1.8 Database Syntax

5.1.8.1 SecureFile

```
CREATE TABLE <Table_Name>
(COLUMN1 ..., COLUMN2 (CLOB))
LOB(COLUMN2) STORE AS SECUREFILE (CACHE COMPRESS);
```

```
CREATE TABLE <Table_Name>
(COLUMN1 ..., COLUMN2 (CLOB) CONSTRAINT <> PRIMARY KEY(...))
ORGANIZATION INDEX PCTTHRESHOLD 50 OVERFLOW
LOB(COLUMN2) STORE AS SECUREFILE (ENABLE STORAGE IN ROW CHUNK CACHE
COMPRESS);
```

5.1.9 Database Initialization Parameters

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

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

Parameter	Recommended Value	Modifiable in Pluggable Database (PDB)
DB_CACHE_SIZE	4G	Yes
LOG_CHECKPOINT_INTERVAL	0	No
MEMORY_MAX_TARGET	40-50% of total available RAM on the node	No
MEMORY_TARGET	Value should be less than or equal to the value set for the MEMORY_MAX_TARGET parameter and at the same time it should be greater than or equal to the sum of SGA_TARGET and PGA_AGGREGATE_TARGET	Yes
OPTIMIZER_INDEX_CACHING	0 Note: The value for this parameter should not be changed because it can drastically degrade the batch performance.	Yes
OPTIMIZER_INDEX_COST_ADJ	100 Note: The value for this parameter should not be changed because it can drastically degrade the batch performance.	Yes
PGA_AGGREGATE_TARGET	2G	Yes
PROCESSES	3000	No
SESSION_CACHED_CURSORS	500	Yes
SESSIONS	4500	Yes
SGA_MAX_SIZE	70-80% of the value defined for the MEMORY_MAX_TARGET parameter	No

Parameter	Recommended Value	Modifiable in Pluggable Database (PDB)
SGA_TARGET	50-70% of the value defined for the MEMORY_TARGET parameter	Yes
STATISTICS_LEVEL	TYPICAL or ALL Note: This parameter is mandatory when you want to use automatic memory management.	Yes
TRANSACTIONS	3000	No
OPEN_CURSORS	500	Yes
STREAMS_POOL_SIZE	200M	Yes
OPTIMIZER_ADAPTIVE_PLANS	TRUE Note: By default, the value is set to TRUE. We recommend you to set the value to TRUE from 12.2 onwards.	Yes
OPTIMIZER_ADAPTIVE_STATISTICS	FALSE Note: By default, the value is set to FALSE. We recommend you to set the value to FALSE from 12.2 onwards.	Yes
PARALLEL_DEGREE_POLICY	Manual Note: By default, the value is set to Manual . We recommend you to use the default value. Otherwise, an error might occur while installing ORMB.	Yes
CURSOR_SHARING	EXACT Note: By default, the value is set to EXACT . We recommend you to use the default value. Otherwise, the system performance would be impacted.	Yes

For example, we recommend you to specify the following values for 100 GB of RAM when the Automatic Memory Management (AMM) is enabled:

```
MEMORY_MAX_TARGET = 60G
MEMORY_TARGET = 60G
STATISTICS_LEVEL = TYPICAL
```

For example, we recommend you to specify the following values for 100 GB of RAM when the Automatic Shared Memory Management (ASMM) is enabled:

```
SGA_TARGET = 40G
SGA_MAX_SIZE = 40G
DB_CACHE_SIZE = 4G
PGA_AGGREGATE_TARGET = 20G
STATISTICS_LEVEL = TYPICAL
```

In addition, we recommend you to set the following parameters in Oracle Database Server 19c:

Parameter	Recommended Value	Modifiable in Pluggable Database (PDB)
CPU_MIN_COUNT	Value should be specific to the server. Client DBA should decide the value. Note: This parameter specifies the minimum number of CPUs required by a pluggable database (PDB) at any given time. This enables you to control each PDBs minimum share of CPU utilization within a container database (CDB).	Yes
MAX_DATAPUMP_PARALLEL_PER_JOB	Recommend range of values - 1 to 1024 Note: This parameter specifies the maximum number of parallel Oracle Data Pump jobs per PDB. By default, the value is set to 50. You can change the value and set it as per the requirement.	Yes
LOB_SIGNATURE_ENABLE	TRUE Note: If this parameter is set to TRUE , then when you create a large object (LOB), Oracle Database automatically assigns a signature to the LOB locator.	Yes

5.1.10 Shrink Tables

A large number of rows are inserted and then deleted from the following three tables:

- CI_TXN_DTL_PRITM_SUMMARY
- CI_TXN_DETAIL_STG
- CI_ROLLBACK_TXN_DETAIL

Therefore, these tables need to be shrunk periodically. This activity should be carried out when no other transactions are active on the database.

1. Extract and keep the DDL scripts for all the existing indexes on the above tables from the data dictionary.
2. Drop all the indexes on the above tables.
3. Shrink the tables by executing following statements using SQL client:

```
ALTER TABLE CI_TXN_DTL_PRITM_SUMMARY ENABLE ROW MOVEMENT;
ALTER TABLE CI_TXN_DTL_PRITM_SUMMARY SHRINK COMPACT;
ALTER TABLE CI_TXN_DETAIL_STG ENABLE ROW MOVEMENT;
ALTER TABLE CI_TXN_DETAIL_STG SHRINK COMPACT;
ALTER TABLE CI_ROLLBACK_TXN_DETAIL ENABLE ROW MOVEMENT;
ALTER TABLE CI_ROLLBACK_TXN_DETAIL SHRINK COMPACT;
```

Alternatively, you can shrink the tables by executing the following statements during the non-peak hours which will adjust high water mark to reclaim the space:

```
ALTER TABLE CI_TXN_DTL_PRITM_SUMMARY ENABLE ROW MOVEMENT;
ALTER TABLE CI_TXN_DTL_PRITM_SUMMARY SHRINK;
ALTER TABLE CI_TXN_DETAIL_STG ENABLE ROW MOVEMENT;
ALTER TABLE CI_TXN_DETAIL_STG SHRINK;
ALTER TABLE CI_ROLLBACK_TXN_DETAIL ENABLE ROW MOVEMENT;
ALTER TABLE CI_ROLLBACK_TXN_DETAIL SHRINK;
```

4. Recreate all the indexes using scripts generated in step 1 above.

You can execute these statements either manually or through a batch process which is configured to run at regular interval.

Note: Shrink operations can be performed only on segments in locally managed tablespaces with Automatic Segment Space Management (ASSM).

Once the above statements are executed, you must gather statistics using the following statements:

```
BEGIN
DBMS_STATS.GATHER_TABLE_STATS(OWNNAME=>'CISADM',
TABNAME=>'CI_TXN_DTL_PRITM_SUMMARY', GRANULARITY=>'ALL',
CASCADE=>TRUE, METHOD_OPT=>'FOR ALL COLUMNS SIZE AUTO', DEGREE=>32);
```

```
DBMS_STATS.GATHER_TABLE_STATS (OWNNAME=>'CISADM',
TABNAME=>'CI_TXN_DETAIL_STG', GRANULARITY=>'ALL', CASCADE=>TRUE,
METHOD_OPT=>'FOR ALL COLUMNS SIZE AUTO', DEGREE=>32);
DBMS_STATS.GATHER_TABLE_STATS (OWNNAME=>'CISADM',
TABNAME=>'CI_ROLLBACK_TXN_DETAIL', GRANULARITY=>'ALL', CASCADE=>TRUE,
METHOD_OPT=>'FOR ALL COLUMNS SIZE AUTO', DEGREE=>32);
END;
```

5.1.11 Listener.ora Settings

In the Oracle 12c container database, the client must specify a service name in order to connect to the pluggable database. If you have hard-coded connect descriptors to use SID to connect to the database, then the following error occurs:

“ORA-12505: TNS: LISTENER DOES NOT CURRENTLY KNOW OF SID GIVEN IN CONNECT DESCRIPTOR TIPS”

It means the database connection has failed. You can resolve the problem using the `USE_SID_AS_SERVICE_listener_name` parameter in the `listener.ora` file. If you set the `USE_SID_AS_SERVICE_listener_name` parameter to `on`, it instructs the listener to use the SID in the connect descriptor as a service name and connect the client to the specified database. By default, the parameter is set to `off`.

Once you set the parameter to `on`, you need to bounce or reload the listener.

5.2 Implementation Guidelines

This section provides specific guidelines for implementing Oracle Database.

5.2.1 Materialized View

Oracle Database Enterprise Edition supports query rewrite using Materialized View. If you use Oracle Database Enterprise Edition, you can create the following Materialized Views to improve the performance of the Monitor batch jobs

Prerequisite:-

Please make sure the following:

1. Set the `QUERY_REWRITE_ENABLED` parameter to `TRUE` at database level using either of the following command:

```
ALTER SYSTEM SET QUERY_REWRITE_ENABLED=TRUE;
```

OR

```
ALTER SYSTEM SET QUERY_REWRITE_ENABLED=TRUE SCOPE=BOTH;
```
2. To create a materialized view in another user's schema: You must have the `CREATE ANY MATERIALIZED VIEW` system privilege. The owner of the materialized view must have the `CREATE TABLE` system privilege. The owner must also have access to any master tables of the materialized view that the schema owner does not own (for example, if the master tables are on a remote database) and to any materialized view logs defined on those master tables, either through a `SELECT` object privilege on each of the tables or through the `SELECT ANY TABLE` system privilege.

- To create a refresh-on-commit materialized view (ON COMMIT REFRESH clause), in addition to the preceding privileges, you must have the ON COMMIT REFRESH object privilege on any master tables that you do not own or you must have the ON COMMIT REFRESH system privilege. To create the materialized view with query rewrite enabled, in addition to the preceding privileges: If the schema owner does not own the master tables, then the schema owner must have the GLOBAL QUERY REWRITE privilege or the QUERY REWRITE object privilege on each table outside the schema.

```

CREATE MATERIALIZED VIEW F1_BO_LIFECYCLE_STATUS_MVW
(
BUS_OBJ_CD,
LIFE_CYCLE_BO_CD,
BO_STATUS_CD,
BATCH_CD
)
BUILD IMMEDIATE REFRESH ON COMMIT ENABLE QUERY REWRITE AS SELECT
BO2.BUS_OBJ_CD, BO.LIFE_CYCLE_BO_CD, BOSA.BO_STATUS_CD, LCBOS.BATCH_CD
AS
LC_BATCH_CD
FROM
F1_BUS_OBJ BO2,
F1_BUS_OBJ BO,
F1_BUS_OBJ_STATUS LCBOS,
F1_BUS_OBJ_STATUS_ALG BOSA
WHERE
BO2.LIFE_CYCLE_BO_CD = BO.LIFE_CYCLE_BO_CD AND
BO.BUS_OBJ_CD = BOSA.BUS_OBJ_CD AND
BOSA.BO_STATUS_SEVT_FLG = 'F1AT' AND
LCBOS.BUS_OBJ_CD = BO.LIFE_CYCLE_BO_CD AND
LCBOS.BO_STATUS_CD = BOSA.BO_STATUS_CD
/
CREATE SYNONYM SPLUSR.F1_BO_LIFECYCLE_STATUS_MVW FOR
SPLADM.F1_BO_LIFECYCLE_STATUS_MVW;
GRANT SELECT ON F1_BO_LIFECYCLE_STATUS_MVW TO FW_DEV;
GRANT SELECT ON F1_BO_LIFECYCLE_STATUS_MVW TO SPL_USER;
GRANT SELECT ON F1_BO_LIFECYCLE_STATUS_MVW TO SPL_READ;

```

For more information, refer to the following documents:

Topic	Reference URL
Basic Query Rewrite (Oracle 11g)	https://docs.oracle.com/cd/B28359_01/server.111/b28313/qrbasic.htm
Basic Query Rewrite for Materialized Views (Oracle 12c)	https://docs.oracle.com/database/121/DWHSG/qrbasic.htm#DWHSG01813

Topic	Reference URL
Troubleshooting Materialized Views	http://docs.oracle.com/database/121/ARPLS/d_mvview.htm#ARPLS67193
Debugging Materialized Views	http://docs.oracle.com/cd/B28359_01/server.111/b28313/gradv.htm

Known Issues:

The following are some of the known issues at the time of release. For more information, refer to these articles on [My Oracle Support](#):

- *Query Did Not Rewrite For A User Other Than The Owner Of the Materialized View (Doc ID: 1594725.1)* - A patch is available for the 14772096 bug for some platforms.
- *Query rewrite not working as expected with SELECT DISTINCT (Doc ID: 7661113.8)* – A bug reported in Oracle Database 11.2.0.1 and 11.1.0.7 and fixed in Oracle Database 12.1.0.1 (Base Release), 11.2.0.2 (Server Patch Set).

5.2.2 Increase INITRANS Values

It has been observed that while executing few batches in ORMB, customers encounter deadlock issue. Therefore, we strongly recommend to increase the INITRANS value of tables with high concurrent DML. The INITRANS values can be set as per the customer's data volume. To increase the INITRANS values of the required tables and indexes:

1. Connect to the ORMB database using any SQL client (such as Oracle SQL Developer or PL/SQL Developer) and the `cisadm` credentials.
2. Use the ALTER statement to modify the INITRANS values of the required tables.

For example, you can increase the INITRANS value of the CI_BILL table using the following SQL statement:

```
ALTER TABLE CISADM.CI_BILL INITRANS 20;
```

3. Use the ALTER statement to modify the INITRANS values of the required indexes.

For example, you can increase the INITRANS value of the indexes using the following SQL statement:

```
ALTER INDEX XT033P0 INITRANS 40;
ALTER INDEX XT033S1 INITRANS 40;
ALTER INDEX XT033S2 INITRANS 40;
ALTER INDEX XT033S3 INITRANS 40;
ALTER INDEX XT033S4 INITRANS 40;
ALTER INDEX XT033S5 INITRANS 40;
```

With the above ALTER statements, the INITRANS applies only to the data blocks subsequently allocated for the table. It will not modify the existing data blocks. To apply the changes to the existing data blocks/extents, use the ALTER statement with MOVE command during the maintenance period. With the MOVE command, all indexes of the table become unusable and therefore, you will have to rebuild

the indexes of the tables. For example, you can increase the INITRANS value of the CI_BILL table using the following ALTER TABLE MOVE command:

```
ALTER TABLE CI_BILL MOVE ONLINE INITRANS 20 NOLOGGING;
```

And, you can increase the INITRANS value of the indexes using the following ALTER INDEX REBUILD command:

```
ALTER INDEX XT033P0 REBUILD ONLINE INITRANS 40 NOLOGGING;
```

```
ALTER INDEX XT033S1 REBUILD ONLINE INITRANS 40 NOLOGGING;
```

```
ALTER INDEX XT033S2 REBUILD ONLINE INITRANS 40 NOLOGGING;
```

```
ALTER INDEX XT033S3 REBUILD ONLINE INITRANS 40 NOLOGGING;
```

```
ALTER INDEX XT033S4 REBUILD ONLINE INITRANS 40 NOLOGGING;
```

```
ALTER INDEX XT033S5 REBUILD ONLINE INITRANS 40 NOLOGGING;
```


5.2.3 Table Partitioning Strategy

Partitioning is powerful functionality that allows tables, indexes, and index-organized tables to be subdivided into smaller pieces, enabling these database objects to be managed and accessed at a finer level of granularity. Oracle provides a comprehensive range of partitioning schemes to address every business requirement. We recommend you to partition those tables where the customers have considerable amount of data. This helps to manage data and ensure consistent system performance with the increasing data.

You need to partition the master and child tables in such a way that the referential integrity is not hampered. There are many partitioning strategies which can be used to partition tables. However, we recommend you to partition the following tables using the partition type and keys as mentioned in the below table:

Note: An out of box sample release-specific table partitioning scripts are provided by Oracle Revenue Management and Billing on [My Oracle Support](#). You can partition the tables using these sample scripts. For more information about the sample partitioning scripts, contact Oracle Revenue Management and Billing Support team.

Module Name	Table Name	Child Table Name	Partition Type	Partition Key	Sub-Partition Key
Transaction Feed Management (TFM)	CI_TXN_DETAIL		RANGE(DATE INTERVAL)	CURR_SYS_PRCES_DT	
	CI_TXN_DTL_PRITM		RANGE(DATE INTERVAL)	CURR_SYS_PRCES_DT	
	CI_ROLLBACK_TXN_DETAIL		RANGE(DATE INTERVAL)	CURR_SYS_PRCES_DT	
	CI_TXN_DETAIL_EXCP		RANGE(DATE INTERVAL)	CURR_SYS_PRCES_DT	
	CI_TXN_CALC		RANGE(DATE INTERVAL)	ILM_DT	
	CI_TXN_SQ		RANGE(DATE INTERVAL)	ILM_DT	
	CI_TXN_CALC_LN		RANGE(DATE INTERVAL)	ILM_DT	
	CI_TXN_CALC_LN_CHAR		RANGE(DATE INTERVAL)	ILM_DT	
Billing	CI_BILL		RANGE (DATE INTERVAL)	ILM_DT	BILL_ID
		CI_BILL_CHAR	REFERENCE (KEY:BILL_ID)	ILM_DT	BILL_ID

Module Name	Table Name	Child Table Name	Partition Type	Partition Key	Sub-Partition Key
		CI_BILL_EXCP	REFERENCE (KEY:BILL_ID)	ILM_DT	BILL_ID
		CI_BILL_MSG_PRM	REFERENCE (KEY:BILL_ID)	ILM_DT	BILL_ID
		CI_BILL_ROUTING	REFERENCE (KEY:BILL_ID)	ILM_DT	BILL_ID
		CI_BILL_SA	REFERENCE (KEY:BILL_ID)	ILM_DT	BILL_ID
		CI_BILL_ACH	REFERENCE (KEY:BILL_ID)	ILM_DT	BILL_ID
		CI_BILL_MSGS	REFERENCE (KEY:BILL_ID)	ILM_DT	BILL_ID
		CI_BILL_LOG	REFERENCE (KEY:BILL_ID)	ILM_DT	BILL_ID
	CI_BSEG		RANGE (DATE INTERVAL)	ILM_DT	BSEG_ID
		CI_BSEG_CALC	REFERENCE (KEY:BSEG_ID)	ILM_DT	BSEG_ID
		CI_BSEG_CALC_LN	REFERENCE (KEY:BSEG_ID)	ILM_DT	BSEG_ID
		CI_BSEG_CL_CHAR	REFERENCE (KEY:BSEG_ID)	ILM_DT	BSEG_ID
		CI_BSEG_EXCP	REFERENCE (KEY:BSEG_ID)	ILM_DT	BSEG_ID
		CI_BSEG_ITEM	REFERENCE (KEY:BSEG_ID)	ILM_DT	BSEG_ID

Module Name	Table Name	Child Table Name	Partition Type	Partition Key	Sub-Partition Key
		CI_BSEG_MSG	REFERENCE (KEY:BSEG_ID)	ILM_DT	BSEG_ID
		CI_BSEG_READ	REFERENCE (KEY:BSEG_ID)	ILM_DT	BSEG_ID
		CI_BSEG_SQ	REFERENCE (KEY:BSEG_ID)	ILM_DT	BSEG_ID
		CI_BSEG_EXT	REFERENCE (KEY:BSEG_ID)	ILM_DT	BSEG_ID
	CI_ADJ		RANGE (DATE INTERVAL)	ILM_DT	ADJ_ID
		CI_ADJ_APREQ	REFERENCE (KEY:ADJ_ID)	ILM_DT	ADJ_ID
		CI_ADJ_CALC_LN	REFERENCE (KEY:ADJ_ID)	ILM_DT	ADJ_ID
		CI_ADJ_CHAR	REFERENCE (KEY:ADJ_ID)	ILM_DT	ADJ_ID
		CI_ADJ_CL_CHAR	REFERENCE (KEY:ADJ_ID)	ILM_DT	ADJ_ID
	CI_BILL_CHG		RANGE (DATE INTERVAL)	ILM_DT	BILLABLE_CHG_ID
		CI_BCHG_READ	REFERENCE (KEY:BILLABLE_CHG_ID)	ILM_DT	BILLABLE_CHG_ID
		CI_BCHG_SQ	REFERENCE (KEY:BILLABLE_CHG_ID)	ILM_DT	BILLABLE_CHG_ID
		CI_BILL_CHG_CHAR	REFERENCE (KEY:BILLABLE_CHG_ID)	ILM_DT	BILLABLE_CHG_ID

Module Name	Table Name	Child Table Name	Partition Type	Partition Key	Sub-Partition Key
		CI_B_CHG_LINE	REFERENCE (KEY:BILLABLE_CHG_ID)	ILM_DT	BILLABLE_CHG_ID
		CI_B_LN_CHAR	REFERENCE (KEY:BILLABLE_CHG_ID)	ILM_DT	BILLABLE_CHG_ID
Payment	CI_PAY		RANGE (DATE INTERVAL)	ILM_DT	PAY_ID
		CI_PAY_CHAR	REFERENCE (KEY:PAY_ID)	ILM_DT	PAY_ID
		CI_PAY_EXCP	REFERENCE (KEY:PAY_ID)	ILM_DT	PAY_ID
		CI_PAY_SEG	REFERENCE (KEY:PAY_ID)	ILM_DT	PAY_ID
	CI_PAY_EVENT		RANGE (DATE INTERVAL)	ILM_DT	PAY_EVENT_ID
		CI_PAY_EVT_EXCP	REFERENCE (KEY:PAY_EVENT_ID)	ILM_DT	PAY_EVENT_ID
		CI_P EVT_DST_DTL	REFERENCE (KEY:PAY_EVENT_ID)	ILM_DT	PAY_EVENT_ID
		CI_PAY_TNDR	REFERENCE (KEY:PAY_EVENT_ID)	ILM_DT	PAY_EVENT_ID
	CI_PAY_TNDR				
		CI_APAY_CLR_STG	REFERENCE (KEY:PAY_TENDER_ID)	ILM_DT	PAY_TENDER_ID
		CI_PAY_TNDR_CHAR	REFERENCE (KEY:PAY_TENDER_ID)	ILM_DT	PAY_TENDER_ID

Module Name	Table Name	Child Table Name	Partition Type	Partition Key	Sub-Partition Key
Financial Transaction	CI_FT		RANGE (DATE INTERVAL)	ILM_DT	FT_ID
		CI_FT_GL	REFERENCE (KEY:FT_ID)	ILM_DT	FT_ID
		CI_FT_PROC	REFERENCE (KEY:FT_ID)	ILM_DT	FT_ID
		CI_FT_GL_EXT	REFERENCE (KEY:FT_ID)	ILM_DT	FT_ID
		C1_FT_EXT_CHAR	REFERENCE (KEY:FT_ID)	ILM_DT	FT_ID
		C1_FT_EXT	REFERENCE (KEY:FT_ID)	ILM_DT	FT_ID
Membership	CI_MEMBERSHIP		RANGE (DATE INTERVAL)	ILM_DT	MEMBERSHIP_ID
		CI_MEMBERSHIP_CHAR	REFERENCE (KEY:MEMBERSHIP_ID)	ILM_DT	MEMBERSHIP_ID
		CI_MEMBERSHIP_PER_CHAR	REFERENCE (KEY:MEMBERSHIP_ID)	ILM_DT	MEMBERSHIP_ID
		CI_MEMBERSHIP_LOG	REFERENCE (KEY:MEMBERSHIP_ID)	ILM_DT	MEMBERSHIP_ID
		CI_MEMBERSHIP_PER	REFERENCE (KEY:MEMBERSHIP_ID)	ILM_DT	MEMBERSHIP_ID
		CI_MEMBERSHIP_SA	REFERENCE (KEY:MEMBERSHIP_ID)	ILM_DT	MEMBERSHIP_ID
		CI_MEMBERSHIP_LOG_PARM	REFERENCE (KEY:MEMBERSHIP_ID)	ILM_DT	MEMBERSHIP_ID

Module Name	Table Name	Child Table Name	Partition Type	Partition Key	Sub-Partition Key
Entity Audit	C1_AUDIT_EVENT		RANGE (DATE INTERVAL)	ILM_DT	AUDIT_EVENT_ID
		C1_AUDIT_EVENT_CHAR	REFERENCE (KEY:AUDIT_EVENT_ID)	ILM_DT	AUDIT_EVENT_ID
		C1_AUDIT_EVENT_LOG	REFERENCE (KEY:AUDIT_EVENT_ID)	ILM_DT	AUDIT_EVENT_ID
		C1_AUDIT_EVENT_LOG_PARM	REFERENCE (KEY:AUDIT_EVENT_ID)	ILM_DT	AUDIT_EVENT_ID
Inbound Message	C1_INBOUND_MESSAGE		RANGE (DATE INTERVAL)	ILM_DT	C1_INBOUND_MESSAGE_ID
		C1_INBOUND_MESSAGE_CHAR	REFERENCE (KEY:C1_INBOUND_MESSAGE_ID)	ILM_DT	C1_INBOUND_MESSAGE_ID
		C1_INBOUND_MESSAGE_LOG	REFERENCE (KEY:C1_INBOUND_MESSAGE_ID)	ILM_DT	C1_INBOUND_MESSAGE_ID
		C1_INBOUND_MESSAGE_LOG_PARM	REFERENCE (KEY:C1_INBOUND_MESSAGE_ID)	ILM_DT	C1_INBOUND_MESSAGE_ID
Pricing Calculation	CI_PRCE_CALC		RANGE (DATE INTERVAL)	ILM_DT	PRCE_CALC_ID
		CI_PRCE_CALC_LN	REFERENCE (KEY:PRCE_CALC_ID)	ILM_DT	PRCE_CALC_ID
		CI_PRCE_CALC_PARAMS	REFERENCE (KEY:PRCE_CALC_ID)	ILM_DT	PRCE_CALC_ID
Match Event	CI_MATCH_EVT		RANGE	MATCH_EVT_ID	

Module Name	Table Name	Child Table Name	Partition Type	Partition Key	Sub-Partition Key
Membership Repricing	CI_REPRC_REQ_DTL		RANGE	REPRC_ENTITY_ID	
	CI_REPRC_ENTITY_DTL		RANGE	PREPRCS_REQ_ID	

You can use either of the following approach for partitioning tables:

- **Offline Partitioning (Using Export and Import for Table Partitioning)** – In this approach, you need to do the following:
 - Export data from the tables using the Oracle Export Data Pump functionality (i.e. expdp) with the **Data Only** option.
 - Drop the tables and recreate them with partition.
 - Import the data in the tables using the Oracle Import Data Pump functionality (i.e. impdp).
 - Create the indexes for the tables.

Disadvantage of using this approach: It requires downtime.

Advantage of using this approach: It is faster than online partitioning. It takes approximately 12 hours for 1 TB data using 32 parallel servers execution.

- **Online Partitioning (Using the Alter Table Command for Table Partitioning)** – You can convert the table to a partitioned table using the ALTER TABLE ... MODIFY command.

Disadvantage of using this approach: It requires more time than offline partitioning. It takes approximately 17 hours for 1 TB data using 32 parallel servers execution.

Advantage of using this approach: It does not require downtime.

5.2.4 Performance Monitoring

SQLTXPLAIN, also known as SQLT, is a tool provided by Oracle Server Technologies. It enables users to analyze and tune the performance of a single SQL statement. SQLT inputs one SQL statement and outputs a set of diagnostics files. These output files are commonly used to diagnose SQL statements performing poorly. SQLT connects to the database and collects execution plans, Cost-based Optimizer CBO statistics, schema objects metadata, performance statistics, configuration parameters, and similar elements that influence the performance of the SQL being analyzed.

Refer to the *All About the SQLT Diagnostic Tool (Doc ID: 215187.1)* article on [My Oracle Support](#) for more information about:

- How to install SQLT
- How to determine the SQL_ID for an SQL Statement
- How to interpret the SQLTXPLAIN Main report

Another tool named Automatic Workload Repository (AWR) is used to collect performance statistics including:

- Wait events used to identify performance problems
- Gather system and session statistics
- Object usage statistics
- Resource intensive SQL statements

To generate the AWR report, refer to the *How to Create an AWR Report at the PDB level on 12.2 or later (Doc ID: 2334006.1)* article on [My Oracle Support](#) for more information.

5.2.5 Local Undo Mode in Oracle Database 12c Release 2

In Oracle Database 12c Release 2, each container in an instance can use its own undo tablespace. This new undo management mechanism is called local undo mode. Some of the new multitenant features in 12.2 rely on local undo. We recommend you to set local undo for each pluggable database (PDB).

If you are upgrading from Oracle Database 12c Release 1, then change the undo mode from Shared to Local.

To view the current undo mode, use the following code snippet:

```
Column property_name format a30
Column property_value format a30
Select property_name, property_value from database_properties where
property_name = 'LOCAL_UNDO_ENABLED';
```

The above query indicates the undo mode which is currently used. For example:

PROPERTY_NAME	PROPERTY_VALUE
LOCAL_UNDO_ENABLED	TRUE

5.2.6 Memory Resource Management for PDBs in Oracle Database 12c Release 2

In the previous release of Oracle Database, there was no way to control the amount of memory used by an individual pluggable database (PDB). Oracle Database 12c Release 2 (12.2) allows you to control the amount of memory used by a PDB, making consolidation more reliable.

You can set the following memory parameters at the pluggable database level:

- **DB_CACHE_SIZE** - The minimum buffer cache size for the pluggable database.
- **SHARED_POOL_SIZE** - The minimum shared pool size for the pluggable database.
- **PGA_AGGREGATE_LIMIT** - The maximum PGA size for the pluggable database.
- **PGA_AGGREGATE_TARGET** - The target PGA size for the pluggable database.
- **SGA_MIN_SIZE** - The minimum SGA size for the pluggable database.
- **SGA_TARGET** - The maximum SGA size for the pluggable database.

The process of setting memory parameters for a pluggable database is similar to setting memory parameters for a regular instance.

5.2.7 Global Optimizer Statistics Settings

We recommend you to implement some standard settings as mentioned in this section which will help to gather statistics in a faster way.

5.2.7.1 Setting Stale Percentage

Oracle determines whether the object need statistics by validating the `STALE_STATS` and `STALE_PERCENT` values. Using the following code snippet, you can collect statistics for even single row level updates for the non-partitioned and partitioned tables:

```
BEGIN
DBMS_STATS.SET_GLOBAL_PREFS('STALE_PERCENT', 0);
END;
```

You can verify the setting using the following SQL statement:

```
SELECT DBMS_STATS.GET_PREFS('STALE_PERCENT') FROM DUAL;
```

5.2.7.2 Incremental Statistics Gathering

We recommend you to enable the incremental statistics gathering feature only for partitioned tables. This feature not only reduces the time it takes to gather global statistics, but also increases the statistics accuracy. This feature avoids scanning whole table when computing global statistics and derives it from partition level statistics.

Set the `INCREMENTAL` option to `TRUE` for every partitioned table in the CISADM schema and set its stale percent as shown in the following code snippet:

```
BEGIN
DBMS_STATS.SET_TABLE_PREFS(NULL, 'TABLE_NAME', 'INCREMENTAL', 'TRUE');
END;
BEGIN
DBMS_STATS.SET_GLOBAL_PREFS('INCREMENTAL_STALENESS',
'USE_STALE_PERCENT');
END;
```

You can verify the setting using the following SQL statement:

```
SELECT DBMS_STATS.GET_PREFS('INCREMENTAL') FROM DUAL;
```

5.2.7.3 Setting Auto Degree

Gathering statistics with auto sample size initiates full table scans to inspect table data. We can leverage parallel execution to make these scans complete in less time. We recommend you to set the `AUTO_DEGREE` property at the global level using the following code snippet:

```
BEGIN
DBMS_STATS.SET_GLOBAL_PREFS('DEGREE', DBMS_STATS.AUTO_DEGREE)
END;
```

5.2.7.4 Automatic Statistics Gathering

Oracle Database collects statistics for database objects that do not have statistics or have stale (i.e. out of date) statistics. This is done by an automatic task that executes during a predefined maintenance window. Oracle internally prioritizes the database objects that require statistics so that objects which need statistics on priority are processed first.

You can verify the last auto gather job status using the following SQL statement:

```
SELECT CLIENT_NAME, JOB_STATUS, JOB_START_TIME, JOB_DURATION FROM
DBA_AUTOTASK_JOB_HISTORY WHERE JOB_START_TIME > SYSTIMESTAMP - 3 AND
CLIENT_NAME='AUTO OPTIMIZER STATS COLLECTION' ORDER BY JOB_START_TIME
DESC;
```

If the job is not successfully completed or is incomplete due low maintenance window, then run the optimizer advisor to identify the objects which are not processed in the job. For more information, refer to the [Optimizer Statistics Advisor](#) section.

5.2.7.5 Concurrent Statistics Gathering

If the concurrent statistics gathering mode is enabled, the database can simultaneously gather optimizer statistics for multiple tables in a schema, or for multiple partitions or sub partitions in a table. Gathering statistics on multiple tables and (sub) partitions concurrently can reduce the overall time it takes to gather statistics by allowing the database server to fully utilize a multi-processor environment.

Before you enable the concurrent statistics gathering mode, you must activate an Oracle Resource Manager Plan. Statistics gathering with parallel and concurrent execution has the potential to consume lots of system resources. In order to control this usage, we need the resource manager plan in place. The aim of this resource manager plan is to control the resources used by the concurrent statistics jobs.

You need to check whether a resource manager plan is active at the database level. If no value is specified for the `RESOURCE_MANAGER_PLAN` parameter, the database resource manager is not activated. In this case, you should not enable the concurrent statistics gathering mode. Otherwise, the following error will occur:

```
ERROR AT LINE 1:
```

```
ORA-20000: UNABLE TO GATHER STATISTICS CONCURRENTLY: RESOURCE MANAGER IS NOT ENABLED.
```

```
ORA-06512: AT "SYS.DBMS_STATS", LINE 34634
```

```
ORA-06512: AT LINE 1
```

Assigning a resource plan is a prerequisite for using the concurrent statistics gathering feature. The user must have privileges for the following:

- CREATE JOB
- MANAGE SCHEDULER
- MANAGE ANY QUEUE

You should disable the parallel adaptive multi-user because we are using the parallel execution as part of concurrent statistics gathering. You can disable the parallel adaptive multi-user using the following statement:

```
ALTER SYSTEM SET PARALLEL_ADAPTIVE_MULTI_USER=FALSE
```

By default, the concurrency setting for statistics gathering is turned off. It can be turned on using the following code snippet:

```
BEGIN
```

```
DBMS_STATS.SET_GLOBAL_PREFS ('CONCURRENT', 'MANUAL');
```

```
END;
```

You can verify the setting using the following SQL statement:

```
SELECT DBMS_STATS.GET_PREFS ('CONCURRENT') FROM DUAL;
```

5.2.8 Optimizer Statistics Advisor

The Optimizer Statistics Advisor analyzes how optimizer statistics are gathered, and then makes some recommendations on how to improve the statistics gathering strategy in order to provide more efficient statistics to the Cost-Based Optimizer (CBO). This feature is available in Oracle Database 12c Release 2.

5.2.8.1 Creating an Optimizer Statistics Advisor Task

The `DBMS_STATS.CREATE_ADVISOR_TASK` function creates a task for Optimizer Statistics Advisor. You can create an advisor task using the following code snippet:

```
DECLARE
TNAME VARCHAR2(32767);
RET VARCHAR2(32767);
BEGIN
TNAME := 'RMB_ADVISOR_16';
RET := DBMS_STATS.CREATE_ADVISOR_TASK(TNAME);
END;
```

You can view the advisor task using the following SQL statement:

```
SELECT TASK_NAME, ADVISOR_NAME, CREATED, STATUS FROM DBA_ADVISOR_TASKS
WHERE ADVISOR_NAME = 'STATISTICS ADVISOR';
```

5.2.8.2 Creating Filters for an Optimizer Advisor Task

Filters are useful for including or excluding a specific set of rules, schemas, or operations from Optimizer Statistics Advisor tasks. The simplest way to create filters is to use the following `DBMS_STATS` procedures either individually or in combination:

- **CONFIGURE_ADVISOR_OBJ_FILTER** - Use this procedure to include or exclude the specified database schemas or objects.
- **CONFIGURE_ADVISOR_RULE_FILTER** - Use this procedure to include or exclude the specified rules.
- **CONFIGURE_ADVISOR_OPR_FILTER** - Use this procedure to include or exclude the specified `DBMS_STATS` operations.

In the following code snippet, the 1st filter will disable the advisor for all objects; 2nd, 3rd, and 4th filters will enable the `AvoidStaleStats`, `UseIncremental`, and `NotUseIncremental` rules for the `CISADM` objects; and 5th, 6th, 7th, and 8th filters will disable the respective rules.

```
DECLARE
FILTER1 CLOB;
FILTER2 CLOB;
FILTER3 CLOB;
FILTER4 CLOB;
FILTER5 CLOB;
FILTER6 CLOB;
FILTER7 CLOB;
FILTER8 CLOB;
```

```
BEGIN

FILTER1      :=      DBMS_STATS.CONFIGURE_ADVISOR_OBJ_FILTER(TASK_NAME      =>
'RMB_ADVISOR_16',  STATS_ADV_OPR_TYPE => 'EXECUTE',  RULE_NAME      => NULL,
OWNNAME => NULL,  TABNAME => NULL,  ACTION => 'DISABLE');

FILTER2      :=      DBMS_STATS.CONFIGURE_ADVISOR_OBJ_FILTER(TASK_NAME      =>
'RMB_ADVISOR_16',  STATS_ADV_OPR_TYPE => 'EXECUTE',  RULE_NAME      =>
'AVOIDSTALESTATS',  OWNNAME => 'CISADM',  TABNAME => NULL,  ACTION =>
'ENABLE');

FILTER3      :=      DBMS_STATS.CONFIGURE_ADVISOR_OBJ_FILTER(TASK_NAME      =>
'RMB_ADVISOR_16',  STATS_ADV_OPR_TYPE => 'EXECUTE',  RULE_NAME      =>
'USEINCREMENTAL',  OWNNAME => 'CISADM',  TABNAME => NULL,  ACTION =>
'ENABLE');

FILTER4      :=      DBMS_STATS.CONFIGURE_ADVISOR_OBJ_FILTER(TASK_NAME      =>
'RMB_ADVISOR_16',  STATS_ADV_OPR_TYPE => 'EXECUTE',  RULE_NAME      =>
'NOTUSEINCREMENTAL',  OWNNAME => 'CISADM',  TABNAME => NULL,  ACTION =>
'ENABLE');

FILTER5      :=      DBMS_STATS.CONFIGURE_ADVISOR_RULE_FILTER(TASK_NAME      =>
'RMB_ADVISOR_16',  STATS_ADV_OPR_TYPE => 'EXECUTE',  RULE_NAME      =>
'USECONCURRENT',  ACTION => 'DISABLE');

FILTER6      :=      DBMS_STATS.CONFIGURE_ADVISOR_RULE_FILTER(TASK_NAME      =>
'RMB_ADVISOR_16',  STATS_ADV_OPR_TYPE => 'EXECUTE',  RULE_NAME      =>
'USEDEFAULTPARAMS',  ACTION => 'DISABLE');

FILTER7      :=      DBMS_STATS.CONFIGURE_ADVISOR_RULE_FILTER(TASK_NAME      =>
'RMB_ADVISOR_16',  STATS_ADV_OPR_TYPE => 'EXECUTE',  RULE_NAME      =>
'USEAUTOJOB',  ACTION => 'DISABLE');

FILTER8      :=      DBMS_STATS.CONFIGURE_ADVISOR_RULE_FILTER(TASK_NAME      =>
'RMB_ADVISOR_16',  STATS_ADV_OPR_TYPE => 'EXECUTE',  RULE_NAME      =>
'USEGATHERSCHEMASTATS',  ACTION => 'DISABLE');

END;
```

5.2.8.3 Executing an Optimizer Statistics Advisor Task

The `DBMS_STATS.EXECUTE_ADVISOR_TASK` function executes a task for Optimizer Statistics Advisor. You can execute an advisor task using the following code snippet:

```
DECLARE
TNAME VARCHAR2(32767);
RET VARCHAR2(32767);
BEGIN
TNAME := 'RMB_ADVISOR_16';
RET := DBMS_STATS.EXECUTE_ADVISOR_TASK(TNAME);
END;
```

5.2.8.4 Generating a Report for an Optimizer Statistics Advisor Task

We recommend you to configure daily job to run the advisor in the non-peak hours and generate the report. The `DBMS_STATS.REPORT_ADVISOR_TASK` function generates a report for an Optimizer Statistics Advisor task. The report summarizes the findings and rules violated by the findings and lists the recommendations (if any) for the finding. You can view the report using the following SQL statement:

```
SELECT
DBMS_STATS.REPORT_ADVISOR_TASK('RMB_ADVISOR_16',NULL,'TEXT','ALL','ALL
') AS REPORT FROM DUAL;
```

5.2.8.5 Implementing Optimizer Statistics Advisor Recommendations

You can implement all recommendations given by the advisor automatically or manually. You can use the following code snippet to implement all recommendations automatically:

```
DECLARE
TNAME VARCHAR2(32767);
RET VARCHAR2(32767);
BEGIN
TNAME := 'RMB_ADVISOR_16';
RET := DBMS_STATS.IMPLEMENT_ADVISOR_TASK(TNAME);
END;
```

Alternatively, you can implement the recommendations manually for each table using the following code snippet:

```
BEGIN
DBMS_STATS.GATHER_TABLE_STATS(OWNNAME=>'CISADM',          TABNAME=>'TABLE-
NAME', GRANULARITY=>'ALL', CASCADE=>TRUE, METHOD_OPT=>'FOR ALL COLUMNS
SIZE AUTO')
END;
```


5.2.9 Using the Segment Advisor

A table may experience large amount of updates. As a result, there might be performance issues while executing queries on these tables. In such case, we recommend you to use the segment advisor. The segment advisor is used for identifying segments which are candidates for a shrink operation (i.e. releasing unused space and moving the High Water Mark).

The segment advisor can generate the advice with different degrees of granularity. For example, you can generate advice for all objects in a tablespace or for a specific table, index, or partition.

We recommend you to run the segment advisor for the following:

- Objects with size more than 50 G or 100 G
- Temporary tables (such as, CI_TXN_DETAIL_STG) where there are large number of insertions and deletions

5.2.9.1 Manually Generating Segment Advisor Advice

To run the segment advisor manually, you need to do the following (as shown in the below code snippet):

1. Create a Task
2. Assign an Object to the Task
3. Set the Task Parameters
4. Execute the Task

```
SET SERVEROUTPUT ON
DECLARE
seg_task_id  number;
seg_task_name varchar2(100);
seg_task_desc varchar2(500);
OBJ_ID      number;
BEGIN
seg_task_name := 'ANALYZE_TABLE_DATA';
seg_task_desc := 'Manual Segment Advisor Run for table';

-- Step 1
dbms_advisor.create_task(
advisor_name => 'Segment Advisor',
task_id      => seg_task_id,
task_name    => seg_task_name,
task_desc    => seg_task_desc);
```

```
-- Step2
dbms_advisor.create_object(
task_name => seg_task_name,
object_type => 'TABLE',
attr1      => 'CISADM',
attr2      => 'CI_BSEG_CALC',
attr3      => NULL,
attr4      => NULL,
attr5      => NULL,
object_id  => obj_id);

-- Step3
dbms_advisor.set_task_parameter(
task_name => seg_task_name,
parameter => 'recommend_all',
value     => 'TRUE');

-- Step4
DBMS_ADVISOR.EXECUTE_TASK(seg_task_name);
FOR cur_rec IN (SELECT f.impact, o.type, o.attr1, o.attr2, f.message,
f.more_info FROM dba_advisor_findings f JOIN dba_advisor_objects o ON
f.object_id = o.object_id AND f.task_name = o.task_name WHERE
f.task_name = seg_task_name ORDER BY f.impact DESC)
LOOP
DBMS_OUTPUT.put_line('..');
DBMS_OUTPUT.put_line('Type           : ' || cur_rec.type);
DBMS_OUTPUT.put_line('Attr1          : ' || cur_rec.attr1);
DBMS_OUTPUT.put_line('Attr2          : ' || cur_rec.attr2);
DBMS_OUTPUT.put_line('Message        : ' || cur_rec.message);
DBMS_OUTPUT.put_line('More info      : ' || cur_rec.more_info);
END LOOP;
DBMS_ADVISOR.delete_task(task_name => seg_task_name);
EXCEPTION
WHEN OTHERS THEN
DBMS_OUTPUT.put_line('Error           : ' ||
DBMS_UTILITY.format_error_backtrace);
```

```
DBMS_ADVISOR.delete_task(task_name => seg_task_name);  
End;
```

Similarly, you can manually generate segment advisor advice for an index. You just need to change the `OBJECT_TYPE` to `INDEX` and specify the index name in the `ATTR2` in Step 2.

Using the following SQL statement, you can verify whether the advisor task is completed:

```
SELECT TASK_NAME, STATUS FROM DBA_ADVISOR_TASKS WHERE ADVISOR_NAME='SEGMENT  
ADVISOR' AND TASK_NAME IN ('ANALYZE_TABLE_DATA');
```

5.2.9.2 Viewing Segment Advisor Advice

We recommend you to configure daily job to run the advisor for selected objects in the non-peak hours and view the advisory recommendations. The advice will give an estimate about how much space can be reclaimable. Depending upon the estimate given by the segment advisor, you can decide whether to shrink table or not.

5.2.9.3 Shrinking Tables

Before you shrink a table, you need to enable row movement for the table using the following SQL statement:

```
ALTER TABLE SEG_TABLE ENABLE ROW MOVEMENT;
```

Then, you can shrink a table using the following SQL statement:

```
ALTER TABLE SEG_TABLE SHRINK SPACE COMPACT;
```

Appendix A : New Objects in the Oracle Revenue Management and Billing V2.9.0.0.0 Database

This section lists the objects that are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database. These objects are classified under the following two sections:

- Schema Changes
- New System Data

A.1 Schema Changes

This section lists schema related changes made in the Oracle Revenue Management and Billing V2.9.0.0.0 database.

A.1.1 New Tables

The following tables are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Table	Description
C1_ACCUM_GRP_MPP	Accumulation Group Information for MPP
C1_BSEG_DEAL_EXT	Billing Detail for Deal
C1_BSEG_DEAL_K	Billing Key Table
C1_DEAL	Deal
C1_DEAL_ADHOC_REV	Deal Adhoc Cost/Revenue
C1_DEAL_APPROVAL	Deal Approval
C1_DEAL_APROF	Deal Approval Profile
C1_DEAL_APROF_HCY	Deal Approval Hierarchy
C1_DEAL_APROF_L	Deal Approval Profile Language
C1_DEAL_CHAR	Deal Characteristic
C1_DEAL_COMMENTS	Deal Comments
C1_DEAL_DEFER_REQ	Deal Defer Request
C1_DEAL_K	Deal Event
C1_DEAL_L	Deal Language
C1_DEAL_LOG	Deal Logs
C1_DEAL_LOG_PARM	Deal Log Parameters

Table	Description
C1_DEAL_PRICE_ASGN_TC	Deal Price assign Terms and conditions
C1_DEAL_PRICEITEM_APPR	Deal Price Item Approval
C1_DEAL_PRICEITEM_COMMENTS	Deal Price Item Comments table
C1_DEAL_PRICELIST	Mapping Standard Pricelist
C1_DEAL_PRICELIST_K	Deal key table
C1_DEAL_PRICELIST_L	Deal language Table
C1_DEAL_REFERENCES	Deal References
C1_DEAL_SIMULATION_DTL	Deal Simulation Table
C1_DEAL_SIMULATION_SMRY	Deal Simulation Summary
C1_DEAL_TC	Deal Terms and Conditions
C1_DEAL_TYPE	Deal Type
C1_DEAL_TYPE_ALG	Deal Type Algorithm
C1_DEAL_TYPE_CHAR	Deal Type Characteristics
C1_DEAL_TYPE_CST_AHCY	Deal Type Customer Approval Hierarchy
C1_DEAL_TYPE_L	Deal Type Schema For Language
C1_DIV_PI_COST	To add prospect cost details
C1_DIV_PI_FLRCEIL_TYPE	Prospect Related Pricing
C1_DIV_PRICEITEM_HIERARCHY	Table to store hierarchy details.
C1_FILE_REQUEST_IDENTIFIER	File Record Identifier
C1_HIERARCHY	Hierarchy table
C1_HIERARCHY_CHAR	Hierarchy Characteristics
C1_HIERARCHY_DTL	Hierarchy details table
C1_HIERARCHY_L	Hierarchy Language
C1_HRCHY_ENTITY	Hierarchy Entity table
C1_HRCHY_ENTITY_CHAR	Hierarchy Entity Characteristics
C1_HRCHY_ENTITY_DIV	Hierarchy Entity Division
C1_HRCHY_ENTITY_L	Hierarchy Entity Language
C1_INVOICE_REQ	Invoice Request
C1_INVOICE_REQ_CHAR	Invoice Request Characteristics
C1_INVOICE_REQ_DTLS	Invoice Request Details
C1_INVOICE_REQ_EXT_REF	Invoice Request External Reference

Table	Description
C1_INVOICE_REQ_K	Invoice Request Key
C1_INVOICE_REQ_LOG	Invoice Request Log
C1_INVOICE_REQ_LOG_PARM	Invoice Request Log Parameters
C1_INVOICE_REQ_TYPE	Invoice Request Type
C1_INVOICE_REQ_TYPE_CHAR	Invoice Request Type Characteristics
C1_INVOICE_REQ_TYPE_L	Invoice Request Type Language
C1_MODEL	Model
C1_MODEL_COMMENTS	Comments on Model
C1_MODEL_FIN_SUMMARY	model financial summary
C1_MODEL_K	Model Key
C1_MODEL_L	Model Language
C1_MODEL_LOG	Model Logs
C1_MODEL_LOG_PARM	Model Log Parm
C1_MODEL_SQI	Deal Model SQI
C1_OFFPROC_ACCUM_AMT_DTLS	Off-Process Accumulation Amount Details
C1_OFFPROC_REQ	Off-Process Request
C1_OFFPROC_REQ_CHAR	Off-Process Request Characteristics
C1_OFFPROC_REQ_DTLS	Off-Process Request Details
C1_OFFPROC_REQ_K	Off-Process Request Key
C1_OFFPROC_REQ_LOG	Off-Process Request Log
C1_OFFPROC_REQ_LOG_PARM	Off-Process Request Log Parameters
C1_OFFPROC_REQ_TYPE	Off Process Request Type
C1_OFFPROC_REQ_TYPE_CHAR	Off Process Request type Characteristic
C1_OFFPROC_REQ_TYPE_L	Off Process Request Type Language
C1_PRICEASGN_COST	Price Assignment cost details
C1_PRICEASGN_FLOOR_CEIL	Prospect Related assignment Pricing
C1_PRICEASGN_SQ	This is used to store commitments value
C1_PRS_ACCT	Prospect Account
C1_PRS_ACCT_BAL_CNT	Account Balance Count
C1_PRS_ACCT_CHAR	Prospect Account Characteristics
C1_PRS_ACCT_K	Prospect Account Key

Table	Description
C1_PRS_ACCT_NBR	Maintains External PRS Account Number
C1_PRS_ACCT_PER	Prospect Account Person Relationship
C1_PRS_BAL_CNT	Balance Count
C1_PRS_ENRL_PROD	Prospect Enrolled Product
C1_PRS_ENRL_PROD_REL	Prospect Enrolled Product Relation
C1_PRS_ENRL_PROD_REL_SVC	Enrolled Product Relation Service
C1_PRS_ENRL_PROD_SVC	Enrolled Product Service
C1_PRS_PER	Prospect Person
C1_PRS_PER_CHAR	Prospect Person Characteristics
C1_PRS_PER_ID	Prospect Person Identifier
C1_PRS_PER_K	Prospect Person Key
C1_PRS_PER_NAME	Prospect Person Name
C1_PRS_PER_PER	Prospect Person to Person
C1_PRS_PER_PER_CHAR	Prospect Person to Person Char
C1_PRS_PER_PHONE	Prospect Person Phone
C1_PRS_PRICELIST_ASGN	Prospect Price List Assignment
C1_PRS_PRICELIST_ASGN_K	Prospect Price List Assignment Key
C1_PRS_PRICELST_ASGN_CHAR	Prospect Price List Assignment Characteristic
C1_PRS_PROD_ENRL	Prospect Product Enrollment
C1_PRS_PROD_ENRL_CHAR	Product Enrollment Characteristic
C1_PRS_PROD_ENRL_K	Prospect Product Enrollment Key
C1_PRS_PROD_ENRL_LOG	Product Enrollment Log
C1_PRS_PROD_ENRL_LOG_PARM	Product Enrollment Log Parameter
C1_PRS_SA	Prospect SA (Service Agreement)
C1_PRS_SA_CHAR	Prospect SA Characteristics
C1_PRS_SA_K	Prospect SA (Service Agreement) Key
C1_QEST	Question details
C1_QSTN_DTL	Questionnaire details
C1_QSTN_DTL_ALG	Questionnaire Algorithm Details
C1_QSTN_L	Questionnaire Detail Description
C1_VOLUME_AGGR	Volume Aggregation Table

A.1.2 Added Columns

The following columns are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Table	Column	Column Description	Required (Yes or No)
C1_ACCUM_MIN_PREM_AMT	MAX_LIMIT_ATTACH_PT_VALUE	MP Maximum Limit Attachment Point Value	No
	MIN_LIMIT_ATTACH_PT_VALUE	MP Minimum Limit Attachment Point Value	No
	CUL_LIMIT	Minimum Premium Cumulative Limit	No
	CUL_LIMIT_DELTA	Minimum Premium Cumulative Limit Delta	No
	CUL_LIMIT_ORG	Minimum Premium Cumulative Limit Original	No
	LIMIT_TYPE	Minimum Premium Limit Type	No
	VERSION	Version	Yes
C1_ADDRESS	ADDRESS7	Address 7	Yes
C1_BSEG_DEAL	BILL_CYC_CD	Bill Cycle	Yes
	BILL_SCNR_ID	Bill Scenario ID	Yes
	BSEG_ID	Bill Segment ID	Yes
	BSEG_STAT_FLG	Bill Segment Status	Yes
	CAN_BSEG_ID	Cancel Bill Segment ID	Yes
	CAN_RSN_CD	Cancel Reason	Yes
	CLOSING_BSEG_SW	Closing Bill Segment	Yes
	SA_ID	Contract ID	Yes
	CRE_DTTM	Create Date/Time	No
	DEAL_ID	Deal ID	Yes
	END_DT	End Date	No
	EST_SW	Estimate	Yes
	ILM_ARCH_SW	ILM Archive Switch	No
	ILM_DT	ILM Date	No
ITEM_OVERRIDE_SW	Item Override	Yes	

Table	Column	Column Description	Required (Yes or No)
	MASTER_BSEG_ID	Master Bill Segment Id	Yes
	MODEL_CD	Model	No
	MODEL_ID	Model Id	Yes
	PREM_ID	Premise ID	Yes
	QUOTE_DTL_ID	Quote Detail ID	Yes
	REBILL_SEG_ID	Rebill Segment ID	Yes
	SQ_OVERRIDE_SW	SQ Override	Yes
	START_DT	Start Date	No
	STAT_CHG_DTTM	Status Change Date/Time	No
	VERSION	Version	Yes
	WIN_START_DT	Window Start Date	No
C1_BSEG_DEAL_CALC	BSEG_ID	Bill Segment ID	Yes
	BILLABLE_CHG_ID	Billable Charge ID	Yes
	CALC_AMT	Calculated Amount	Yes
	CURRENCY_CD	Currency Code	Yes
	DESCR_ON_BILL	Description on Bill	Yes
	EFFDT	Effective Date	No
	END_DT	End Date	Yes
	HEADER_SEQ	Header Sequence	Yes
	RS_CD	Rate Schedule	Yes
	START_DT	Start Date	Yes
	VERSION	Version	Yes
C1_BSEG_DEAL_CALC_LN	TOT_AGG_SQ	Aggregated SQ	Yes
	APP_IN_SUMM_SW	Appears in Summary	Yes
	BASE_AMT	Base Amount	Yes
	BSEG_ID	Bill Segment ID	Yes
	BILL_SQ	Billable Service Quantity	Yes
	CALC_AMT	Calculated Amount	Yes
	CHAR_TYPE_CD	Characteristic Type	Yes
	CHAR_VAL	Characteristic Value	Yes

Table	Column	Column Description	Required (Yes or No)
	CURRENCY_CD	Currency Code	Yes
	DESCR_ON_BILL	Description on Bill	Yes
	DST_ID	Distribution Code	Yes
	EXCHRATE	Exchange Rate	No
	EXCHRATE_ID	Exchange Rate ID	Yes
	EXEMPT_AMT	Exempt Amount	Yes
	HEADER_SEQ	Header Sequence	Yes
	MSR_PEAK_QTY_SW	Measures Peak Qty	Yes
	PRICECOMP_ID	Price Component ID	Yes
	PRIC_AMT	Pricing Amount	Yes
	PRIC_CCY_CD	Pricing Currency Code	Yes
	PRT_SW	Print	Yes
	VALUE_AMT	Rate Value	No
	SQI_CD	SQI	Yes
	RC_SEQ	Sequence	Yes
	SEQNO	Sequence	Yes
	UOM_CD	Unit of Measure	Yes
	TOU_CD	Variance Parameter	Yes
VERSION	Version	Yes	
C1_BSEG_DEAL_CL_CHAR	ADHOC_CHAR_VAL	Adhoc Characteristic Value	Yes
	BSEG_ID	Bill Segment ID	Yes
	CHAR_TYPE_CD	Characteristic Type	Yes
	CHAR_VAL	Characteristic Value	Yes
	CHAR_VAL_FK1	Characteristic Value FK 1	Yes
	CHAR_VAL_FK2	Characteristic Value FK 2	Yes
	CHAR_VAL_FK3	Characteristic Value FK 3	Yes
	CHAR_VAL_FK4	Characteristic Value FK 4	Yes
	CHAR_VAL_FK5	Characteristic Value FK 5	Yes
	HEADER_SEQ	Header Sequence	Yes
	SEQNO	Sequence	Yes

Table	Column	Column Description	Required (Yes or No)
	VERSION	Version	Yes
C1_BSEG_DEAL_EXCP	BSEG_EXCP_FLG	Bill Segment Exception Type	Yes
	BSEG_ID	Bill Segment ID	Yes
	CALL_SEQ	Calling Program Sequence	Yes
	COMMENTS	Comments	Yes
	CRE_DTTM	Create Date/Time	No
	EXP_MSG	Message	Yes
	MESSAGE_CAT_NBR	Message Category	Yes
	MESSAGE_NBR	Message Number	Yes
	MESSAGE_PARM1	Parameter 1	Yes
	MESSAGE_PARM2	Parameter 2	Yes
	MESSAGE_PARM3	Parameter 3	Yes
	MESSAGE_PARM4	Parameter 4	Yes
	MESSAGE_PARM5	Parameter 5	Yes
	MESSAGE_PARM6	Parameter 6	Yes
	MESSAGE_PARM7	Parameter 7	Yes
	MESSAGE_PARM8	Parameter 8	Yes
	MESSAGE_PARM9	Parameter 9	Yes
	REVIEW_DT	Review Date	No
	REVIEW_USER_ID	Review User	Yes
	REVIEW_COMP	Reviewed	Yes
USER_ID	User	Yes	
VERSION	Version	Yes	
C1_BSEG_DEAL_ITEM	BSEG_ID	Bill Segment ID	Yes
	SVC_QTY	Daily Service Quantity	Yes
	END_DT	End Date	Yes
	ITEM_CNT	Item Count	Yes
	ITEM_ID	Item ID	Yes
	ITEM_TYPE_CD	Item Type	Yes
	SEQNO	Sequence	Yes

Table	Column	Column Description	Required (Yes or No)
	START_DT	Start Date	Yes
	UOM_CD	Unit of Measure	Yes
	VERSION	Version	Yes
C1_BSEG_DEAL_MSG	BILL_MSG_CD	Bill Message	Yes
	BSEG_ID	Bill Segment ID	Yes
	VERSION	Version	Yes
C1_BSEG_DEAL_READ	BSEG_ID	Bill Segment ID	Yes
	END_READ_DTTM	End Read Date/Time	Yes
	END_REG_READ_ID	End Reg Read ID	Yes
	END_REG_READING	End Register Reading	Yes
	FINAL_SQI_CD	Final Service Quantity ID	Yes
	FINAL_TOU_CD	Final Sub-UOM	Yes
	FINAL_UOM_CD	Final Unit of Measure	Yes
	HOW_TO_USE_FLG	How To Use	Yes
	USAGE_FLG	How To Use (SP)	Yes
	MSR_QTY	Measured Quantity	Yes
	MSR_PEAK_QTY_SW	Measures Peak Qty	Yes
	FINAL_REG_QTY	Quantity	Yes
	REG_CONST	Register Constant	Yes
	SQI_CD	SQI	Yes
	SEQNO	Sequence	Yes
	SP_ID	Service Point ID	Yes
	START_READ_DTTM	Start Read Date/Time	Yes
	START_REG_READ_ID	Start Reg Read ID	Yes
	START_REG_READING	Start Register Reading	Yes
	UOM_CD	Unit of Measure	Yes
USE_PCT	Use Percent	Yes	
TOU_CD	Variance Parameter	Yes	
VERSION	Version	Yes	
C1_BSEG_DEAL_SQ	BSEG_ID	Bill Segment ID	Yes

Table	Column	Column Description	Required (Yes or No)
	BILL_SQ	Billable Service Quantity	Yes
	INIT_SQ	Initial Service Quantity	Yes
	SQI_CD	SQI	Yes
	UOM_CD	Unit of Measure	Yes
	TOU_CD	Variance Parameter	Yes
	VERSION	Version	Yes
C1_DISCREPANCY_RPT_LN	DSC_AMT	Discrepancy Amount	No
C1_PRCRLTY_PARAMETER	IS_MPP_ELIGIBLE_SW	Eligible for Minimum Premium Program	No
C1_PRICEITEM_TC	DEFAULT_SW	Default	No
	END_DT	End Date	No
	PRICEITEM_CD	Price Item	Yes
	FOOTNOTE_REF	Reference Text	No
	SEQNO	Sequence	No
	START_DT	Start Date	No
	TC_TYPE_CD	Terms and Conditions	Yes
	TC_TXT	Terms and conditions	No
	USAGE_FLAG	Usage	Yes
	VARIABLE_SW	Variable	No
	VERSION	Version	Yes
CI_ACCT_APAY	ENCR_EXT_ACCT_ID	Encrypted External Account ID	No
CI_ACCT_PER_ROUTING	BO_DATA_AREA	Business Object Data Area	No
CI_APAY_CLR_STG	ENCR_EXT_ACCT_ID	Encrypted External Account ID	No
CI_CHG_TYPE	CHG_TYPE_SUB_CAT_FLG	Charge Type Sub Category	No
CI_CUST_BILLED_PRICE_VW	ACCOUNTNUMBER	Account Number	No
	BASE_AMT	Base Amount	Yes
	BILL_DT	Bill Date	No
	BILL_ID	Bill ID	Yes
	BSEG_ID	Bill Segment ID	Yes

Table	Column	Column Description	Required (Yes or No)
	BILL_SQ	Billable Service Quantity	Yes
	BILLEDAMT	Billed Amount	No
	CURRENCYCODE	Currency Code	Yes
	CUSTOMERNAME	Customer Name	No
	DIRECTDEBITACCOUNT	Direct Debit Account	No
	ITEMTYPECODE	Item Type Code	No
	PC_VALUE_AMT	PC Value Amount	No
	PER_ID	Person ID	Yes
	PER_ID_NBR	Person Identifier	Yes
	ID_TYPE_CD	Person Identifier Type	Yes
	PRICECOMP_ID	Price Component ID	No
	PRODUCTCODE	Product Code	No
	RS_CD	Rate Schedule	Yes
	VALUE_AMT	Rate Value	No
	RC_SEQ	Sequence	Yes
	TAX_CHAR_CD	Tax Char Code	No
	TIERFROM	Tier From	No
	TIERTO	Tier To	No
	TIERED_FLAG	Tiering Type	No
	VAL_TYPE_FLG	Value Type	Yes
CI_ENRL_FLD	ENCR_COL_REF_VAL	Encrypted Column Reference Value	No
CI_FILE_REQUEST	BATCH_CD	Batch Control	Yes
CI_FILE_REQUEST_DETAIL	BATCH_CD	Batch Control	Yes
	BATCH_NBR	Batch Number	No
	PRIMARY_REQUEST_ID	Primary Request ID	No
CI_FILE_REQUEST_TYPE	GROUP_REC_ORDER_BY	Duplicate Records Order By	No
	GROUP_IDENTICAL_REC_SW	Group Duplicate Records	No
CI_GET_SA_ID_VW	SA_ID	Contract ID	Yes
CI_OVRD_ACCOUNT_LEVE	ACCT_ID	Account ID	Yes

Table	Column	Column Description	Required (Yes or No)
L_VW	END_DT	End Date	No
	INHERITEDFROM	Inherited From	No
	LOWER_LIMIT	Lower limit	No
	OVERRIDESTANDARD	Override Standard	No
	PER_ID1	Person1	Yes
	PRICEITEM_CD	Price Item	No
	PRICE_CURRENCY_CD	Pricing Currency	No
	VALUE_AMT	Rate Value	No
	START_DT	Start Date	No
	UPPER_LIMIT	Upper Limit	No
	VAL_TYPE_FLG	Value Type	No
CI_OVRD_PARENT_PERSON_LEVEL_VW	ACCT_ID	Account ID	No
	END_DT	End Date	No
	INHERITEDFROM	Inherited From	No
	LOWER_LIMIT	Lower limit	No
	OVERRIDESTANDARD	Override Standard	No
	PARTY_ID	Party ID	No
	PRICEITEM_CD	Price Item	No
	PRICE_CURRENCY_CD	Pricing Currency	No
	VALUE_AMT	Rate Value	No
	START_DT	Start Date	No
	UPPER_LIMIT	Upper Limit	No
VAL_TYPE_FLG	Value Type	No	
CI_OVRD_PERSON_LEVEL_VW	ACCT_ID	Account ID	No
	END_DT	End Date	No
	INHERITEDFROM	Inherited From	No
	LOWER_LIMIT	Lower limit	No
	OVERRIDESTANDARD	Override Standard	No
	PARTY_ID	Party ID	No
	PRICEITEM_CD	Price Item	No

Table	Column	Column Description	Required (Yes or No)
	PRICE_CURRENCY_CD	Pricing Currency	No
	VALUE_AMT	Rate Value	No
	START_DT	Start Date	No
	UPPER_LIMIT	Upper Limit	No
	VAL_TYPE_FLG	Value Type	No
CI_PER	REL_MGR	Relationship Manager	No
CI_PEVT_DTL_ST	ENCR_EXT_ACCT_ID	Encrypted External Account ID	No
CI_PRICEASGN	FLOOR_CEIL_TYPE	Floor and Ceiling Type	No
CI_PRICEITEM	FLOOR_CEIL_TYPE	Floor and Ceiling Type	No
	ROLE_ID	To Do Role	No
	TD_TYPE_CD	To Do Type	No
CI_PRICELIST	AVAIL_DEAL_SW	Available for Deal Pricing	No
	STANDARD_DEAL_SW	Standard for Deal Pricing	No
CI_RPT_AUDIT	BATCH_RUN_NBR	Batch Run Number	No
	REQUEST_HASH	Request Hash	No
CI_RPT_DTL	EMAIL_BODY_CONTENT	Email Body Content	No
	EMAIL_ID	Email ID	No
	EMAIL_SUBJECT	Subject	No
CI_SETT_ACC_NOT_MAPPED1_VW	ACCT_NBR	Account Identifier	Yes
	TEMPLATE_CD	Template	Yes
	CRITT_VARIABLE_VALUE	Variable Value	Yes
	CRIT_VARIABLE_VALUE	Variable Value1	Yes
CI_SETT_ACC_NOT_MAPPED2_VW	ACCT_NBR	Account Identifier	Yes
	TEMPLATE_CD	Template	Yes
	CRITT_VARIABLE_VALUE	Variable Value	Yes
	CRIT_VARIABLE_VALUE	Variable Value1	Yes
CI_SETT_ACC_NOT_MAPPED3_VW	ACCT_NBR	Account Identifier	Yes
	TEMPLATE_CD	Template	Yes
	VARIABLE_VALUE	Variable Value	Yes

Table	Column	Column Description	Required (Yes or No)
CI_SETT_ACC_NOT_MAPP ED4_VW	ACCT_ID	Account ID	Yes
	ACCT_NBR	Account Identifier	Yes
	CHAR_TYPE_CD	Characteristic Type	Yes
	TEMPLATE_CD	Template	Yes
CI_SETL_SOLDPROD_EXTR ACT_VW	ITEM_TYPE_CD	Item Type	No
	SETL_ACCT_ID	Settlement Account Id	No
	SOLD_PROD_ID	Sold Product Id	Yes
CI_STD_PRICE_LIST_VW	ACCT_ID	Account ID	No
	END_DT	End Date	No
	INHERITEDFROM	Inherited From	No
	LOWER_LIMIT	Lower limit	No
	OVERRIDESTANDARD	Override Standard	No
	PARTY_ID	Party ID	No
	PRICEITEM_CD	Price Item	No
	PRICE_CURRENCY_CD	Pricing Currency	No
	VALUE_AMT	Rate Value	No
	START_DT	Start Date	No
	UPPER_LIMIT	Upper Limit	No
	VAL_TYPE_FLG	Value Type	No
CI_STM_ACCT_VW	ENCR_EXT_ACCT_ID	Encrypted External Account ID	No
CI_TC	TC_PURPOSE	TcPurpose	No
CI_TRL_BSEXT	EFF_START_DATE	Effective Start Date	No
	TEMPLATE_CD	Template	No
CI_USAGE_SETTLEMENT_ RPT_VW	CHAR_TYPE_CD	Characteristic Type	Yes
	CHAR_VAL	Characteristic Value	Yes
	CONSTRUCT_ID	Construct ID	Yes
	EXCLUDE_ACCT_SW	Exclude Account (Y/N)	Yes
	INV_ACT	Invoice Account	Yes
	PER_ID_NBR	Person Identifier	Yes

Table	Column	Column Description	Required (Yes or No)
	ID_TYPE_CD	Person Identifier Type	Yes
	CUSTOMER_NAME	Person Name	Yes
	PRIORITY_NUM	Priority	Yes
	SETTLEMENT_NBR	Settlement Number	Yes
	SOLD_PRODUCT	Sold Product	Yes
	TEMPLATE_CD	Template	Yes
	USER_ID	User	No
	USER_NAME	User Name	No
	VARIABLE_NAME	Variable Name	Yes
CI_USAGE_SETTLEMENT_RPT2_VW	ACCT_NBR_TYPE_CD	Account Identifier Type	Yes
	ACT_NBR2_ACCT_ID	Account Number ID2	Yes
	CONSTRUCT_ID	Construct ID	Yes
	PER_ID_NBR	Person Identifier	Yes
	ID_TYPE_CD	Person Identifier Type	Yes
	CUSTOMER_NAME	Person Name	Yes
	PRIORITY_NUM	Priority	Yes
	SETTLEMENT_NBR	Settlement Number	Yes
	SOLD_PRODUCT	Sold Product	Yes
	TEMPLATE_CD	Template	Yes
	USER_ID	User	No
	USER_NAME	User Name	No
	VARIABLE_NAME	Variable Name	Yes
	CI_USAGE_SETTLEMENT_RPT3_VW	ACT_NBR1_2_ACCT_NBR	Account Number Id2
CONSTRUCT_ID		Construct ID	Yes
ID_TYPE_CD		Person Identifier Type	Yes
SOLD_PRODUCT		Sold Product	Yes
TEMPLATE_CD		Template	Yes
VARIABLE_NAME		Variable Name	Yes
VARIABLE_VALUE		Variable Value	Yes

A.1.3 Dropped Tables

None

A.1.4 Dropped Columns

The following columns were removed from the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Table	Column	Column Description
C1_ACCUM_MIN_PREM_AMT	CUL_ENR_LIMIT	Minimum Premium Cumulative Enrollment Limit
	ENR_LIMIT_ATTACH_PT_VALUE	Minimum Premium Enrollment Limit Attachment Point Value
C1_DRR_TMPLT	CIS_DIVISION	Division
C1_FT_EXT_CHAR	SEQNO	Sequence
CI_FILE_REQUEST_TYPE	DELIMITER	Delimiter
	FILE_DECRYPT_ALG_CD	File Decryption Algorithm
CI_FILE_REQUEST_TYPE_SERVICE	CLOB_TYPE_SW	CLOB Type Switch
	TRANSFORM_ALG_CD	Data Transformation Algorithm

A.1.5 Added Views

The following views are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

View	Description
CI_CUST_BILLED_PRICE_VW	Customer Billed Priced Details View
CI_GET_SA_ID_VW	Get SA Id View
CI_OVRD_ACCOUNT_LEVEL_VW	Override Account Level View
CI_OVRD_PARENT_PERSON_LEVEL_VW	Override Parent Person Level View
CI_OVRD_PERSON_LEVEL_VW	Override Person Level View
CI_SETL_SOLDPROD_EXTRACT_VW	Settlement Sold Product Extract View
CI_SETT_ACC_NOT_MAPPED1_VW	Settlement Account Not Mapped 1 View
CI_SETT_ACC_NOT_MAPPED2_VW	Settlement Account Not Mapped View 2
CI_SETT_ACC_NOT_MAPPED3_VW	Settlement Account Not Mapped View 3
CI_SETT_ACC_NOT_MAPPED4_VW	Settlement Account Not Mapped View 4
CI_STD_PRICE_LIST_VW	Standard Price List View

View	Description
CI_USAGE_SETTLEMENT_RPT_VW	Usage Settlement Report View
CI_USAGE_SETTLEMENT_RPT2_VW	Usage Settlement Report 2 View
CI_USAGE_SETTLEMENT_RPT3_VW	Usage Settlement Report 3 View

A.1.6 Column Format Change

The format of the following columns is changed in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Table	Column	From	To
C1_ACCRUAL_CALC_LINE	ENTITY_TYPE_FLG	CHAR(2)	VARCHAR2(4)
C1_ACCRUAL_LOG_PARM	MESSAGE_PARM	VARCHAR2(30)	VARCHAR2(2000)
C1_ACCT_SUBSCR_LOG_PARM	MESSAGE_PARM	VARCHAR2(30)	VARCHAR2(2000)
C1_AUDIT_EVENT_LOG	CHAR_VAL_FK1	CHAR(50)	VARCHAR2(50)
	CHAR_VAL_FK2	CHAR(50)	VARCHAR2(50)
	CHAR_VAL_FK3	CHAR(50)	VARCHAR2(50)
	CHAR_VAL_FK4	CHAR(50)	VARCHAR2(50)
	CHAR_VAL_FK5	CHAR(50)	VARCHAR2(50)
C1_BILL_LVL_LOG_PARM	MESSAGE_PARM	VARCHAR2(30)	VARCHAR2(2000)
C1_DISCREPANCY_RPT_CHAR	CHAR_VAL_FK1	VARCHAR2(50)	CHAR(50)
	CHAR_VAL_FK2	VARCHAR2(50)	CHAR(50)
	CHAR_VAL_FK3	VARCHAR2(50)	CHAR(50)
	CHAR_VAL_FK4	VARCHAR2(50)	CHAR(50)
	CHAR_VAL_FK5	VARCHAR2(50)	CHAR(50)
C1_DISCREPANCY_RPT_LN_CHAR	ADHOC_CHAR_VAL	VARCHAR2(12)	VARCHAR2(254)
C1_DISCREPANCY_RPT_LOG	CHAR_VAL_FK1	CHAR(50)	VARCHAR2(50)
	CHAR_VAL_FK2	CHAR(50)	VARCHAR2(50)
	CHAR_VAL_FK3	CHAR(50)	VARCHAR2(50)
	CHAR_VAL_FK4	CHAR(50)	VARCHAR2(50)
	CHAR_VAL_FK5	CHAR(50)	VARCHAR2(50)
C1_DISCREPANCY_RPT_LOG_PARM	MESSAGE_PARM	VARCHAR2(30)	VARCHAR2(2000)
C1_FT_DISTRIBUTION_ACCT	STATUS_CD	CHAR(2)	VARCHAR2(12)

Table	Column	From	To
C1_MO_DEPLOY	CREATED_BY	CHAR(8)	VARCHAR2(254)
C1_PAY_INS_CHAR	CHAR_VAL_FK1	CHAR(50)	VARCHAR2(50)
	CHAR_VAL_FK2	CHAR(50)	VARCHAR2(50)
	CHAR_VAL_FK3	CHAR(50)	VARCHAR2(50)
	CHAR_VAL_FK4	CHAR(50)	VARCHAR2(50)
	CHAR_VAL_FK5	CHAR(50)	VARCHAR2(50)
C1_PRC_RULE_LOG	ADHOC_CHAR_VAL	VARCHAR2(50)	VARCHAR2(254)
C1_PRC_RULE_LOG_PARM	MESSAGE_PARM	VARCHAR2(30)	VARCHAR2(2000)
C1_PRICING_GRP_LOG	ADHOC_CHAR_VAL	VARCHAR2(50)	VARCHAR2(254)
	CHAR_VAL	VARCHAR2(254)	CHAR(16)
C1_PRODUCT_LOG_PARM	MESSAGE_PARM	VARCHAR2(30)	VARCHAR2(2000)
C1_PRODUCT_VER_LOG_PARM	MESSAGE_PARM	VARCHAR2(30)	VARCHAR2(2000)
C1_REF_WO_REQ_LOG_PARM	MESSAGE_PARM	VARCHAR2(30)	VARCHAR2(2000)
C1_TXN_DISAGG_REQ_LOG	TXN_DISAGG_REQ_ID	CHAR(12)	VARCHAR2(14)
C1_TXN_DISAGG_REQ_LOG_PARM	MESSAGE_PARM	VARCHAR2(30)	VARCHAR2(2000)
	TXN_DISAGG_REQ_ID	CHAR(12)	VARCHAR2(14)
C1_UPL_REQUEST	FILE_NAME	VARCHAR2(60)	CHAR(60)
CI_ACCUM_GRP_SL_LASER_EXC	FIRST_NAME	VARCHAR2(30)	VARCHAR2(50)
	LAST_NAME	VARCHAR2(30)	VARCHAR2(50)
CI_APPTXN_REASON_L	DESCR	CHAR(60)	VARCHAR2(60)
CI_BILL_LOG	CHAR_VAL	CHAR(1)	VARCHAR2(16)
CI_CONSTRUCT_LOG_PARM	MESSAGE_PARM	VARCHAR2(30)	VARCHAR2(2000)
CI_DEG_MONTH_VW	START_DT	DATE(8)	DATE(7)
	START_NEXT_DT	DATE(8)	DATE(7)
CI_DELETE_BILL_DETAIL	BO_STATUS_CD	CHAR(1)	VARCHAR2(12)
CI_ENTITY_DETAIL	BUS_OBJ_CD	CHAR(12)	VARCHAR2(30)
CI_FILE_GROUP	CREATED_BY	CHAR(8)	VARCHAR2(254)
CI_MR_VW	READ_DT	DATE(8)	DATE(7)
CI_NOTE_TYPE_L	DESCR	CHAR(8)	VARCHAR2(60)

Table	Column	From	To
CI_PER_ADDR	POSTAL	VARCHAR2(12)	CHAR(12)
CI_PEVT_DTL_ST	ENTITY_NAME	CHAR(254)	VARCHAR2(254)
CI_PRCE_CALC	MESSAGE_PARM1	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM2	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM3	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM4	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM5	VARCHAR2(60)	VARCHAR2(2000)
CI_PROFILE	UI_MAP_CD	CHAR(30)	VARCHAR2(30)
CI_REPRC_ENTITY_DTL	MESSAGE_PARM1	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM2	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM3	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM4	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM5	VARCHAR2(60)	VARCHAR2(2000)
CI_REPRC_REQ_DTL	MESSAGE_PARM1	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM2	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM3	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM4	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM5	VARCHAR2(60)	VARCHAR2(2000)
CI_RPT_AUDIT	CREATED_BY	CHAR(8)	VARCHAR2(254)
CI_RPT_DTL	CREATED_BY	CHAR(8)	VARCHAR2(254)
CI_TEMPLATE_LOG	CHAR_VAL	CHAR(1)	VARCHAR2(16)
CI_TRL_BILL_LOG	CHAR_VAL	CHAR(1)	VARCHAR2(16)
CI_TXN_DETAIL_EXCP	MESSAGE_PARM1	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM2	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM3	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM4	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM5	VARCHAR2(60)	VARCHAR2(2000)
CI_TXN_DTL_PRITM_SUMMARY	MESSAGE_PARM1	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM2	VARCHAR2(60)	VARCHAR2(2000)

Table	Column	From	To
	MESSAGE_PARM3	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM4	VARCHAR2(60)	VARCHAR2(2000)
	MESSAGE_PARM5	VARCHAR2(60)	VARCHAR2(2000)
CI_TXN_HEADER	FILENAME	CHAR(60)	CHAR(100)
CI_TXN_REC_TYPE_L_UNPIVOT_VW	LANGUAGE_CD	CHAR(3)	VARCHAR2(3)
CI_UPLPAY_HSTG	FILE_NAME	VARCHAR2(60)	CHAR(60)

A.2 New System Data

The system data is used to configure various features in Oracle Revenue Management and Billing. This section lists the system data that is newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database.

A.2.1 Algorithm Types

The following algorithm types are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Algorithm Type	Description
AB	Average Balance stored from a cancelled Billable Charge
AQ	Aggregate Quantity Across Hierarchy
C1_CUSTH	Customer Hierarchy Report Extraction
C1_HEV_INF	Hierarchy Entity Value Information
C1_HRCH_INFO	Entity Hierarchy Relationship Information
C1-ACCTPINFO	Prospect Account Information
C1-ACCTPRSIN	Prospect Account Information
C1-ANVBILL	Anniversary Billing Algorithm
C1-CNTACC	Count Related Accounts with Characteristic
C1-CRETBCADJ	Off Process Request Billable Charge / Adjustment Creation
C1-CSTEXRT	Customer Exchange Rate Algo
C1-DEALINFO	Deal Information
C1-DEAL-VAL	Deal BO Validation
C1-DLALG	Deal - Pricing Calculation Algo
C1-DLEXTXCL	Deal Extract for External Extract Type in EXCEL format

Algorithm Type	Description
C1-DLEXPDPF	Deal Extract for External Extract Type in PDF format
C1-DLINTEXCL	Deal Extract for Internal Extract Type in EXCEL format
C1-DLINTPDF	Deal Extract for Internal Extract Type in PDF format
C1-EXTLURTV	Extendable Lookup Rate Type Validation
C1-FRHFVA	File Request Header footer Validation Algorithm Type
C1-FSBCDV	Final Settlement Accumulation Processing
C1-FUNDVALI	Funding Request - Validates To Do for Approver
C1-HENTITYVA	Hierarchy Entity Validation Algorithm
C1-HRCHYRELA	Entity Hierarchy Relationship BO Validation Algo
C1-INRQVALDN	Invoice Request BO Validation
C1-INRTVALDN	Invoice Request Type BO Validation
C1-INVACCTDR	Invoice Request Account derivation for Person
C1-INVACTEL	Invoice Request check account Eligibility for billing
C1-INVDEFPRO	Invoice Request Deferred Processing monitor
C1-INVRACTPO	Automatic Invoice Request Creation for Account
C1-INVRATODO	Invoice request approver TO DO creation
C1-INVREDRFE	Populate Invoice Request details
C1-INVREDTCA	Invoice Request Date Calculation
C1-INVREPRIN	Automatic Invoice Request creation on policy Reinstatement
C1-INVREQCRE	Automatic Invoice Request Creation on policy New Install
C1-INVREQPT	Automatic Invoice Request Creation on policy Termination
C1-INVR-INF	Regular Invoice Request Information
C1-INVRSTATR	Invoice Request Status Transition
C1-INVRSTODO	Invoice request submitter TO DO creation
C1-INVRSTUP	Invoice Request and Invoice Request detail update after batch process
C1-INVRTPEP	Invoice Request Type - Pre-Processing
C1-INRVPROC	Invoice request validate and process for account
C1-IRPOLREW	Automatic Invoice Request Creation on policy Renewal
C1-MODELINFO	Algorithm to retrieve Model Info
C1-MPPPOST	MPP Pricing Rule - Post Processing
C1-MPPRTCALC	Minimum Premium Program Amounts Rate Calculation

Algorithm Type	Description
C1-MPPVAL	MPP pricing rule BO validation
C1-OFFRPEP	Off-Process Request - Pre-Processing
C1-OFFRTPEP	OffProcess Request Type - Pre-Processing
C1-OFPRAPRV	Offprocess Request - Enter Status Algorithm for Approved
C1-OFPRDRAFT	Offprocess Request- DRAFT Enter Status
C1-OFPRQINF	Offprocess Request - Information
C1-OFPRSUBMT	Offprocess Request - Validate next transition of request
C1-OFPRTODO	Offprocess Request - Create To Do for Approver
C1-OFPRTVALD	Invoice Request Type BO Validation
C1-OFRQVALDN	Off-Process Request validation
C1-OFRTVALDN	Off Process Request Type BO Validation
C1-ORCHESTRA	File Upload Service Post-processing - Orchestration
C1-PRICEHIER	Post processing algo for saving price hierarchy data
C1-PRO-VAL	Prospect BO Validation
C1-PRSINFO	Prospect Person Information
C1-PRSPINFO	Prospect Person Information
C1-RPINVC	Usage accounts with no active contracts linked to invoice construct
C1-RPTESPOST	Reporting Email Sender Master Configuration Post Processing algorithm
C1-SSP	Split Shared Pricing
C1-STMPFTINI	Stamp FT Information Non Insurance
C1-TRBILLINF	Trial Bill Information
C1-ZONETOPDF	Create PDF from Zone
CM-FRTPP	CM-FRTPP
FR	A static Free Rebate Volume Count
OVERPROR	Override Proration Base Days
TB	Validate the Usage Account Type
UB	Sum Bill Segments

A.2.2 Algorithms

The following algorithms are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Algorithm	Description
ADHV-NR	Algorithm to validate adhoc value of a characteristics
C1_BSEG_D_AL	Determine BO for Bill Segment
C1_HEV_INF	Algorithm generates the Hierarchy Entity Value information
C1_HRCH_INFO	Entity Hierarchy Relationship Information
C1_PRSACCTAL	Determine Prospect Person BO
C1_PRSPERALG	Determine Prospect Person BO
C1-ACCTPINFO	Prospect Account Information
C1-ACCTPRSIN	Prospect Account Information
C1-ANVBILL	Anniversary billing algorithm
C1-CMNTDETBO	Price Item Comments Determine BO
C1-CNSTRINF	Construct Information
C1-CRETBCADJ	Off Process Request Billable Charge / Adjustment Creation
C1-CSTEXRT	Customer Exchange Rate Algo
C1-DBO_OFPR	Determine Offprocess Request BO
C1-DEALDETBO	Determine Deal BO
C1-DEALINFO	This algorithm would provide deal information
C1-DEALSABO	Deal Service Agreement BO
C1-DEAL-VAL	Deal BO Validation
C1-DLEXTEXCL	Deal Extract for External Extract Type in EXCEL format
C1-DLEXPDPF	Deal Extract for External Extract Type in PDF format
C1-DLINTEXCL	Deal Extract for Internal Extract Type in EXCEL format
C1-DLINTPDF	Deal Extract for Internal Extract Type in PDF format
C1-DORCNTACC	Count Related Accounts with DORMANT Characteristic
C1-EXTLURTV	Extendable Lookup Rate Type Validation
C1-FRHFVA	File Request Header footer Validation Algorithm
C1-FSBCDV	Final Settlement Accumulation Processing
C1-FUNDVALI	Funding request - Validates To Do for Approver
C1-HENTITYVA	Hierarchy Entity Validation
C1-HRCHYRELA	Entity Hierarchy Relationship Algo
C1-INRQVALDN	Invoice Request BO Validation
C1-INRTVALDN	Invoice Request Type BO Validation

Algorithm	Description
C1-INVACCTDR	Invoice Request Account derivation for Person
C1-INVACTEL	Invoice Request check account Eligibility for billing
C1-INVDEFPRO	Invoice Request Deferred Processing monitor
C1-INVRACTPO	Automatic Invoice Request Creation on Account Post Processing.
C1-INVRATODO	Invoice request approver TO DO creation
C1-INVREDRFE	Populate Invoice Request details for account.
C1-INVREDTCA	Invoice request date calculation
C1-INVREPRIN	Automatic Invoice Request creation on policy Reinstale
C1-INVREQCRE	Automatic Invoice Request Creation on policy New Install
C1-INVREQPT	Automatic Invoice Request Creation on policy Termination
C1-INVR-INF	Invoice Request Information
C1-INVRSTATR	Invoice Request Status Transition
C1-INVRSTODO	Invoice request submitter TO DO creation
C1-INVRSTUP	Invoice Request and Invoice Request detail update after batch process
C1-INVRTPEP	Invoice Request Type - Pre-Processing
C1-INVRVPROC	Invoice Request Validate and Process
C1-IRPOLREW	Automatic Invoice Request Creation on policy Renewal
C1-MODEDETBO	Determine Model BO
C1-MODELD	Algorithm for Determine BO
C1-MODELDEAL	Algorithm for Determine BO
C1-MODELINFO	Algorithm to retrieve Model Info
C1-MPPPOST	MPP Pricing Rule - Post Processing
C1-MPPRTCALC	Minimum Premium Program Amounts Rate Calculation
C1-MPPVAL	MPP pricing rule BO validation
C1-OFFRPEP	Off process request Pre Process
C1-OFFRTPEP	OffProcess Request Type - Pre-Processing
C1-OFPRAPRV	Offprocess Request - Enter Status Algorithm for Approved
C1-OFPRDRAFT	Offprocess Request- DRAFT Enter Status
C1-OFPRQINF	Get Offprocess Request Information
C1-OFPRSUBMT	Offprocess Request - Validate next transition of request
C1-OFPRTODO	Offprocess Request - Create To Do for Approver

Algorithm	Description
C1-OFRQVALDN	Off Process Request BO Validation
C1-OFRTVALDN	Off Process Request Type BO Validation
C1-ORCHESTRA	File Upload Service Post-processing - Orchestration
C1-PLASDETBO	Determine PriceList assignment BO
C1-PRICEHIER	Post processing algo for saving price hierarchy data
C1-PRO-VAL	Prospect BO Validation
C1-PRPRDBO	Determine Prospect Product BO
C1-PRSACCTAL	Determine Account BO
C1-PRSINFO	Prospect Person Information
C1-PRSPINFO	Prospect Person Information
C1-RPTESPOST	Reporting Email Sender Master Configuration Post Processing algorithm
C1-SSP	Split Shared Pricing
C1-STMPFTINI	Stamp FT Information Non Insurance
C1-TACDETBO	Price Assignment Term and Conditions Determine BO
C1-TRBILLINF	Trial Bill Information
CM-FRTPP	CM-FRTPP
CNSTRTEMP	Construct with Criteria against Template
ICRGRPID	Incorrect Invoice GroupID
OVERPROR	Override Proration Base Days
USGACCREP	Create PDF from zone
WEIGHTAVG	Weighted Average Price

A.2.3 Business Services

The following business services are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Business Service	Description
C1_ADHRVNSM	Adhoc charges and revenue details
C1_ADHRVNSUM	Adhoc charges and revenue details
C1_BusObjStatusList	BO Status List
C1_DBMSGetJobDtls	DBMS Scheduler Job Details
C1_DealCommentsView	Deal Comments View

Business Service	Description
C1_DealExtractWFMInfo	Deal-Extract Feature Configuration
C1_DEALFETCHRATE	Fetch Rate Component Service
C1_DealLog	Deal Log
C1_DEALPRICEASSIGN	Deal Price Assignment Business Service
C1_DLFINSUM	Deal Financial Summary Service
C1_DLSMULTION	Deal Simulation Service
C1_DLSMULTION_READ	Deal Simulation Service
C1_GETACCTPR	BS for getting accounts for person
C1_GETDLSTRTDT	To get the Deal Level and Deal Start Date
C1_GetFeaturConfg	Get Feature Config Type and Option Type
C1_GETPTYAINP	Assign Pricelist to Party -View Party Info
C1_GETPTYINP	Assign Pricelist to Party -View Party Info
C1_ModelCommentsView	Model Comments View
C1_ModelLog	Model Log
C1_PLASGNPROBS	To view Assign Pricelist for Prospect
C1_PRASGNPROBS	To view Assign product for Prospect
C1_PriceltemCharType	Retrieve Price Item Char Type
C1_PROACCTBS	Prospect Account List
C1_RetrievePriceltemCode	Retrieve Price Item Code
C1_RetriveDealBOStatus	Deal status for given Deal Id
C1-AccumCategorySearch	OffProcess Accum Category Search
C1-ActiveDivision	List of Active Divisions
C1-AddInvoiceRequestUserLog	Invoice Request - Add User Log
C1-AddOffProcessRequestUserLog	Off Process Request- Add User Log
C1-ApplyBack	BS for Apply Back
C1-ATTCHMNTPOINT	Get Attachment Point Information
C1AWRREPGEN	AWR report Generation
C1-ChkInvReqTypeUsedforInvReq	Check whether Invoice Req Type is used for Invoice Req
C1-ChldHrchyEntity	Retrieve Child Hierarchy Entity
C1-CreateNewModel	new Model Comment Page

Business Service	Description
C1DBMSIMPEXP	DBMS Import/Export Data
C1-DBMSProgramAddOrChange	DBMS Scheduler Program for Add or Change
C1-DealAccptRej	Business Service for Deal Accept/Reject
C1-DealApprovalPriceltemListBS	Deal Approval Price Item List
C1-DealApprovalWF	Deal Approval Workflow
C1-DealApprovalWorkflow	Deal Approval Workflow
C1-DealApprovalWorkflowRead	Deal Approval Workflow for Read
C1-DealComments	Deal Comments
C1-DEALCREATION	Deal Creation
C1-DealExtractFilters	Deal Extract Filters
C1DEALHIERAR	Business service for Prospect Hierarchy
C1DEALHIERARS	Business service for Prospect Hierarchy
C1DEALHIERARY	Business service for Prospect Hierarchy
C1-DealLogSer	Deal Log Service
C1-DEALPRCFILTER	Deal Pricing Filter
C1-DealPriceAsgCmtsUpdate	Deal Price Assignment Commitments
C1-DealPriceAsgComtmnts	Deal Price Assignment Commitments
C1-DealProductEnrollment	Deal Product Enrollment service
C1-DEALREAD	Deal Read
C1-DEALSTATUS	Deal status for Prospect
C1-DealUsrMetrics	Calculate Deal Metrics
C1-DIVFLRCEL	Division-Specific to Ceil and Floor
C1-DivisionAccess	Access Groups based on division
C1-DivisionCurrency	Currency based on division
C1-DLAPPRTODOBS	TO DO ALERTS
C1-DLAPPRWF	Business service to display deal approval workflow
C1-DLTODOB	To Do Alerts
C1-FetchInvExtRefTypeFilters	Fetch Invoice Request External Reference Type Filters
C1-FetchInvoiceReqStatus	Fetch Invoice Request BO Status
C1-FETCHLISTDATA	Fetch list data from feature config

Business Service	Description
C1-FetchTrmAndCndn	Fetch Terms and Conditions
C1-FileManagementTransfer	File Management File Transfer Service
C1-GetAccountCount	Retrieve Account Count for Person
C1-GETBILLSTATUS	Get bill status
C1-GETEFFPRICDEAL	C1-GETEFFPRICDEAL
C1-GetEligiblePriceListForPros	Fetch Eligible PriceList for Prospect
C1-GetEligibleProducts	Get Eligible Product
C1-GetEntityChargeTypeFlag	Get Entity ChargeType Flag Service
C1-GetFees	Search Charge type Code and description
C1-GetInvReqEntitySrch	Get Invoice Request Entity Id Search Zones
C1-GetoffProcessDetailSrch	Get Hold Request Search Zones
C1-GETOFFCOMNTS	Fetch Comments for OffProcess Reject reason
C1-GETPRCFLG	Get pricing flag
C1-GetPrcRuleRateType	Get Pricing Rule Rate Type
C1-GETSETTLEMENTRULE	Retrieve Final Settlement Rules Information
C1-GETSUCCESSIVEPR	Retrieve Pricing Rules for Roll Forward
C1HIECRE	C1HIECRE
C1-HrchyDtlLevel	Bs to retrieve hierarchy details level
C1-HrchyEntityRel	Retrieve hierarchy in tree structure
C1-HRCHYPARENT	Parent entity codes on level selection
C1-HrhyRootEntity	Retrieve Root Hierarchy Entity
C1-InvoiceReqButton	Get button list for Invoice Request Status
C1-InvoiceReqEntity	Get Invoice Request Entity Type
C1-InvoiceReqExcludeAcc	Invoice Request - Exclude Account
C1-InvoiceReqIncludeAcc	Invoice Request - Include Account
C1-INVREQSTATSRECDBS	Retrieve Invoice Request Statistic Record
C1-LevelLookup	BS to retrieve hierarchy level lookup
C1-MembershipRepricing	Membership Repricing
C1-MEMBPRICE	Membership Repricing
C1-ModelComments	Model Comments

Business Service	Description
C1-MODELLOG	Model Log
C1-OFFPROCESSREQ	Off-Process Request Service
C1-OFFPROCESSREQ	Off-Process Request Service.
C1-OffProcReqButton	Get Buttons Based on OffProcess Request Status
C1PATCHVERIFICATION	Patch Verification
C1-priceSimBS	Price Simulation Service
C1-PRICETREEF	Price Assignment Tree
C1-PROSPECTCAPTURE	Prospect Capture Business Service
C1-PROSPECTCAPTURECHG	Prospect Capture Change
C1PROSPECTHIERARCHYDEAL	Business service for Prospect Hierarchy
C1-ReadCharValueAcc	Retrieve char val
C1-RECOPRDTL	File record operation summary service
C1-ReferePriceVolume	Refer Price / Volume Business Service
C1-ReferePriceVolumeAdd	Refer Price / Volume Change
C1-ReferePriceVolumeCahnge	Refer Price / Volume Change
C1-ReferePriceVolumeChange	Refer Price / Volume Change
C1-ReferePriceVolumeRef	Refer Price / Volume Business Service
C1-ReferePriceVolumeSkip	Refer Price / Volume skip reference
C1-RETBCYC	Retrieve Bill Cycle Codes for a Branch
C1-RetrieveAllInvoiceReqTypes	Fetch All Invoice Request Types
C1-RetrieveChargeTypes	Retrieve Charge Types
C1-RetrieveInvoiceReqTypes	Fetch Active and Invoice Mode Manual Invoice Request Types
C1-RetrieveOffprocReqTypes	Fetch Offprocess Request Type
C1-SearchContract	Contract Search
C1-SFTPUSERBS	SFTP User creation service
C1-TERMSCONDN	Price Assignments Terms and Conditions
C1TPRESLOGSBS	Business service to fetch TP restart logs
C1TpRestartBS	Restart thread pools
C1-Trainservice	train status service

Business Service	Description
C1-VIEWPRICING	Pricing Filter
GETDEALTYPE	Get Deal Type

A.2.4 Portals

The following portals are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Portal	Description
C1_ALRPT	Reports
C1_CREF	Choose Reference
C1_CUBPD	Customer Billed Price Details Report
C1_CUSTH	Customer Hierarchy Report
C1_DEAL	Deal
C1_HEVD	Hierarchy Entity
C1_IM_EX	DBMS Data Import/ Export
C1_PDEAL	Deal
C1_PHRCY	Prospect Hierarchy
C1_PROPL	Eligible PriceLists for Prospect
C1_REF	Reference
C1_REFER	References
C1ADDPRO	Prospect Details
C1AWRSNP	AWR Snaps Download
C1CUSTPO	Existing Customer And Account Search
C1DAPROF	Deal Approval Profile
C1DEALDB	Deal Dashboard
C1DELTYP	Deal Type
C1DLAPDB	Approver Dashboard
C1DTSERH	Deal Type Search
C1ENHR	Entity Hierarchy Relationship
C1ENHRSR	Entity Hierarchy Relationship
C1ENTDTL	Repricing Request

Portal	Description
C1HRYENT	Hierarchy Entity
C1INREQ	Invoice Request
C1INRETY	Invoice Request Type
C1INVRED	Invoice Request
C1INVRELTB	Invoice Request Log
C1OFPRED	OffProcess Accumulation Request
C1OFPREQ	Off Process Accumulation Request
C1OFPRP	Off Process Request Type
C1OFPRQLTB	OffProcess Request Log
C1PATCH	Patch Verification Installed Fixes
C1PISL	Price Item Selection
C1PROSPECT	Prospect
C1PROSPO	Choose References
C1PRSEAR	Search Prospect
C1REFPRI	Refer Price / Volume
C1SERDSC	Sizing Parameter
C1SFTPUS	SFTP User Creation
C1SLFSER	Self Services
C1TMCND	Mapping Terms and Conditions
C1TPSTRT	Threadpool Restart
CM_PERPO	search person
CMSEARCH	Person Search
CUSPRCDT	Customer Price Details Report
DBMSFLJB	DBMS Job Detailed Description
DBMSJOB	DBMS Job Detailed Description
DBMSRNJB	DBMS Job Detailed Description
DBMSSCHD	DBMS Scheduler Dashboard
DWNLFIL	Download Property Files
PORTPRAC	Price Management Portal
PORTT	Price Product Management

Portal	Description
PROSADD	Deal Creation

A.2.5 Batch Controls

The following batch controls are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Batch Control	Description
C1_HRC	Creates Hierarchy
C1_SMLD	Deal Simulation
C1-ACMPP	Accumulate Minimum Premium Program
C1-BCMPP	Create Billable Charge for Minimum Premium Program
C1-BILCN	Batch for Bill Cancellation
C1BILDEL	Batch Control for Bill Deletion
C1-FUIB	File Transformation and Upload Batch
C1-INVRQ	Invoice Request Periodic Monitor
CM-VK	File Transformation and Upload Batch
CSTPREAG	Aggregates Customer Data
PREAGGR	Aggregates customer/account data

A.2.6 Foreign Key References

The following foreign key references are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Foreign Key Reference	Description
ACCTPRS	Account Prospect
C1_ACCTP	Prospect Account Info
C1_MODEL	Model Information
C1_PACCT	Prospect Account
C1_PPER	Prospect Person Info
C1-DEAL	Deal Info String
C1-DLPER	Person
C1-DLS	Deal Information
C1-DLTP	Deal Type

Foreign Key Reference	Description
C1-DPROF	Deal Approval Profile
C1-EHREL	Entity Hierarchy Relationship Info
C1-HEVAL	Hierarchy Entity Value Info
C1-INRQT	Invoice Request Type
C1-INVRE	Invoice Request
C1-MODEL	Model Info String
C1-OPPQT	Off Process Request Type
C1-OPPRE	Offprocess Request
C1-SATY	Contract Info string
C1-SATYP	Contract Info string
C1TRIBIL	Trial Bill Information
MODELFK	ModelFK

A.2.7 Scripts

The following scripts are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Script	Description
ACCTBPA	Account Add / Edit
ACCTMNTVAR	Account Add / Edit
acctMSS	Account Maintenance
ACCTSS	Account Maintenance
C1_ADHOCREV	Adhoc Revenue Cost Summary
C1_ADJBC	Off Process charge type
C1_ADJOFSR	Offprocess adj/bclt type flg
C1_DACCRES	bpa for deal accept/reject
C1_DBMSCMP1	Service Description SQL condition service script
C1_DBMSCOMP	Service Description SQL condition service script
C1_DBMSRUN	Service Description SQL condition service script
C1_DBMSSchSS	DBMS Scheduler Service Script
C1_DBMSUP	Service Description SQL condition service script

Script	Description
C1_DBMSUPND	Service Description SQL condition service script
C1_DealLog	Deal Logs
C1_DL_PRD_EN	Deal Product Enrollment Maintenance
C1_DL_PRD_EU	Deal Product Enrollment Maintenance
C1_DwnldFile	BPA to download files
C1_ENRLPROD	Price List Assignment for Prospect Hierarchy for Deal module
C1_F_DLIT	Manage Price List - At least one search criteria validation
C1_getValBS	Service Description get Exact Value service script
C1_getValTxn	Service Description get Exact Value service script
C1_getValue	Service Description get Exact Value service script
C1_ModelLog	Model Log
C1_PLASGNACT	Price List Assignment for Prospect Hierarchy for Deal module
C1_PLASGNPR	Price List Assignment for Prospect Hierarchy for Deal module
C1_PLASGNPRD	Price List Assignment for Prospect Hierarchy for Deal module
C1_Previous	Skip Reference
C1_PRS_HRCHY	Build Price Assignment Tree
C1_SelfServ	BPA for self services
C1_ShwZneSD	Zone Visibility - Display Zone in Portal
C1_SkipRef	Skip Reference
C1_SrvcDesc	Service Description SQL condition service script
C1_SrvDescYr	Service Description yearly frequency service script
C1_SrvDesMon	Service Description Monthly frequency service script
C1_SrvDsclnM	Service Description Monthly frequency service script
C1_SrvDsclns	Service Description SQL condition service script
C1_SrvDsclnY	Service Description yearly frequency service script
C1_TPRestart	Script to restart thread pools
C1-AccGidVal	Validation Script for OffProcess Accum Group Search
C1-AccumVal	Validate Accumulation data Zone A Filters
C1-ADJtypVal	Validate ADJUSTMENT Search filter
C1-AGSELECT	Off Process Accumulation Selection

Script	Description
C1-APLBCK	Apply Back BPA
C1-APPRVAACC	Zone User Filters - Validation Account Zone
C1-APPRVACU	Zone User Filters - Validation Customer Zone
C1-APPRVADL	Zone User Filters - Validation Deal Zone
C1-BilChgVal	Validate Policy Search Zone 1 Filters
C1-BILLCHAR	Validation Bill Characteristic
C1-BKAcctSrh	Search Account Zone - Check SQL Condition
C1-BKPRSVAFI	Zone User Filters - Validation account Zone
C1-BKVADLS	Zone User Filters - Validation -Deal UI
C1-BKVAPRSCU	Zone User Filters - Validation Customer Zone
C1-BKVAPRSFL	Zone User Filters - Validation account Zone
C1-BldRCTreD	Build Price Assignment Tree
C1-BldRCTreF	Build Price Assignment Tree
C1-BOProHrcy	Business Object Processing for Hierarchy
C1-BpaMerge	View pricing bpa
C1-BpaPrcCom	View Pricing and Commitments bpa
C1-CANBCACC	cancel billable charge
C1-CANBCBC	cancel billable charge
C1-CANBCPER	cancel billable charge
C1-ChgType	Charge Type – Maintain
C1-ChkRecCnt	Service Script to check record count of deal approval
C1-ComPrer	View pricing bpa prerana
C1-CREVADL	Zone User Filters - Validation Deal Zone
C1-custtp	Customer Registration script
C1-DACPTREJ	Deal Accept Reject
C1-DAPRACTS	Deal Approval Actions
C1-DBMSCmpCh	DBMS Completed chain jobs
C1-DBMSIM_EX	DBMS Data Import Export
C1-DBMSRSTRT	Scheduler Jobs- Restart
C1-DBMSRunCh	DBMS Completed jobs description

Script	Description
C1-DealAprof	Deal Approval Profile
C1-DealExVal	Validate Fields for Deal Extraction
C1-DEALFINAL	DEAL FINALIZE
C1-DEALPASGN	Price Assignment
C1-DealPrAsg	Validate Fields for Deal PriceAssignment
C1-DealType	Deal Type
C1-DEFMPPVAL	Default MPP values for Claims
C1-DLACCTAPP	Zone User Filters - Validation Account Zone
C1-DLACCTCRE	Zone User Filters - Validation Account Zone
C1-DLAPPR	Zone User Filters - Validation Deal Zone
C1-DLAPPRLV	Zone User Filters - Validation Deal Zone
C1-DLAPPRWF	BPA Script to display deal approval workflow (Tabular)
C1-DLCRET	Zone User Filters - Validation Deal Zone
C1-DLCUSTAPP	Zone User Filters - Validation Customer Zone
C1-DLCUSTCRE	Zone User Filters - Validation Customer Zone
C1-DLCUSTSCR	Deal Search By Customer
C1-DLDBPFK	Service script to return FK Reference
C1-DLDISCOL	Display column the basis of revenue
C1-DLGETUSER	Get the current User
C1-DLIMAGES	Return Icon With Label
C1-DLMODELIM	Return button with label
C1-DLPROSVAL	Zone User Filters - Validation Customer Zone
C1-ExtDeal	Extract Deal
C1-FileMgtSy	File Management System Service Script
C1-FileMgtUp	File Management Upload or Move Script
C1-GetMPPDt	MPP pricing rule's populate date service script.
C1-GETPAGID	Get offprocess Parent Accum Group ID
C1-GETVISIBI	Determine zone visibility
C1-GotoTDObj	Navigate to related object for a To Do and drill key values
C1-HIERDESC	Validate Hierarchy Description Search filter

Script	Description
C1-HrachyRel	Entity Hierarchy Relationship - Maintain
C1-HryEntity	Hierarchy Entity Value- Maintain
C1-INRQEXACC	Invoice Request - Exclude Account
C1-INRQINACC	Invoice Request - Include Account
C1-INRQTYUSD	Invoice Request Type Used- Pre-processing
C1-INVBILFK	Invoice Request Bill FK Reference
C1-InvokeBS	Invoke DBMS Get Job BS
C1-InvReqAcc	Zone Visibility Based on Invoice Request Entity Type of request as Account
C1-InvReqEty	Zone Visibility Based on Invoice Request Entity Type of request and BO Status
C1-InvReqLog	Invoice Request - Add User Log Entry
C1-INVREQTYP	Invoice Request Type - Maintenance
C1-InvReqTyp	Invoice Request Type - Maintenance
C1-InvReqTyV	Invoice Request - Validate Request Type
C1-InvRqDtAc	Zone Visibility Based on Hold request Entity
C1-InvRqInf	Generate Invoice Request Information String
C1-InvRqMain	Invoice Request - Maintain
C1-InvRqTyLi	Invoice Request - Fetch Active Invoice Request Types
C1-IsOffEr	Zone Visibility - Display Zone in Portal
C1-MCcreation	BPA script for new model creation
C1-Mem2Sql1	Search by Membership Details - Check SQL condition
C1-MembVal	Validate Policy Search Zone 1 Filters
C1-MEMPRSHOW	Billable Charge Timeline Details Zone Visibility - Display Zone in Portal
c1-mergebp	View pricing bpa
C1-MergeP	View pricing bpa
C1-mergepric	Merge BS
C1-MPPAppPre	MPP Pricing Rule- Pre-processing
C1-MPPPre	MPP pricing rule pre-processing script
C1-MultCanBc	Cancel Multiple Billable Charges
C1-NAVPRSBPA	Navigation Based On Per Id

Script	Description
C1-NoShACTZn	Zone Visibility - Display Account Refer Zone in Portal
C1-OFFPRACCT	Off Process Account Selection
C1-OffProLog	Off Process Request - Add User Log Entry
C1-OffRqMain	Offprocess Accumulation Request - Maintain
c1OffSetReq	Go To Offset Request
C1OFPEFFDT	Off Process effective date
C1-OFPRAGAT	Off Process Accumulation Selection
C1-OfProcAcc	Validation Script for OffProcess Accum Group Search
C1-OfpRqInfo	Generate Offprocess Request Information String
C1-OfpRqTyLi	Fetch Offprocess Request Type
C1-OFPRREQTY	Off process Request Type - Maintenance
C1-OPNPRCREQ	Invoke Repricing Request Detail
C1PatchVer	BPA to verify single fix patches
C1-PLASGNPRO	Price List Assignment for Prospect Hierarchy for Deal module
C1-PRCAPPR	C1-PRCAPPR
C1-PrcComBpa	View pricing bpa
C1-PRCTLDTL	Billable Charges
c1-priceasgn	price assignment
C1-PriceComo	Price Assignments Commitments - Original
C1-PriceComt	Price Assignments Commitments - Proposed
C1-PriceFltr	Deal Pricing Filter
C1-PricePrer	View pricing bpa
C1-priceSimB	ZZ-HIEBPA
C1-priceSimS	Price Simulation SS
C1-Pricing	Search Pricing
C1-PROADD	Prospect Creation
C1-PRSVAPROS	Zone User Filters - Validation - Prospect Customer Zone
C1-RECOPRDTL	File Record identifier by invoking BS
C1-RefZnShow	Reference Zone Visibility - Display Zone in Portal
C1-RetDIFKRF	Service Script to retrieve deal FK reference based on model count

Script	Description
C1-RETPERFKR	Service script to retrieve Per FK
c1RtrnBtn	Return button with label
C1-SCHCHNRES	Scheduler Chain - Restart
C1-SellvRqTy	Invoice Request - Select Request Type
C1-SelOfRqTy	Offprocess Request - Select Request Type
C1-SFTPUSER	SFTP User Creation BPA
C1-ShdNotShw	Zone Visibility - Display Zone in Portal
C1-ShdShwRCF	Zone Visibility - Display Rate Component in Portal
C1-ShldShAvr	Zone Visibility - Display Zone in Portal
C1-ShldShwDE	Zone Visibility For Deal
C1-ShldShwDL	Zone Visibility For Deal
C1-ShldShwRF	Zone Visibility - Display Zone in Portal
C1-ShldShwRO	Zone Visibility - For References
C1-ShldShwSa	Zone Visibility - Display Zone in Portal
C1-ShldShwSp	Zone Visibility - Display Zone in Portal
C1ShldShZnAD	Zone Visibility - Should Display Zone BC in Portal
C1ShldShZnBC	Zone Visibility - Should Display Zone BC in Portal
C1-ShldSwRFP	Refer price show hide service script
C1-ShwAccmZn	Zone Visibility - Display Accumulation Amount Zone in Portal
C1-ShwACCTZn	Zone Visibility - Display Account Refer Zone in Portal
C1-ShwCustZn	Zone Visibility - Display Account Refer Zone in Portal
C1-ShwDAZn	Zone Visibility - Display Zone in Portal
c1-shwHideZn	Zone Visibility - Display Zone in Portal
C1-ShwZn-Prc	Zone Visibility - Display Zone in Portal
C1-ShwZn-txn	Zone Visibility - Display Zone in Portal
C1-SHZNVSC	Zone Visibility - Display Zone in Portal Using Id
C1-SkipRdSer	Reference- Read only map show hide
C1-STRXML	C1-STRXML
C1-TermsCond	Terms and Conditions
C1-TrmCndVal	Validate Fields for Terms and Conditions

Script	Description
C1-TRNSCRPT	Train Component Load
C1-ValidFilt	Validation Script for Reports Filter
C1-VALINVACL	Zone User Filters - Validation - Invoice Request Account List
C1-VALINVFLT	Zone User Filters - Validation - Invoice Request 11 Filters
C1-VaLlStFil	Validation Script for Reports List Filter
C1-VALOFFCHG	Zone User Filters - Validation - OffProcess Request 11 Filters
C1-VALOPFLT	Zone User Filters - Validation - OffProcess Request 11 Filters
c1-viewmer	View pricing bpa
C1-ViewPrCom	View Pricing and Commitments
C1-viewpric1	Invoke Merge Pricing Ui Map
C1-VIEWPRICG	View pricing bpa
C1-VldLstFlt	Validation Script for Reports List Filter
C1-VldtFlter	Validation Script for Reports Filter
C1-ZNLDSSDL	Zone Visibility Using Deal Id Parameter
PERSBPA	Prospect / Customer Add
ShwDAZn	Zone Visibility - Display Zone in Portal
Z1-DBDLMODEL	Deal Comparison BPA
Z1-ShldShwZn	Zone Visibility - Display Zone in Portal

A.2.8 New Zones In Existing Portals

The following new zones are added in existing portals in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Portal	Zone	Zone Description
C1BILLTD	C1-BILTDLTL	Timeline and Billable Charge Details
	C1-BSCALCNDT	Bill Line Details
	C1-PRCECALDT	Pricing Calculation Details
	C1-TXNCLN	Transaction Leg Calculation Lines
	C1-VIEWBILL	Search Billing Element
C1BK360ACT	C1-TRLINV	Trial Bills
C1FILERQ	C1-RECOPTAT	Successfully Uploaded Record Summary

Portal	Zone	Zone Description
C1HC360ACT	C1-TRLINV	Trial Bills
C1HCBLDT	C1-TXNCLN	Transaction Leg Calculation Lines
	C1-TXNSRH	Transaction Details
	C1_SQUND	SQ Details
C1PI	C1-DIVCOST	Division-Specific Cost
	C1-DIVHRCHY	Division Price Item Hierarchy
	C1-EXFLRCEL	Division-Specific to Ceil and Floor
C1PL	C1-RCOMPTREE	Price Assignment Tree
	C1-VIEWPRICE	Price Item Pricing
C1_PLMNG	C1-RCOMPTREE	Price Assignment Tree
	C1-VIEWPRICE	Price Item Pricing
C1_PMPRC	C1-GRIDPRICE	Two-Dimensional Pricing
	C1-RCOMPTREE	Price Assignment Tree
	C1-VIEWPRICE	Price Item Pricing
C1_PRCPM	C1-ELIGPRO	Eligible Product Zone
	C1-ELIGPRODS	Eligible Products
	C1-GRIDPRICE	Two-Dimensional Pricing
	C1-RCOMPTREE	Price Assignment Tree
	C1-VIEWPRICE	Price Item Pricing
C1_PROD	C1-PSLTEST	Search Product
C1_PTPLA	C1-RCOMPTREE	Price Assignment Tree
	C1-VIEWPRICE	Price Item Pricing
C1_TRLIN	C1-TRPLMEMDT	Policy Details
C1ACUDAT	C1-ACASLAMT	Aggregate Stop-Loss Accumulation Amount
	C1-ACDISAMT	Discount Arrangement Accumulation Amount
	C1-ACLFAMT	Level Funded Accumulation Amount
	C1-ACMPPAMT	Minimum Premium Program Accumulation Amount
	C1-ACSSLAMT	Specific Stop-Loss Accumulation Amount
	C1-ACUMOFPRO	Off-Process Adjustments/Billable Charges

Portal	Zone	Zone Description
	C1-ACUMTXNDT	Transaction Information
C1DEALDB	C1-DLDBACTNS	Action
	C1-DLTODOLST	Deal To Do
C1PRLCLM	C1-PRLMPP	Minimum Premium Program's Pricing Rule
C1_DEAL	C1_CREATE_DL	Deal Details
	C1_DEALDISP	Deal Details
C1_REFER	C1_PRCVLRO	Reference Details RO
	C1_PRC_VLRO	Reference Details RO
	C1_PRICE_VR	Reference Details
DBMSSCHD	C1_DBMSEXEC	Executed Batch Jobs
	C1_DBMSFAIL	Failed Chain Jobs
	C1_DBMSRUN	Running Batch Jobs
	C1_DBMSUPJOB	Upcoming Batch Job Schedule
C1HC360POL	C1-POLCHR	Policy Characteristics
CHGTYPE	C1-CHGTYPE	Charge Type

A.2.9 Zones

The following zones are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Zone	Description
C1_ACC_MULID	Accounts With Duplicate Identifiers
C1_ACCOUNTDL	Account Details
C1_ACCT_CNT	Fetch Account count for prospect
C1_ACCTSRHDL	Account Search
C1_ACCTSRHP	Existing Account Deal
C1_ADD_ECPA	Add Customer/Prospect/Account
C1_ADJDETAILS	Adjustment Details Report
C1_AWRSNAP	AWR Snaps Download
C1_BILLVARIC	Search Current Bills with Variance
C1_BO_STATUS	Get Business Object Status List

Zone	Description
C1_CONTEXTRA	Contract Expiry Report
C1_CREATE_DL	Deal Details
C1_CUSBILPRD	Customer Billed Price Details Report
C1_CUSTHRCHY	Customer Hierarchy Report
C1_CUSTINVMP	Customer Invoice Manual Payment Report
C1_DBMSBEXBC	Executed Batch Jobs
C1_DBMSEXEC	Executed Batch Jobs
C1_DBMSFAIL	Failed Chain Jobs
C1_DBMSFLBC	Partially Executed Chains
C1_DBMSJOB	DBMS Job Details
C1_DBMSRNBC	Existing Batch Run
C1_DBMSRUN	Existing Batch Run
C1_DBMSSCH	DBMS Scheduler Job Dashboard
C1_DBMSUPJOB	Upcoming Batch Schedule
C1_DCURR	Valid Division Currencies
C1_DEAL	Deal Details
C1_DEAL_COMT	Deal Comments View
C1_DEAL_INFO	Deal Information
C1_DEAL_STAT	Deal Status check for Prospect Read
C1_DEAL_TET	Deal Details...
C1_DEAL_TRN	Deal Train
C1_DEALBO_ST	Deal Status check for Prospect Read
C1_DEALDISP	Deal Details
C1_DLEXTWFM	Deal - Extract for Feature configuration
C1_DLTYPESRH	Deal Type Search
C1_DLTYPSE	Deal Type Search.
C1_DUMMYACT	Usage Accounts with Dummy Account Identifier Type Report
C1_GETACCTPR	Get accounts allocated to person for Deal
C1_GETDLSTRT	To get the Deal Level and Deal Start Date
C1_GETPERINP	Assign Party to Pricelist

Zone	Description
C1_GETPTYINP	View Party Information
C1_HRACHYTRE	Hierarchy Relationship Tree
C1_HREIVAL	Search Hierarchy Entity
C1_INCR_INAC	Incorrect invoice account setup
C1_INCR_STAC	Incorrect Account Setup Report
C1_INCR_USAC	Incorrect Usage account setup
C1_INV_STLAC	Invalid Settlement Account With No APAY Details Report
C1_INVCARGRP	Invoice Arrangement Report
C1_INVLD_CSK	Invalid Ciskey Report
C1_INVOICSET	Invoice Settlement Report
C1_MGCEXP	GCM Exception Report
C1_MODEL_CMT	Model Comments View
C1_MUL_CSKY	Multiple Ciskey on Customer Report
C1_OVRDPRIC	Override Pricing Sold Product Level Report
C1_OVRRD_PRC	Override Pricing Person Level Report
C1_PACT_LIST	Prospect Account List
C1_PI_GRP_CD	Hierarchy Entity Search
C1_PLASGNPRO	pricelist assigned to prospect
C1_PLASSGHP	Historical Price List Assignments prospect
C1_PND_PYMNT	Pending Payment Events Report
C1_PRC_VLRO	Reference Details RO
C1_PRCVLRO	Reference Details RO
C1_PRDPROFRP	Product Profitability Report
C1_PRDSRCH	Search Product Code
C1_PRICE_IT	Price Item Search
C1_PRICE_VOL	Reference Details
C1_PRICE_VR	Reference Details
C1_PRICDLIT	Price Item Search
C1_PROITMPRI	Product Item Price Report
C1_PROS_ACCT	Prospect Account Search

Zone	Description
C1_PROS_SRC1	Prospect Person Search
C1_PROS_SRCH	Prospect Person Search
C1_PRSPT_HRC	Prospect Hierarchy
C1_RECDESCR	Sizing Parameter Detailed Description
C1_SELFSEER	Self Services
C1_SERVDESC	Sizing Parameter
C1_SMLN_HRC	Simulation Hierarchy
C1_STDPLREVV	Standard Price List Review Report
C1_STN_PRLST	Standard Pricelist Report
C1_TBDCONINV	Construct With Invoice Account as Charge Account Report
C1_TBDINQACS	Incorrect Quote Account Setup Report
C1_TRANDINGB	Trading Bank Sold Product Recon Report
C1_TRLBILDTL	Trial Billing Detailed Report
C1_USAGINVAC	Usage Invoice Report
C1_USRACCSRP	User Access List
C1-ACASLAMT	Aggregate Stop Loss Accumulation Amount
C1-ACCGIDSR	OffProcess Accum Group id search
C1-ACCSDIV	Access Group Codes based on division
C1-ACCTSERCH	Existing Account
C1-ACCTSRHRF	Account
C1-ACCUMDATA	Accumulation Data
C1-ACDISAMT	Discount Accumulation Amount
C1-ACLFAMT	Level Funding Accumulation Amount
C1-ACMPPAMT	Minimum Premium Program Accumulation Amount
C1-ACSSLAMT	Specific Stop Loss Accumulation Amount
C1-ACTPERINF	Retrieve Account and Person Information
C1-ACTVDIV	Active Divisions
C1-ACUMOFPRO	Off-Process Adjustments/Billable Charges
C1-ACUMTXNDT	Transaction Information
C1-ADDPROSP	Prospect Information

Zone	Description
C1ALLINVRQTY	Retrieve All Invoice Request Types
C1-BCLTADJ	Offprocess search bclt or adj_type_cd
C1-BFEECONTR	Non BFEE Contract Active Report
C1-BILCHGDTL	Billable Charge Details
C1-BILLCHAR	Bill Characteristics
C1-BILLCHG1	Membership Details
C1-BILLCHG2	Billable Charge Details
C1-BILLCHG3	Account/Billable Charge Details
C1-BILSTATUS	Get Bill Status
C1-BILTDLTL	Timeline and Billable Charge Details
C1-BK36ADUPL	Account
C1-BLCHGSRCH	Billable Charge Search
C1-CANBCACCT	Account
C1-CANBCBC	Billable Charge
C1-CANBCPER	Person
C1-CANCELBC	Cancel Billable Charge
C1-CANCPAYM	Cancelled Payments Report
C1-CHARTYP	Retrive Price Item CharType
C1-CHARVAL	Retrive char val
C1-CHGTYPCAT	Fetch Charge Type Category
C1-CHGTYPE	Charge Type
C1-CHGTYSCAT	Get Charge Type
C1-CHREF	Choose reference
C1-CHREFNS	Choose Reference
C1-CNSTRTEMP	Constr with criteria against Template Report
C1-CREATPRO1	Deal
C1-CREATPROS	Deal
C1-CREATPRSS	Deal Details
C1-CRITBLANK	Construct With Criteria Value Blank Report
C1-CUACCTSRH	Search Prospect

Zone	Description
C1-CUSDEAL	Assigned Deals
C1-CUSEARCH	360° Search
C1-CUSPRCDTL	Customer Price Details Report
C1-CUSTDIREN	Customer Direct Entry Detail Report
C1-CUSTMAP	Customer View
C1-CUSTREP	Customer Level Discretion Usage Report
C1-CUSTSERCH	Existing Customer
C1-CUSTSRHDL	Customer
C1-DACTCHRDL	Account Characteristics
C1-DAPRFSRCH	Deal Approval Profile Search
C1DATADEAL	Deal Management
C1-DATAVALID	Search Report
C1-DBDLMODEL	Deal Versions
C1-DBMSCHNST	Determine if Job Status is Chain Stalled
C1-DBMSERR	Retrieve Job Error details
C1-DEALACCT	Account
C1-DEALACCTS	Account
C1-DEALACCZ	Account
C1-DEALCU	Get Reference Customer
C1-DEALCUREF	Customer
C1-DEALDASHB	Search Deals
C1-DEAL-LOG	Deal Logs
C1-DEALMODEL	Deal Details Read
C1-DEALPRDET	Deal Price Details
C1-DEALS	Deal
C1-DEALSEARC	Prospect Based On Deal
C1-DEALSRCHZ	Query Zone Deal Search
C1-DEALSRHAC	Deal
C1-DEALSRHCB	Deal
C1-DELTYLIST	Deal Type

Zone	Description
C1-DELTYPADD	Deal Type
C1-DIRENTREJ	Direct Entry Rejection Report
C1-DIVCOST	Division-Specific Cost
C1-DIVFLRCEL	Division-Specific to Ceil and Floor
C1-DIVHRCHY	Division Price Item Hierarchy
C1-DLACCTAPP	Account
C1-DLACCTCRE	Account
C1-DLACCTSR	Account
C1-DLACCTSRH	ACCT Search
C1-DLAPPR	Deal
C1-DLAPPR LIS	Current assigned to do role
C1-DLAPPR LV	Approver's View
C1-DLAPPR TOD	TO DO
C1-DLAPPR WF	Deal workflow
C1-DLAPROF	Deal Approval Profile
C1-DLAPPR TDIN	Approver To Do
C1-DLAPR TODOI	Deal To Do
C1-DLCOMPARE	Deal Compare
C1-DLCRET	Deal
C1-DLCUSTAPP	Customer
C1-DLCUSTCRE	Customer
C1-DLCUSTSR	Get Reference Customer
C1-DLDBACTNS	Action
C1-DLDBBUTTO	Action
C1-DLDBDLTYP	Deal Type Search
C1-DLDLTYPDB	Search Deal Type
C1-DLMDELADD	Add Model
C1-DLMODELAD	Edit Model
C1-DLMODLSRH	Query Zone Model Search
C1-DLPERSRH	Query Zone Person

Zone	Description
C1-DLSQSRCH	Service Quantity Identifier Search
C1-DLTODOIN	Deal To Do
C1-DLTODOINF	Deal To Do
C1-DLTODOLST	TO DO
C1-DLTYPESRH	Deal Type Search
C1-DPROFLIST	Deal Approval Profile List
C1-DUCUSTSER	Existing Customer Deal
C1-DUPLIEXAC	Existing Customer/ Account Deal
C1-DUPPROD	Duplicate Sold Products Report
C1-EFDSR	OffProcess Accum Group id search
C1-EHRCHYREL	Search Hierarchy
C1-EHRDO	Hierarchy
C1-ELIGPRO	Eligible Product Zone
C1-ELIGPROD	Fetch Eligible Products
C1-ELIGPRODS	Eligible Products
C1-ELIGPROPL	Fetch Eligible Pricelist for Prospect
C1-ENRLPRODP	Enrolled Products for Deal
C1-ENTDTLSRC	Search Repricing Entity Detail Record
C1-EXFLRCEL	Division-Specific to Ceil and Floor
C1-FETCHTAC	Fetch Terms and Conditions
C1-FLRCEL	Division-Specific to Ceil and Floor
C1-GETACCNT	Fetch Account Count
C1-GETACCTCY	Bill Cycle Code List
C1-GETCUSTRE	Get Reference Customer
C1-GETELP	Eligible Price Lists
C1-GETENTYFL	Get Entity Type Flag
C1-GETFEEDIS	Retrieve Fee discription
C1-GETINVMOD	Fetch Invoice Mode
C1-GETINVSER	Fetch Account Person and Policy Search for Invoice Request
C1-GETOFPCMT	Get comments for OffProcess request

Zone	Description
C1-GETPRCFLG	Get Pricing Flag
C1-GETPRINFO	Get Successive Pricing Rule Info String
C1-GETREFCST	Get Reference Customer
C1-GETSRCZN	Fetch Ora Search zone Name
C1-GTREFCUST	Reference Customers
C1-HEVTYDP	Hierarchy Entity
C1-HIERDESCR	Hierarchy Search
C1-ICR-GRPID	Incorrect Invoice GroupID Report
C1-INCBILL	Usage Account With Incorrect Billing Cycle
C1-INCR-ADDR	Incorrect Bill Address Source
C1-INCURRADJ	Incorrect Adjustment Currency
C1-INFLRCEL	Division-Specific to Ceil and Floor
C1-INRQTYUSD	Check Invoice Request Type is used for Invoice Request
C1-INVREQ	Invoice Request
C1-INVREQENT	Fetch Invoice Request Entity Type
C1-INVREQTYP	Invoice Request Type List
C1-INVRQACC	Account Level
C1-INVRQACCH	Invoice Requests for Accounts
C1-INVRQDTA	Account List
C1-INVRQDTAB	Account List
C1-INVRQDTE	Excluded Accounts
C1-INVRQDTEB	Excluded Accounts
C1-INVRQDTL	Invoice Request Details
C1-INVRQDTLE	Excluded Accounts
C1-INVRQDTLP	Account List
C1-INVRQEXTY	Retrieve External Reference Type Filter Values
C1INVRQLOG	Invoice Request Log
C1-INVRQPER	Invoice Requests for Persons
C1-INVRQSRC	Search Invoice Request
C1-INVRQSTAS	Retrieve BO Status For Invoice Request

Zone	Description
C1-INVRQTYPE	Invoice Request Type
C1-LEVEL	Retrieve hierarchy level lookup
C1-LISTOFMOD	Models
C1-MEMBENT	Membership
C1-MEMBERSCH	Membership Details
C1-MEMENT1	Policy Details
C1-MEMENT2	Person Details
C1-MEMENTSRC	Membership Search
C1-MISSETCON	Usage Accounts Missing In Settlement Construct Report
C1-MODEL-LOG	Model Logs
C1-NOBILLCH	One Time Billable Charge Not Created Report
C1-NO-CUSTYP	Customer Without Customer Type
C1-OFFERR	Error Message
C1-OFFPRACCT	Off Process Account Search
C1-OFFPRADJ	Off-Process Request Details
C1-OFFPRBC	Off-Process Request Details
C1-OFFPRDTLS	Off Process Request Details
C1OFFPREQTYP	Off Process Request Type List
C1-OFFPROCRT	Off Process Request Type Search
C1-OFFREQCHG	Adjustment/Billable Charge Details
C1-OFPDTL	OffProcess Details
C1-OFPDTLS	Off-Process Details
C1-OFPEFDT	Offprocess search Effective date
C1-OFPEFDT1	Offprocess search Effective date
C1OFPRCRQTY	Offprocess Accumulation Request Type
C1-OFPREQ	OffProcess Request
C1OFPROQTY	Off Process Request Type
C1-OFPRQACUM	OffProcess Accum Requests for AccumId
C1OFPRQLOG	OffProcess Request Log
C1-OFPRQPER	OffProcess Accum Requests for Persons

Zone	Description
C1-OFPRRQSRC	Search OffProcess Accumulation Request
C1-ORATMPSRH	Template Search
C1-PACCGIDSR	OffProcess Parent Accum Group id search
C1-PAPERSRCH	Parent Person/Customer Search
C1-PAPERSRH1	Parent Person Name
C1-PAPERSRH2	Parent Person Identifier
C1-PARENTENT	Retrieve Level 1 Hierarchy Entity value
C1-PISL	Price Item Selection
C1-PITMSEL	Price Item Search
C1-PLAMQURYP	Price List Assignments
C1-PLANSRCH	Policy Plan Search
C1-PLNCHAR	Plan Characteristics
C1-PLSRH	Select Price List
C1-PLSRHEG	Get Eligible Price List
C1-PLSRHEPRO	Get Eligible Price List
C1-PLSRHPRO	Select Price List
C1-POLCHAR	Policy Characteristics
C1-POLCHR	Policy Characteristics
C1-POPLNSRCH	Policy Plan
C1-PRCITMCD	Retrieve Price Item Code Zone
C1-PRCRATETY	Get Pricing Rule Rate Type
C1-PRCRLSRCH	Pricing Rule Search
C1-PRCRULE	Pricing Rule Details
C1-PRCTLDTL	Timeline and Billable Charge Details
C1-PRDDLRSRCH	Select Product for Deal
C1-PRDSLEG	Get Eligible Product
C1-PRDSLTEST	Select Product
C1-PRDSLZ	Product Selection
C1-PRLMPP	Minimum Premium Program Pricing Rule
C1-PRODSTAT	Product Status Report

Zone	Description
C1-PROSADD	Hierarchy Zone
C1-PROSEARCH	Choose References
C1-PROSP-SRC	Prospect Search
C1-PROSSERCH	Existing Prospect
C1PROSSRC1	Prospect Search
C1-PRBSDEAL	Prospect Based Deal
C1-PSLTEST	Search Product
C1-RCOMPTRF	Price Assignment Tree
C1-RECOPTAT	Successfully Uploaded Record Summary
C1-REF	Select Reference
C1-REFACCT	Select Reference
C1-REF-ACCT	Select Reference
C1-REFSRHDL	Search Reference
C1-REPCREQDT	Repricing Requests
C1-RETBCYC	Retrieve Bill Cycle for a Branch
C1RETINVRQTY	Active and Invoice Mode Manual Invoice Request Types
C1-ROOTENTIT	Retrieve Entity level in Hierarchy Main
C1-SATYP	Contract Type Search
C1-SATYPE	Contract Type Search
C1-SATYPSRH	Contract Type Search
C1-SEARCHSA	Search Contract
C1-SETACMP	Settlement Account Not Mapped Report
C1-SRCHPLMUL	Price List Selection
C1-SRCHPLPRO	Price List Selection
C1-SRCHPRO	Search Prospect
C1-SSP	Spilt Shared Pricing
C1-TAC-GRPCD	Hierarchy Entity Details
C1-TAC-PRITM	Price Item Details
C1-TLRFLG	Get TLR Run Out Fund Request
C1-TODODL	To Do Roles for User and To Do Type

Zone	Description
C1-TODODROLE	To Do Role Search
C1-TRANSREJ	Transaction Reject Report
C1-TRLINV	Trial Bills
C1-TRMCONSRH	Term and Condition Search
C1-TRMSCONDN	Search Hierarchy Entity or Price Item
C1-TRPLMEMDT	Policy Details
C1-TRSREJPRV	Transaction Reject Previous Date Report
C1-TXNCLN	Transaction Leg Calculation Lines
C1-TXNOFFERO	Off-Process Request Details
C1-TXNOFFERR	Off-Process Request Error Messages
C1-UAINVCNS	Usage A/C With No Active Contract Linked to Invoice Construct
C1-USGACCREP	Usage A/C With No Active Contracts Linked to Setl Construct
C1-USGMISINV	Usage Accounts Missing In Invoice Construct Report
C1-USGNOINV	Usage Accounts Missing In Invoice Construct Report
C1-USGREP	Usage Settlement Report
C1-VARNAME	Search Variable name with tempCd
C1-VIEWBILL	Search Billing Element
C1-WEIGHTAVG	Weighted Average Price Report
C1-ZZMYDEAL	My Deal Zone
CM_PRD_HR	Product Hierarchy
CMSEARCH	person search
CM-SRCHPLS	Price List Selection
CUSTVIWZONE	Customer View Zone
MYMAPZONE	Map Zone Person
MYQRYZONE	Query Zone Person
Z1-DBDLMODEL	Deal Comparison

A.2.10 UI Maps

The following UI maps are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

UI Map	Description
C1_AcctWithNoContractFilter	Account With No Contract Filter
C1_AdjustmentDetailFilter	Adjustment Details Report Filter
C1_AwrSnapDwnld	AWR Snaps Download
C1_BillVarianceFilter	Bill Variance Filter
C1_ContractExpiryFilter	Contract Expiry Filter
C1_CREATE_DEAL	Deal Creation UI Map
C1_CREATE_DEAL_MAIN	Deal CreationUI Map
C1_CREATE_DEAL_TST	Deal Creation UI Map
C1_CustDirectEntryDetFilter	Customer Direct Entry Detail Report Filter
C1_CustLevDiscrUsg	Adjustment Details Filter
C1_CustomerBillPriceDetFilter	Customer Billed Priced Details Filter
C1_CustomerInvManualPayFilter	Customer Invoice Manual Payment Filter
C1_DBMSExecJobs	DBMS Scheduler Executed Jobs
C1_DBMSExecJobs	DBMS Scheduler Executed Jobs
C1_DBMSSch	DBMS Scheduler Job Dashboard
C1_DBMSUpJobs	DBMS Upcoming Jobs Schedule
C1_DBMSUpJobs	DBMS Upcoming Jobs Schedule
C1_DEAL_INFO	Deal Information
C1_DEAL_LOG	Deal Logs
C1_DEAL_TRAIN	Deal Train
C1_DEALCUSTFILTERMAP	Deal Management Search By Customer
C1_DEALPRICEASSGN	Price Assignment
C1_DEALPRICEASSGNDISABLE	Price Assignment
C1_DEALPRICEASSGNREAD	Price Assignment
C1_DisplayMessage	Display Log Details
C1_DL_TYPE_SRH	Related Entity Search

UI Map	Description
C1_DownloadFiles	UI to download files
C1_ELGPORD_SRCH	Search Eligible Product for Prospect
C1_ELGPORPL_SRCH	Search Eligible PriceList for Prospect
C1_EntitHrchyRelSearchFilter	Entity Hierarchy Relation Search Filter UI Map
C1_HRCHYENT_AppTxnDisplay	Display UI Map for C1HRCHYENT
C1_HRCHYENT_AppTxnInput	Input UI Map for C1HRCHYENT
C1_HrchyEntityValSearchFilter	Hierarchy Entity Search Filter UI Map
C1_HRCHYREL_AppTxn_Display	Display UI Map for C1HRCHYREL
C1_HRCHYREL_AppTxn_Input	Input UI Map for C1HRCHYREL
C1_HrchyTreeDisplay	Hierarchy Entity Relationship tree view
C1_IncorrectQuotActSetupFilter	Trial Bill Detail (Incorrect quote account setup) Filter
C1_INCRCT_ACT_SETUP	Incorrect Account Setup
C1_INVALID_CISKEY	Invalid Ciskey
C1_INVLD_STLMNT_ACNT	InvalidSetlMntAcntWithNoApayDtIs
C1_InvoiceArrangementReport	Invoice Arrangement Report Filter
C1_InvoiceSettlementFilter	Invoice Settlement Filter
C1_MessageDisp	Server Message
C1_MessageDisplay	Message Display
C1_MLTPL_CSKY_ON_CUST	Multiple Ciskey on Customer
C1_MODEL_LOG	Model Logs and Comments
C1_OffProcessTypeMaintFrag	Off Process Type Maintenance
C1_OfProcTypeAccumFrag	Off Process Type Accum Maintenance
C1_OverPricSoldProdLevl	Override Pricing Sold Product Level Filter
C1_OVERRIDE_PRICING	override pricing
C1_PatchVerificationUI	UI to download installed fixes
C1_PENDING_PYMNT_EVENT	Pending payment event
C1_PLASGNACTVD	UI Map for PricList View for existing pl
C1_PLASGNPRO	Search Current Price List Assignments
C1_PLASGNPROSPD	UI Map for PricList Assignment Creation
C1_PLASGNPROSPECT	UI Map for PricList Assignment Creation

UI Map	Description
C1_PRASGNPRO	Search Enrolled products
C1_PriceAsgnDivCost	Price Asgn parameter UI map
C1_PriceAsgnDivFloorCeil	Price Asgn parameter UI map
C1_PriceAsgnDivParam	Price Asgn parameter UI map
C1_PriceAsgnDivSqi	Price Asgn parameter UI map
C1_PROD_DEAL_F	Search Product to Add to the Relation
C1_ProdItemPriceFilter	Product Item Price Filter
C1_ProductProfitabilityReport	Product Profitability Report Filter
C1_PROSPECT_ACCT_SEARCH	Prospect Account Search
C1_PROSPECT_HIERARCHY	Prospect Hierarchy View
C1_PROSPECT_SEARCH	Prospect Search Filter
C1_PRS_PER_SRCH	Related Entity Search
C1_SelfServices	UI map for self service portal
C1_ServDesc	UI Map for Sizing Parameter
C1_STANDARD_PRICELIST	Standard pricelist
C1_StandardPricLstreviewFilter	Standard Price List Review Filter
C1_TBDCConstructInvAcMapFilter	Trial Bill Detail (Constuct Having Invoice Account) Filter
C1_TPRestartUI	UI Map to restart thread pools
C1_TRAIN	Deal dashboard action
C1_TrandingBank	TradingBankSold ProductReconReport
C1_TRLBILDTL	Trial Billing Detailed
C1_UsageInvoiceFilter	Usage Invoice Filter
C1_UsgActWithDummyAcctIdType	Usage Account With Dummy Account ID Type Filter
C1_ZONE_HEADER	Blank Zone Header
C1-AccountIdView	View Account Id
C1-AccountSearchDealUI	Search by Account
C1-acctSRH	Account search
C1-AccumGrpIdSearchByNameUI	Search Accumulation Group Id By Name
C1-ADDECPA	Add Existing Cust /Pros/Acct
C1-AddInvoiceRequestUserLog	Invoice Request - Add User Log Entry

UI Map	Description
C1-AddOffProcessRequestUserLog	Off Process Request - Add User Log Entry
C1-ADHOC	Adhoc Revenue And Cost
C1-ApproveHierachy	Approval Hierarchy-Input UI
C1-AppTxnPricRuleMPPDisplay	Minimum Premium Program Pricing Rule
C1-AppTxnPricRuleMPPMaint	Minimum Premium Program Pricing Rule
C1-BCLTADJ	Adjustment Type Search
C1-BFEECONTR	Non BFEE Contract Active UI
C1-BillableChargeSearchFilter1	Person-Billable Charge Filter
C1-BillableChargeSearchFilter2	Person-Billable Charge Filter
C1-BillableChargeSrch	Billable Charge Search-UI
C1-BillablechgTmfilter	Billable Charge Timeline Filter
C1-BillChar	bill characteristics
C1-BillGroupCreatedViaCustReg	Bill Groups Created via Customer Registration UI Map
C1-CancelBcByAcct	Cancel Billable Charge- By Account
C1-CancelBcByBc	Cancel Billable Charge- By Billable Charge
C1-CancelBcByPer	Cancel Billable Charge- By person
C1-CANCPAYM	Cancelled Payments Report UI
C1-ChargeCharValueMaint	Characteristic Value Maintenance
C1-ChargeTypeCharsDispFrag	View Charge Type Characteristics
C1-ChargeTypeCharsMaintFrag	Charge Type Chars - Input UI
C1-ChargeTypeFilter	Filter for Charge type Add
C1-ClaimTemplateAlignment	ClaimTemplateAlignment
C1-CNSTRTEMP	Constr criteria against Templ UI
C1-ConfirmMessage	Message
C1-ContractIdView	View Contract Id
C1-CRITBLANK	ConstructWithCriteriaValueBlank
C1-CUSPRCDTL	CustomerPriceDetailsReport UI
C1-CustHi	Approval Hierarchy
C1-CustHierarchyFilter	Person Hierarchy Search
C1-CustomerSearchDealUI	Existing Customer search

UI Map	Description
C1-DBDEALS	deal search
C1-DBMSIMPEXP	DBMS Data Import/Export
C1-DBMSProgram	DBMS Program
C1-DBMSRefreshScreen	DBMS Scheduler Jobs
C1-DBMSScheduler	DBMS Scheduler
C1-DEALACCOUNTFILTER	Deal Management- Search by Account
C1-DEALACCOUNTSEARCH	Customer 360 Banking - Search by Account
C1-DealAccptReject	Deal Acceptance/Reject
C1-DEALACCTFILTERMAP	Choose Reference -Search by Account
C1-DEALACCTUI	Customer 360 Banking - Search by Account
C1-DealApprActionMessage	Message
C1-DealApprovalProfile	Search Deal Approval Profile
C1-DealApprovalWF	Deal Approval Workflow
C1-DealApproversViewUI	Approver's View
C1-DealApprProfDispFrag	Deal Approval Profile - Display UI
C1-DealApprProfMainFrag	Deal Approval Profile - Input UI
C1-DealApprRetn	Deal Approval Return To Submitter
C1-DealBSDCUST	Deal Based Customer
C1-DealBSDCUST1	Deal
C1-DealCharacteristicTypeInfo	Characteristic Type Information
C1-DealCharacteristicUI	Deal Characteristics
C1-DealCharsDispFrag	Deal Characteristics - Display Map
C1-DealCharsMaintFrag	Deal Characteristics - View
C1-DealCharsMaintFrag1	Deal Characteristics -Input UI
C1-DealCharsViewFrag	Deal Characteristics - View
C1-DealCharValueMaint	Characteristic Value Maintenance
C1-DealCharValueView	Characteristic Value Maintenance
C1-DEALCRETIONUI	Deal Model Creation UI Map
C1-DealCustFilter	Choose Reference Search By Customer
C1-DealExtraction	Deal Extraction

UI Map	Description
C1-DealFinalizeMessage	Message
C1-DEALINFOUI	Deal Information UI Map
C1-DealJavaScrFragment	Deal Train Java Script Fragment
C1-DealLogAdd	Deal Log Add
C1-DEALPRCDET	Deal price Details
C1-DealPrdEnroll	Product Enrollment
C1-DealPriceAsgnCharsFrag	Deal Price Assignment Cha Frag
C1-DealPriceAsgnCharsFragDisbl	Price Assignment
C1-DealPriceAsgnCharsFragDisp	Price Assignment
C1-DEALS	Auto Pay Details
C1DEALSEARCH	To Search Deal Details.
C1-DealSearchUi	deal search
C1-DEALSEARCHUIMAP	Deal Search UI Map
C1-DealSRHAC	Deal Based On Account
C1-DealTrainUI	Deal Train HTML Fragment
C1-DealTypeApprProfDispFrag	Deal Type Approval Profile - Display UI
C1-DealTypeApprProfMainFrag	Deal Type Approval Profile - Input UI
C1-DealTypeCharsDispFrag	Deal Type Characteristics - Display Map
C1-DealTypeCharsMaintFrag	Deal Type Char - Input UI
C1-DealTypeSearchFilter	Deal Type Search Filter
C1-DealTypSrch	Search Prospect
C1-DIRENTREJ	DirectEntryRejectionReport UI
C1-DisplayCommitmentMessage	Success Message
C1-DisplayDealModel	Display Deal Information
C1-DLACCTAPP	Account
C1-DLACCTCRE	Account
C1-DLAPPR	deal search
C1-DLAPPRTOD	Deal To Do
C1-DLAPPRWF	Deal Approval Workflow
C1-DLAPRTODO	Deal to do

UI Map	Description
C1-DLBUTTONS	Deals dashboard buttons
C1-DLCRET	deal search
C1-DLCUSTAPP	Customer
C1-DLCUSTCRE	Customer
C1-DLDBACTIONS	Deal dashboard action
C1-DLDBDLTYP	Related Entity Search
C1-DLDBTODO	Deal to do
C1-DLSearchPRBSUI	Existing Customer search
C1-DLSQISH	SQL Search
C1-DLTODOIN	Deal To Do Alerts
C1-DLTODOLIST	Deal To Do
C1-DUPPROD	Dupl Product Validt UI
C1-EligibleAlgo	Eligibility Algorithm
C1-ELPLUI	Search Eligible Price Lists
C1-EnrldProd	Product Enrollment
C1-FileMgtUploadMove	Action
C1-FLOORCEIL	Search Current Price List Assignments
C1-FLOORCEILMAP	This is used to filter hide of zone
C1-FlrCeilValueDisplay	Floor Ceil Value Display
C1-FrtFunctionConfig	File Request Type Function Configuration
C1-FrtScriptOuputFunction	Script Function Output
C1-FundArrgDispFrag	LF Funding Arrangement Appearance - Display UI
C1-FundArrgMaintFrag	LF Funding Arrangement Appearance - Input UI
C1-GCMExceptionReportUI	GCM Exception Report Filter
C1-HIERDESC	Hierarchy Search
C1-HrchyDtlMaintFrag	Hierarchy detail - Input UI
C1-HrchyEntityCharsDispFrag	Hierarchy Entity Char - View UI
C1-HrchyEntityCharsMaintFrag	Hierarchy Entity Characteristics -Input UI
C1-HrchyEntityMainFrag	Hierarchy Entity Main Input Fragment
C1-HrchyMainMaintFrag	Entity Hierarchy Main - Input UI

UI Map	Description
C1-ICR-GRPID	Incorrect Invoice GroupID Validation
C1-INCBILL	Usage Acc With Inc Bill Cycle UI
C1-INCBILL	Usage Acc With Inc Bill Cycle UI
C1-INCR-ADDR	Incorrect Address Mapping Validation
C1-INCR-ADDR	Incorrect Address Mapping Validation
C1-InitTermPolicyTransitionInp	State Transition - Initiate Terminate reason
C1-InvoiceReqAcctListFilters	Invoice Request Account List Filters
C1-InvoiceReqAcctLvlSearch	Search Invoice Request created at Account Level
C1-InvoiceReqBOJScriptFrag	Invoice Request-Show/Hide BO Status Action
C1-InvoiceReqCharsDispFrag	Invoice Request Characteristics - View UI
C1-InvoiceReqCharsMaintFrag	Invoice Request Characteristics -Input UI
C1-InvoiceReqEntityDispFrag	Invoice Request Entity Type Display UI
C1-InvoiceReqEntityMaintFrag	Invoice Request Entity Type Input UI
C1-InvoiceReqExtRefDisplay	Invoice Request Display External Reference.
C1-InvoiceReqPersLvlSearch	Search Invoice Request created at Person Level
C1-InvoiceReqStatsData	Invoice Request Statistic Data Display
C1-InvoiceReqTypeApprDispFrag	Invoice Request Type - Display UI
C1-InvoiceReqTypeApprMainFrag	Invoice Request Type - Input UI
C1-InvoiceReqTypeCharMaintFrag	Invoice Request Type Char - Input UI
C1-InvoiceReqTypeCharsDispFrag	View Invoice Request Type Characteristics
C1-InvoiceRequestCharMaintFrag	Invoice Request Characteristics - Input UI
C1-InvoiceRequestMaint	Invoice Request
C1-InvReCharDisplayFrag	Invoice Request Characteristics - View UI
C1-MemberEntitySearch	Member Entity Search
C1-MembershipSearchFilter1	Membership - Search By Policy/Plan
C1-MembershipSearchFilter2	Membership - Search By Person Name/Identifier
C1-MembershipSrchDetails	Membership Search-UI
C1-MergePricing	Merge Pricing
C1-MISSETCON	Usg Acc Missing In Settlement Constr UI
C1-ModelCreation	Version Creation

UI Map	Description
c1-MyDeal	UI Map For Deal
c1-NewModelComment	Create New Model Page
C1-NOBILLCH	OnetimeBillableChargeNotCreated UI
C1-NO-CUSTYP	CustomerWithoutCustomerType
C1-OffProcBOJScriptFrag	OffProcess Request-Show/Hide BO Status Action
C1-OffProcesReqDetailMaintFrag	OffProcess Request Details - Input UI
C1-OffProcessReqCharsMaintFrag	OffProcess Request Characteristics -Input UI
C1-OffProcessReqEntityDispFrag	OffProcess Request Entity Type Display UI
C1-OffProcReqCharsDispFrag	OffProcess Request Characteristics - View UI
C1-OffProcReqCharsMaintFrag	OffProcess Request Characteristics -Input UI
C1-OffProcReqTypeApprMainFrag	Off Process Request Type - Input UI
C1-OffProcReqTypeCharMaintFrag	Off Process Request Type Char - Input UI
C1-OffProcRequestRejectConfM	OffProcess Request - Enter Reject Reason
C1-OFFPROCRT	Off Process Request Type Search
C1-OffProReqPersLvlSearch	Search OffProcess Request created at Person Level
C1-OffProReqTypeApprDispFrag	Off Process Request Type - Display UI
C1-OffProReqTypeCharsDispFrag	View Off Process Req Type Characteristics
C1-OffProRqAccumIdSearch	Search OffProcess Accum Request created at AccumId Level
C1-OffProRqSearch	Search Off-Process Request
C1-OfpParentPerDetailMaintFrag	OffProcess Request Details - Input UI
C1-OJETLIBS	OJET libraries
C1-OJTrainJSFrag_Deal	Train Component - Script
C1-OJTrainMaint_Deal	Train Component
C1-ORATMPSRH	Template Search
C1-PersonIdView	View Person Id
C1-PolCharFilter	Policy Characteristics Filter
C1-PolicyPlanSearch	UI Map for Policy Plan Search
C1-PolPlanCharFilter	Policy Plan Characteristics Filter
C1-PrcAsgnTrmAndCndn	Price Assignments Terms and Conditions

UI Map	Description
C1-PRCITMSLUI	Manage Search Product user interface
C1-PrcRuleTypeClaimAddFeeDisp	Display Additional fee on Claim PRT
C1-PrcRuleTypeClaimSpecData	Claim Specific Additional Data
C1-PRDSRCHFILTR	Product Search Filter
C1-PricAsgnFlrCeil	Price Assignment Floor and Ceil
C1-PriceAsgnCommitments	Price Assignments Commitments
C1-PriceCompTreeF	Price Component Tree
C1-PricItemMaintNew	Price Item Maintenance User Interface
C1-PriceListAsgnCharMaintFraDe	Price List Assignment Characteristics
C1-priceSimUI	Pricing And Commitment Details
C1-priceSimUI	Pricing And Commitment Details
C1-priceSimUIFrg	Price Component Tree
C1-Pricing	Pricing Filter
C1-PricingFilterUI	Pricing Filter
C1-PricingRuleMPPDisp	MPP display UI map
C1-PricingRuleMPPMaint	Minimum Premium Program Pricing Rule
C1-PricingRulesFilter	Pricing Rules Filter
C1-ProdEnrlBak	Product Enrollment
C1-PRODSTAT	Product Status Report
C1-ProspectAccountCharFrag	Prospect Account Characteristics
C1-PROSPECTACCT	Prospect Account
C1-PROSPECTACCT-READ	Prospect Account Details
C1-PROSPECTADDR	Prospect Address Fragment
C1-PROSPECTCAPTURECHGUI	Prospect Change UI
C1-ProspectCharFrag	Prospect Characteristics
C1-ProspectIdType	Prospect Identifiers Types
C1-PROSPECTPER	Prospect Person
C1-PROSPECTPER-READ	Prospect Person Details
C1-ProspectSearchDealUI	Search Prospect
C1-PROSPECTVIEW	Prospect Details

UI Map	Description
C1-PRBSDEALUI	Prospect Based Deal UI
C1-PRSDLRCHUI	Existing Customer search
C1-Questionnaire	Questionnaire
C1-QuestionnaireUi	Questionnaire
C1-Questions	Question Details
C1-RateCompTreeF	Original Pricing Details
C1-RefPriceVolume	Refer Price / Volume
C1-REFPRSVOLUI	Reference Details
C1-REFPRSVOLUIRO	Reference Details
C1-RefreshParent	Refresh Parent UI Map
C1-RepricingReqDetailsfilter	Member Entity Search
C1-SASRCH	Contract Type Search
C1-SATYP	Contract Type Search
C1-SelectInvoiceRequestType	Invoice Request - Select Invoice Request Type
C1-SelectOffReqAccumType	Select Offprocess Request Type
C1-SETACC-NOTMAP	SettlementAccountNotMappedReport
C1-SFTPUSERADD	Add SFTP User
C1-SHOWACCOUNT	Display Prospect Accounts
C1-SHOWPDFUI	Show PDF UI
C1-SkipRef	Skip Reference
C1-SkipRefMessage	Skip Reference Message
C1-SRCHEPL	Price List Search
C1-SRCHGETCUST	Search Current Price List Assignments
C1-SuccessMsgDL	Save Success Message For Deal
C1-TacConditionSuccessMsg	Terms and Conditions Success Message
C1-TacConfirmWindow	Price Item Terms And Conditions Confirm Window
C1-TacErrorWindow	Price Item Terms And Conditions Error Window
C1-TermsCond-View	Price Assignments Terms and Conditions View
C1-TLRRelatedFieldsDispFrag	TLR Related Fields Appearance - Display UI
C1-TLRRelatedFieldsMaintFrag	TLR Related Fields Appearance - Input UI

UI Map	Description
C1-TransactionRejectPreviosDt	Transaction Reject Previous Date Report
C1-TransactionRejectPreviosDt	Transaction Reject Previos Date Report
C1-TRANSREJ	TransactionRejectReport UI
C1-TrmCondn	Mapping Terms and Conditions
C1-TRMSCONDN	Mapping Terms and Conditions
C1-TRSREJPRV_DT	TransactionRejectPreviosDateReport
C1-UAINVCNST	Usage Account with no Active Contract linked to Invoice Construct
C1-USAGEACCOUNTMISSINGINVCONST	Usage Account Missing Invoice Construct
C1-USGACCREP	Usage Account with no Contract filter
C1-USGNOINV	Usage Account Missing In Invoice Construct
C1-USGREP	Usage Settlement Report UI
C1-ViewAccumAmountDataFilterUI	Accumulation Amount data filter
C1-ViewAccumAmtDataFilter2UI	Accumulation Amount data filter
C1-ViewAccumOffProDataFilter	User Filters for Applicable Off-process Adjustments
C1-ViewAccumulationDataUI	Accum Data -Filter Parent customer/Account
C1-ViewPrice1	View Price
c1-ViewPrice12	View Pricing
C1-ViewPricingTable	View Pricing
C1-WEIGHTAVG	Weighted Average Price Report UI
CM_BILLING_AppTxn_Display	Display UI Map for BILLING
CM_BILLING_AppTxn_Input	Input UI Map for BILLING
CM_C1PRRLMPPN_AppTxn_Display	Display UI Map for C1PRRLMPPN
CM_C1PRRLMPPN_AppTxn_Input	Input UI Map for C1PRRLMPPN
CM_ZZACCOUNT_AppTxn_Display	Display UI Map for ZZACCOUNT
CM_ZZACCOUNT_AppTxn_Input	Input UI Map for ZZACCOUNT
CM_ZZRULE_AppTxn_Display	Display UI Map for ZZRULE
CM_ZZRULE_AppTxn_Input	Input UI Map for ZZRULE
CM-PLSEL	Price List Selection
PricingRuleType-AdditionalData	Pricing Rule Type - Specific Additional Data

UI Map	Description
TradingBankSold ProductReconRe	TradingBankSold ProductReconReport
Z_ZZHRCHYENT_AppTxn_Display	Display UI Map for ZZHRCHYENT

A.2.11 Lookups

The following lookups are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Field	Field Value	Description
ACCT_OPT_TYP_FLG	IDVA	Default Identifier value
	ADD1	Default Address
	CNTR	Default Country
	IDTY	Default Account Identifier
ACCUM_CAT_FLG	LF	Level Funding
	ASL	Aggregate Stop Loss
	MPP	Minimum Premium Program
	ALL	All
	SSL	Specific Stop Loss
	DA	Discount Arrangement
ACTION_FLAG	APR	Approved
	NAPR	Not Approved
	REQU	Required
ACTIVE_RUNOUT_FLG	ACTV	ACTIVE
	ROUT	RUNOUT
ALLOW_EST_SW	N	no
	Y	Yes
BILLING_MODE_FLG	C1TR	Trial
	C1RG	Regular
C1_DEALHIERARCHYLEVEL	4	4
	7	7
	10	10
	1	1

Field	Field Value	Description
	2	2
	5	5
	8	8
	6	6
	0	0
	9	9
	3	3
C1_DEALPROFILETYPE	DEAL	Deal
	DIV	Division
C1_PARM_TYPE	PC	Product Code
	PG	Product Group
C1_REGULAR_TRIAL_FLG	C1TR	Trial
	C1RG	Regular
CLM_LINE_ITEM	CDH	CDH
	ALEG	All Eligible
	PVN	Prevention
	THC	THC
CM_OVRDPRC_CONV_LKUP	OV13	CM_PER
	OVP2	CM_STNDC
	OV11	CM_PARTN
	OV12	C2ONECHR
	OV16	CM_IDOL
	OV10	NPVV
	OV14	CM_UR
	OV17	CM_OTC
	OVP3	CVF
	OVP6	CM_PARTC
	OVP7	CM_STNDN
	OVP9	NVJV
	OV15	IDLINFEE

Field	Field Value	Description
	OVP1	CMCRTFLG
	OV18	CM_ANVB
	OVP5	CPVV
	OVP8	NVF
	OVP4	CVFV
COMMITMENT_FREQUENCY_FLG	YRLY	Yearly
	BIAN	Biannually
	MNTH	Monthly
	QTRY	Quarterly
COST_TYPE	ACF	Additional Cost - Fixed
	FTP	Fixed Third party
	VI	Variable Internal
	FXI	Fixed Internal
	VTP	Variable Third party
	ACV	Additional Cost -Variable
COST_TYPE_FLG	ACF	Additional Cost - Fixed
	VTP	Variable Third party
	VI	Variable Internal
	ACV	Additional Cost -Variable
	FXI	Fixed Internal
	FTP	Fixed Third party
CUST_RENEWAL_ACTION_FLG	RNEW	Renew
	CNCL	Cancel
DEAL_APPR_STATUS	UNRJ	Unapproved-Rejected
	UNAP	Unapproved
	APRJ	Approved-Rejected
	SUBT	Submitted
	REJC	Rejected
	APPR	Approved
DEAL_APROF_STATUS	ACTV	Active

Field	Field Value	Description
	INAC	Inactive
DEAL_BATCH_FLG	HIEC	Hierarchy Creation
	DELS	Deal Simulation
DEAL_COMMITMENT_FREQUENCY	MNTH	Monthly
	HYRL	Half Yearly
	YRLY	Yearly
DEAL_ENTITY_TYPE_FLG	EACC	Account
	PRS	Prospect
	EPER	Customer
DEAL_EXTRACT_FILTER_FLG	DIV	Division
	ALL	All
	CUST	Customer
	ACCT	Account
	HIER	Only Hierarchy
	ASGL	Assignment Level
	PRIT	Price Item
	ADFL	AdditionalFilterCriteria
DEAL_EXTRACT_FORMAT_FLG	XLS	Excel
	PDF	PDF
DEAL_EXTRACT_TYPE_FLG	INT	Internal
	EXT	External
DEAL_FIN_SMRY_STATUS	UNAP	Unapproved
	INIT	Initial
	APPR	Approved
	EROR	Error
DEAL_MODE	ACCT	Account Simulation
	DEAL	Deal Simulation
	CUST	Customer Simulation
DEAL_OPT_TYP_FLG	EETP	External Report Code PDF

Field	Field Value	Description
	IETP	Internal Report Code PDF
	EETE	External Report Code Excel
	IEFE	Internal Report Code Excel
DEAL_PRICE_ITEM_APPR_STATUS	UNAP	Unapproved
	EROR	Error
	INIT	Initial
	APEX	Approved-Existing
	APPR	Approved
DEAL_PRICEITEM_PDM_APPR_STATUS	RETN	Returned
	RVOK	Revoked
	UNAP	Unapproved
	APPR	Approved
	APRN	Approved-Returned
	UNRN	Unapproved-Returned
DEAL_PRICING_FILTER_FLG	ADFL	AdditionalFilterCriteria
	PRIT	Price Item
	HIER	Only Hierarchy
	PIGR	Price Item Group
	CUST	Customer
	ASGL	Assignment Level
	ALL	All
	ACCT	Account
DEAL_REQ_FLG	HIRE	Hierarchy Creation
	SIML	Simultaion
DEAL_STATUS	EROR	Error
	ACPT	Customer Accepted
	CLSE	Closed
	DRAF	Draft
	APRD	Approved
	PRCS	Applied/Processed

Field	Field Value	Description
	PSML	Pending Simulation
	SMLD	Simulated
	REJC	Rejected
	DSML	Simulation Deferred
	RFAP	Ready For Approval
	FNAL	Finalized
DEAL_TRAIN_STEPS	20	References
	10	Deal
	40	Simulation
	60	Acceptance/Reject
	30	Pricing/Commitments
	50	Approvals
	70	Orchestration
	80	Discarded
DEAL_TYPE_ALG_ENT_FLG	PRCL	Profitability Calculation Rules
DEAL_TYPE_STATUS_FLG	ACTV	Active
	INAC	Inactive
DL_APPR_VW_ACTION	ATME	Assign To Me
	ATMR	Assign To My Role
DTEX_OPT_TYP_FLG	SLOT	Time Slot
EHR_OPT_TYP_FLG	MHL	Maximum Hierarchy Level
EXT_REF_TYPE_FLG	C1PO	Policy
FEE_SIGNIFICANCE	PRVN	Prevention
	RCVR	Recovery
FIN_SUMMARY_STATUS_FLG	EROR	Error
	UNAP	Unapproved
	INIT	Initial
	APPR	Approved
FINAL_SETTLE_ARRANGE_FLG	FLAT	Flat
	PCNT	Percentage

Field	Field Value	Description
FINAL_SETTLE_MODE_FLG	SURP	Surplus
	DEFI	Deficit
FLOOR_CEIL_TYPE	SA	Spread Amount
	SP	Spread Percentage
	AVR	Absolute Values ranges
FREQUENCY_FLG	BIAN	Biannually
	QTRY	Quarterly
	YRLY	Yearly
	MNTH	Monthly
HRCHY_ENTITY_STATUS_FLG	C1IN	Inactive
	C1AC	Active
INCLUDE_CHILD	Y	Yes
	N	No
INCLUDE_CHILD_HIREARCHY	N	No
	Y	Yes
INPUT	A	Accounts in trading bank not in ORMB
	B	Accounts in ORMB not in Trading Bank
	C	Accounts marked as "Charged"
	D	Show All
INVOICE_ENTITY_TYPE_FLG	ACCT	Account
	PERS	Person
INVOICE_MODE_FLG	C1AU	Automatic
	C1MN	Manual
INVOICE_RE_DATE_DFLT_FLG	C1PD	Process Date
	C1CD	Cut Off date
INVOICE_REC_STATUS_FLG	PROC	Processing
	CANC	Cancelled
	EROR	Error
	PRCD	Processed
	PEND	Pending

Field	Field Value	Description
INVOICE_REQ_TYPE_STAT_FLG	C1AC	Active
	C1IN	Inactive
INVR_OPT_TYP_FLG	ACTS	Account Search
	C1PO	Policy Search
	PERS	Person Search
	REGB	Regular Bill FK Ref
	TRLB	Trial Bill FK Ref
	ACTE	Invoice Request Account Eligibility Char Type
	ALST	Account Limit
LEVEL_CD	L3	Level 3
	L2	Level 2
	L4	Level 4
	L6	Level 6
	L10	Level 10
	L9	Level 9
	L1	Level 1
	L8	Level 8
	L5	Level 5
	L7	Level 7
LIMIT_ARRANGEMENT_FLG	FLAT	Flat Rate Based Premium
	ENRP	Enrollment Based Premium
MODEL_STATUS_FLG	PSML	Pending Simulation
	FNAL	Finalized
	SMLD	Simulated
	DSCR	Discarded
	REFR	References
	DRFT	Draft
MODEL_TYPE_FLG	RGLR	Regular
	WKCP	Working Copy

Field	Field Value	Description
MPP_ATTACHMNT_PT_ARRNG_FLG	ENPP	Enrollment Percentage of Previous month
	ENPF	Enrollment Percentage of First month
	FLAT	Flat amount
OFFPROC_ACCUM_TYPE_FLG	SSL	Specific Stop Loss
	ASL	Aggregate Stop Loss
	LPRE	Level Premium
	MPP	Minimum Premium Program
	DSAR	Discount Arrangement
OFFPROC_APL_FLD_FLG	ROFD	Run Out Fund
	MNLM	Minimum Limit
	STFD	Settlement Fund
	AGAM	Aggregated Amount
	ASLM	ASL Limit
	CSCR	Cumulative SSL Credit
	CMAM	Cumulative Amount
	MXLM	Maximum Limit
	NCAM	Net Claim Amount
	MTLM	Monthly Limit
	MXLB	Max Liability
OFFPROC_CAT_FLG	MPP	Minimum Premium Program
	DISC	Discount Arrangement
	LFND	Level Funded
	SSL	Specific Stop-Loss
	ASL	Aggregate Stop-Loss
OFFPROC_CHG_ENTITY_TYPE_FLG	BC	Billable Charge
	ADJ	Adjustment
OFFPROC_DTL_REC_STATUS_FLG	EROR	Error
	PEND	Pending
	PRCD	Processed

Field	Field Value	Description
OFFPROC_ENTITY_TYPE_FLG	ACGP	Accumulation Group
	LFND	Level Funded
OFFPROC_PARENT_ENT_TYP_FLG	PERS	Person
OFFPROC_REQ_MODE_FLG	AUTO	Automatic
	MANU	Manual
OFFPROC_REQ_TYPE_STAT_FLG	INAC	Inactive
	ACTV	Active
OFFPROC_SUBENTITY_TYPE_FLG	PERS	Person
	MESU	Member Subscriber
	ACCT	Account
	ACGP	Accumulation Group
P_ITYPE_LAST_YEAR_ALONE	N	No
	Y	Yes
PEFC_OPT_TYP_FLG	ABCD	Template Internal System
	XYZW	Template Internal System 1
POLICY	OUT	Run Out
	ACT	Active
POLICY_FLG	ACT	Active
	OUT	Run Out
QSTN_STATUS	I	Inactive
	A	Active
RATE_TYPE	RTPR	Retained Percentage
	PCLC	Per Claim Cap
RATE_TYPE_CAT_FLG	ADFE	Fee
	MUMD	Markup or Markdown
	LNIT	Claim Line Item
RECORD_STATUS_FLG	PROC	Processed
	PEND	Pending
REF_SEL_FLG	YES	Yes
	NO	No

Field	Field Value	Description
REFERENCE_TYPE_FLG	RDEL	Reference Deal
	EACC	Existing Account
	RPRS	Reference Prospect
	RACC	Reference Account
	RPER	Reference Person
	EPRS	Existing Prospect
	EPER	Existing Person
REPRC_BO_STATUS	P	Pending
	C	Completed
	E	Error
	I	Invalid
REV_TYPE_FLG	ADRE	Adhoc Revenue
	ADCO	Adhoc cost
REVENU_COST_GRP_FLG	TRCO	Travel Cost
	PRIL	Price Item level
	ADRE	Adhoc Revenue
	DCOM	Deal Commission
	CUCO	Courier Cost
REVIEW_FREQUENCY_FLG	YRLY	Yearly
	BIAN	Biannually
	2YER	2 Years
RPT_OPT_TYP_FLG	PCHV	Person CharVal-Customer Status
	BLAD	Bill Address Source Flag - Exclude
	INSA	Input - Show All
	RSPR	Rate Schedule - PER
	ACHQ	Account CharVal - Quote
	ACHV	Account Char - Value
	ACPF	Account Char - Print Flag
	CTNB	Service Agreement Type-NONBFEE
	PID	Person ID Type

Field	Field Value	Description
	PMTR	Product Manager - To Do role
	PTED	Payment Tender Char - Error Desc
	PTPD	Payment Tender Char - Process Date
	TCUI	Template Code - Settlement for sold product and item type
	ACID	Account Identifier Type - DUMMY
	ADTC	Adjustment type Code
	BRMB	Bill Cycle - Regular Monthly
	PCSD	Person Char - Start Date
	RCVT	Rate Component - Value type
	MTTY	Default Match Type
	ACHR	Account Char - Account Type
	ACLT	Account Identifier - Usage list
	CHVY	CharVal - Y
	CTMG	Client Manager
	PCCF	Person Char - Contracted Flag
	PCCS	Person Char - Customer Segment
	PCED	Person Char - End Date
	PFIC	Priceitem Char - Fixed Internal
	PTBS	Payment Tender Char - BSB Number
	PVIC	Priceitem Char - Variable Internal
	RSID	Rate Schedule - IDOL
	SQCD	SQL Code - Transaction Volume
	CTYP	Customer Type
	PLRD	PriceList - Review Date
	PONE	Priceitem Char - One Time Charge
	PTRS	Payment Tender Char - Record Status
	TCIC	Template Code - Settlement for inv acc with inv id
	TCSP	Template Code - Settlement for usage with sold product

Field	Field Value	Description
	PRCD	PriceItem Code - Exclude
	PITM	Price item - Trial Billing
	ACIG	Account Char - Invoice Group ID
	AIDA	Account Identifier Type - ACCOUNT
	ASCI	Account Number Type - SCID
	BOST	BO Status - Error
	EXSA	Service Agreement - Excluded
	SATP	Service agreement type
	ACIN	Account Char Type - Invoice Group Id
	ACST	Account Identifier - settlement list
	AICD	Account Identifier - Invoice
	AILT	Account Identifier Type -List value
	BSTR	Bill Segment - Tax Region
	PEDT	PriceItem Char - End Date
	PFTC	Priceitem Char - Fixed 3rd Party
	PIDN	Person Id Number
	TMCD	Template Code
	EXAI	Account Identifier Type - Excluded
	TCIA	Template - Select Invoice Account with Invoice Acct ID
	TCVN	Variable Name
	VNSP	Variable Name - SOLDPID
	ACHI	Account CharVar - Invoice
	PCST	Person Char - Customer Status
	PVTC	Priceitem Char - Variable 3rd Party
	TCRT	Template Code - Construct with blank criteria
	TPFB	Template Purpose Flag - Billable Charge Selection
RPT_STATUS	20	Active
	60	Closed

Field	Field Value	Description
SETTLE_FUND_TYP_FLG	OUTF	Run Out Fund
	SETF	Settlement Fund
SETTLEMENT_ACTION_FLG	RLFW	Roll Forward
	CLSO	Close Out
SIMULATION_TYPE_FLG	ACCT	Account
	CUST	Customer
	DEAL	Deal
SQI_MAPPING	S	Settled Valuation
	T	Traded Valuation
SUB_ENTITY_TYPE_FLG	ACCT	Account
	PERS	Person
TAC_MAPPING_LEVEL_FLG	PI	Price Item
	PIG	Hierarchy Entity
TC_PURPOSE	INVC	Invoice
	QUOT	Quote
USAGE_PERIOD_FLG	BIAN	Biannually
	QTRY	Quarterly
	MNTH	Monthly
	YRLY	Yearly

A.2.12 Characteristic Types

The following characteristic types are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Characteristic Type	Description
BILLVL3	Bill Level 3
BILLVL4	Bill Level 4
C1-ANVDT	Annual Charge Anniversary
C1-DLCHP	Deal Characteristics
C1-DLCHR	Deal Characteristics
C1-DLTD	Deal To Do Type

Characteristic Type	Description
C1-DTCHR	Deal Type Characteristics
C1-EXRTS	Customer Specific Exchange Rate Source
CMBASERT	CMBASERT Base Rate
CM-BK	Target Contract Type for Invoice Construct
CMCHGTYP	C2CHGTYP Charge Type
CMCLTYPE	CMCLTYPE Calc Type
CMCSTINT	CMCSTINT Cost - Fixed internal
CMCSTSEG	Customer Segment
CMCSTVAR	CMCSTVAR Cost - Variable internal
CMCUSTCL	Customer Cost Rating
CMDISPGP	CMDISPGP Quote Display Sequence
CM-ENDDT	CM-ENDDT End date
CM-FRPRD	CM-FRPRD Recurrence Frequency Period
CMINTRNM	CMINTRNM Interest Rate Name
CM-LEVEL	CM-LEVEL Level
CM-MDSQI	CM-MDSQI Model SQI
CMONECHR	CMONECHR One Time Charge
CM-PROF	CM-PROF Product Approval profile
CM-RVNCL	CM-RVNCL Other Revenue Calculated Char
CMSRCSYS	CMSRCSYS Source System
CM-STDAT	Price item start date
CMTAXAPP	CMTAXAPP Applicable To VAT
CM-THRPT	CM-THRPT Cost Fixed - Third-party
CMTHRVAR	CMTHRVAR Cost VARIABLE- Third-party
CNTRACTV	Contract Activation Char
DORMANT	Dormant Account
EMPBAND	EMPBAND
EXCLUAGG	Exclude From Aggregation
INVRACTE	Eligible For Invoice Request Creation
MINGRPPI	Minimum Charge Grp Price Item Rel Type

Characteristic Type	Description
MINGRPTY	Minimum Charge Grp Per Relationship Type
MINPERPA	Minimum Charge Period PA
ORACLEEM	Employee level
PICDPA	Price Item Price Assignment Char Type
PRORFLG	Proration Flag
TOBACCO	Smoker
VALBASIS	Valuation Basis

A.2.13 Feature Configurations

The following feature configurations are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Feature Configuration	Description
C1-DEAL	Deal Configuration
C1-EHRCONFIG	Entity Hierarchy Relation Configuration
C1-INVREQ	Invoice Request configuration

A.2.14 Zone Types

None

A.2.15 Business Objects

The following business objects are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Business Object	Description
C1_DEAL_PANEL_LIST	Deal Panel List
C1_DEALPRICECMP	Deal Price Assignment Price Component BO
C1_HIERARCHY_BO	Hierarchy BO
C1_HIERARCHY_DUP	Hierarchy BO for Duplicate action
C1_HRCHY_ENTITY_BO	Hierarchy Entity BO
C1_MODEL	Model BO
C1-BKAccount	Customer Onboarding- Banking Account
C1-BKPerson	C1-BKPerson

Business Object	Description
C1-DEAL	Deal Bo
C1-DealApproval	Deal Approval Workflow
C1-DealAprof	Deal Approval Profile
C1-DEALMODELBO	Deal Model Bo
C1-DealPriceitemAppr	Deal Priceitem Approval
C1-DEALSERV	Deal BO
C1-DEALTYPE	Deal Type
C1-ExtLookRateType	Rate Type
C1-FileManagementConfig	File Management System Configuration
C1-InvoiceRequest	Invoice Request - Regular Bill Generation
C1-InvoiceRequestTrial	Invoice Request - Trial Bill generation
C1-InvoiceRequestType	Invoice Request Type
C1-OffProcessRequest	OffProcess Request
C1-OffprocessRequestType	Off Process Request Type
C1-PATAC	Price Assignment Terms and Conditions
C1-PERSONN	Person
C1-PICOMMENT	Price Assignment Physical BO
C1-PLASSGNDBO	Created BO "C1-PLASSGNDBO"
C1-PRENRLMNT	Prospect Product Enrollment BO
C1-PricingRuleMPP	MPP Pricing Rule business object
C1-PricingRuleTypeMPP	Minimum Premium Program (MPP) Pricing Rule Type
C1-PROSACCTBO	Prospect Account BO
C1-PROSP_PER_BO	Prospect Person Bo for Hierarchy creation
C1-PROSPECTACCTBO	Prospect Account BO
C1-PROSPECTPERBO	Prospect Person Bo
C1-PROSPECTQSTBO	Prospect Questionnaires BO
C1-PROSPECTSABO	Prospect Service Agreement BO
C1-RPTEmailSenderConfig	Reporting Email Sender Configuration

A.2.16 Maintenance Objects

The following maintenance objects are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Maintenance Object	Description
C1_HIERARCHY	Entity Hierarchy Relationship
C1_HRYENTITY	Hierarchy Entity
C1_PLASSGND	Price List Assignment for Deal
C1-DEAL	Deal
C1-DEALAPPR	Deal Approval Workflow
C1-DEALAPROF	Deal Approval Profile
C1-DEALTYPE	Deal Type
C1-DLMODEL	Model
C1-DLPRCAPPR	Deal Price item Approval
C1-INVOIRQTY	Invoice Request Type
C1-INVREQ	Invoice Request
C1-OFFPROCRQ	Offprocess Request
C1-OFFPRORQT	Off Process Request Type
C1-PRCASNTAC	Price Assignments Terms and Conditions
C1-PRCITMCOM	Deal Price Item Comments
C1-PRENRLMNT	Prospect Product Enrollment Maintenance
C1-PROSACCT	Prospect Account Page Maintenance
C1-PROSPER	Prospect Person MO
C1-PROSQST	Prospect Questionnaire
C1-PROSSA	Prospect SA Page Maintenance

A.2.17 To Do Types

The following to do types are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

To Do Type	Description
C1-DIVUR	Deal Division Level Approval
C1-DLDUP	Deal Approval - Duplicate

To Do Type	Description
C1-DLPDM	Deal Approval Product Manager
C1-DLPM1	Deal Approval
C1-DLRM	Deal Approval - RM level To Do
C1FUDFLT	File Upload Interface default To Do Type
C1-INVRA	Invoice Request Approval Notification
C1-INVRS	Invoice Request Submitter Notification
C1-LFNAG	LF Runout Roll Forward - Next Accumulation Group not found
C1-OF PAP	OffProcess Request Approval

A.2.18 Application Services

The following application services are newly added in the Oracle Revenue Management and Billing V2.9.0.0.0 database:

Application Service	Description
ACCMULID	Account With Multiple Identifiers Report
ACTNOCON	Accounts Without Contract Report
ADJDETAI	Adjustment Details Report
BFEECONT	Non BFEE Contract Active Report
BILLVARI	Bill Variance Report
C1_ALRPT	Reports
C1_CREF	Choose Reference
C1_CUBPD	Customer Billed Price Details Report
C1_CUSTH	Customer Hierarchy Report
C1_DEAL	Deal
C1_DEALAPPSER	Application service for deal zone
C1_DEALFETCHRATE	Fetch Rate Component Service
C1_GETDLSTRTDT	GET DETAILS
C1_HEVD	Hierarchy Entity
C1_IM_EX	DBMS Data Import/ Export
C1_PDEAL	Deal
C1_PRAP	Product Assignment

Application Service	Description
C1_PROPL	Eligible PriceLists for Prospect
C1_PROSPECT	Service for Prospect
C1_PRSENROLLMENT	Prospect Product Enrollment
C1_REF	Reference
C1ADDPRO	Prospect Details
C1AWRSNP	AWR Snaps Download
C1CUSTPO	Existing Customer And Account Search
C1DAPROF	Deal Approval Profile
C1-DEALAPPR	Deal Approval Workflow
C1-DEALAPPRWF	Deal Approval Workflow application service
C1DEALDB	Deal Dashboard
C1DEALPASGN	Deal Price Assignment application service
C1DEALSVC	Deal service
C1DELTYP	Deal Type
C1DLAPDB	Approver Dashboard
C1-DLAPPRTOD	Approver Dashboard To Do Alerts
C1-DLDBACTNS	Application service for dashboard action
C1-DLTODOLST	Deal Dashboard To Do Alerts
C1DTSERH	Deal Type
C1ENHR	Entity Hierarchy Relationship
C1-ENHR	Entity Hierarchy Relationship
C1ENHRSR	Entity Hierarchy Relationship
C1ENTDTL	Repricing Request
C1GETELIGPLPRO	Fetch Eligible PriceList for Prospect
C1GETELIGPRO	Get Eligible Product
C1GETELIGPROD	Fetch Eligible Product List for Prospect
C1HIERARCHY	Entity Hierarchy Relationship
C1HRCHYENTITY	Hierarchy Entity
C1-HRCHYENTITY	Hierarchy Entity
C1HRYENT	Hierarchy Entity

Application Service	Description
C1INREQ	Invoice Request
C1INRETY	Invoice Request Type
C1INVRED	Invoice Request
C1-OFFPRO	Off Process Accumulation Request Type
C1OFPRED	OffProcess Accumulation Request
C1OFPREQ	Off Process Accumulation Request
C1OFPRP	Off Process Request Type
C1PATCH	Patch Verification Installed Fixes
C1PISL	Price Item Selection
C1PROSPO	Choose References
C1PRSEAR	Search Prospect
C1-PRSPRODENRL	Prospect Product Enrollment
C1PRSSASP	Prospect SA Maintenance
C1REFPRI	Refer Price / Volume
C1SERDSC	Sizing Parameter
C1SFTPUS	SFTP User Creation
C1SLFSER	Self Services
C1TMCND	Mapping Terms and Conditions
C1TPSTRT	Threadpool restart
C1TRBLHC	Trial Bill - Healthcare
CANCPAYM	Cancelled Payments Report
CDUPPROD	Duplicate Sold Products Report
CM_PERPO	search person
CMPETESTAS	Application Service For Person
CMPETESTASE	Application Service for Person
CMSEARCH	Person Search
CNSTRTEM	Construct With Criteria Against Template Report
CONTEXTR	Contract Expiry Report
CRITBLAN	Construct With Criteria Value Blank Report
CUSDREN	Customer Direct Entry Details Report

Application Service	Description
CUSPRCDT	Customer Price Details Report
CUSTANLS	Customer Analysis
CUSTHRCH	Customer Hierarchy Report
CUSTINVM	Customer Invoice Manual Payment Report
DATAVAL	Data Validation Reports
DBMSFLJB	DBMS Job Detailed Description
DBMSJOB	DBMS Job Detailed Description
DBMSRNJB	DBMS Job Detailed Description
DBMSSCHD	DBMS Scheduler Dashboard
DENTREJ	Direct Entry Rejection Report
DUMMYACT	Usage Accounts with Dummy Account Identifier Type Report
DUMMYCIS	Dummy CISKey on Customer Report
DWNLFIL	Download Property Files
GETDEALTYPE	Get Deal Type
ICRGRPID	Incorrect Invoice Group ID
INCRADDR	Incorrect Address Mapping Report
INCRBILL	Usage Account With Incorrect Billing Cycle Report
INCRINAC	Incorrect Invoice Account Setup Report
INCRSTAC	Incorrect Account Setup Report
INCRUSAC	Incorrect Usage Account Setup Report
INCURRAD	Incorrect Currency On Adjustment Report
INVCARGR	Invoice Arrangement Report
INVLDCSK	Invalid CISKey Report
INVOICSE	Invoice Settlement Report
INVSTLAC	Invalid Settlement Account Report with no APAY details
MGCEXP	GCM Exception Report
MISSETCO	Usage Accounts Missing In Settlement Construct Report
MULCSKY	Multiple CISKey on Customer Report
NOBILLCH	Onetime Billable Charge Not Created Report
NOCISKEY	Customer With No CISKey Report

Application Service	Description
NOCUSTYP	Customer Without Customer Type Report
NOSTDPRC	Customers with No Standard Pricelist Report
NUSG	Usage Accounts Missing In Invoice Construct Report
OVRDPRIC	Override Pricing Sold Product Level Report
OVRRDPRC	Override Pricing Person Level Report
PNDPYMNT	Pending Payment Events Report
PORTPRAC	Price Management Portal
PORTT	Price Product Management
PRDPROF	Product Profitability Report
PRODSTAT	Product Status Report
PROITMPR	Product Item Price Report
PROSADD	Deal Creation
SETACOMP	Settlement Account Not Mapped Report
STDPLREV	Standard Price List Review Report
STNPRLST	Standard Price List Report
TBDCONIN	Construct With Invoice Account as Charge Account Report
TBDINQAC	Incorrect Quote Account Setup Report
TRADING	Trading Bank Sold Product Recon Report
TRANSREJ	Transaction Reject Report
TRIALBL	Trial Bill-High Level Report
TRLBILDT	Trial Billing Detailed Report
TRSREJPR	Transaction Reject Previous Date Report
UAINVCNS	Usage A/C with no active Contract linked to invoice construct
USAGINVA	Usage Invoice Report
USGACC	Usage A/C With No Active Contracts Linked to Setl Construct
USGMIS	Usage Accounts Missing In Invoice Construct Report
USGMISIN	Usage Account Missing Invoice Construct
USGSETT	Usage Settlement Report
USMISINV	Usage Account Missing Invoice Construct
USRACCS	User Access List Report

Application Service	Description
WEIGHTAV	Weighted Average Price Report

Appendix B : Application Services Configured for Default User Group

This section lists the application services configured for the default user groups shipped with Oracle Revenue Management and Billing Version 2.9.0.0.0.

B.1 ALL_SERVICES

The following table lists all application services configured for the ALL_SERVICES user group:

Application Service	Application Service	Application Service
AFHZONE	C1-CHGTYPSTA	C1-EXTSTMLOGZ
APPTXADM	C1-CNTRTPPTZ	C1-EXTSTMAD
C1-DEALAPPR	C1-CONTRACTCHARSVALI	C1-EXTSTMCHAR
BILLGCONS	C1-CONTRACTTYPECHARS	C1-EXTSTMED
BILLGRAPH	C1-CTCGSRV	C1-EXTSTMITEM
C1-ACCBALCNT	C1-CTRLC	C1-EXTSTMITEMCHR
C1-ACCCRCHM	C1-DEFAULTPP	C1-EXTSTMTRC
C1-ACCCURDET	C1-DELPPTMP	C1-EXTSTMSTRZ
C1-ACCDDETAILZ	C1-DFLTPPTMP	C1-EXTSTMZ
C1-ACCDISCREZ	C1-DRRDTLSZ	C1-GETADJ
C1-ACCNBRTYPAS	C1-DUPBTN	C1-GETEFFECTVPRICING
C1-ACCOUNTCURRENT	C1-EDITPPTMP	C1-GETPPTMPL
C1-ACCQUICED	C1-EQUITYDT	C1-GETPRICING
C1-ACCREDIT	C1-EXITEMDEL	C1-INS-POLICY
C1-ACCRLOGZ	C1-EXITEMED	C1-INSDETBAK
C1-ACCSELECT	C1-EXSTMVBNF	C1-ISSUEDATEPOLICYCH
C1-ACCURERR	C1-EXTACQRYZ	C1-LINKPPTMP
C1-ACCURTEXT	C1-EXTAUTREC	C1-LINKPPTMP2
C1-ACNPOLSUMZ	C1-EXTERNALSTATEMENT	C1-MAINPINFR
C1-ACPOLSUMMZ	C1-EXTITEMAD	C1-MAINPLAN
C1-ACTCATSRV	C1-EXTPENDG	C1-MAINPPTMP
C1-ACTPPTMPL	C1-EXTREOPN	C1-MEMBSP
C1-ACURITEMD	C1-EXTSTCHM	C1-MOVEPPT

Application Service	Application Service	Application Service
C1-ADJAPPRVLREQBOAS	C1-EXTSTIMP	C1-MSGTYPBASISBOAS
C1-APAYEXPCRREQBOAS	C1-EXTSTITCH	C1-NAVACTCUR
C1-APAYEXPCRTYPEBOAS	C1-EXTSTLDB	C1-NAVTOEXST
C1-APPTXN	C1-EXTSTMBNF	C1-OUTAGE
C1-APPTXNLOG	C1-EXTSTMCAN	C1-PAY-REQ
C1-ASGNPL	C1-EXTSTMCLD	C1-PAYMENT
C1-BILLCHARGE	C1-EXTSTMCLS	C1-PAYPLAN
C1-BRD	C1-EXTSTMDTLZ	C1-PAYPLAND
C1-CASEGRPSRV	C1-EXTSTMDZ	C1-PAYPLANTMPLCOMPL
C1-PAYPLANZ	C1-PPDUP	C1-UNLINKPP
C1-PAYTEMPLATEBOAS	C1-PPEDIT	C1-UPLOADCSV
C1-PERBALCNT	C1-PPEDTTASK	C1-WRITEOFFREQ
C1-PIFVIS	C1-PPLANDET	C1ACCPOR
C1-PINFRDISP	C1-PPPROC	C1ACCRATE
C1-PINVFPOST	C1-PPSACCSRC	C1ACMACR
C1-POINFRDET	C1-PPTCNTDETZ	C1ACMACT
C1-POLCANCE	C1-PPTERROR	C1ACMARQ
C1-POLCANZ	C1-PPTMPDISP	C1ACTPER
C1-POLICY	C1-PPTMPDUP	C1ACTREE
C1-POLICYBPA	C1-PPTMPL	C1ADJSTP
C1-POLICYCANRSNSERV	C1-PPTMPLD	C1ADJUPL
C1-POLICYCHAR	C1-PPTMPLDET	C1AGING
C1-POLICYDESC	C1-PPTMPLDETZ	C1APPBOCHNZN
C1-POLICYINVOICEFREQ	C1-PPTMPLVIS	C1APPCHN
C1-POLICYPLAN	C1-PPTMPLZ	C1APPCRT
C1-POLICYSUM	C1-PPTMPPOST	C1APPTXNBOCHN
C1-POLINVDETZ	C1-PRISIM	C1APPTXNBOCHNZN
C1-POLINVEDI	C1-PSTAKEHLD	C1APPTXNGRP
C1-POLINVFRE	C1-REFWOREQ	C1APROF
C1-POLINVFREZ	C1-REQUEST	C1ACTIONFLAG
C1-POLINVFRQ	C1-REQUEST-TYPE	C1BNKREC

Application Service	Application Service	Application Service
C1-POLI_FHZ	C1-RETURNDUP	C1BOCHN
C1-POLNOMINEZ	C1-REVRECSCHZ	C1CNTCR
C1-POLPERORLEAS	C1-RULEBOAS	C1COLDTL
C1-POLSUMZ	C1-SHDETAILSZ	C1COLTYP
C1-PPACCTSRC	C1-SRCHSCPT	C1CONSTRUCT
C1-PPACTV	C1-TXNAGG	C1CSEPOR
C1-PPBTNS	C1-TXNDTL	C1CTRLC
C1-PPDET	C1-HRCHYENTITY	C1DISAGR
C1-PPDETZ	C1-PRSPRODENRL	C1EXCHRT
C1-PPDISP	C1-UNLINK	C1FAAUD
C1_PROPL	C1POLSRCH	C1OFPRP
C1FLRQTY	C1POLSRH	C1_IM_EX
C1FLSRCH	C1POLTYP	PROSADD
C1FOAUD	C1PPCARS	PORTEST
C1HDRSR	C1PPLAN	C1ADDPRO
C1INSPAY	C1PPTMPL	C1VAR
C1MANAPP	C1PPTMPO	C1VARIANCE
C1MANLOG	C1PPVERSCHZ	C1VIEWURL
C1MANMOD	C1PRICEL	C1WODET
C1MANRES	C1PRISIM	C1_ACCNBALG
C1MEMBRS	C1PRODUCT	C1_ACCTCHAR
C1MEMBSP	C1PROFILESVC	C1_ACCUR
C1MMTYPE	C1PSNAPP	C1_ACDTLRCH
C1MTRADM	C1PSNMOD	C1_ACMM
C1NCISPY	C1PSNRES	C1_ACMS
C1NCPTMP	C1PTNDRH	C1_ADDEXH
C1ODBUPR	C1PTPLP	C1_ADDPL
C1PAYPLAN	C1PYRQTY	C1_ADDPROD
C1PAYPTL	C1RECONDTL	C1_ADD_RTCMP
C1PAYREQ	C1REFSTP	C1_ADD_TIER
C1PAYRQ	C1REFUND	C1_ADMPI

Application Service	Application Service	Application Service
C1PAYSRC	C1REQSTP	C1_ANSPLTCUS
C1PAYUPL	C1REQSTS	C1_APPAD
C1PERRL	C1REQTYP	C1_APPTXN_PRICEASGN
C1PLCYPL	C1RFWORT	C1_APPWF
C1PLCYPN	C1RLCHK	C1_APUR
C1PLCYTY	C1SAPPTM	C1_APVIG
C1POINFR	C1SATYPELISTZ	C1_ASNPL
C1POLCYN	C1SCHEDU	C1_AUDIT
C1POLCYP	C1SETTHR	C1_BACCGRVAL
C1POLICYCANRSN	C1SRCHRL	C1_BACCTDETL
C1POLSCH	C1TXNAGG	C1_BACCVALID
C1_BACTSRCHM	C1_CHKBIL_PA	C1_EXCHRT
C1_BAFHZ	C1_CHKTRDFLG	C1_EXHRT
C1_BCCSH	C1_CIAM	C1_EXPPITM
C1_BCONT	C1_CIGAS	C1_EXSTD
C1_BCON_INFO	C1_CIMAPZ	C1_EXSTL
C1_BCON_SRH	C1_CLACTSRCH	C1_EXSTM
C1_BCUSACCDT	C1_CLCSESRCH	C1_EXSTS
C1_BCUSACCSR	C1_CLCTRCNTR	DBMSFLJB
C1_BCUSGRVAL	C1_COLLN	C1_FILEHDRSR
C1_BCUSSRCHM	C1_COM_VALID	C1_FTRS
C1_BCUSTACDT	C1_COPYBND	C1_F_ACTSRCH
C1_BCUSVALID	C1_COPYPL	C1_F_ADDBNDT
C1_BFHIS	C1_CPBUNDL	C1_F_ADDCHLD
C1_BFH_SRH	C1_CPYBD	C1_F_ADDEXCH
C1_BNDMN	C1_CPYPL	C1_F_ADDMM
C1_BNDPRD	C1_CUSTINFO	C1_F_ADDMMSS
C1_BNDPRS	C1_CUST_HR	C1_F_ADDPL
C1_BO_OPT	C1_DEL_PRD	C1_F_ADDPRBD
C1_BPAYHSRCH	C1_DEL_PROD	C1_F_ADDPRD
C1_BPH_INFO	C1_DISPBUND	C1_F_ADDPRPL

Application Service	Application Service	Application Service
C1_BPYHS	C1_DIVPERREL	C1_F_ADDPRSS
C1_BRD_P	C1_DRRSR	C1_F_ADDRATE
C1_BSRCHOVRD	C1_DSPLY_RT	C1_F_ADMPROD
C1_BSRPT	C1_EDIT	C1_F_ADPROD
C1_BTOGGLECA	C1_EDTBUND	C1_F_ADVAL
C1_BTREESRCH	C1_EDTER	C1_F_APVDTVL
C1_BTST	C1_EDTPL	C1_F_APVNFLT
C1_BUNDLE	C1_EDTPROD	C1_F_APVRJS
C1_BUNDVAL	C1_EDT_PRITM	C1_F_ASGNCUS
C1_BVCAC	C1_EFF_PRC	C1_F_ASGNPTP
C1_CASE_USR	C1_EFF_PRICE	C1_F_CHHSRCH
C1_CCC	C1_EFPRODSRC	C1_F_CIGG3V
C1_F_CLSRCH	C1_F_IGG1MM	C1_INF_PARTY
C1_F_CNCLMM	C1_F_IGG1MS	C1_INVCN
C1_F_CNCLMR	C1_F_IGG2MM	C1_INVSR
C1_F_CONTR	C1_F_IGG2MS	C1_LIST_TIER
C1_F_CON_VAL	C1_F_IGG3MM	C1_MEMBERS
C1_F_COPYPL	C1_F_IGG3MS	C1_MIG
C1_F_COPYSS	C1_F_PLCRT	C1_MIGAS
C1_F_CPYBNDL	C1_F_PLEDT	C1_MNG
C1_F_CPYPL	C1_F_PLVAL	C1_MNGRT
C1_F_CPYPLVL	C1_F_POPITEM	C1_MNGTR
C1_F_CUSSRCH	C1_F_PRCHAR	C1_MOD
C1_F_DELEXCH	C1_F_PRCHARS	C1_MPPA
C1_F_DELSCS	C1_F_PRDVL	C1_NAVIGATE
C1_F_DTVAL	C1_F_PRODVAL	C1_NAVUGATE
C1_F_EDTBNDT	C1_F_PRODVL1	C1_NEXT_ACTION
C1_F_EDTEXHR	C1_F_RSCDVAL	C1_OVR_PRITM
C1_F_EDTMA	C1_F_RTDESC	C1_PAYUP
C1_F_EDTMMBS	C1_F_SAVESCS	C1_PERRL
C1_F_EDTMMP	C1_F_SRPLVAL	C1_PLADPR

Application Service	Application Service	Application Service
C1_F_EDTMMSS	C1_F_VAL_ACT	C1_PLAE
C1_F_EDTPL	C1_F_VAL_ACTDTL	C1_PLASNADD
C1_F_EDTPR	C1_F_VAL_CHH	C1_PLASNEDIT
C1_F_EDTPROD	C1_F_VAL_CLDTL	C1_PLASN_ADD
C1_F_EDTPRPL	C1_F_VAL_CSTDTL	C1_PLASN_EDI
C1_F_EDTPRSS	C1_F_VAL_CUS	C1_PLASSIGN
C1_F_EXCDVAL	C1_GENERICSA	C1_PLASSIGNE
C1_F_EXCHVAL	C1_GENRCMP	C1_PLASSIGN
C1_F_EXHVAL	C1_GETTIER	C1_PLDISEDIT
C1_F_FH_VAL	C1_GRP	C1_PLEDIT
C1_F_FINHIS	C1_IGAI	C1_PLISTRCH
C1_F_FINHIS1	C1_IGIMM	C1_PLMNG
C1_F_GENACBO	C1_IGMMB	C1_PLPTYAINF
C1_PLPTYINFO	C1_PROD_ADD	C1_TXNAR
C1_PLSRCH	C1_PROD_EDIT	C1_VWPRD
C1_PLSTOGGLE	C1_PROD_SAVE	CHGTYPE
C1_PLVAL	C1_PROD_SRCH	CHGTYPECD
C1_PLVALIDAT	C1_PROVR_EDT	CIACNBTY
C1_PLVIEW	C1_PRZCR	CIAPAYSTGUPL
C1_PL_ADD	C1_PRZTR	CIAPPACCTYPE
C1_PL_EDIT	C1_PRZ_CR	CIAPPCRIT
C1_PL_PI	C1_PRZ_TR	CIAPPTXNRSN
C1_PMPRC	C1_PTPLA	CICHGTYPE
C1_POLICYTYPE	C1_RATE_DEF	CICPAYPLAN
C1_PPEDT	C1_RECTIFYSRCH	CIDIVPERREL
C1_PPOVR	C1_RLTPM	CIFILEGRP
C1_PPOVRSRCH	C1_RLTVW	CIGETPRICING
C1_PP_DSPINF	C1_RSLV	CILAADUP
C1_PP_PLVAL	C1_RSN	CILAASCP
C1_PRCAD	C1_RTCOM_ADD	CILAAUSP
C1_PRCE_VALD	C1_RTC_VAL	CILACCDEL

Application Service	Application Service	Application Service
C1_PRCPM	C1_RTOPT	CILACCR
C1_PRC_EDIT	C1_SAVE_TIER	CILACLCP
C1_PRC_OVRD	C1_SHOW_IMG	CILACTCT
C1_PRC_TR	C1_SRCH	CILBBICP
C1_PRC_VALID	C1_SRCHPL	CILBLLP
C1_PRDPERREL	C1_SRCHPLVAL	CILBMCRP
C1_PRDREL	C1_SRCHPPL	CILBSBHP
C1CUSTPO	C1_SRCHPRD	CILBSCCP
C1DAPROF	C1_SRCH_PROF	CILBSEGP
C1_PRIARMREFENT	C1_SRPROD	CILBSTMP
C1_PRITSRCH	C1_STRTOLIST	CILCAAHP
C1_PROD	C1_TEMPLATE	CILCAASP
C1_PRODPL	C1_TIER_INP	CILCACCP
C1_PRODVAL	C1_TRLBL	CILCACMP
CILCACRP	CILCSCVP	CILIBDQP
CILCALZP	CILCSCZP	CILIBTVP
CILCAMRP	CILCSPZP	CILICOEP
CILCBCUP	CILCSSQP	CILINDDP
CILCBPGP	CILCSVAP	CILINPFP
CILCBRWP	CILCWOFP	CILINVVP
CILCCCIP	CILDATA	CILIPDQP
CILCCCZP	CILDIVET	CILIPRDP
CILCCIZP	CILDIVEXT	CILIRDQP
CILCCNSP	CILDRVWP	CILIRDSP
CILCCNXP	CILECBLP	CILISATP
CILCCSCP	CILEFKRP	CILITDDP
CILCCSHP	CILEFLDP	CILITDQP
CILCCTXP	CILEMNUP	CILITMPP
CILCDCRP	CILEMOBP	CILITPDP
CILCENRP	CILENAVP	CILKTOSP
CILCFIZP	CILENVOP	CILLCARP

Application Service	Application Service	Application Service
CILCLOAP	CILERPTP	CILLCAZP
CILCNBBP	CILESVCP	CILLCLPP
CILCPABP	CILETBLP	CILLODPP
CILCPASP	CILEUIZP	CILLWOPP
CILCPERP	CILFAFHP	CILMITMP
CILCPIZP	CILFBLCP	CILMITRP
CILCPLAS	CILFBPHP	CILMMRSP
CILCPMPP	CILFDRR	CILMMSUP
CILCPPLP	CILFFNTP	CILMRBHP
CILCPPTMPL	CILFFTBP	CILMRTXP
CILCPREP	CILFFTPP	CILMSIHP
CILCPRMP	CILFMVTP	CILMSLIP
CILCQTEP	CILFSCAP	CILMSLOP
CILCSALP	CILFSFHP	CILMSMHP
CILCSCMP	CILGENACUR	CILMTRDP
CILOAFTP	CILQCASP	CILTASGP
CILODFAP	CILQTDGP	CILTATCP
CILOFACP	CILQTDGP	CILTATPP
CILOFAZP	CILQTDLP	CILTATYP
CILOFORP	CILQTDQP	CILTBCRP
CILOFOSP	CILQTDSP	CILTBCTP
CILOFSUP	CILQTDTP	CILTBFFP
CILOOTGP	CILQTDZP	CILTBFPV
CILOSFAP	CILQTSSP	CILTBIMP
CILPAPHP	CILQTSUP	CILTBLCB
CILPAPSP	CILRCMAP	CILTBLLP
CILPARTY	CILRENGP	CILTBKBP
CILPDCNP	CILRRSMP	CILTBRTB
CILPDCSP	CILRRTCP	CILTBSTP
CILPEPLP	CILRRTSP	CILTBTCB
CILPEQAP	CILRRVTP	CILTBTRB

Application Service	Application Service	Application Service
CILPEVTP	CILRRVMP	CILTBUDP
CILPIREL	CILRULE	CILTBXTP
CILPITXNREL	CILRULTP	CILTCAGP
CILPPAYP	CILSTEXT	CILTCAMP
CILPPCAN	CILSTEXTITEM	CILTCATP
CILPPTSP	CILTACRP	CILTCCCP
CILPQADP	CILTALGP	CILTCCNP
CILPRCITMREL	CILTALTP	CILTCCTP
CILPRICEASGN	CILTAMGP	CILTCETP
CILPRICECOMP	CILTAMTP	CILTCHTP
CILPRICMPTIER	CILTAPAP	CILTCIDP
CILPRITEM	CILTAPFP	CILTCLGP
CILPRLIST	C1DEALDB	CILTCLRP
CILPRLISTASGN	CILTAPSP	CILTCLWP
CILPTCNP	CILTAROP	CILTCNTP
CILQATDP	CILTARTP	CILTCOCP
CILTCPTP	CILTMHTP	CILTSCLP
CILTCQTP	CILTMMTP	CILTSCYP
CILTCRUP	CILTMMSGP	CILTSEVP
CILTCURP	CILTNRBP	CILTSICP
CILTCUSP	CILTNCDP	CILTSMIP
CILTDARP	CILTNUXP	CILTSMTP
CILTDASP	CILTOCRP	CILTSOMP
CILTDCAP	CILTOETP	CILTSOPP
CILTDCLP	CILTOPTP	CILTSPRP
CILTDIRP	CILTORAP	CILTSPTP
CILTDPRP	CILTPCRP	CILTSQIP
CILTDRTP	CILTPCTP	CILTSQRP
CILDSTP	CILTPDRP	CILTSTMP
CILDWPP	CILTPHTP	CILTSTSP
CILDWTP	CILTPIFP	CILTSVTP

Application Service	Application Service	Application Service
CILTEBRP	CILTPKGP	CILTSWLP
CILTECRP	CILTPPTP	CILTTACP
CILTETTP	CILTPROP	CILTTAXP
CILTFNDP	CILTPRTP	CILTTGRP
CILTFREP	CILTPSDP	CILTTMRP
CILFRQP	CILTPSTP	CILTTMTP
CILGLDP	CILTPTRP	CILTTNSP
CILGOTP	CILTPYTP	CILTTNTP
CILTIDTP	CILTQRTP	CILTToup
CILTINCP	CILTREGP	CILTTSCP
CILTINSP	CILTREPP	CILTTTMP
CILITSP	CILTRGLP	CILTTZNP
CILLDIP	CILTRLEP	CILTUOMP
CILTLETP	CILTRSCP	CILTURPP
CILTLKFP	CILTRTYP	CILTUSCP
CILTLNGP	CILTSARP	CILTUSEP
CILTMCRP	CILTSATP	CILTUSGP
CILTWCTP	CILZFNCP	CTXTZONE
CILTWDCP	CILZPORP	DEMO
CILTWETP	CILZRBPP	DISAGGP
CILWFPP	CILZRPHP	DIV_PRICEITEMS
CILWPTP	CILZRPOP	DIV_PRICELISTS
CILWSCP	CILZRPTP	F1-APAYEXPCRTYPEBOAS
CILWSDP	CILZSCMP	F1-ATTACHMENTBOAS
CILXNCD	CILZSCRP	F1-BKTCONFIG
CILXNCDL	CILZSCZP	F1-BOOKMARKS
CILXNSRC	CILZTLZP	F1-DECRPTBOAS
CILXNSRCL	CILZZOHP	F1-DFLTAPS
CILUPFTS	CILZZONP	F1-DFLTS
CILVFVDP	CIL_FAVORITES	F1-EXPUSERSREQBOAS
CILVFVSP	CIPOLICY	F1-GENPROC

Application Service	Application Service	Application Service
CILVVLEP	CIPOLPERRL	F1-MIGROBJIMP
CILVVLSP	CIPOLPERROLE	F1-OBJREVBOAS
CILWDWNP	CIPRICEACCOUNT	F1-STASKTYPE
CILWJSDP	CIPRICEPARM	F1-SVCTASK
CILWJSSP	CIPYSRCH	F1-SYNCREQ
CILWNUPP	CIRATEUPLD	F1-SYNCREQIN
CILWNUSP	CIRECON	F1-SYNCREQUESTBOAS
CILWPROP	CIRECONDTL	F1-WEBSVCBOAS
CILXNDNP	CIS_DIV_ALGS	F1ADMIN
CILXOPTP	CIS_DIV_BICIES	F1ANN
CILXSENP	CIS_DIV_CST_LNGS	F1ANNTPM
CILYASTP	CIS_DIV_ID_TYPES	F1ANNTPS
CILYDBPP	CIS_DIV_INV_CURS	F1ANNTYP
CILYDFQP	CIS_DIV_TXN_SRCS	F1APPSEC
CILYDPIP	CIS_DIV_VLD_CTIES	F1ATTACH
CILYROBP	CIVARIANCE	F1ATTACHMENT
CILZAFQP	CMAGING	F1BKTCFG
CILZAUQP	CNCLRSN	F1BKTCFQ
F1BNDLEM	F1MIGRDIMP	FWLBNDLP
F1BNDLES	F1MIGRDS	FWLCTDEP
F1BNDLIM	F1MIGROBJ	FWLFACTP
F1BNDLIS	F1MIGRPLAN	FWLSTRJP
F1BUNEXP	F1MIGRREQ	FWLTBELP
F1BUNIMP	F1MIGRTIMP	FWLTBOJP
F1CATTCH	F1MIGRTX	FWLTBSVP
F1CONFIGLOG	F1MSTCFG	FWLTDARP
F1DEBUG	F1MTXIMP	FWLTEXSP
F1EXLKP	F1OBJREV	FWLTMGCT
F1EXLKPS	F1OBJREVCTL	FWLTOMTP
F1HEALTH	F1OBJRVH	FWLTSCHP
F1HGMMAPPING	F1REQ	FWLTUIMP

Application Service	Application Service	Application Service
F1IWSANM	F1REQTYP	FWLXOUTP
F1IWSDDL	F1REXHST	FWLZDEXP
F1IWSVC	F1STRDIS	FWLZWLZP
F1IWSVCP	F1STREAS	GOTOREC
F1IWSVCS	F1SUBRQQ	PERTREE
F1LCAMRP	F1SYNCRM	POLICYCANRSN
F1LEXTLKUP	F1SYNCRQ	RECDTSTA
F1LTAMTP	F1TBLEXC	RECON
F1MESSAGE	F1UIZONE	RECONDTL
F1MGDEXP	F1USERLOG	SACHGLNK
F1MGDEXS	F1USRCHKOUT	SATYPCHG
F1MGDIMP	F1USRPTL	SATYPES
F1MGDIMS	F1WBSVCM	F1_USRSCR
F1MGOIMP	F1WBSVCS	FILETYPE
F1MGPLNM	F1WEBSVC	F1MGREQS
F1MGPLNS	F1_BTST	F1MIGRDEXP
F1MGREQM	F1_USRFAVSCH	C1PLASGNM
C1-USRLOGINDTLS	C1DEALPASGN	C1REFUPLREQ
C1BCHGUPLREQ	C1GETELIGPT	C1UPLDRQ
C1BILLCYCLEUPDTUPL	C1GLAT	C1UPLREQ
C1CONTRIDERUPDTUPL	C1GLATEMP	C1WOUPLREQ
C1DCDTLC	C1GLATRQ	C1_STDTL
C1DELCTL	C1HOLDUPLREQ	C1_STRTE
C1ELGPA	C1LASGN	C1_STRTY
DBMSJOB	C1PIASGN	C1STMEXCP_SERV
C1DEALSVC	ACRLSRCH	C1-ACCTECR
C1-CUSTINMSG	C1ADDRS	C1HCAPPSER
C1-DEALPRICING	C1ADDRSBO	C1HCBLDT
C1-FTDIST	C1ADDRSDP	C1HCSINF
C1-FTDISTRULE	C1ADDRSRC	C1INMSGP
C1-FTDISTTY	C1BK360	C1INMSRH

Application Service	Application Service	Application Service
C1-GENRQ	C1BKAPPSER	C1INMSTY
C1-INMSG	C1BKBLDT	C1PAREQ
C1-INMSGTYPE	C1BKSINF	C1PARQMN
C1-MEMBERINMSG	C1CUS360	C1PARQTY
C1-PROSPECTCRET	C1DSPT	C1PAYMAN
C1ACCECR	C1DSPTRQ	C1PI
C1ACRLCL	C1DSPTRT	C1PL
C1ACRLTP	C1DSPTTY	C1POLPEL
C1ACRMVW	C1FTDIST	C1REINUPLREQ
C1ADDRDP	C1FTDSRL	C1_ACCRTYPE
C1ADDRDTL	C1FTDSTT	C1_ACCRUAL_SERV
C1ADDRESS	C1FTDSTY	C1_ACTVW
C1_ACTYP	C1_DSPT_REQ	ILM_ARC
C1_ACVVW	C1_TRLIN	ACCTVIEW
C1-ACCTAPAY_SERV	C1-DISC-REPT	C1-DRRTMPLT
C1-MBR-DR-TY	C1-PRC_CALC_SM	C1-PTD-CAL
C1-RETRIEVPROSRV	C1-REVRECPLCY	C1-RN-TY
C1-SCHEDULERMONITOR	C1-SCHPGMQZ	C1-SCHSCHQZ
C1ACCTAPAY	C1APAYRT	C1APAYVW
C1APYINS	C1AWFCHN	C1AWFCRT
C1AWFGRP	C1AWFRSN	C1AWFSET
C1CONADD	C1DISREP	C1DRDIS
C1DSRTY	C1MBRRCN	C1PARAM
C1PDSRCH	C1PERS	C1PERSDP
C1PERSON	C1PRDSVC	C1PRODDP
C1PRODUCTSERVICE	C1PVERDP	C1RCONTY
C1RECOLN	C1RECONCIL	C1RECONTYP
C1REPORT	C1RPTTMP	C1SCHCHN
C1SCHJOB	C1SCHPGM	C1SCHSCH
C1SCJMON	C1SRCAPP	C1SVCDSP

Application Service	Application Service	Application Service
C1VIEPRI	PRICECOMPPRE	C1_BOCHN
C1_CONSTRUCT	C1_DRRSP	C1_DRRTM
C1_DRRTP	C1_ENLOG	C1_ENROL
C1_ENROLLMENT	C1_ENSCH	C1_PAYIN
C1_PRODUCT	C1_PRODUCT_SERVICE	C1_PRODVER
C1_SRCBUSSPRD	C1_SRCTECHPRD	CIAPPHELGBL
CICONACT	CONRULE	CONSTRUCT
DDPRCSM	ACCT_SUBSCRPTN_SERV	C1-PRCRULE
C1-PRC_CALC_SM	C1-PRRLTYP	C1-SUBSCRTYPE
C1BILLSORT	C1BLLLVLUPLREQ	C1BLLSRTUPLREQ
C1ENTITYREPORT	DBMSRNJB	C1-DLDBACTNS
C1PRICINGGROUP	C1PROAPP	C1PRTYP
C1REPORTTMP	C1RPTAUD	C1RPTDEF
C1SUBSTP	C1SUBTVW	C1-DLAPPRTOD
C1-ACCUDATA	C1-CUSTREGTEMPL_SERV	C1-CUSTREGTYPE
C1-GETPRICINGENTITY	C1-PICINGRULE	C1-PRICEASGNTREE
C1ACUDAT	C1CREGSR	C1CTRGBK
C1CTRGHC	C1FILEMS	C1MASPRI
C1MPRIRQ	C1MPRISR	C1RETMPL
C1DLAPDB	CIDATAEXSER	DTEX_TYP
PRICECOMPSEQ	C1CUREG	C1CURETY
C1CUSTREG	C1CUSTRG	C1DTEXFL
AUDITEVENT	C1-AUDEVTTYPE	C1-BANKING
C1-HEALTHCARE	C1-PRICETREE	C1-STATE
C1ADEVSR	C1AUDEVT	C1AUDTY
C1OFFADJ	C1RETMPLBK	C1RETMPLHC
C1STATE	C1VIPRIN	C1_BILL
C1LCSSEP	C1DELTYP	C1-OFFPRO
C1DTSERH	C1ENHR	C1ENHRSR
C1ENTDTL	C1-DLTODOLST	TSTPRICE

Application Service	Application Service	Application Service
C1GETELIGPRO	C1HIERARCHY	C1HRCHYENTITY
C1HRYENT	C1INREQ	C1INRETY
C1INVRED	C1PATCH	C1PISL
GETDEALTYPE	C1PROSPO	C1PRSEAR
C1PRSSASP	C1REFPRI	C1SERDSC
C1SFTPUS	C1SLFSER	C1TPSTRT
C1TRBLHC	C1TMCND	C1_PROSPECT
C1-DEALAPPRWF	C1GETELIGPLPRO	C1AWRSNP
C1_ALRPT	C1_CHREF	C1_CONSTRUCT
C1_CREF	C1_CUBPD	C1_CUSTH
C1_DEAL	C1_DEALFETCHRATE	CM_TEST
C1_HEVD	C1_PDEAL	CMPER1
PRTTST	C1_PRENROLLMENT	C1_REF
C1GETELIGPROD	CMPESTASE	TESTPORT
CUSPRCDT	DBMSSCHD	DWNLFIL
C1OFPREQ	C1OFPRED	PORTPRAC
PORTT	PRODSTAT	-

B.2 C1_BSERVICES

The following table lists all application services configured for the C1_BSERVICES user group:

Application Service	Application Service	Application Service
AFHZONE	C1-PIFVIS	C1AGING
APPTXADM	C1-PINFRDISP	C1APPBOCHNZN
ARUNTEST	C1-PINVFPOST	C1APPCHN
BILLGCONS	C1-POINFRDET	C1APPCRT
BILLGRAPH	C1-POLICY	C1APPRESP
C1-ACCBALCNT	C1-POLICYINVOICEFREQ	C1APPTXNBOCHN
C1-ACCNBRTYPAS	C1-POLINVDZ	C1APPTXNBOCHNZN
C1-ADJAPPRVLREQBOAS	C1-POLINVFRE	C1APPTXNCHAIN
C1-APAYEXPCRREQBOAS	C1-POLINVFREZ	C1APPTXNCRI

Application Service	Application Service	Application Service
C1-APAYEXPCRTYPEBOAS	C1-POLINVFRQ	C1APPTXNCRT
C1-APAY_STG_UP	C1-PRISIM	C1APPTXNGRP
C1-APPRSN	C1-REFWOREQ	C1APROF
C1-APPTXN	C1-REGENUI	ACCMULID
C1-APPTXNLOG	C1-REQUEST	C1BNKREC
C1-ASAPU	C1-REQUEST-TYPE	C1BOCHN
C1-ASGNPL	C1-RULEBOAS	C1CASEG
C1-BRD	C1-SRCHSCPT	C1CASETYPEMP
C1-CASEASGNSRV	C1-TXNAGG	C1CHECKFT
C1-CASEGRPSRV	C1-TXNDTL	C1COLDTL
C1-CONSVPROGBOAS	C1PMTP	C1COLLTYP
C1-CONTRACTYPECHARS	C1_CHREF	C1COLTYP
C1-CTCGSRV	C1-WRITEOFFREQ	C1CPROG
C1-GETEFFECTVPRICING	C1ACCRATE	C1CSTYSR
C1-GETPRICING	C1ACMACT	C1DISAGR
C1-MAINPINFR	C1ACTCAT	C1EXCHRT
C1-OUTAGE	C1ACTPER	ACTNOCON
C1-PAY-REQ	C1ACTREE	C1FLRQTY
C1-PAYTEMPLATEBOAS	C1ACTYRSTY	C1FLSRCH
C1-PERBALCNT	C1ADJSTP	C1IRSPP
C1-PERIDSER	C1ADJUPL	C1MANAPP
C1MANLOG	C1REQTYP	C1_ANSPLTCUS
C1MANMOD	C1RFWORT	C1_APCS
C1MANRES	C1RLCHK	C1_APPAD
C1NCISPY	C1RSTCAT	C1_APPTXN_PRICEASGN
C1NCPTMP	C1SACOLLECT	F1-BOOKMARKS
C1ODBUPR	C1SACTHI	C1_APUR
C1PASGAPPROVE	C1SCHEDU	C1_APVIG
C1PASGREADMODIFY	C1SCHTMP	C1_ASNPL
C1PASGREADRESOLVE	C1SETTHR	C1_AUDIT
C1PAYMAN	C1SRCHRL	C1_BACCGRVAL

Application Service	Application Service	Application Service
C1PAYPTL	C1TXNAGG	C1_BACCTDETL
C1PAYREQ	ADJDETAI	C1_BACCVVALID
C1PAYRQ	USGSETT	C1_BACTSRCHM
C1PAYSRC	C1TXNFD	C1_BAFH
C1PAYUPL	USGMISIN	C1_BAFHZ
C1POINFR	USGMIS	C1_BCCSH
C1PPCARS	C1UNAPPR	C1_BCONT
C1PRESTGDTLS	C1VAR	C1_BCON_INFO
C1PRISIM	C1VIEWRL	C1_BCON_SRH
C1PRODUCT	C1WODET	C1_BCUSACCDT
C1PROFILESRVC	C1_ACCNBALG	C1_BCUSACCSR
C1PSNAPP	C1_ACCNBRTYP	C1_BCUSGRVAL
C1PSNMOD	C1_ACCTCHAR	C1_BCUSSRCHM
C1PSNRES	C1_ACDTLRCH	C1_BCUSTACDT
C1PTNDRH	C1_ACMM	C1_BCUSVALID
C1PTPLP	C1_ACMS	C1_BDTLSRCHM
C1PYRQTY	C1_ADDEXH	C1_BFHIS
C1REFSTP	C1_ADDPL	C1_BFH_SRH
C1REFUND	C1_ADDPROD	C1_BNDMN
C1REQSTP	C1_ADD_RTCMP	C1_BNDPRD
C1REQSTS	C1_ADD_TIER	C1_BNDPRS
C1REQTYP	C1_ADMPPI	C1_F_ADVAL
C1_BO_OPT	C1_DIVPERREL	C1_F_APVDTVL
C1_BPAYHSRCH	C1_DSPY_RT	C1_F_APVNFLT
C1_BPH_INFO	C1_EDIT	C1_F_APVRJS
C1_BPYHS	C1_EDTBD	C1_F_ASGNCUS
C1_BRD_P	C1_EDTBUND	C1_F_ASGNPTP
C1_BSRCHOVRD	C1_EDTER	C1_F_CHHSRCH
C1_BSRPT	C1_EDTPL	C1_F_CIGG3V
C1_BTOGGLECA	C1_EDTPROD	C1_F_CNCLMM
C1_BTREESRCH	C1_EDT_PRITM	C1_F_CNCLMR

Application Service	Application Service	Application Service
C1_BTST	C1_EFF_PRC	C1_F_CONTR
C1_BUNDLE	C1_EFF_PRICE	C1_F_CON_VAL
C1_BUNDVAL	C1_EFPRODSRC	C1_F_COPYPL
C1_BVCAC	C1_EXCHRT	C1_F_COPYSS
C1_CHKBIL_PA	C1_EXHRT	C1_F_CPYBN DL
C1_CHKTRDFLG	C1_EXPPITM	C1_F_CPYPL
C1_CIAM	C1_DEALFETCHRATE	C1_F_CPYPLVL
C1_CIGAS	C1_FTRS	C1_F_CUSSRCH
C1_COLLN	C1_F_ACTSRCH	C1_F_DELEXCH
C1_COLL_NZN	C1_F_ADDBNDT	C1_F_DELSCS
C1_COM_VALID	C1_F_ADDCHLD	C1_F_DTVAL
C1_COPYBND	C1_F_ADDEXCH	C1_F_EDTBN DT
C1_COPYPL	C1_F_ADDMM	C1_F_EDTEXHR
C1_CPBN DL	C1_F_ADDMMSS	C1_F_EDTMA
C1_CPYBD	C1_F_ADDPL	C1_F_EDTMMBS
C1_CPYPL	C1_F_ADDPRBD	C1_F_EDTMMP
C1_CUSTINFO	C1_F_ADDPRD	C1_F_EDTMMSS
C1_CUST_HR	C1_F_ADDPRPL	C1_F_EDTPL
C1_DEGREE	C1_F_ADDPRSS	C1_F_EDTPR
C1_DEL_PRD	C1_F_ADDRATE	C1_F_EDTPROD
C1_DEL_PROD	C1_F_ADMPROD	C1_F_EDTPRPL
C1_DISPBN DL	C1_F_ADPROD	C1_PLASSIGNE
C1_F_EDTPRSS	C1_GENRCMP	C1_PLCASSIGN
C1_F_EXCDVAL	C1_GETTIER	C1_PLDISEDIT
C1_F_EXCHVAL	C1_GRP	C1_PLEDIT
C1_F_EXHVAL	C1_IGAI	C1_PLISTSRCH
C1_F_FH_VAL	C1_IGIMM	C1_PLMNG
C1_F_FINHIS	C1_IGMMB	C1_PLPTYAINF
C1_F_FINHIS1	C1_INF_PARTY	C1_PLPTYINFO
C1_F_GENACBO	C1_INVCN	C1_PLSRCH
C1_F_IGG1MM	C1_INVSR	C1_PLSTOGGLE

Application Service	Application Service	Application Service
C1_F_IGG1MS	C1_LIST_TIER	C1_PLVAL
C1_F_IGG2MM	C1_MEMBERS	C1_PLVALIDAT
C1_F_IGG2MS	C1_MIG	C1_PLVIEW
C1_F_IGG3MM	C1_MIGAS	C1_PL_ADD
C1_F_IGG3MS	C1_MNG	C1_PL_EDIT
C1_F_PLCRT	C1_MNGRT	C1_PL_PI
C1_F_PLEDT	C1_MNGTR	C1_PMPRC
C1_F_PLVAL	C1_MOD	C1_PPEDT
C1_F_POPITEM	C1_MPPA	C1_PPOVR
C1_F_PRCHAR	C1_NAVIGATE	C1_PPOVRSRCH
C1_F_PRCHARS	C1_NAVUGATE	C1_PP_DSPINF
C1_F_PRDVL	C1_OVR_PRITM	C1_PP_PLVAL
C1_F_PRODVAL	C1_PAYUP	C1_PRCAD
C1_F_PRODVL1	C1_PAY_BTN	C1_PRCE_VALD
C1_F_RSCDVAL	C1_PERRL	C1_PRCPM
C1_F_RTDESC	C1_PLADPR	C1_PRC_EDIT
C1_F_SAVESCS	C1_PLAE	C1_PRC_OVRD
C1_F_SRPLVAL	C1_PLASNADD	C1_PRC_TR
C1_F_VAL_ACT	C1_PLASNEDIT	C1_PRC_VALID
C1_F_VAL_ACTDTL	C1_PLASN_ADD	C1_PRDPERREL
C1_F_VAL_CHH	C1_PLASN_EDI	C1_PRDREL
C1_F_VAL_CUS	C1_PLASSIGN	CILACTTY
GETDEALTYPE	C1_SRCHPLVAL	CILBBICP
C1_PROSPECT	C1_SRCHPPL	CILBLLP
C1_PRITSRCH	C1_SRCHPRD	CILBSBHP
C1_PROD	C1_SRCH_PROF	CILBSCCP
C1_PRODPL	C1_SRCH_TEMP	CILBSEGP
C1_PRODVAL	C1_SRPROD	CILBSTMP
C1_PROD_ADD	C1_STRTOLIST	CILCAASP
C1_PROD_EDIT	C1_TEMPLATE	CILCACCP
C1_PROD_SAVE	C1_TIER_INP	CILCACMP

Application Service	Application Service	Application Service
C1_PROD_SRCH	C1_TRLBL	CILCALZP
C1_PROVR_EDT	C1_TXNAR	CILCAMRP
C1_PRZCR	C1_VWPRD	CILCASEEXTN
C1_PRZTR	CIACNBTY	CILCBCUP
C1_PRZ_CR	CIACTTYP	CILCBRWP
C1_PRZ_TR	CIAPAYSTGUPL	CILCCCIIP
C1_PTPLA	CIAPPACCTYPE	CILCCCZP
C1_PYHST	CIAPPACTTYPE	CILCCIZP
C1_RATE_DEF	CIAPPHELGBL	CILCCNSP
C1_RECTIFYSRCH	CIAPPCRIT	CILCCNXP
C1_RLTPM	CIAPPTXNCHAIN	CILCCSCP
C1_RLTVW	CIAPPTXNRSN	CILCCSHP
C1_RSLV	CIDIVPERREL	CILCCTXP
C1_RSN	CIDIVPRITMPERREL	CILCENRP
C1_RTCOM_ADD	CIFILEGRP	CILCFIZP
C1_RTC_VAL	CIGETPRICING	CILCONPREF
C1_RTOPT	CILAADUP	CILCPERP
C1_RTSC	CILAASCP	CILCPLAS
C1_SAVE_TIER	CILAAUSP	CILCPPLP
C1_SHOW_IMG	CILAACLP	CILCPRMP
C1_SRCH	CILACTCT	CILCQTEP
C1_SRCHPL	CILACTHI	CILQATDP
CILCSALP	CILICOEP	CILQCASP
CILCSESA	CILITDDP	CILQTDEP
CILCSSEP	CILITDQP	CILQTDLP
CILCSVAP	CILITPDP	CILQTDQP
CILDATA	CILLCAZP	CILQTDSP
CILDIVET	CILLODPP	CILQTDTP
CILDIVEXT	CILMRBHP	CILQTDZP
CILDRVWP	CILPAPHP	CILQTSPP
CILECBLP	CILPAPSP	CILQTSUP

Application Service	Application Service	Application Service
CILEFKRP	CILPARTY	CILRCMAP
CILEFLDP	CILPDCNP	CILRENGP
CILEMNUP	CILPDCSP	CILRRSMP
CILEMOBP	CILPEPLP	CILRRTCP
CILEMPDTLS	CILPEQAP	CILRRTSP
CILENAVP	CILPEVTP	CILRRTVP
CILENVOP	CILPICHAR	CILRRVMP
CILERPTP	CILPIDIV	CILRSCAT
CILESVCP	CILPILANG	CILRSTTY
CILETBLP	CILPIREL	CILRULE
CILEUIZP	CILPITXNREL	CILRULTP
CILEXCHRATE	CILPPAYP	CILSCHEDULE
CILFAFHP	CILPPCAN	CILTACRP
CILFBLCP	CILPPTSP	CILTALGP
CILFFEXP	CILPQADP	CILTALTP
CILFFNTP	CILPRCITMREL	CILTAMGP
CILFFTBP	CILPRICELISTCHAR	CILTAMTP
CILFFTPP	CILPRITEM	CILTAPAP
CILFLGRP	CILPRLIST	CILTAPFP
CILFMVTP	CILPRLISTDIV	CILTAPRP
CILFSFHP	CILPRLISTL	CILTAPSP
CILIBTVP	CILPTCNP	CILTALNGP
CILTAROP	CILTCPRP	CILTMCRP
CILTARTP	CILTCQTP	CILTMHTP
CILTASGP	CILTCRUP	CILTMMSGP
CILTATCP	CILTCURP	CILTNRBP
CILTATPP	CILTCUSP	CILTNCDP
CILTATYP	CILTCVTP	CILTNUXP
CILTBCRP	CILTDARP	CILTOCRP
CILTBCTP	CILTDASP	CILTOETP
CILTBFFP	CILTDCAP	CILTOPTP

Application Service	Application Service	Application Service
CILBFVP	CILDCLP	CILTORAP
CILBIMP	CILDIRP	CILTPCRP
CILBLCP	CILDLOP	CILTPCTP
CILBLPP	CILDPRP	CILTPDRP
CILBNKP	CILDSTP	CILPHTP
CILBRTP	CILDWPP	CILTPKGP
CILBSTP	CILDWTP	CILTPMDP
CILBTCP	CILTEBRP	CILTPPTP
CILBTRP	CILTECRP	CILTPROP
CILBUDP	CILTETTP	CILTPRTP
CILBXTP	CILFAAP	CILTPSDP
CILCAMP	CILFNDP	CILTPSTP
CILCATP	CILFRQP	CILPTRP
CILCCCP	CILFWLP	CILTPYTP
CILCCTP	CILGLDP	CILTQ RTP
CILCHTP	CILIDTP	CILTRGLP
CILCIDP	CILINCP	CILTRLEP
CILCLGP	CILINSP	CILTRSCP
CILCLWP	CILITTP	CILTRTYP
CILCNTP	CILLDIP	CILTSATP
CILCOCP	CILTLETP	CILTSCLP
CILCOTP	CILTLKFP	CILXJSVP
CILTSCYP	CILWSDP	CILXNDNP
CILSICP	CILXNDETAIL	CILXOPTP
CILSOMP	CILXNDISAGGEXC	CILXRCPV
CILSOPP	CILXNDISAGGREQ	CILXRTPP
CILSQIP	CILXNHEADER	CILXSENP
CILSQRP	CILXNRECTYPE	CILXSVXP
CILSVTP	CILXNSOURCE	CILXTPCP
CILSWLP	CILXNSRC	CILXXSCP
CILTACP	CILXNSRCD	CILXXUPP

Application Service	Application Service	Application Service
CILTTAXP	CILTXNSRCL	CILYASTP
CILTTGRP	CILUPFTS	CILYDBPP
CILTTMRP	CILVFVDP	CILYDFQP
CILTTMTP	CILVFVSP	CILYDPIP
CILTTNSP	CILVVLEP	CILYENRP
CILTTNTP	CILVVLSP	CILYROBP
CILTToup	CILWDWNP	CILZAFQP
CILTTRAP	CILWJSDP	CILZAUQP
CILTTRCP	CILWJSSP	CILZFNCP
CILTTTMP	CILWNUPP	CILZPGRP
CILTTZNP	CILWNUSP	CILZRBPP
CILTUOMP	CILWPROP	CILZRPHP
CILTURPP	CILXADPP	CILZRPOP
CILTUSCP	CILXAIEP	CILZSCMP
CILTUSEP	CILXAIEP	CILZSCRP
CILTUSGP	CILXCLSP	CILZSCZP
CILTWCTP	CILXCONP	CILZTLZP
CILTWDCP	CILXENHP	CILZZOHP
CILTWETP	CILXFRMP	CILZZONP
CILWFPP	CILXGRPP	CIL_FAVORITES
CILTWPTP	CILXJDBP	CIMOAPPCHAIN
CILTWSCP	CILXJMSP	F1MIGRTIMP
CIPCHT3L	F1-WEBSVCBOAS	F1MIGRTX
CIPFAFHP	F1ADMIN	F1MTXIMP
CIPOLICY	F1APPSEC	F1OBJREVCTL
CIPRICEACCOUNT	F1ATTACH	F1OBRVH
CIPRICEPARM	F1ATTACHMENT	F1REQ
CIPYSRCH	F1BUNEXP	F1REVHST
CIRECON	F1BUNIMP	F1STRDIS
CIRECONSEG	F1CATTCH	F1STREAS
CIRSTTYP	F1CONFIGLOG	F1SUBRQQ

Application Service	Application Service	Application Service
CIS_DIV_ALGS	F1DEBUG	F1SYNCRM
CIS_DIV_BICIES	F1EXLKP	F1SYNCRQ
CIS_DIV_CST_LNGS	F1EXLKPS	F1TBLEXC
CIS_DIV_ID_TYPES	F1LCAMRP	F1UIZONE
CIS_DIV_INV_CURS	F1LEXTLKUP	F1USERLOG
CIS_DIV_TXN_SRCS	F1LTAMTP	F1USRCHKOUT
CIS_DIV_VLD_CTIES	F1MESSAGE	F1WBSVCM
CTXTZONE	F1MGDEXP	F1WBSVCS
DIVS	F1MGDEXS	F1WEBSVC
DIV_PRICEITEMS	F1MGDIMP	F1_BTST
DIV_PRICELISTS	F1MGDIMS	F1_USRFAVSCH
F1-APAYEXPCRTYPEBOAS	F1MGOIMP	FILETYPE
F1-ATTACHMENTBOAS	F1MGPLNM	FWLBNLDP
F1-DFLTAPS	F1MGPLNS	FWLCTDEP
F1-DFLTS	F1MGREQM	FWLFACTP
F1-GENPROC	F1MGREQS	FWLSTRJP
F1-MIGROBJIMP	F1MIGRDEXP	FWLTBELP
F1-STASKTYPE	F1MIGRDIMP	FWLTBOJP
F1-SVCTASK	F1MIGRDS	FWLTBSVP
F1-SYNCREQ	F1MIGROBJ	FWLTDARP
F1-SYNCREQIN	F1MIGRPLAN	GOTOREC
F1-SYNCREQUESTBOAS	F1MIGRREQ	PERTREE
FWLTEXSP	FWLXOUTP	VALIDCHARS
FWLTMGCT	FWLZDEXP	C1LASGN
FWLTOMTP	FWLZWLZP	C1PIASGN
FWLTSCHP	FWLTUIMP	C1PLASGNM
C1-BILLCHARGE	C1ELGPA	C1REFUPLREQ
C1BCHGUPLREQ	C1GETELIGPT	C1UPLDRQ
C1BILLCYCLEUPDTUPL	C1GLAT	C1UPLREQ
C1CONTRIDERUPDTUPL	C1GLATEMP	C1WOUPLREQ
C1DCDTLC	C1GLATRQ	C1_STRTE

Application Service	Application Service	Application Service
C1DELCTL	C1HOLDUPLREQ	CILCPASP
ACRLSRCH	C1ADDRESS	C1DSPT
C1-ACCTECR	C1ADDRS	C1DSPTRQ
C1-FTDIST	C1ADDRSBO	C1DSPTRT
C1-FTDISTRULE	C1ADDRSDP	C1DSPTTY
C1-FTDISTTY	C1ADDRSRC	C1FTDIST
C1-PROSPECTCRET	C1BK360	C1FTDSRL
C1ACCECR	C1BKAPPSER	C1FTDSTT
C1ACRLCL	C1BKBLDT	C1FTDSTY
C1ACRLTP	C1BKSINF	C1HCSINF
C1ACRMVW	C1PL	C1_ACTVW
C1ADDRDP	C1SAPPTM	C1_ACTYP
C1ADDRDTL	C1_ACCRUAL_SERV	C1_TRLIN
C1_ACVW	C1_DSPT_REQ	F1-ARQPR
F1-AVALG	F1-LKPIL	F1-SICRL
F1-AVBT	F1-MGDIM	F1-SRCRL
F1-AVMO	F1-MGDPR	F1-SRLRQ
F1-AVTBL	F1-MGOAP	F1-STATSM
F1-AVTD	F1-MGOPR	F1-STCRL
F1-BFCRL	F1-MGTAP	F1-STKDF
F1-BSFLG	F1-MGTPR	F1-STKTR
F1-BUNPR	F1-NDPUR	F1-SUBRQ
F1-DTDOM	F1-ORCRL	F1-SYNEF
F1-FCTRN	F1-OUCL	F1-SYNIL
F1-FKVBP	F1-PDBEX	F1-SYNRQ
F1-FLUSH	F1-PDBG	F1-SYSRQ
F1-ILMIN	F1-REQTY	F1-TDCRL
F1-LANG	F1-REVPR	F1-TDEER
F1-LDAP	F1-SAKRQ	F1-TDPG
F1-XMLPG	ACCTVIEW	C1-ACCTAPAY_SERV
C1-DISC-REPT	C1-DRRTMPLT	C1-PRC_CALC_SM

Application Service	Application Service	Application Service
C1-REVRECSCHZ	C1-SCHEDULERMONITOR	C1-SCHPGMQZ
C1-SCHSCHQZ	C1APAYRT	C1APAYVW
C1APYINS	C1AWFCHN	C1AWFCRT
C1AWFGRP	C1AWFRSN	C1AWFSET
C1CONADD	BFEECONT	BILLVARI
C1PARAM	C1PDSRCH	C1PERS
C1PERSDP	C1PERSON	C1PRDSVC
C1PRODDP	C1PRODUCTSERVICE	C1PVERDP
C1REPORT	C1RPTTMP	C1SCHCHN
C1SCHJOB	C1SCHPGM	C1SCHSCH
C1SCJMON	C1SRCAPP	C1SVCDSP
C1VIEPRI	C1-DEALAPPR	C1_BOCHN
C1_CONSTRUCT	C1_DRRSP	C1_DRRSR
C1_DRRTM	C1_DRRTP	C1_ENLOG
C1_ENROL	C1_ENROLLMENT	C1_ENSCH
C1_PRODUCT	C1_PRODUCT_SERVICE	C1_PRODVER
CICONACT	CILFDRR	CONRULE
CONSTRUCT	DDPRCSM	PRICECOMPPRE
ACCT_SUBSCRPTN_SERV	C1-PRC_CALC_SM	C1-PRRLTYP
C1-SUBSCRTYPE	C1ACTSBS	C1ASBSVW
C1BANK	C1BANKVW	C1ENTITYREPORT
C1PRICINGGROUP	C1PROAPP	C1PRTYP
C1RPTAUD	C1RPTDEF	C1SUBSTP
C1SUBTVW	C1_SRCBUSSPRD	C1_SRCTECHPRD
C1-CUSTREGTEMPL_SERV	C1-CUSTREGTYPE	C1-DUPBTN
C1-GETPRICINGENTITY	C1-PRICEASGNTREE	C1MASPRI
C1MPRIRQ	C1MPRISR	C1RETMPL
F1MSTCFG	F1OUMSTQ	F1OUMSTY
PRICECOMPSEQ	C1CREGSR	C1CTRGBK
C1CUREG	C1CURETY	C1CUSTREG

Application Service	Application Service	Application Service
AUDITEVENT	C1-AUDEVTYPE	C1-BANKING
C1-PRICETREE	C1ADEVSR	C1AUDEVT
C1AUDTY	C1RETMPLBK	C1VIPRIN
C1_BILL	USRACCS	WEIGHTAV
C1-HRCHYENTITY	C1ADDPRO	C1CUSTPO
C1DAPROF	C1DEALDB	C1DEALPASGN
C1DEALSVC	C1DELTYP	USMISINV
C1DTSERH	C1ENHR	C1ENHRSR
C1ENTDTL	C1FILEMS	C1OFPREQ
C1-DLAPPRTOD	C1GETELIGPRO	C1HIERARCHY
C1HRCHYENTITY	C1HRYENT	C1INREQ
C1INRETY	C1INVRED	C1PISL
C1OFPRED	C1PROSPO	C1PRSEAR
C1PRSSASP	C1REFPRI	C1SERDSC
C1SLFSER	C1_ALRPT	C1-DLDBACTNS
C1_CONSTRUCT	C1_CREF	C1_CUBPD
C1_CUSTH	C1_DEAL	C1_DEALAPPSER
C1_HEVD	C1_PDEAL	C1_PRSERROLLMENT
C1_REF	CANCPAYM	CDUPPROD
CMPERTESTASE	CM_TEST	CNSTRTEM
CONTEXTR	CRITBLAN	CUSDREN
CUSPRCDT	CUSTHRCH	CUSTINVM
DATAVAL	DENTREJ	DUMMYACT
DUMMYCIS	F1TODOMG	ICRGRPID
INCRADDR	INCRBILL	INCRINAC
INCRSTAC	INCRUSAC	INCURRAD
INVCARGR	INVLDCSK	INVOICSE
INVSTLAC	MGCEXP	MISSETCO
MULCSKY	NOBILLCH	NOCISKEY
NOCUSTYP	NOSTDPRC	NUSG

Application Service	Application Service	Application Service
OVRDPRIC	OVRRDPRC	C1-DLTODOLST
PNDPYMNT	PORTEST	PORTT
PRDPROF	PRODSTAT	PROITMPR
PROSADD	PRTTST	C1DLAPDB
SETACOMP	STDPLREV	STNPRLST
TBDONIN	TBDINQAC	TRADING
TRANSREJ	TRIALBL	TRLBILDT
TRSREJPR	C1GETELIGPROD	C1GETELIGPLPRO
UAINVCNS	USAGINVA	USGACC

B.3 HCADMIN

The following table lists all application services configured for the HCADMIN user group:

Application Service	Application Service	Application Service
AFHZONE	C1-INS-POLICY	C1-SRCHSCPT
APPTXADM	C1-INSDETBAK	C1-UNLINK
BILLGCONS	C1-MAINPINFR	C1-UNLINKPP
BILLGRAPH	C1-MEMBSP	C1-UPLOADCSV
C1-ACCBALCNT	C1-NAVACTCUR	C1-WRITEOFFREQ
C1-ACCCURDET	C1-NAVTOEXST	C1ACCRATE
C1-ACCDISCREZ	C1-PAY-REQ	C1ACINSP
C1-ACCURTEXT	C1-PAYMENT	C1ACTPER
C1-ACNPOLSUMZ	C1-PAYTEMPLATEBOAS	C1ACTREE
C1-ACPOLSUMMZ	C1-PERBALCNT	C1ADJSTP
C1-ADJAPPRVLREQBOAS	C1-PIFVIS	C1ADJUPL
C1-APAYEXPCRREQBOAS	C1-PINFRDISP	C1APPBOCHNZN
C1-APAYEXPCRTYPEBOAS	C1-PINVFPOST	C1APPCHN
C1-APPRSN	C1-POINFRDET	C1APPCRT
C1-APPTXN	C1-POLICYINVOICEFREQ	C1APPRESP
C1-APPTXNLOG	C1-POLICYPLAN	C1APPTXNBOCHN
C1-ASAPU	C1-POLINVDETZ	C1APPTXNBOCHNZN

Application Service	Application Service	Application Service
C1-ASGNPL	C1-POLINVEDI	C1APPTXNCHAIN
C1-BILLCHARGE	C1-POLINVFRE	C1APPTXNCRI
C1-BRD	C1-POLINVFREZ	C1APPTXNCRT
C1-CNTRTPPTZ	C1-POLINVFRQ	C1APPTXNGRP
C1-CONTRACTCHARSVALI	C1-PPACCTSRC	C1BOCHN
C1-CONTRACTTYPECHARS	C1-PPPROC	C1FLRQTY
C1-DEFAULTPP	C1-PPTERROR	C1FLSRCH
C1-DFLTPTMP	C1-QUICKPAGINATION	C1INSPAY
C1-DRRDTLSZ	C1-REFWOREQ	C1MANAPP
C1-DUPBTN	C1-REQUEST-TYPE	C1MANLOG
C1-GETADJ	C1-RETURNDUP	C1MANMOD
C1-GETEFFECTVPRICING	C1-REVRECSCHZ	C1MANRES
C1-GETPPTMPL	C1-SHDETAILSZ	C1MEMBRS
C1MEMBSP	C1PTPLP	C1_BRD_P
C1NCISPY	C1PYRQTY	C1_BUNDLE
C1NCPTMP	C1REFSTP	C1_CHKBIL_PA
C1ODBUPR	C1REFUND	C1_CHKTRDFLG
C1PASGAPPROVE	C1REQSTS	C1_CIGAS
C1PASGREADMODIFY	C1REQTYP	C1_CIMAPZ
C1PASGREADRESOLVE	C1RFWORT	C1_COM_VALID
C1PAYMAN	C1SAPPTM	C1_COPYPL
C1PAYPTL	C1SATYPELISTZ	C1_CPBUNDL
C1PAYREQ	C1SCHEDU	C1_CPYPL
C1PAYRQ	C1VAR	C1_CUSTINFO
C1PAYSRC	C1WODET	C1_DEL_PRD
C1PAYUPL	C1_ADDEXH	C1_DEL_PROD
C1PERRL	C1_ADDPL	C1_DISPBOUND
C1PLCYPL	C1_ADDPROD	C1_DRRSR
C1PLCYPN	C1_ADD_RTCMP	C1_DSPLY_RT
C1PLCYTY	C1_ADD_TIER	C1_EDTBUND
C1POINFR	C1_ADMPPI	C1_EDTER

Application Service	Application Service	Application Service
C1POLACL	C1_ANSPLTCUS	C1_EDTPL
C1POLCYN	C1_APCS	C1_EDTPROD
C1POLCYP	C1_APPAD	C1_EDT_PRITM
C1POLPEL	C1_APPTXN_PRICEASGN	C1_EFF_PRC
C1POLSCH	C1_APPWF	C1_EFF_PRICE
C1POLSRCH	C1_APUR	C1_EFPRODSRC
C1POLTYP	C1_APVIG	C1_EXCHRT
C1PPCARS	C1_ASNPL	C1_EXHRT
C1PPDUP	C1_BACCGRVAL	C1_EXPPITM
C1PRISIM	C1_BAFHZ	C1_FTRS
C1PRODUCT	C1_BFHIS	C1_F_ADDCHLD
C1PSNAPP	C1_BNDMN	C1_F_ADDEXCH
C1PSNMOD	C1_BNDPRD	C1_F_ADDPL
C1PSNRES	C1_BNDPRS	C1_F_ADDPRD
C1PTNDRH	C1_BO_OPT	C1_F_ADDPRPL
C1_F_ADDPRSS	C1_F_IGG2MS	C1_OVR_PRITM
C1_F_ADDRATE	C1_F_IGG3MM	C1_PAYUP
C1_F_ADMPROD	C1_F_IGG3MS	C1_PCUSSRCH
C1_F_ADPROD	C1_F_PERSRCH	C1_PLADPR
C1_F_APVDTVL	C1_F_PLCRT	C1_PLAE
C1_F_APVNFLT	C1_F_PLEDT	C1_PLASNADD
C1_F_ASGNCUS	C1_F_PLVAL	C1_PLASNEDIT
C1_F_ASGNPTP	C1_F_POPITEM	C1_PLASN_ADD
C1_F_CIGG3V	C1_F_PRCHAR	C1_PLASN_EDI
C1_F_COPYPL	C1_F_PRCHARS	C1_PLASSIGN
C1_F_CPYBNDL	C1_F_PRDVL	C1_PLASSIGNE
C1_F_CPYPL	C1_F_PRODVAL	C1_PLASSIGN
C1_F_CPYPLVL	C1_F_PRODVL1	C1_PLEDIT
C1_F_CUSSRCH	C1_F_RSCDVAL	C1_PLISTSRCH
C1_F_DELEXCH	C1_F_RTDESC	C1_PLMNG
C1_F_DELSCS	C1_F_SAVESCS	C1_PLPTYAINF

Application Service	Application Service	Application Service
C1_F_DTVAL	C1_F_SRPLVAL	C1_PLPTYINFO
C1_F_EDTEXHR	C1_F_VAL_CUS	C1_PLSRCH
C1_F_EDTMMP	C1_GENERICSA	C1_PLSTOGGLE
C1_F_EDTPL	C1_GENRCMP	C1_PLVAL
C1_F_EDTPR	C1_GETTIER	C1_PLVALIDAT
C1_F_EDTPROD	C1_GRP	C1_PLVIEW
C1_F_EDTPRPL	C1_IGMMB	C1_PL_ADD
C1_F_EDTPRSS	C1_INF_PARTY	C1_PL_EDIT
C1_F_EXCDVAL	C1_INVC	C1_PL_PI
C1_F_EXCHVAL	C1_LIST_TIER	C1_PMPRC
C1_F_EXHVAL	C1_MIG	C1_POLICYTYPE
C1_F_GENACBO	C1_MIGAS	C1_PPEDT
C1_F_IGG1MM	C1_MNGRT	C1_PPOVR
C1_F_IGG1MS	C1_MNGTR	C1_PPOVRSRCH
C1_F_IGG2MM	C1_MPPA	C1_PP_DSPINF
C1_PP_PLVAL	C1_SRCHPL	CILBSBHP
C1_PRCAD	C1_SRCHPLVAL	CILBSCCP
C1_PRCE_VALD	C1_SRCHPPL	CILBSEGP
C1_PRCPM	C1_SRCHPRD	CILBSTMP
C1_PRC_EDIT	C1_SRCH_PROF	CILCAAHP
C1_PRC_OVRD	C1_SRPROD	CILCAASP
C1_PRC_TR	C1_STRTOLIST	CILCACCP
C1_PRC_VALID	C1_TEMPLATE	CILCALZP
C1_PRDREL	C1_TIER_INP	CILCAMRP
C1-OFFPRO	C1_VWPRD	CILCBCUP
C1_PRITSRCH	CHGTYPE	CILCCCIP
C1_PROD	CHGTYPECD	CILCCCZP
C1_PRODPL	CIACNBTY	CILCCIZP
C1_PROD_ADD	CIAPAYSTGUPL	CILCCNSP
C1_PROD_EDIT	CIAPPACCTYPE	CILCCNXP
C1_PROD_SRCH	CIAPPHELGBL	CILCCSCP

Application Service	Application Service	Application Service
C1_PROVR_EDT	CIAPPCRIT	CILCCSHP
C1_PRZCR	CIAPPTXNCHAIN	CILCCTXP
C1_PRZTR	CIAPPTXNRSN	CILCFIZP
C1_PRZ_CR	CICASE	CILCPERP
C1_PRZ_TR	CICASECREATE	CILCPLAS
C1_PTPLA	CICHGTYPE	CILCPPLP
C1_RATE_DEF	CICREATEPAYMENTS	CILCPRMP
C1_RECTIFYSRCH	CIGETPRICING	CILCSALP
C1_RSN	CILAADUP	CILCSSEP
C1_RTCOM_ADD	CILAASCP	CILCSVAP
C1_RTC_VAL	CILAAUSP	CILDATA
C1_RTOPT	CILACDEL	CILDIVET
C1_SAVE_TIER	CILACLCP	CILDIVEXT
C1_SHOW_IMG	CILBBICP	CILECBLP
C1_SRCH	CILBBLP	CILEFKRP
CILEFLDP	CILPILANG	CILRRVMP
CILEMNUP	CILPIREL	CILSACHG
CILEMOBP	CILPITXNREL	CILTACRP
CILENAVP	CILPOLMO	CILTALGP
CILENVOP	CILPPAYP	CILTALTP
CILERPTP	CILPPCAN	CILTAMGP
CILESVCP	CILPPTSP	CILTAMTP
CILETBLP	CILPQADP	CILTAPAP
CILEUIZP	CILPRCITMREL	CILTAPFP
CILEXCHRATE	CILPRICELISTCHAR	CILTAPSP
CILFAFHP	CILPRITEM	CILTAROP
CILFBLCP	CILPRLIST	CILTARTP
CILFBPHP	CILPRLISTDIV	CILTASGP
CILFDRR	CILPRLISTL	CILTATCP
CILFFNTP	CILPTCNP	CILTATPP
CILFFTBP	CILQATDP	CILTATYP

Application Service	Application Service	Application Service
CILFFTPP	CILQCASP	CILTBCRP
CILFLGRP	CILQTDEP	CILTBCTP
CILFMVTP	CILQTDLP	CILTBFFP
CILFSFHP	CILQTDQP	CILTBFVP
CILITPDP	CILQTDSP	CILTBIMP
CILLODPP	CILQTDTP	CILTBLCP
CILPAPHP	CILQTDZP	CILTBLLP
CILPAPSP	CILQTSSP	CILTBKNP
CILPDCNP	CILQTSUP	CILTBTRP
CILPDCSP	CILRCMAP	CILTBSTP
CILPEPLP	CILRENGP	CILBTCP
CILPEQAP	CILRRSMP	CILBTRP
CILPEVTP	CILRRTCP	CILBXTP
CILPICHAR	CILRRSP	CILCAMP
CILPIDIV	CILRRVTP	CILCATP
CILTCCCP	CILTITTP	CILTSARP
CILTCCTP	CILTDIP	CILTSATP
CILTCHTP	CILTLETP	CILTSCLP
CILTCIDP	CILTLKFP	CILTSCYP
CILTCLGP	CILTLNGP	CILTSICP
CILTCLRP	CILTMCRP	CILTSOMP
CILTCLWP	CILTMHTP	CILTSOPP
CILCNTP	CILTMSP	CILTSQIP
CILTCOCP	CILTNUXP	CILTSQRP
CILTCQTP	CILTOCRP	CILTSTMP
CILTCURP	CILTOETP	CILTSVTP
CILTCUSP	CILTOPTP	CILTSWLP
CILTDARP	CILTORAP	CILTTACP
CILTDASP	CILTPCRP	CILTTAXP
CILTDCAP	CILTPCTP	CILTTGRP
CILTDCLP	CILTPDRP	CILTTMRP

Application Service	Application Service	Application Service
CILDIRP	CILPHTP	CILTTMTP
CILDPRP	CILPIFP	CILTTNSP
CILDSTP	CILTPKGP	CILTTNTP
CILDWPP	CILTPMDP	CILTOUP
CILDWTP	CILTPPTP	CILTRAP
CILTEBRP	CILTPRTP	CILTTTMP
CILTECRP	CILTPSDP	CILTTZNP
CILTETTP	CILTPSTP	CILTUOMP
CILTFNDP	CILTPTRP	CILTURPP
CILFRQP	CILPYTP	CILUSCP
CILFWLP	CILQ RTP	CILUSEP
CILGLDP	CILRGLP	CILUSGP
CILTIDTP	CILRLEP	CILWCTP
CILTINCP	CILRSCP	CILWDPC
CILTINSP	CILRTYP	CILWETP
CILWFPP	CILXOPTP	CISATYCHG
CILWPTP	CILXRCVP	CTXTZONE
CILWSCP	CILXRTP	DIVS
CILWSDP	CILXSENP	DIV_PRICEITEMS
CILXNDETAIL	CILXSVXP	DIV_PRICELISTS
CILXNSRC	CILXTPCP	F1-APAYEXPCRTYPEBOAS
CILXNSRCD	CILXXSCP	F1-ATTACHMENTBOAS
CILXNSRCL	CILXXUPP	F1-DECRPTBOAS
CILUPFTS	CILYASTP	F1-DFLTAPS
CILVFVDP	CILYDBPP	F1-DFLTS
CILVFVSP	CILYDFQP	F1-EXPUSERSREQBOAS
CILVVLEP	CILYDPIP	F1-GENPROC
CILVVLSP	CILYENRP	F1-MIGROBJIMP
CILWDWNP	CILYROBP	F1-STASKTYPE
CILWJSDP	CILZAFQP	F1-SVCTASK
CILWJSSP	CILZAUQP	F1-SYNCREQ

Application Service	Application Service	Application Service
CILWNUPP	CILZFNCP	F1-SYNCREQIN
CILWNUSP	CILZPORP	F1-SYNCREQUESTBOAS
CILWPROP	CILZRBPP	F1-WEBSVCBOAS
CILXADPP	CILZRPHP	F1ADMIN
CILXAIEP	CILZRPOP	F1ATTACH
CILXAIIP	CILZRPTP	F1ATTACHMENT
CILXCLSP	CILZSCRP	F1CATTCH
CILXCONP	CILZSCZP	F1CONFIGLOG
CILXENHP	CILZTLZP	F1DEBUG
CILXFRMP	CILZZOHP	F1EXLKP
CILXGRPP	CILZZONP	F1EXLKPS
CILXJDBP	CIL_FAVORITES	F1LCAMRP
CILXJMSP	CIPRICEACCOUNT	F1LEXTLKUP
CILXJSVP	CISACHG	F1LTAMTP
CILXNDNP	CISACHGTYPE	F1MGDEXP
F1MGDEXS	F1_USRFVAVSCH	F1SUBRQQ
F1MGDIMP	FILETYPE	F1SYNCRM
F1MGDIMS	FWLCTDEP	F1SYNCRQ
F1MGOIMP	FWLFACTP	F1TBLEXC
F1MGPLNM	FWLSTRJP	F1UIZONE
F1MGPLNS	FWLTBELP	F1USERLOG
F1MGREQM	FWLTBOJP	F1WBSVCM
F1MGREQS	FWLTBSVP	F1WBSVCS
F1MIGRDEXP	FWLTDARP	F1WEBSVC
F1MIGRDIMP	FWLTEXSP	F1_BTST
F1MIGRDS	FWLTMGCT	F1REQTYP
F1MIGROBJ	FWLTOMTP	F1STRDIS
F1MIGRPLAN	FWLTSCHP	F1STREAS
F1MIGRREQ	FWLTUIMP	PERTREE
F1MIGRTIMP	FWLXOUTP	SACHGLNK
F1MIGRTX	FWLZDEXP	SATYPCHG

Application Service	Application Service	Application Service
F1MTXIMP	FWLZWLZP	C1LASGN
F1REQ	GOTOREC	C1PIASGN
C1BCHGUPLREQ	C1DELCTL	C1PLASGNM
C1BILLCYCLEUPDTUPL	C1ELGPA	C1REFUPLREQ
C1CONTRIDERUPDTUPL	C1GETELIGPT	C1UPLDRQ
C1DCDTLC	C1HOLDUPLREQ	C1UPLREQ
C1WOUPLREQ	C1ILCPASP	C1HCSINF
C1-ACCNBRTPAS	C1ADDRESS	C1INMSGP
C1-CUSTINMSG	C1ADDRS	C1INMSRH
C1-GENRQ	C1ADDRSBO	C1INMSTY
C1-INMSG	C1ADDRSRC	C1PAREQ
C1-INMSGTYPE	C1CUS360	C1PARQMN
C1-MEMBERINMSG	C1DSPT	C1PARQTY
C1-POLPERORLEAS	C1DSPTRQ	C1PI
C1-PROSPECTCRET	C1DSPTRT	C1PL
C1-REQUEST	C1DSPTTY	C1PRICEASGN
C1ADDRDP	C1HCAPPSER	C1REINUPLREQ
C1ADDRDTL	C1HCBLDT	C1LTTHDP
C1_DSPT_REQ	CIPOPPEROLE	F1-ARQPR
F1-AVALG	F1-LKPIL	F1-SICRL
F1-AVBT	F1-MGDIM	F1-SRCRL
F1-AVMO	F1-MGDPR	F1-SRLRQ
F1-AVTBL	F1-MGOAP	F1-STATSM
F1-AVTD	F1-MGOPR	F1-STCRL
F1-BFCRL	F1-MGTAP	F1-STKDF
F1-BSFLG	F1-MGTPR	F1-STKTR
F1-BUNPR	F1-NDPUR	F1-SUBRQ
F1-DTDOM	F1-ORCRL	F1-SYNEF
F1-FCTRN	F1-OUCL	F1-SYNIL
F1-FKVBP	F1-PDBEX	F1-SYNRQ
F1-FLUSH	F1-PDBG	F1-SYSRQ

Application Service	Application Service	Application Service
F1-ILMIN	F1-REQTY	F1-TDCRL
F1-LANG	F1-REVPR	F1-TDEER
F1-LDAP	F1-SAKRQ	F1-TDPG
F1-XMLPG	ACCTVIEW	C1-ACCTAPAY_SERV
C1-DISC-REPT	C1-DRRTMPLT	C1-MBR-DR-TY
C1-REVRECPLCY	C1ACCTAPAY	C1APAYRT
C1APAYVW	C1APYINS	C1DISREP
C1DRDIS	C1DSRTY	C1ENTDTL
C1OFPRP	C1MBRRCN	C1PARAM
C1PERS	C1PERSDP	C1PERSON
C1RCONTY	C1RECOLN	C1RECONCIL
C1RECONTYP	C1SRCAPP	C1VIEWRL
C1_BPYHS	C1_DRRSP	C1_DRRTM
C1_DRRTP	C1_INVCN	C1_PAYIN
C1_PRODUCT	C1_RLTPM	C1_RLTVW
CILRULTP	CONRULE	PRICECOMPPRE
GETDEALTYPE	C1-PRRLTYP	C1-RULEBOAS
C1-TXNAGG	C1-TXNDTL	C1-TXNREC
C1_TRLBL	C1BILLVL	C1BILLSORT
C1_TRLIN	C1BLLVLUPLREQ	C1BLLSRTUPLREQ
C1DISAGR	C1ENTITYREPORT	C1PRICINGGROUP
C1PROAPP	C1PRTYP	C1SRCHRL
C1TXNAGG	TRIALBL	F1TODOMG
C1TXNFD	C1OFPRED	C1GETELIGPLPRO
C1_BUNDVAL	C1_COPYBND	C1_CPYBD
C1OFPREQ	C1_PRICE	C1_TXNAR
CILTXNSOURCE	CIPRICEPARM	F1APPLYBNDL
F1BNDLEM	F1BNDLES	F1BNDLIM
F1BNDLIS	F1BUNEXP	F1BUNIMP
F1IWSDDL	F1IWSVVC	F1IWSVCP

Application Service	Application Service	Application Service
F1IWSVCS	FWLBNPLP	C1-ACCUDATA
C1-CUSTREGTEMPL_SERV	C1-CUSTREGTYPE	C1-GETPRICINGENTITY
C1-PICINGRULE	C1ACUDAT	C1MASPRI
C1MPRISR	C1RETMPL	F1OUMSTQ
F1OUMSTY	PRICECOMPSEQ	C1CREGSR
C1CTRGHC	C1CUREG	C1CURETY
C1CUSTREG	C1CUSTRG	AUDITEVENT
C1-AUDEVTYPE	C1-HEALTHCARE	C1ADEVSR
C1AUDEVT	C1AUDTY	C1RETMPLHC
C1STATE	C1_BILL	C1INREQ
C1INRETY	C1INVRED	C1TRBLHC

B.4 INADMIN

The following table lists all application services configured for the INADMIN user group:

Application Service	Application Service	Application Service
AFHZONE	C1-CNTRTPPTZ	C1-EXTSTMICHZ
APPTXADM	C1-CONTRACTCHARSVALI	C1-EXTSTMLOGZ
BILLGCONS	C1-CONTRACTTYPECHARS	C1-EXTSTMTAD
BILLGRAPH	C1-CTRLC	C1-EXTSTMTCHAR
C1-ACCBALCNT	C1-DEFAULTPP	C1-EXTSTMTED
C1-ACCCRCHM	C1-DELPPTMP	C1-EXTSTMTITEM
C1-ACCURDET	C1-DFLTPTMP	C1-EXTSTMTITMCHR
C1-ACCDETAILZ	C1-DRRDTLSZ	C1-EXTSTMTRC
C1-ACCDISCREZ	C1-DUPBTN	C1-EXTSTMTRSZ
C1-ACCOUNTCURRENT	C1-EDITPPTMP	C1-EXTSTMTZ
C1-ACCQUICED	C1-EQUITYDT	C1-GETADJ
C1-ACCREDIT	C1-EXITEMDEL	C1-GETEFFECTVPRICING
C1-ACCRLOGZ	C1-EXITEMED	C1-GETPPTMPL
C1-ACCSELECT	C1-EXSTMVBNF	C1-INSDETBK
C1-ACCURERR	C1-EXTACQRYZ	C1-ISSUEDATEPOLICYCH

Application Service	Application Service	Application Service
C1-ACCURTEXT	C1-EXTAUTREC	C1-LINKPPTMP
C1-ACNPOLSUMZ	C1-EXTERNALSTATEMENT	C1-LINKPPTMP2
C1-ACPOLSUMMZ	C1-EXTITEMAD	C1-MAINPINFR
C1-ACTPPTMPL	C1-EXTPENDG	C1-MAINPPLAN
C1-ACURITEMD	C1-EXTREOPN	C1-MAINPPTMP
C1-ADJAPPRVLREQBOAS	C1-EXTSTCHM	C1-MOVEPPT
C1-APAYEXPCRREQBOAS	C1-EXTSTIMP	C1-NAVACTCUR
C1-APAYEXPCRTYPEBOAS	C1-EXTSTITCH	C1-NAVTOEXST
C1-APPRSN	C1-EXTSTLDB	C1-PAY-REQ
C1-APPTXN	C1-EXTSTMBNF	C1-PAYMENT
C1-APPTXNLOG	C1-EXTSTMCAN	C1-PAYPLAN
C1-ASAPU	C1-EXTSTMCLD	C1-PAYPLAND
C1-ASGNPL	C1-EXTSTMCLS	C1-PAYPLANTMPLCOMPL
C1-BILLCHARGE	C1-EXTSTMDTLZ	C1-PAYPLANZ
C1-BRD	C1-EXTSTMDZ	C1-PAYPLNBPA
C1-PAYTEMPLATEBOAS	C1-PPDUP	C1ACINSP
C1-PERBALCNT	C1-PPEDIT	C1ACTPER
C1-PIFVIS	C1-PPEDTTASK	C1ACTREE
C1-PINFRDISP	C1-PPLANDET	C1ADJSTP
C1-PINVFPOST	C1-PPPROC	C1ADJUPL
C1-POINFRDET	C1-PPSACCSRC	C1APPBOCHNZN
C1-POLCANCE	C1-PPTCNTDETZ	C1APPCHN
C1-POLCANZ	C1-PPTERROR	C1APPCRT
C1-POLICY	C1-PPTMPDISP	C1APPRESP
C1-POLICYBPA	C1-PPTMPDUP	C1APPTXNBOCHN
C1-POLICYCANRSNSERV	C1-PPTMPL	C1APPTXNBOCHNZN
C1-POLICYCHAR	C1-PPTMPLD	C1APPTXNCHAIN
C1-POLICYDESC	C1-PPTMPLDET	C1APPTXNCRI
C1-POLICYINVOICEFREQ	C1-PPTMPLDETZ	C1APPTXNCRT
C1-POLICYSUM	C1-PPTMPLVIS	C1APPTXNGRP
C1-POLINVDZ	C1-PPTMPLZ	C1BOCHN

Application Service	Application Service	Application Service
C1-POLINVEDI	C1-PPTMPPPOST	C1CCACCT
C1-POLINVFRE	C1-PSTAKEHLD	C1CCPORT
C1-POLINVFREZ	C1-QUICKPAGINATION	C1CNTCR
C1-POLINVFRQ	C1-RECVAL	C1CTRLC
C1-POLI_FHZ	C1-REFWOREQ	C1FLRQTY
C1-POLNOMINEZ	C1-REQUEST-TYPE	C1FLSRCH
C1-POLPERORLEAS	C1-RETURNDUP	C1INSPAY
C1-POLREINSTSR	C1LISTBL	F1TODOMG
C1-POLSUMZ	C1-SHDETAILSZ	C1MANAPP
C1-PPACCTSRC	C1-SRCHSCTP	C1MANLOG
C1-PPACTV	C1-UNLINK	C1MANMOD
C1-PPBTNS	C1-UNLINKPP	C1MANRES
C1-PPDET	C1-UPLOADCSV	C1NCISPY
C1-PPDETZ	C1-WRITEOFFREQ	C1NCPTMP
C1-PPDISP	C1ACCRATE	C1ODBUPR
C1PASGAPPROVE	C1PTPLP	C1_BACCGRVAL
C1PASGREADMODIFY	C1PYRQTY	C1_BAFHZ
C1PASGREADRESOLVE	C1RECDTLSTAT	C1_BFHIS
C1PAYMAN	C1RECONDTL	C1_BNDMN
C1PAYPLAN	C1REFSTP	C1_BNDPRD
C1PAYPTL	C1REFUND	C1_BNDPRS
C1PAYREQ	C1REQSTS	C1_BO_OPT
C1PAYRQ	C1REQTYP	C1_BRD_P
C1PAYSRC	C1RFWORT	C1_BUNDLE
C1PAYUPL	C1SAPPTM	C1_CHKBIL_PA
C1PERRL	C1SATYPELISTZ	C1_CHKTRDFLG
C1POINFR	C1SCHEDU	C1_CIGAS
C1POLACL	C1VAR	C1_CIMAPZ
C1POLICYCANRSN	C1VARIANCE	C1_COM_VALID
C1POLPEL	C1WODET	C1_COPYPL
C1POLSRH	C1_ACCUR	C1_CPBUNDL

Application Service	Application Service	Application Service
C1POLTYP	C1_ACUNV	C1_CPYPL
C1PPCARS	C1_ADDEXH	C1_CUSTINFO
C1PPDUP	C1_ADDPL	C1_DEL_PRD
C1PPLAN	C1_ADDPROD	C1_DEL_PROD
C1PPSRH	C1_ADD_RTCMP	C1_DISPBOUND
C1PPSRS	C1_ADD_TIER	PRICECOMPPRE
C1PPTMPL	C1_ADMPI	C1_DSPY_RT
C1PPTMPO	C1_ANSPLTCUS	C1_EDTBUND
C1PPVERSCHZ	C1_APCS	C1_EDTER
C1PRISIM	C1_APPAD	C1_EDTPL
C1PRODUCT	C1_APPTXN_PRICEASGN	C1_EDTPROD
C1PSNAPP	C1_APPWF	C1_EDT_PRITM
C1PSNMOD	C1_APUR	C1_EFF_PRC
C1PSNRES	C1_APVIG	C1_EFF_PRICE
C1PTNDRH	C1_ASNPL	C1_EFPRODSRC
C1_EXCHRT	C1_F_EDTMMP	C1_F_VAL_CUS
C1_EXHRT	C1_F_EDTPL	C1_GENERICSA
C1_EXPPITM	C1_F_EDTPR	C1_GENRCMP
C1_EXSTD	C1_F_EDTPROD	C1_GETTIER
C1_EXSTL	C1_F_EDTPRPL	C1_GRP
C1_EXSTM	C1_F_EDTPRSS	C1_IGMMB
C1_EXSTS	C1_F_EXCDVAL	C1_INF_PARTY
C1_FTRS	C1_F_EXCHVAL	C1_INS_SRCH
C1_F_ADDCHLD	C1_F_EXHVAL	C1_INVC
C1_F_ADDEXCH	C1_F_GENACBO	C1_LIST_TIER
C1_F_ADDPL	C1_F_IGG1MM	C1_MIG
C1_F_ADDPRD	C1_F_IGG1MS	C1_MIGAS
C1_F_ADDPRPL	C1_F_IGG2MM	C1_MNGRT
C1_F_ADDPRSS	C1_F_IGG2MS	C1_MNGTR
C1_F_ADDRATE	C1_F_IGG3MM	C1_MPPA
C1_F_ADMPROD	C1_F_IGG3MS	C1_OVR_PRITM

Application Service	Application Service	Application Service
C1_F_ADPROD	C1_F_PERSRCH	C1_PAYUP
C1_F_APVDTVL	C1_F_PLCRT	C1_PCUSSRCH
C1_F_APVNFLT	C1_F_PLEDT	C1_PLADPR
C1_F_ASGNCUS	C1_F_PLVAL	C1_PLAE
C1_F_ASGNPTP	C1_F_POLSRCH	C1_PLASNADD
C1_F_CIGG3V	C1_F_POPITEM	C1_PLASNEDIT
C1_F_COPYPL	C1_F_PRCHAR	C1_PLASN_ADD
C1_F_CPYBNL	C1_F_PRCHARS	C1_PLASN_EDI
C1_F_CPYPL	C1_F_PRDVL	C1_PLASSIGN
C1_F_CPYPLVL	C1_F_PRODVAL	C1_PLASSIGNE
C1_F_CUSSRCH	C1_F_PRODVL1	C1_PLASSIGN
C1_F_DELEXCH	C1_F_RSCDVAL	C1_PLEDIT
C1_F_DELSCS	C1_F_RTDESC	C1_PLISTRCH
C1_F_DTVAL	C1_F_SAVESCS	C1_PLMNG
C1_F_EDTEXHR	C1_F_SRPLVAL	C1_PLPTYAINF
C1_PLPTYINFO	C1_PRZCR	CIAPPCHELGBL
C1_PLSRCH	C1_PRZTR	CIAPPCRIT
C1_PLSTOGGLE	C1_PRZ_CR	CIAPPTXNCHAIN
C1_PLVAL	C1_PRZ_TR	CIAPPTXNRSN
C1_PLVALIDAT	C1_PTPLA	CICASE
C1_PLVIEW	C1_RATE_DEF	CICASECREATE
C1_PL_ADD	C1_RECON	CICHGTYPE
C1_PL_EDIT	C1_RECTIFYSRCH	CICPAYPLAN
C1_PL_PI	C1_RSN	CICREATEPAYMENTS
C1_PMPRC	C1_RTCOM_ADD	CIGETPRICING
C1_PPEDT	C1_RTC_VAL	CILAADUP
C1_PPOVR	C1_RTOPT	CILAASCP
C1_PPOVRSRCH	C1_SAVE_TIER	CILAAUSP
C1_PP_DSPINF	C1_SHOW_IMG	CILACCDL
C1_PP_PLVAL	C1_SRCH	CILACLCP
C1_PRCAD	C1_SRCHPL	CILBBICP

Application Service	Application Service	Application Service
C1_PRC_VALD	C1_SRCHPLVAL	CILBLLP
C1_PRCPM	C1_SRCHPPL	CILBMCRP
C1_PRC_EDIT	C1_SRCHPRD	CILBSBHP
C1_PRC_OVRD	C1_SRCH_PROF	CILBSCCP
C1_PRC_TR	C1_SRPROD	CILBSEGP
C1_PRC_VALID	C1_STRTOLIST	CILBSTMP
C1_PRDREL	C1_TEMPLATE	CILCAAHP
C1GETELIGPLPRO	C1_TIER_INP	CILCAASP
C1_PRITSRCH	C1_VIEW	CILCACCP
C1_PROD	C1_VWPRD	CILCALZP
C1_PRODPL	CHGTYPE	CILCAMRP
C1_PROD_ADD	CHGTYPECD	CILCBCUP
C1_PROD_EDIT	CIACNBTY	CILCCCIP
C1_PROD_SRCH	CIAPAYSTGUPL	CILCCCZP
C1_PROVR_EDT	CIAPPACCTYPE	CILCCIZP
CILCCNSP	CILFBLCP	CILPRLIST
CILCCNXP	CILFBPHP	CILPRLISTDIV
CILCCSCP	CONRULE	CILPRLISTL
CILCCSHP	CILFFNTP	CILPTCNP
CILCCTXP	CILFFTBP	CILQATDP
CILCFIZP	CILFFTPP	CILQCASP
CILCLOAP	CILFLGRP	CILQTDEP
CILCPERP	CILFMVTP	CILQTDLP
CILCPLAS	CILFSFHP	CILQTDQP
CILCPPLP	CILITPDP	CILQTDSP
CILCPPTMPL	CILLODPP	CILQTDTP
CILCPRMP	CILPAPHP	CILQTDZP
CILCSALP	CILPAPSP	CILQTSSP
CILCSSEP	CILPDCNP	CILQTSUP
CILCSVAP	CILPDCSP	CILRCMAP
CILDATA	CILPEPLP	CILRENGP

Application Service	Application Service	Application Service
CILDIVET	CILPEQAP	CILRRSMP
CILDIVEXT	CILPEVTP	CILRRTCP
CILECBLP	CILPICHAR	CILRRTSP
CILEFKRP	CILPIDIV	CILRRVTP
CILEFLDP	CILPILANG	CILRRVMP
CILEMNUP	CILPIREL	CILSACHG
CILEMOBP	CILPITXNREL	CILSTEXTITEM
CILENAVP	CILPOLMO	CILTACRP
CILENVOP	CILPPAYP	CILTALGP
CILERPTP	CILPPCAN	CILTALTP
CILESVCP	CILPPTSP	CILTAMGP
CILETBLP	CILPQADP	CILTAMTP
CILEUIZP	CILPRCITMREL	CILTAPAP
CILEXCHRATE	CILPRICELISTCHAR	CILTAPFP
CILFAFHP	CILPRITEM	CILTAPRP
CILTAPSP	CILTCQTP	CILTOETP
CILTAROP	CILTCURP	CILTOPTP
CILTARTP	CILTCUSP	CILTORAP
CILTASGP	CILTDARP	CILTPCRP
CILTATCP	CILTDASP	CILTPDRP
CILTATPP	CILTDCAP	CILTPHTP
CILTATYP	CILTDCLP	CILTPIFP
CILTBCRP	CILTDIRP	CILTPKGP
CILTBCTP	CILTDPRP	CILTPMDP
CILTBFFP	CILTDSTP	CILTPPTP
CILTBFVP	CILTDWPP	CILTPRTP
CILTBIMP	CILTDWTP	CILTPSDP
CILTBLCP	CILTEBRP	CILTPSTP
CILTLBPP	CILTECRP	CILTPTRP
CILTBKNP	CILTFNDP	CILTPYTP
CILTBRTP	CILTFRQP	CILTQRTP

Application Service	Application Service	Application Service
CILTBSTP	CILTFWLP	CILTRGLP
CILBTCP	CILTGLDP	CILTRLEP
CILBTRP	CILTIDTP	CILTRSCP
CILBXTTP	CILTINCP	CILTRTYP
CILTCAMP	CILTINSP	CILTSATP
CILTCATP	CILTITTP	CILTSCLP
CILTCCCP	CILTLDIP	CILTSCYP
CILTCCTP	CILTLETP	CILTSICP
CILTCHTP	CILTLKFP	CILTSOMP
CILTCIDP	CILTLNGP	CILTSOPP
CILTCLGP	CILTMCRP	CILTSQIP
CILTCLRP	CILTMHTP	CILTSQRP
CILTCLWP	CILTMMSGP	CILTSTMP
CILTCNTP	CILTNUXP	CILTSVTP
CILTCOCP	CILTOCRP	CILTSWLP
CILTTACP	CILWDWNP	CILYROBP
CILTTAXP	CILWJSDP	CILZAFQP
CILTTGRP	CILWJSSP	CILZAUQP
CILTTMRP	CILWNUPP	CILZFNCP
CILTTMTP	CILWNUSP	CILZPORP
CILTTNSP	CILWPROP	CILZRBPP
CILTTNTP	CILXADPP	CILZRPHP
CILTTOUP	CILXAIEP	CILZRPOP
CILTRAP	CILXAIP	CILZRPTP
CILTTTTP	CILXCLSP	CILZSCRP
CILTTZNP	CILXCONP	CILZSCZP
CILTUOMP	CILXENHP	CILZTLZP
CILTURPP	CILXFRMP	CILZZOHP
CILTUSCP	CILXGRPP	CILZZONP
CILTUSEP	CILXJDBP	CIL_FAVORITES
CILTUSGP	CILXJMSP	CIPOLICY

Application Service	Application Service	Application Service
CILTWCTP	CILXJSVP	CIPOLPERRL
CILTWDCP	CILXNDNP	CIPOLPERROLE
CILTWETP	CILXOPTP	CIPOLREINSTRSN
CILTWPTP	CILXRCVP	CIPRICEACCOUNT
CILTWSCP	CILXRTPP	CIREC
CILTWSDP	CILXSENP	CIRECCUSTSUB
CILTXNDETAIL	CILXSVXP	CIRECON
CILTXNSRC	CILXTPCP	CIRECONDTL
CILTXNSRCD	CILXXSCP	CIRECONSEG
CILTXNSRCL	CILXXUPP	CIRECPRTL
CILUPFTS	CILYASTP	CISACHG
CILVFVDP	CILYDBPP	CISACHGTYPE
CILVFVSP	CILYDFQP	CISATYCHG
CILVVLEP	CILYDPIP	CIVARIANCE
CILVVLSP	CILYENRP	CNCLRSN
CTXTZONE	F1MGDIMP	FILETYPE
DIVS	F1MGDIMS	FWLCTDEP
DIV_PRICEITEMS	F1MGOIMP	FWLFACTP
DIV_PRICELISTS	F1MGPLNM	FWLSTRJP
F1-APAYEXPCRTYPEBOAS	F1MGPLNS	FWLTBELP
F1-ATTACHMENTBOAS	F1MGREQM	FWLTBOJP
F1-DECRPTBOAS	F1MGREQS	FWLTBSVP
F1-DFLTAPS	F1MIGRDEXP	FWLTDARP
F1-DFLTS	F1MIGRDIMP	FWLTEXSP
F1-EXPUSERSREQBOAS	F1MIGRDS	FWLTMGCT
F1-GENPROC	F1MIGROBJ	FWLTOMTP
F1-MIGROBJIMP	F1MIGRPLAN	FWLTSCHP
F1-STASKTYPE	F1MIGRREQ	FWLTUIMP
F1-SVCTASK	F1MIGRTIMP	FWLXOUTP
F1-SYNCREQ	F1MIGRTX	FWLZDEXP
F1-SYNCREQIN	F1MTXIMP	FWLZWLZP

Application Service	Application Service	Application Service
F1-SYNCREQUESTBOAS	F1REQ	GOTOREC
F1-WEBSVCBOAS	F1REQTYP	LISTBILLVIEW
F1ADMIN	F1STRDIS	PERTREE
F1ATTACH	F1STREAS	POLICYCANRSN
F1ATTACHMENT	F1SUBRQQ	RECDTSTA
F1CATTCH	F1SYNCRM	RECON
F1CONFIGLOG	F1SYNCRQ	RECONDTL
F1DEBUG	F1TBLEXC	RSTRSN
F1EXLKP	F1UIZONE	SACHGLNK
F1EXLKPS	F1USERLOG	SATYPCHG
F1LCAMRP	F1WBSVCM	SATYPES
F1LEXTLKUP	F1WBSVCS	F1_BTST
F1LTAMTP	F1WEBSVC	F1_USRFAVSCH
F1MGDEXP	F1MGDEXS	C1LASGN
C1BCHGUPLREQ	C1DELCTL	C1PIASGN
C1BILLCYCLEUPDTUPL	C1ELGPA	C1PLASGNM
C1CONTRIDERUPDTUPL	C1GETELIGPT	C1REFUPLREQ
C1DCDTLC	C1HOLDUPLREQ	C1UPLDRQ
C1UPLREQ	C1WOUPLREQ	C1ILCPASP
C1-PROSPECTCRET	C1ADDRS	C1DSPTTY
C1ACRLCL	C1ADDRSBO	C1PAREQ
C1ACRLTP	C1ADDRSRC	C1PARQMN
C1ADDRDP	C1DSPT	C1PARQTY
C1ADDRDTL	C1DSPTRQ	C1PI
C1ADDRESS	C1DSPTRT	C1PL
C1PRICEASGN	C1_DSPT_REQ	F1-ARQPR
F1-AVALG	F1-LKPIL	F1-SICRL
F1-AVBT	F1-MGDIM	F1-SRCRL
F1-AVMO	F1-MGDPR	F1-SRLRQ
F1-AVTBL	F1-MGOAP	F1-STATSM
F1-AVTD	F1-MGOPR	F1-STCRL

Application Service	Application Service	Application Service
F1-BFCRL	F1-MGTAP	F1-STKDF
F1-BSFLG	F1-MGTPR	F1-STKTR
F1-BUNPR	F1-NDPUR	F1-SUBRQ
F1-DTDOM	F1-ORCRL	F1-SYNEF
F1-FCTRN	F1-OUCRL	F1-SYNIL
F1-FKVBP	F1-PDBEX	F1-SYNRQ
F1-FLUSH	F1-PDBG	F1-SYSRQ
F1-ILMIN	F1-REQTY	F1-TDCRL
F1-LANG	F1-REVPR	F1-TDEER
F1-LDAP	F1-SAKRQ	F1-XMLPG
C1-DISC-REPT	C1-PTD-CAL	C1APAYRT
C1OFPRED	C1OFPREQ	C1PARAM
C1PERS	C1PERSDP	C1PERSON
C1SRCAPP	C1VIEWRL	C1_INVCN
C1_PRODUCT	C1_RLTPM	C1_RLTVW
CILRULTP	C1-PRRLTYP	C1ENTITYREPORT
C1PROAPP	C1PRTYP	C1_PRICE
CIPRICEPARM	C1-CUSTREGTEMPL_SERV	C1-CUSTREGTYPE
C1-GETPRICINGENTITY	C1MASPRI	C1MPRISR
C1RETMPL	F1OUMSTQ	F1OUMSTY
PRICECOMPSEQ	C1CREGSR	C1CTRGHC
C1CUREG	C1CURETY	C1CUSTREG
C1CUSTRG	AUDITEVENT	C1-AUDEVTYPE
C1-HEALTHCARE	C1ADEVSR	C1AUDEVT
C1AUDTY	C1RETMPLHC	C1ENTDTL
C1INREQ	C1INRETY	C1INVRED
GETDEALTYPE	-	-

Appendix C : Changing the DB User Password

If you have changed the database user password, you need to execute the following steps before installing the rollup pack for Oracle Utilities Application Framework Version 4.4.0.0.0:

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

AIX, Linux:

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

Windows:

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

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

AIX, Linux:

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

Windows:

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

Appendix D : New Objects in the Oracle Utilities Application Framework V4.4.0.0.0 Database

This section lists the objects that are newly added in the Oracle Utilities Application Framework V4.4.0.0.0 database. These objects are classified under the following two sections:

- Schema Changes
- New System Data

D.1 Schema Changes

This section lists schema related changes made in the Oracle Utilities Application Framework V4.4.0.0.0 database.

D.1.1 New Tables

None

D.1.2 Added Views

The following views are newly added in the Oracle Utilities Application Framework V4.4.0.0.0 database:

View	Description
CI_TD_ENTRY_OPEN_VW	Open To Do Entries View

D.1.3 Dropped Tables

None

D.1.4 Unsupported Tables

None

D.1.5 Added Columns

The following columns are newly added in the Oracle Utilities Application Framework V4.4.0.0.0 database:

Table	Column	Column Description	Required (Yes or No)
CI_TD_ENTRY_OPEN_VW	ASSIGNED_TO	Assign to User	Yes
	ASSIGNED_USER_ID	Assigned By User	Yes

Table	Column	Column Description	Required (Yes or No)
	ASSIGNED_DTTM	Assigned Date/Time	No
	BATCH_CD	Batch Control	Yes
	BATCH_NBR	Batch Number	Yes
	COMMENTS	Comments	Yes
	COMPLETE_USER_ID	Completed By	Yes
	COMPLETE_DTTM	Completion Date/Time	No
	CRE_DTTM	Create Date/Time	No
	DAYS_OLD	Days Old	No
	DKEY1	Drill Key 1	No
	DKEY2	Drill Key 2	No
	DKEY3	Drill Key 3	No
	DKEY4	Drill Key 4	No
	DKEY5	Drill Key 5	No
	ILM_ARCH_SW	ILM Archive Switch	No
	ILM_DT	ILM Date	No
	MESSAGE_CAT_NBR	Message Category	Yes
	MESSAGE_NBR	Message Number	Yes
	COMMENTS_LOGS	Note	No
	PARMS_TLBL	Parameters	No
	TD_PRIORITY_FLG	Priority	Yes
	RELATED_TODO_CNT	Related	No
	SKEY1	Sort Key 1	No
	SKEY2	Sort Key 2	No
	SKEY3	Sort Key 3	No
	SKEY4	Sort Key 4	No
	SKEY5	Sort Key 5	No
	ENTRY_STATUS_FLG	To Do Entry Status	Yes
	TD_ENTRY_ID	To Do ID	Yes
	ROLE_ID	To Do Role	Yes
	TD_TYPE_CD	To Do Type	Yes
	VERSION	Version	Yes

Table	Column	Column Description	Required (Yes or No)
F1_BATCH_SCHED_OPT	OPT_JOB_SCOPE	Scheduler Option Job Scope	Yes

D.1.6 Dropped Columns

None

D.1.7 Column Format Change

The format of the following columns is changed in the Oracle Utilities Application Framework V4.4.0.0.0 database:

Table	Column	From	To
F1_BKT_CONFIG	BKT_TYPE_CD	VARCHAR2 (254)	VARCHAR2 (30)
F1_BUS_FLG_LOG_PARM	MSG_PARM_VAL	VARCHAR2 (4000)	VARCHAR2 (2000)
F1_CRYPT_KEY_RING	EXT_REFERENCE_ID	CHAR (30)	CHAR (36)
F1_CUBE_VIEW_LOG_PARM	MSG_PARM_VAL	VARCHAR2 (30)	VARCHAR2 (2000)
F1_DEPLOYMENT_ITEM_META DATA	F1_DEPLOYMENT_ID	VARCHAR2 (30)	CHAR (14)
F1_IWS_ANN_L	DESCR	CHAR (60)	VARCHAR2 (60)
F1_IWS_SVC	RESOURCE_CAT_XFLG	CHAR (30)	VARCHAR2 (30)
F1_LGCY_OBJ	LGCY_OBJ_ID	VARCHAR2 (12)	CHAR (12)
F1_PROC_PANEL	DATA_AREA_CD	VARCHAR2 (30)	CHAR (30)
F1_PROC_STORE_LOG_PARM	MSG_PARM_VAL	VARCHAR2 (30)	VARCHAR2 (2000)

D.2 New System Data

The system data is used to configure various features in Oracle Utilities Application Framework. This section lists the system data that is newly added in the Oracle Utilities Application Framework V4.4.0.0.0 database.

D.2.1 Algorithms

The following algorithms are newly added in the Oracle Utilities Application Framework V4.4.0.0.0 database:

Algorithm	Description
F1-EXINTDPR	Execute Installation - To Do Pre-creation Algorithms

D.2.2 Algorithm Types

The following algorithm types are newly added in the Oracle Utilities Application Framework V4.4.0.0.0 database:

Algorithm Type	Description
F1-EXINTDPR	Execute Installation - To Do Pre-creation Algorithms

D.2.3 Zones

The following zones are newly added in the Oracle Utilities Application Framework V4.4.0.0.0 database:

Zone	Description
F1-ATTEXTID	Get Attachment By External ID
F1-CHVALS	Characteristic Type's Predefined Values
F1-TDSNONCL	List of Non-Closed To Do Status Values
F1-TDTYCHTY	Char Types of a To Do Type
F1-TDTY-DRKY	To Do - Get Drill Key Fields and Nav Option
F1-TDTYUSER	Users Valid for a To Do Type
F1-TODOMGQ	To Do Management
F1-TODOMGQ1	To Do Information
F1-TODOMSGS	To Do Messages
F1-USERTDRL	To Do Roles for User and To Do Type
F1-USERTDTY	To Do Types for a User

D.2.4 UI Maps

The following UI maps are newly added in the Oracle Utilities Application Framework V4.4.0.0.0 database:

UI Map	Description
F1-CharValuesFrag	Maintains up to 5 characteristics
F1-ToDoCmtLogDisplay	Display To Do Comment and Logs
F1-ToDoInfoSearchFilter	To Do Search by Information - Filter Area

D.2.5 Maintenance Objects

None

D.2.6 To Do Types

None

D.2.7 Business Services

The following business services are newly added in the Oracle Utilities Application Framework V4.4.0.0.0 database:

Business Service	Description
F1-AddToDoEntryUserLog	Add a User Details Log for a To Do Entry
F1-ATTEXTID	Get Attachment By External ID
F1-CHVALS	Characteristic Type's Predefined Values
F1-TDSNONCL	List of Non-Closed To Do Status Values
F1-TDTYCHTY	Char Types of a To Do Type
F1-TDTY-DRKY	To Do - Get Drill Key Fields and Nav Option
F1-TDTYUSER	Users Valid for a To Do Type
F1-ToDoAssignment	To Do Assignment
F1-TODOMSGS	To Do Messages
F1-USERTDRL	To Do Roles for User and To Do Type
F1-USERTDTY	To Do Types for the Current User

D.2.8 Portals

The following portals are newly added in the Oracle Utilities Application Framework V4.4.0.0.0 database:

Portal	Description
F1TODOMG	To Do Management

D.2.9 Business Objects

The following business objects are newly added in the Oracle Utilities Application Framework V4.4.0.0.0 database:

Business Object	Description
F1-ToDoMainLog	To Do Main Info and Logs

D.2.10 Lookups

None

D.2.11 Foreign Key References

None

D.2.12 Batch Controls

None

D.2.13 Application Services

The following application services are newly added in the Oracle Utilities Application Framework V4.4.0.0.0 database:

Application Service	Description
F1TODOMG	To Do Management

D.2.14 Characteristic Types

None

D.2.15 Scripts

The following scripts are newly added in the Oracle Utilities Application Framework V4.4.0.0.0 database:

Script	Description
F1-ChkAppSec	Check User's Application Security Access
F1-GotoTDObj	Navigate to related object for a To Do and drill key values
F1-TDCmtLog	Display To Do Comment and Log
F1-TdExpMsg	Expanded To Do Message
F1-TdFilter	To Do Filter Map Processing
F1-TDMgAct	To Do Management - Process Actions
F1-TDMgActSS	To Do Management - Process Actions
F1-TDRelObj	Retrieves a To Do Entry's related object information

Appendix E : Oracle Utilities Application Framework System Table Guide

This section lists the system tables owned by Oracle Utilities Application Framework V4.4.0.0.0 and explains the data standards of the system tables. The data standards are required for the installation of Oracle Utilities Application Framework, development within Oracle Utilities Application Framework, and for the configuration and customization of Oracle Utilities products. Adhering to the data standards is a prerequisite for seamless upgrade to future releases.

This section includes:

- About System Tables
- System Table Standards
- Guidelines for System Table Updates
- System Table List

E.1 About System Tables

System tables are a subset of the tables that must be populated at the time of installation of the product. They include metadata and configuration tables. The data stored in the system tables are the information that Oracle Utilities Application Framework product operations are based on.

As the product adds more functionality, the list of system tables can grow. The complete list of the system tables can be found in the System Table List section.

E.2 System Table Standards

System table standards must be observed for the following reasons:

- The product installation and upgrade process and customer modification data extract processes depend on the data prefix and owner flag values to determine the system data owned by each product.
- The standards ensure that there will be no data conflict in the product being developed and the future Oracle Utilities Application Framework release.
- The standards ensure that there will be no data conflict between customer modifications and future Oracle Utilities product releases.
- The data prefix is used to prevent test data from being released to production.

Developer's Note: All test data added to the system data tables must be prefixed by ZZ (all upper case) in order for the installation and upgrade utility to recognize them as test data.

E.3 Guidelines for System Table Updates

This section describes guidelines regarding the updating of the system table properties.

E.3.1 Business Configuration Tables

The majority of data in the tables in this group belongs to the customer. But these tables are shipped with some initial data in order for the customer to login to the system and begin configuring the product. Unless specified otherwise, the initial data is maintained by Oracle Utilities Application Framework and subject to subsequent upgrade.

E.3.1.1 Application Security and User Profile

These tables define the access rights of a User Group to Application Services and Application Users.

Properties	Description
Tables	SC_ACCESS_CNTL, SC_USER, SC_USR_GRP_PROF, SC_USR_GRP_USR, SC_USER_GROUP, SC_USER_GROUP_L
Initial Data	User Group ALL_SERVICES and default system user <code>SYSUSER</code> . Upon installation the system default User Group ALL_SERVICES is given unrestricted accesses to all services defined in Oracle Utilities Application Framework.

Developer's Note: When a new service is added to the system, all actions defined for the service must be made available to the User Group ALL_SERVICES.

E.3.1.2 Currency Code

The ISO 4217 three-letter codes are taken as the standard code for the representation of the currency.

Properties	Description
Tables	CI_CURRENCY_CD, CI_CURRENCY_CD_L
Initial Data	United States Dollar (USD).

E.3.1.3 Display Profile

The Display Profile Code is referenced in the User (SC_USER) table.

Properties	Description
Tables	CI_DISP_PROF, CI_DISP_PROF_L
Initial Data	North America (NORTHAM), HIJRI Format (HIJRI) and Europe (EURO).

Configuration Note: In order to use HIJRI Format display profile, additional configuration is needed to define the mappings between Hijri and Gregorian dates. Refer to the Display Profile documentation for more information.

E.3.1.4 Installation Options

Installation option has only one row that is shipped with the initial installation of Oracle Utilities Application Framework. The updatable columns in these tables are customer data and will not be overridden by the upgrade process unless a special script is written and included in the upgrade process.

Properties	Description
Tables	F1_INSTALLATION, CI_INSTALL_ALG, CI_INSTALL_MSG, CI_INSTALL_MSG_L, CI_INSTALL_PROD
Initial Data	Option 11111.

Developer's Note: The system data owner of an environment is defined in the Installation Option. This Owner Flag value is stamped on all system data that is added to this environment. The installation default value is Customer Modification (CM). This value must be changed in the base product development environments.

E.3.1.5 Language Code

Language code must be a valid code defined in ISO 639-2 Alpha-3. Adding a new language code to the table without translating all language dependent objects in the system can cause errors when a user chooses the language.

Properties	Description
Tables	CI_LANGUAGE
Initial Data	English (ENG).

E.3.1.6 Time Zone

The installation options require a valid time zone. A value for UTC (Coordinated Universal Time) is provided. Implementations should define the appropriate time zone and update the installation option value accordingly.

Properties	Description
Tables	CI_TIME_ZONE, CI_TIME_ZONE_L
Initial Data	UTC

E.3.1.7 To Do Priority and Role

New To Do Types released will be linked to the default To Do Role and set to the product assigned priority value initially. These initial settings can be overridden by the implementation.

Properties	Description
Tables	CI_ROLE(L), CI_TD_VAL_ROLE
Initial Data	F1_DFLT

E.3.2 Development and Implementation System Tables

This section defines the standards for the system tables that contain data for application development. The data in these tables implement business logic and UI functions shared by various products and product extensions in the same database.

E.3.2.1 Standards

When adding new data, the owner flag value of the environment must prefix certain fields of these tables. For example, when a developer adds a new algorithm type to an Oracle Revenue Management and Billing environment, C1 should prefix the new Algorithm Type code. The fields that are subject to this rule are listed in Standard Data Fields property.

The data that is already in these tables cannot be modified if the data owner is different than the environment owner. This prevents the developers from accidentally modifying system data that belongs to Oracle Utilities Application Framework or the base products. However, some fields are exempt from this rule and can be modified by Customer Modification. These fields are listed in the Customer Modification Fields property.

Note that the system supports a system upgrade rule called Override Owner flag. If duplicate data rows (data row with same primary key values) are found at the time of upgrade, the owner flag values will get overridden. The lower level application system data will override the upper level system data. For example, F1 overrides C1, F1 and C1 override CM, and so on. This rule will be applied to the following tables: CI_CHAR_ENTITY, CI_MD_MO_ALG, C1_PORTAL_OPT, F1_BUS_OBJ_ALG, F1_BUS_OBJ_STATUS_ALG, CI_MD_MO_OPT, F1_BUS_OBJ_OPT, F1_BUS_OBJ_STATUS_OPT, F1_BUS_OBJ_STATUS, and F1_BUS_OBJ_STATUS_L.

E.3.2.2 Algorithm Type

Properties	Description
Tables	CI_ALG_TYPE, CI_ALG_TYPE_L, CI_ALG_TYPE_PRM, CI_ALG_TYPE_PRM_L
Standard Data Fields	Algorithm Type (ALG_TYPE_CD)
Customer Modification	None

E.3.2.3 Algorithm

Properties	Description
Tables	CI_ALG, CI_ALG_L, CI_ALG_PARM, CI_ALG_VER
Standard Data Fields	Algorithm (ALG_CD)
Customer Modification	None

E.3.2.4 Application Security

Properties	Description
Tables	SC_APP_SERVICE, SC_APP_SERVICE_L, CI_APP_SVC_ACC
Standard Data Fields	<p>Application Service ID (APP_SVC_ID).</p> <p>Note: Oracle Revenue Management and Billing prior to version 2.0 will continue to use CI as a prefix for the application service.</p>
Customer Modification	None

E.3.2.5 Batch Control

Properties	Description
Tables	CI_BATCH_CTRL, CI_BATCH_CTRL_L, CI_BATCH_CTRL_P, CI_BATCH_CTRL_P_L
Standard Data Fields	Batch Process (BATCH_CD), Program Name (PROGRAM_NAME)
Customer Modification	Next Batch Number (NEXT_BATCH_NBR), Last Update Instance (LAST_UPDATE_INST), Last Update Date time (LAST_UPDATE_DTTM) and the batch process update these columns. Time Interval (TIMER_INTERVAL), Thread Count (BATCH_THREAD_CNT), Maximum Commit Records (MAX_COMMIT_RECS), User (USER_ID), Language (LANGUAGE_CD), Email Address (EMAILID), Start program debug tracing (TRC_PGM_STRT_SW), End Program Debug trace (TRC_PGM_END_SW), SQL debug tracing (TRC_SQL_SW) and Standard debug tracing (TRC_STD_SW) on CI_BATCH_CTRL Table. Batch Parameter Value (BATCH_PARM_VAL) and Security flag (TEXT_SECURITY_FLG) on Batch Control Parameters Table (CI_BATCH_CTRL_P)

E.3.2.6 Business Object

Properties	Description
Tables	F1_BUS_OBJ, F1_BUS_OBJ_L, F1_BUS_OBJ_ALG, F1_BUS_OBJ_OPT, F1_BUS_OBJ_STATUS, F1_BUS_OBJ_STATUS_L, F1_BUS_OBJ_STATUS_ALG, F1_BUS_OBJ_STATUS_OPT, F1_BUS_OBJ_STATUS_RSN, F1_BUS_OBJ_STATUS_RSN_L, F1_BUS_OBJ_STATUS_RSN_CHAR F1_BUS_OBJ_TR_RULE, F1_BUS_OBJ_TR_RULE_L
Standard Data Fields	Business Object (BUS_OBJ_CD), Status Reason (BO_STATUS_REASON_CD)
Customer Modification	Batch Control (BATCH_CD), Alert (BO_ALERT_FLG), Sequence (SORT_SEQ5), Status Reason (STATUS_REASON_FLG) fields on Business Object Status Table (F1_BUS_OBJ_STATUS). Instance Control (INSTANCE_CTRL_FLG), Application Service (APP_SVC_ID) on Business Object Table (F1_BUS_OBJ). Status Reason Selection (STATUS_REASON_SELECT_FLG) on Status Reason Table (F1_BUS_OBJ_STATUS_RSN).

E.3.2.7 Business Service

Properties	Description
Tables	F1_BUS_SVC, F1_BUS_SVC_L
Standard Data Fields	Business Service (BUS_SVC_CD)
Customer Modification	Application Service (APP_SVC_ID)

E.3.2.8 Characteristics

Properties	Description
Tables	CI_CHAR_TYPE, CI_CHAR_TYPE_L, CI_CHAR_ENTITY, CI_CHAR_VAL, CI_CHAR_VAL_L
Standard Data Fields	Characteristic Type (CHAR_TYPE_CD), Characteristic Value (CHAR_VAL) on CI_CHAR_VAL <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>Note: If the characteristic type is customizable, the customer can insert a new characteristic value. CM must be prefixed when the implementation team introduces a new characteristic value.</p> </div>
Customer Modification	Adhoc Characteristic Value Validation Rule (ADHOC_VAL_ALG_CD), Allow Search by Characteristic Value (SEARCH_FLG)

E.3.2.9 Configuration Migration Assistant

Properties	Description
Tables	F1_MIGR_PLAN, F1_MIGR_PLAN_L, F1_MIGR_PLAN_INSTR, F1_MIGR_PLAN_INSTR_L, F1_MIGR_PLAN_INSTR_ALG, F1_MIGR_REQ, F1_MIGR_REQ_L, F1_MIGR_REQ_INSTR, F1_MIGR_REQ_INST R_L, F1_MIGR_REQ_INSTR_ENTITY, F1_MIGR_REQ_INCL_REQ
Standard Data Fields	Migration Plan Code (MIGR_PLAN_CD), Migration Request Code (MIGR_REQ_CD)
Customer Modification	None

E.3.2.10 Data Area

Properties	Description
Tables	F1_DATA_AREA, F1_DATA_AREA_L
Standard Data Fields	Data Area Code (DATA_AREA_CD)
Customer Modification	None

E.3.2.11 Deployment Part

Properties	Description
Tables	F1_DEPLOYMENT_PART, F1_DEPLOYMENT_ITEM, F1_DEPLOYMENT_PART_L,
Standard Data Fields	Deployment ID (F1_DEPLOYMENT_ID)
Customer Modification	None

E.3.2.12 Display Icon

Properties	Description
Tables	CI_DISP_ICON, CI_DISP_ICON_L
Standard Data Fields	Display Icon Code (DISP_ICON_CD)
Customer Modification	None

E.3.2.13 Extendable Lookup

Properties	Description
Tables	F1_EXT_LOOKUP_VAL, F1_EXT_LOOKUP_VAL_L, F1_EXT_LOOKUP_VAL_CHAR
Standard Data Fields	Business Object (BUS_OBJ_CD), Extendable Lookup Value (F1_EXT_LOOKUP_VALUE)
Customer Modification	Business Object Data Area (BO_DATA_AREA) Override Description (DESCR_OVRD) on Extendable Lookup Field Value Language Table (F1_EXT_LOOKUP_VAL_L)
	Note: When the product releases base owned records in Extendable Lookup, if there are additional elements the business object will map the element to the BO_DATA_AREA if the value is allowed to be modified by the implementation team.

E.3.2.14 Foreign Key Reference

Properties	Description
Tables	CI_FK_REF, CI_FK_REF_L
Standard Data Fields	FK reference code (FK_REF_CD)
Customer Modification	Info Program Name (INFO_PRG), Zone (ZONE_CD)

E.3.2.15 Inbound Web Service

Properties	Description
Tables	F1_IWS_SVC_L, F1_IWS_SVC, F1_IWS_SVC_OPER_L, F1_IWS_SVC_OPER, F1_IWS_ANN_L, F1_IWS_ANN_PARM, F1_IWS_ANN, F1_IWS_ANN_TYPE_L, F1_IWS_ANN_TYPE, F1_IWS_ANN_TYPE_PARM, F1_IWS_ANN_TYPE_PARM_L
Standard Data Fields	Webservice Name (IN_SVC_NAME), Annotation (ANN_CD), Annotation Type (ANN_TYPE_CD)
Customer Modification	Debug (DEBUG_SW), Active (ACTIVE_SW), Trace (TRACE_SW), Request XSL (REQUEST_XSL), Response XSL (RESPONSE_XSL)

E.3.2.16 Unsupported Objects

Properties	Description
Tables	F1_LGCY_OBJ
Standard Data Fields	Legacy Object ID (LGCY_OBJ_ID)
Customer Modification	None

E.3.2.17 Lookup

Properties	Description
Tables	CI_LOOKUP_FIELD, CI_LOOKUP_VAL, CI_LOOKUP_VAL_L
Standard Data Fields	<p>Field Name (FIELD_NAME)</p> <p>A lookup field name must have corresponding field metadata. The name of the lookup field column must be assigned to avoid conflicts among different products. If you follow the standards for database field names, a Customer Modification lookup field name will be automatically Customer Modification prefixed.</p> <p>Field Value (FIELD_VALUE)</p> <p>If a lookup field is customizable, Customer Modification can insert new lookup values. X or Y must prefix when implementers introduce a new lookup value.</p> <p>Product development may add lookup values to Oracle Utilities Application Framework owned lookup field's value. When extended new value is added, the Owner Flag is used to prefix the value. For example, when the Oracle Revenue Management and Billing product adds a new value to the algorithm entity flag (ALG_ENTITY_FLG), it is prefixed with C1.</p>
Customer Modification	Override Description (DESCR_OVRD) on Lookup Field Value Language Table (CI_LOOKUP_VAL_L)

E.3.2.18 Map

Properties	Description
Tables	F1_MAP, F1_MAP_L
Standard Data Fields	UI Map (MAP_CD)
Customer Modification	None

E.3.2.19 Managed Content

Properties	Description
Tables	F1_MANAG_CONTENT, F1_MANAG_CONTENT_L
Standard Data Fields	Managed Content (MANAG_CONTENT_CD)
Customer Modification	None

E.3.2.20 Messages

Properties	Description
Tables	CI_MSG_CATEGORY, CI_MSG_CATEGORY_L, CI_MSG, CI_MSG_L
Standard Data Fields	<p>Message Category (MESSAGE_CAT_NBR)</p> <ul style="list-style-type: none"> • Messages are grouped in categories and each category has message numbers between 1 and 99999. A range of message categories is assigned to a product. An implementation may only use categories assigned for customization use. • Implementer Message Categories are 80000 and 90000 • Reserved for Tests – 99999 <p>Message Number (MESSAGE_NBR) for message categories</p> <ul style="list-style-type: none"> • Message numbers below 1000 are reserved for common messages. Implementers must not use message numbers below 1000. <p>Message Number (MESSAGE_NBR) for Java message categories</p> <ul style="list-style-type: none"> • Subsystem Standard Messages - 00001 thru 02000 • Reserved - 02001 thru 09999 • Published Messages - 10001 thru 11000 • Package Messages - 10001 thru 90000 • Reserved - 90001 thru 99999 • Each package is allocated 100 message numbers, each starting from 101. • Published Messages are messages that are special-interest

Properties	Description
	<p>messages that implementations need to know about and are therefore published in the user docs. Examples of these include messages that are highly likely to be changed for an implementation or messages that are embedded into other texts/messages and therefore the message number is never shown.</p> <ul style="list-style-type: none"> Reserved message number ranges are for future use and therefore must not be used by all products.
Customer Modification	Override Description (DESCRLONG_OVRD), Message Text Override (MESSAGE_TEXT_OVRD)

E.3.2.21 Metadata - Table and Field

Properties	Description
Tables	CI_MD_TBL, CI_MD_TBL_FLD, CI_MD_TBL_L, CI_MD_TBL_FLD_L, CI_MD_FLD, CI_MD_FLD_L, F1_DB_OBJECTS_REPO
Standard Data Fields	<p>Table Name (TBL_NAME) Table names must match with the physical table name or view name in the database.</p> <p>Field Name (FLD_NAME) Field name must match with the physical column name in the database unless the field is a work field. Field name does not have to follow the prefixing standard unless the field is a work field or customer modification field.</p> <p>F1_DB_OBJECTS_REPO Table stores information about Indexes, Sequences, Triggers and other database objects excluding Tables and Fields (as they are already stored in the other Metadata tables)</p>
Customer Modification	Audit Switches (AUDIT_INSERT_SW, AUDIT_UPDATE_SW, AUDIT_DELETE_SW), Override label (OVRD_LABEL) on MD Table Field Table (CI_MD_TBL_FLD). Audit Program Name (AUDIT_PGM_NAME), Audit Table Name (AUDIT_TBL_NAME), Audit Program Type (AUDIT_PGM_TYPE_FLG), Key Validation (KEY_VALIDATION_FLG) and Caching strategy (CACHE_FLG) on MD Table (CI_MD_TBL). Override Label (OVRD_LABEL) and Customer Specific Description (DESCRLONG_OVRD) on Field Table.

E.3.2.22 Metadata – Constraints

Properties	Description
Tables	CI_MD_CONST, CI_MD_CONST_FLD
Standard Data Fields	Constraint Id (CONST_ID) Index Name for Primary Constraints <Index Name>Rnn for Foreign Key Constraints Where nn: integer, 01 through 99
Customer Modification	None

E.3.2.23 Metadata - Menu

Menus can be extended to support multiple products by adding a new menu line to an existing menu. The sequence number on the menu line language table (CI_MD_MENU_LINE_L) determines the order the menu lines appear. Within the same sequence, alphabetic sorting is used.

Properties	Description
Tables	CI_MD_MENU, CI_MD_MENU_L, CI_MD_MENU_ITEM, CI_MD_MENU_ITEM_L, CI_MD_MENU_LINE, CI_MD_MENU_LINE_L
Standard Data Fields	Menu Name (MENU_NAME), Menu Item Id (MENU_ITEM_ID), Menu Line Id (MENU_LINE_ID)
Customer Modification	Override Label (OVRD_LABEL) on Menu Line Language Table (CI_MD_MENU_LINE_L)

E.3.2.24 Metadata - Program, Location and Services

Properties	Description
Tables	CI_MD_PRG_COM, CI_MD_PRG_LOC, CI_MD_SVC, CI_MD_SVC_L, CI_MD_SVC_PRG, CI_MD_PRG_MOD, CI_MD_PRG_EL_AT, CI_MD_PRG_ELEM, CI_MD_PRG_SEC, CI_MD_PRG_SQL, CI_MD_PRG_VAR, CI_MD_PRG_TAB
Standard Data Fields	Program Component Id (PROG_COM_ID), Location Id (LOC_ID), Program Component Name (PROG_COM_NAME), Service Name (SVC_NAME), Navigation Key (NAVIGATION_KEY)
Customer Modification	User Exit Program Name (USER_EXIT_PGM_NAME) on Program Components Table (CI_MD_PRG_COM),

E.3.2.25 Metadata - Maintenance Object

Properties	Description
Tables	CI_MD_MO, CI_MD_MO_L, CI_MD_MO_TBL, CI_MD_MO_OPT, CI_MD_MO_ALG
Standard Data Fields	Maintenance Object (MAINT_OBJ_CD)
Customer Modification	None

E.3.2.26 Metadata - Work Tables

Properties	Description
Tables	CI_MD_WRK_TBL, CI_MD_WRK_TBL_L, CI_MD_WRK_TBLFLD, CI_MD_MO_WRK
Standard Data Fields	Work Table Name (WRK_TBL_NAME)
Customer Modification	None

E.3.2.27 Metadata - Search Object

Properties	Description
Tables	CI_MD_SO, CI_MD_SO_L, CI_MD_SO_RSFLD, CI_MD_SO_RSFLDAT, CI_MD_SO CG, CI_MD_SO CG_FLD, CI_MD_SO CG_FLDAT, CI_MD_SO CG_L, CI_MD_SO CG_SORT
Standard Data Fields	Search Object (SO_CD)
Customer Modification	None

E.3.2.28 Mobile Component

Properties	Description
Tables	F1_MOBILE_COMPONENT, F1_MOBILE_COMPONENT_L, F1_MOB_COMP_CNT, F1_MOBILE_COMP_CHAR
Standard Data Fields	Mobile Component Code (F1_MOB_COMP_TYPE_CD)
Customer Modification	Expiration Days (F1_EXPIRATION_TIME_DUR)

E.3.2.29 Navigation Option

Properties	Description
Tables	CI_NAV_OPT, CI_NAV_OPT_L, CI_NAV_OPT_CTXT, CI_NAV_OPT_USG, CI_MD_NAV
Standard Data Fields	Navigation Option Code (NAV_OPT_CD), Navigation Key (NAVIGATION_KEY)
Customer Modification	None

E.3.2.30 Outbound Message Type

Properties	Description
Tables	F1_OUTMSG_TYPE, F1_OUTMSG_TYPE_L
Standard Data Fields	Outbound Message Type Code (OUTMSG_TYPE_CD)
Customer Modification	Priority (OUTMSG_PRIOR_FLG)

E.3.2.31 Portal and Zone

Properties	Description
Tables	CI_PORTAL, CI_PORTAL_L, CI_PORTAL_ZONE, C1_PORTAL_OPT, CI_ZONE, CI_ZONE_L, CI_ZONE_PRM, CI_ZONE_HDL, CI_ZONE_HDL_L, CI_ZONE_HDL_PRM, CI_ZONE_HDL_PRM_L, CI_UI_ZONE, CI_PORTAL_OPT
Standard Data Fields	Portal Code (PORTAL_CD), Zone Code (ZONE_CD), Zone Type Code (ZONE_HDL_CD) <ul style="list-style-type: none"> A new Zone can be added to the Product owned Portal Pages. The existing Zones cannot be removed from the Product owned Portal Pages.
Customer Modification	Sort Sequence (SORT_SEQ) on Context Sensitive Zone Table (CI_UI_ZONE). Show on Portal Preferences (USER_CONFIG_FLG) on Portal Table (CI_PORTAL). Override Sequence (SORT_SEQ_OVRD) on Portal Zone Table (CI_PORTAL_ZONE). Customer Specific Description (DESCRLONG_OVRD) on Zone Language Table (CI_ZONE_L). Override Parameter Value (ZONE_HDL_PARM_OVRD) on Zone Type Parameters Table (CI_ZONE_HDL_PRM). Override Parameter Value (ZONE_PARM_VAL_OVRD) on Zone Parameters Table (CI_ZONE_PRM).

E.3.2.32 Process Flow Type

Properties	Description
Tables	F1_PROC_DEFN, F1_PROC_DEFN_L, F1_PROC_NEXT_PANEL, F1_PROC_PANEL
Standard Data Fields	Process Flow Type (PROCESS_CD)
Customer Modification	None

E.3.2.33 Sequence

Properties	Description
Tables	CI_SEQ
Standard Data Fields	Sequence Name (SEQ_NAME)
Customer Modification	Sequence Number (SEQ_NBR) This field is updated by the application process and must be set to 1 initially.

E.3.2.34 Schema

Properties	Description
Tables	F1_SCHEMA
Standard Data Fields	Schema Name (SCHEMA_NAME)
Customer Modification	None

E.3.2.35 Script

Properties	Description
Tables	CI_SCR, CI_SCR_L, CI_SCR_CRT, CI_SCR_CRT_GRP, CI_SCR_CRT_GRP_L, CI_SCR_DA, CI_SCR_FLD_MAP, CI_SCR_PRMPPT, CI_SCR_PRMPPT_L, CI_SCR_STEP, CI_SCR_STEP_L
Standard Data Fields	Script (SCR_CD)
Customer Modification	None

E.3.2.36 To Do Type

Properties	Description
Tables	CI_TD_TYPE, CI_TD_TYPE_L, CI_TD_SRTKEY_TY, CI_TD_DRLKEY_TY, CI_TD_SRTKEY_TY_L
Standard Data Fields	To Do Type (TD_TYPE_CD)
Customer Modification	Creation Batch Code (CRE_BATCH_CD), Route Batch Code (RTE_BATCH_CD), Priority Flag (TD_PRIORITY_FLG) on To Do Type Table (CI_TD_TYPE)

E.3.2.37 Web Service Category

Properties	Description
Tables	F1_WEB_CAT, F1_WEB_CAT_L, F1_WEB_CAT_INCL_SVC
Standard Data Fields	Web Service Category code (WEB_SVC_CAT_CD)
Customer Modification	None

E.3.2.38 XAI Configuration

Properties	Description
Tables	CI_XAI_ADAPTER, CI_XAI_ADAPTER_L, CI_XAI_CLASS, CI_XAI_CLASS_L, CI_XAI_ENV_HNDL, CI_XAI_ENV_HNDL_L, CI_XAI_FORMAT, CI_XAI_FORMAT_L, CI_XAI_RCVR, CI_XAI_RCVR_L, CI_XAI_RCVR_CTX, CI_XAI_RCVR_RSP, CI_XAI_RCVR_RGRP, CI_XAI_SENDER, CI_XAI_SERNDER_L, CI_XAI_SNDR_CTX, CI_XAI_OPTION
Standard Data Fields	Adapter Id (XAI_ADAPTER_ID), Class Id (XAI_CLASS_ID), Envelope Handler Id (XAI_ENV_HNDL_ID), XAI Format Id (XAI_FORMAT_ID), Receiver Id (XAI_RCVR_ID), Sender Id (XAI_SENDER_ID)
Customer Modification	Option Value (OPTION_VALUE) on Message Option Table (CI_XAI_OPTION)

E.3.2.39 XAI Services

Properties	Description
Tables	CI_XAI_IN_SVC, CI_XAI_IN_SVC_L, CI_XAI_SVC_PARM
Standard Data Fields	XAI Inbound Service Id (XAI_IN_SVC_ID), XAI Inbound Service Name (XAI_IN_SVC_NAME)
Customer Modification	XAI Version (XAI_VERSION_ID), Trace (TRACE_SW), Debug (DEBUG_SW), Request XSL (INPUT_XSL), Response XSL (RESPONSE_XSL), Record XSL (RECORD_XSL and Post Error (POST_ERROR_SW) on XAI Inbound Service Table (CI_XAI_IN_SVC)

E.3.3 System Table List

This section contains the names of system tables, upgrade actions, and a brief description of the tables. The upgrade actions are explained below.

Keep (KP): The data of the table in the customer's database is kept untouched. No insert or delete is performed to this table by the upgrade process. The initial installation will add necessary data for the system.

Merge (MG): The non-base product data of the table in the database is kept untouched. If the data belongs to the base product, any changes pertaining to the new version of the software are performed.

Refresh (RF): The existing data in the table is replaced with the data from the base product table. The product does not support customer specific data in these tables.

Note: New product data is also inserted into tables marked as 'Merge'. If implementers add rows for a customer specific enhancement, it can cause duplication when the system data gets upgraded to the next version. We strongly recommend following the guidelines on how to use designated range of values or prefixes to segregate the implementation data from the base product data.

Table Name	Upgrade Action	Description
CI_ALG	MG	Algorithm
CI_ALG_L	MG	Algorithm Language
CI_ALG_PARM	MG	Algorithm Parameters
CI_ALG_TYPE	MG	Algorithm Type
CI_ALG_TYPE_L	MG	Algorithm Type Language
CI_ALG_TYPE_PRM	MG	Algorithm Type Parameter
CI_ALG_TYPE_PRM_L	MG	Algorithm Type Parameter Language
CI_ALG_VER	MG	Algorithm Version
CI_APP_SVC_ACC	MG	Application Service Access Mode
CI_BATCH_CTRL	MG	Batch Control
CI_BATCH_CTRL_ALG	MG	Batch Control Algorithm
CI_BATCH_CTRL_L	MG	Batch Control Language
CI_BATCH_CTRL_P	MG	Batch Control Parameters
CI_BATCH_CTRL_P_L	MG	Batch Control Parameters Language
CI_CHAR_ENTITY	MG	Characteristic Type Entity
CI_CHAR_TYPE	MG	Characteristic Type
CI_CHAR_TYPE_L	MG	Characteristic Type Language
CI_CHAR_VAL	MG	Characteristic Type Value
CI_CHAR_VAL_L	MG	Characteristic Type Value Language

Table Name	Upgrade Action	Description
CI_DISP_ICON	MG	Display Icon
CI_DISP_ICON_L	MG	Display Icon Language
CI_FK_REF	MG	Foreign Key Reference
CI_FK_REF_L	MG	Foreign Key Reference Language
CI_LANGUAGE	MG	Language Code
CI_LOOKUP_FIELD	MG	Lookup Field
CI_LOOKUP_VAL	MG	Lookup Field Value
CI_LOOKUP_VAL_L	MG	Lookup Field Value Language
CI_MD_CONST	MG	Constraints
CI_MD_CONST_FLD	MG	Constraint Fields
CI_MD_FLD	MG	Field
CI_MD_FLD_L	MG	Field Language
CI_MD_MENU	MG	Menu Information
CI_MD_MENU_IMOD	MG	Menu Item Module Maint
CI_MD_MENU_ITEM	MG	Menu Item
CI_MD_MENU_ITEM_L	MG	Menu Item Language
CI_MD_MENU_L	MG	Menu Language
CI_MD_MENU_LINE	MG	Menu Line
CI_MD_MENU_LINE_L	MG	Menu Line Language
CI_MD_MENU_MOD	MG	Menu Product Components
CI_MD_MO	MG	Maintenance Object
CI_MD_MO_ALG	MG	Maintenance Object Algorithm
CI_MD_MO_L	MG	Maintenance Object Language
CI_MD_MO_OPT	MG	Maintenance Object Option
CI_MD_MO_TBL	MG	Maintenance Object Table
CI_MD_MO_WRK	MG	Maintenance Object Work Tables
CI_MD_NAV	MG	Navigation Key
CI_MD_PRG_COM	MG	Program Components
CI_MD_PRG_ELEM	MG	UI Page Elements
CI_MD_PRG_EL_AT	MG	UI Page Element Attributes
CI_MD_PRG_LOC	MG	Program Location

Table Name	Upgrade Action	Description
CI_MD_PRG_MOD	MG	Program Module
CI_MD_PRG_SEC	MG	UI Page Sections
CI_MD_PRG_SQL	MG	MD SQL Meta Data
CI_MD_PRG_TAB	MG	UI Tab Meta Data
CI_MD_PRG_VAR	MG	Program Variable
CI_MD_SO	MG	Search Object
CI_MD_SOCG	MG	Search Object Criteria Group
CI_MD_SOCG_FLD	MG	Search Object Criteria Group Field
CI_MD_SOCG_FLDAT	MG	Search Criteria Group Field Attribute
CI_MD_SOCG_L	MG	Search Object Criteria Group Language
CI_MD_SOCG_SORT	MG	Search Criteria Group Result Sort Order
CI_MD_SO_L	MG	Search Object Language
CI_MD_SO_RSFLD	MG	Search Object Result Field
CI_MD_SO_RSFLDAT	MG	Search Object Result Field Attribute
CI_MD_SVC	MG	MD Service
CI_MD_SVC_L	MG	MD Service Language
CI_MD_SVC_PRG	MG	MD Service Program
CI_MD_TAB_MOD	MG	UI Tab Module
CI_MD_TBL	MG	MD Table
CI_MD_TBL_FLD	MG	MD Table Field
CI_MD_TBL_FLD_L	MG	MD Table Field Language
CI_MD_TBL_L	MG	MD Table Language
CI_MD_WRK_TBL	MG	Work Table
CI_MD_WRK_TBLFLD	MG	Work Table Field
CI_MD_WRK_TBL_L	MG	Work Table Language
CI_MSG	MG	Message
CI_MSG_CATEGORY	MG	Message Category
CI_MSG_CATEGORY_L	MG	Message Category Language
CI_MSG_L	MG	Message Language
CI_NAV_OPT	MG	Navigation Option
CI_NAV_OPT_CTXT	MG	Navigation Option Context

Table Name	Upgrade Action	Description
CI_NAV_OPT_L	MG	Navigation Option Language
CI_NAV_OPT_USG	MG	Navigation Option Usage
CI_PORTAL	MG	Portal
CI_PORTAL_L	MG	Portal Language
CI_PORTAL_OPT	MG	Portal Option
CI_PORTAL_ZONE	MG	Portal Zone
CI_SCR	MG	Script
CI_SCR_CRT	MG	Script Criteria
CI_SCR_CRT_GRP	MG	Script Criteria Group
CI_SCR_CRT_GRP_L	MG	Script Criteria Group Language
CI_SCR_DA	MG	Script Data Area
CI_SCR_FLD_MAP	MG	Script Field Mapping
CI_SCR_L	MG	Script Language
CI_SCR_PRMPPT	MG	Script Prompt
CI_SCR_PRMPPT_L	MG	Script Prompt Language
CI_SCR_STEP	MG	Script Step
CI_SCR_STEP_L	MG	Script Step Language
CI_SEQ	MG	Sequence
CI_TD_DRLKEY_TY	MG	To Do Type Drill Key
CI_TD_SRTKEY_TY	MG	To Do Type Sort Key
CI_TD_SRTKEY_TY_L	MG	To Do Type Sort Key Language
CI_TD_TYPE	MG	To Do Type
CI_TD_TYPE_L	MG	To Do Type Language
CI_UI_ZONE	MG	Context Sensitive Zone
CI_USR_NAV_LINK	MG	User Favorite Links
CI_XAI_ADAPTER	MG	XAI Adapter
CI_XAI_ADAPTER_L	MG	XAI Adapter Lang
CI_XAI_CLASS	MG	Message Class
CI_XAI_CLASS_L	MG	Message Class Language
CI_XAI_ENV_HNDL	MG	XAI Envelope Handler
CI_XAI_ENV_HNDL_L	MG	XAI Envelope Handler Language

Table Name	Upgrade Action	Description
CI_XAI_IN_SVC	MG	XAI Inbound Service
CI_XAI_IN_SVC_L	MG	XAI Inbound Service Language
CI_XAI_SVC_PARM	MG	XAI Inbound Service Parameters
CI_ZONE	MG	Zone
CI_ZONE_HDL	MG	Zone Type
CI_ZONE_HDL_L	MG	Zone Type Language
CI_ZONE_HDL_PRM	MG	Zone Type Parameters
CI_ZONE_HDL_PRM_L	MG	Zone Type Parameters Language
CI_ZONE_L	MG	Zone Language
CI_ZONE_PRM	MG	Zone Parameters
F1_BUS_OBJ	MG	Business Object
F1_BUS_OBJ_ALG	MG	Business Object Algorithm
F1_BUS_OBJ_L	MG	Business Object Language
F1_BUS_OBJ_OPT	MG	Business Object Option
F1_BUS_OBJ_STATUS	MG	Business Object Status
F1_BUS_OBJ_STATUS_ALG	MG	Business Object Status Algorithm
F1_BUS_OBJ_STATUS_L	MG	Business Object Status Language
F1_BUS_OBJ_STATUS_OPT	MG	Business Object Status Option
F1_BUS_OBJ_STATUS_RSN	MG	Status Reason
F1_BUS_OBJ_STATUS_RSN_L	MG	Status Reason Language
F1_BUS_OBJ_TR_RULE	MG	Business Object Transition Rule
F1_BUS_OBJ_TR_RULE_L	MG	Business Object Transition Rule Language
F1_BUS_SVC	MG	Business Service
F1_BUS_SVC_L	MG	Business Service Language
F1_DATA_AREA	MG	Data Area
F1_DATA_AREA_L	MG	Data Area Language
F1_DB_OBJECTS_REPO	MG	Database Objects Repository
F1_DEPLOYMENT_ITEM	MG	Deployment Part Item
F1_DEPLOYMENT_PART	MG	Deployment Part
F1_DEPLOYMENT_PART_L	MG	Deployment Part Language
F1_EXT_LOOKUP_VAL	MG	Extendable Lookup

Table Name	Upgrade Action	Description
F1_EXT_LOOKUP_VAL_L	MG	Extendable Lookup Language
F1_EXT_LOOKUP_VAL_CHAR	MG	Extendable Lookup Characteristics
F1_IWS_ANN	MG	Web Service Annotation
F1_IWS_ANN_L	MG	Web Service Annotation Language
F1_IWS_ANN_PARM	MG	Web Service Annotation Parameter
F1_IWS_ANN_TYPE	MG	Web Service Annotation Type
F1_IWS_ANN_TYPE_L	MG	Web Service Annotation Type Language
F1_IWS_ANN_TYPE_PARM	MG	Web Service Annotation Type Parm
F1_IWS_ANN_TYPE_PARM_L	MG	Web Service Annotation Type Parameter Language
F1_IWS_SVC	MG	Inbound Web Service
F1_IWS_SVC_L	MG	Inbound Web Service Language
F1_IWS_SVC_OPER	MG	Inbound Web Service Operations
F1_MANAG_CONTENT	MG	Managed Content
F1_MANAG_CONTENT_L	MG	Managed Content Language
F1_MAP	MG	UI Map
F1_MAP_L	MG	UI Map Language
F1_MIGR_PLAN	MG	Migration Plan
F1_MIGR_PLAN_INSTR	MG	Migration Plan Instruction
F1_MIGR_PLAN_INSTR_ALG	MG	Migration Plan Instruction Algorithm
F1_MIGR_PLAN_INSTR_L	MG	Migration Plan Instruction Language
F1_MIGR_PLAN_L	MG	Migration Plan Language
F1_MIGR_REQ	MG	Migration Request
F1_MIGR_REQ_INCL_REQ	MG	Migration Request Grouping
F1_MIGR_REQ_INSTR	MG	Migration Request Instruction
F1_MIGR_REQ_INSTR_ENTITY	MG	Migration Request Instruction Entity
F1_MIGR_REQ_INSTR_L	MG	Migration Request Instruction Language
F1_MIGR_REQ_L	MG	Migration Request Language
F1_MOBILE_COMPONENT	MG	Mobile Component
F1_MOBILE_COMPONENT_L	MG	Mobile Component Language
F1_MOB_COMP_CHAR	MG	Mobile Component Characteristics

Table Name	Upgrade Action	Description
F1_MOB_COMP_CNT	MG	Mobile Component Content
F1_OUTMSG_TYPE	MG	Outbound Message Type
F1_OUTMSG_TYPE_L	MG	Outbound Message Type Language
F1_PROC_DEFN	MG	Process Flow Type
F1_PROC_DEFN_L	MG	Process Flow Type Language
F1_PROC_NEXT_PANEL	MG	Next Panel
F1_PROC_PANEL	MG	Process Panels
F1_SCHEMA	MG	Schema
F1_WEB_CAT	MG	Web Service Category
F1_WEB_CAT_L	MG	Web Service Category Language
F1_WEB_CAT_INCL_SVC	MG	Web Service Category Included Services
SC_ACCESS_CNTL	MG	User Group Access Control
SC_APP_SERVICE	MG	Application Service
SC_APP_SERVICE_L	MG	Application Service Language
SC_USR_GRP_PROF	MG	User Group Profile
CI_ACC_GRP	KP	Access Group
CI_ACC_GRP_DAR	KP	Access Group / Data Access Group
CI_ACC_GRP_L	KP	Access Group Language
CI_APP_SVC_SCTY	KP	Security Type Application Service
CI_CAL_HOL	KP	Work Calendar Holidays
CI_CAL_HOL_L	KP	Work Calendar Holidays Language
CI_CAL_WORK	KP	Work Calendar
CI_CAL_WORK_L	KP	Work Calendar Language
CI_CHTY_TDTY	KP	To Do Type Template Characteristics
CI_COUNTRY	KP	Country
CI_COUNTRY_L	KP	Country Language
CI_CURRENCY_CD	KP	Currency Code
CI_CURRENCY_CD_L	KP	Currency Code Language
CI_DAR	KP	Data Access Role
CI_DAR_L	KP	Data Access Language
CI_DAR_USR	KP	Data Access User

Table Name	Upgrade Action	Description
CI_DISP_PROF	KP	Display Profile
CI_DISP_PROF_L	KP	Display Profile Language
CI_FUNC	KP	Function
CI_FUNC_FLD	KP	Function Field
CI_FUNC_FLD_L	KP	Function Field Language
CI_FUNC_L	KP	Function Language
CI_GEO_TYPE	KP	Geographic Type
CI_GEO_TYPE_L	KP	Geographic Type Language
CI_INSTALL_ALG	KP	Installation Algorithm
CI_INSTALL_MSG	KP	Installation Message
CI_INSTALL_MSG_L	KP	Installation Message Language
CI_INSTALL_PROD	KP	Installation Product
CI_MD_RPT	KP	Report Definition
CI_MD_RPT_L	KP	Report Language
CI_MD_RPT_LBL	KP	Report Labels
CI_MD_RPT_PARM	KP	Report Parameters
CI_MD_RPT_PARM_L	KP	Report Parameters Language
CI_MD_TOOLREP_XML	KP	MD Tool Reference XML
CI_MD_TOOL_REP	KP	MD Tool Reference
CI_NT_DNTY_CTXT	KP	Notification Download Type Context
CI_NT_DWN_FORM	KP	Notification Download Format
CI_NT_DWN_FORM_L	KP	Notification Download Format Language
CI_NT_DWN_PROF	KP	Notification Download Profile
CI_NT_DWN_PROF_L	KP	Notification Download Profile Language
CI_NT_DWN_TYPE	KP	Notification Download Type
CI_NT_DWN_TYPE_L	KP	Notification Download Type Language
CI_NT_UP_XTYPE	KP	Notification Upload Type
CI_NT_UP_XTYPE_L	KP	Notification Upload Type Language
CI_NT_XID	KP	External System
CI_NT_XID_L	KP	External System Language
CI_PHONE_TYPE	KP	Phone Type

Table Name	Upgrade Action	Description
CI_PHONE_TYPE_L	KP	Phone Type Language
CI_ROLE	KP	Role
CI_ROLE_L	KP	Role Language
CI_ROLE_USER	KP	Role User
CI_RPT_OPTION	KP	Report Options
CI_SC_AUTH_LVL	KP	Security Type Auth Level
CI_SC_AUTH_LVL_L	KP	Security Type Auth Level Language
CI_SC_TYPE	KP	Security Type
CI_SC_TYPE_L	KP	Security Type Language
CI_SEAS_SHIFT	KP	Seasonal Time Shift Schedule
CI_SEAS_TM_SHIFT	KP	Seasonal Time Shift
CI_SEAS_TM_SHIFT_L	KP	Seasonal Shift Language
CI_STATE	KP	State
CI_STATE_L	KP	State Language
CI_TD_EX_LIST	KP	To Do Type Message Overrides
CI_TD_TYPE_ALG	KP	To Do Type Algorithms
CI_TD_TYPE_CHAR	KP	To Do Type Characteristic
CI_TD_VAL_ROLE	KP	To Do Type Role
CI_TIME_ZONE	KP	Time Zone
CI_TIME_ZONE_L	KP	Time Zone Language
CI_USR_GRP_SC	KP	User Group Security Type
CI_USR_BOOKMARK	KP	User Bookmarks
CI_USR_PORTAL	KP	User Portal
CI_USR_SCR	KP	User Scripts
CI_USR_ZONE	KP	User Zone
CI_USR_ZONE_SAVE	KP	User Zone Save
CI_WFM	KP	Feature Configuration
CI_WFM_L	KP	Feature Configuration Language
CI_WFM_MSG	KP	Feature Configuration Message
CI_WFM_OPT	KP	Feature Configuration Options
CI_WF_EVT_TYPE	KP	WF Event Type

Table Name	Upgrade Action	Description
CI_WF_EVT_TYPE_L	KP	WF Event Type Language
CI_WF_PP	KP	WF Process Profile
CI_WF_PP_L	KP	WF Process Profile Language
CI_WF_PP_NT	KP	WF Process Notification
CI_WF_PP_NT_CRT	KP	WF Process Notification Criteria
CI_WF_PROC_SCHED	KP	WF Process Creation Schedule
CI_WF_PROC_SCHED_K	KP	WF Process Creation Schedule Key
CI_WF_PROC_TMPL	KP	WF Process Template
CI_WF_PROC_TMPL_L	KP	WF Process Template Language
CI_WF_RESP	KP	WF Response
CI_WF_RESP_DEP	KP	WF Response Dependency
CI_XAI_JDBC_CON	KP	XAI JDBC Connection
CI_XAI_JDBC_CON_L	KP	XAI JDBC Connection Language
CI_XAI_JMS_CON	KP	XAI JMS Connection
CI_XAI_JMS_CON_L	KP	XAI JMS Connection Language
CI_XAI_JMS_Q	KP	XAI JMS Queue
CI_XAI_JMS_Q_L	KP	XAI JMS Queue Language
CI_XAI_JMS_TPC	KP	XAI JMS Topic
CI_XAI_JMS_TPC_L	KP	XAI JMS Topic Language
CI_XAI_JNDI_SVR	KP	XAI JNDI Server
CI_XAI_JNDI_SVR_L	KP	XAI JNDI Server Language
CI_XAI_OPTION	KP	Message Option
CI_XAI_RCVR	KP	XAI Receiver
CI_XAI_RCVR_CTX	KP	XAI Receiver Context
CI_XAI_RCVR_L	KP	XAI Receiver Language
CI_XAI_RCVR_RGRP	KP	XAI Receiver Rule Group
CI_XAI_RCVR_RSP	KP	XAI Receiver Response
CI_XAI_RGRP	KP	XAI Rule Group
CI_XAI_RGRP_ATT	KP	XAI Rule Group Attachment
CI_XAI_RGRP_L	KP	XAI Rule Group Language
CI_XAI_ROUTING	KP	XAI Routing

Table Name	Upgrade Action	Description
CI_XAI_RT_TYPE	KP	XAI Route Type
CI_XAI_RT_TYPE_L	KP	XAI Route Type Language
CI_XAI_RULE	KP	XAI Rule
CI_XAI_SENDER	KP	Message Sender
CI_XAI_SENDER_L	KP	Message Sender Language
CI_XAI_SNDR_CTX	KP	Message Sender Context
F1_BKT_CONFIG	KP	Bucket Configuration
F1_BKT_CONFIG_L	KP	Bucket Configuration Language
F1_BKT_CONFIG_REL_OBJ	KP	Bucket Configuration Related Object
F1_BKT_CONFIG_VAL	KP	Bucket Configuration Value
F1_BKT_CONFIG_VAL_L	KP	Bucket Configuration Value Language
F1_BUS_OBJ_STATUS_RSN_CHAR	KP	Status Reason Characteristic
F1_EXTSYS_OUTMSG_PROF	KP	External System Outbound Message Type
F1_INSTALLATION	KP	Installation Option - Framework
F1_IWS_SVC_ANN	KP	Inbound Web Service Link to Annotation
F1_IWS_SVC_CHAR	KP	Inbound Web Service Characteristics
F1_IWS_SVC_LOG	KP	Inbound Web Service Log
F1_IWS_SVC_LOG_PARM	KP	Inbound Web Service Log Parameter
F1_MAP_OVRD	KP	UI Map Override
F1_MD_DB_OBJ	KP	MD Database Object
F1_MST_CONFIG	KP	Master Configuration
F1_OUTMSG_TYPE	KP	Outbound Message Type
F1_OUTMSG_TYPE_L	KP	Outbound Message Type Language
F1_REQ_TYPE	KP	Request Type
F1_REQ_TYPE_L	KP	Request Type Language
F1_REQ_TYPE_LOG	KP	Request Type Log
F1_REQ_TYPE_LOG_PARM	KP	Request Type Log Parameters
F1_SVC_TASK_TYPE	KP	Service Task Type
F1_SVC_TASK_TYPE_CHAR	KP	Service Task Type Characteristics
F1_SVC_TASK_TYPE_L	KP	Service Task Type Language
F1_WEB_SVC	KP	Web Service Adapter

Table Name	Upgrade Action	Description
F1_WEB_SVC_CHAR	KP	Web Service Adapter Characteristics
F1_WEB_SVC_L	KP	Web Service Adapter Language
F1_WEB_SVC_LOG	KP	Web Service Adapter Log
F1_WEB_SVC_LOG_PARM	KP	Web Service Adapter Log Parameter
F1_WEB_SVC_OPERATIONS	KP	Web Service Adapter Operations
SC_USER	KP	User
SC_USER_CHAR	KP	User Characteristic
SC_USER_GROUP	KP	User Group
SC_USER_GROUP_L	KP	User Group Language
SC_USR_GRP_USR	KP	User Group User
CI_MD_ATT_TY	RF	MD Element Attribute Type
CI_MD_AT_DTL	RF	MD Element Attribute Type Detail
CI_MD_AT_DTL_L	RF	MD Element Attribute Type Detail Language
CI_MD_CTL	RF	Generator Control
CI_MD_CTL_L	RF	Generator Control Language
CI_MD_CTL_TMPL	RF	Generator Control Template
CI_MD_ELTY	RF	MD Element Type
CI_MD_ELTY_AT	RF	Element Type Attributes
CI_MD_ELTY_L	RF	Element Type Language
CI_MD_LOOKUP_F	RF	MD Lookup Field
CI_MD_MSG	RF	MD Message
CI_MD_MSG_L	RF	MD Message Language
CI_MD_PDF	RF	Predefined Fields
CI_MD_PDF_VAL	RF	Predefined Values
CI_MD_SRC_TYPE	RF	Source Type
CI_MD_SRC_TYPE_L	RF	Source Type Language
CI_MD_TMPL	RF	Template
CI_MD_TMPL_ELTY	RF	Template Element Types
CI_MD_TMPL_L	RF	Template Language
CI_MD_TMPL_VAR	RF	Template Variable

Table Name	Upgrade Action	Description
CI_MD_TMPL_VAR_L	RF	Template Variable Language
CI_MD_VAR	RF	Variable
CI_MD_VAR_DTL	RF	Variable Detail
CI_MD_VAR_DTL_L	RF	Variable Detail Language
CI_XAI_EXECUTER	RF	XAI Executer
CI_XAI_EXECUTER_L	RF	XAI Executer Language
CI_XAI_FORMAT	RF	XAI Format
CI_XAI_FORMAT_L	RF	XAI Format Language
F1_LGCY_OBJ	RF	Unsupported Metadata

Appendix F : ORMB V2.9.0.0.0 Rollup Packs

Instead of individually applying the patches, you can download and apply the release-specific rollup packs. The following table indicates whether a patch is included in any rollup pack:

Patch Number	Patch Description	Rollup Pack
31066976	MANDATORY PATCH 1 FOR ORMB VERSION 2.9.0.0.0	31319753 - ROLLUP PACK ORMB V2.9.0.0.0
31074070	MANDATORY PATCH 2 FOR ORMB VERSION 2.9.0.0.0	
31122862	MANDATORY PATCH 3 FOR ORMB VERSION 2.9.0.0.0	
31130102	MANDATORY PATCH 4 FOR ORMB VERSION 2.9.0.0.0	
31190091	MANDATORY PATCH 5 FOR ORMB VERSION 2.9.0.0.0	
31172781	MANDATORY PATCH 6 FOR ORMB VERSION 2.9.0.0.0	
31222633	MANDATORY PATCH 7 FOR ORMB VERSION 2.9.0.0.0	
31248602	MANDATORY PATCH 8 FOR ORMB VERSION 2.9.0.0.0	
31313821	MANDATORY PATCH 9 FOR ORMB VERSION 2.9.0.0.0	
31314417	MANDATORY PATCH 10 FOR ORMB VERSION 2.9.0.0.0	

Note: The above patch list is not comprehensive. For the complete list of patches that you need to apply on the database, refer to the *ORMB V29000 Patch Guide (Doc ID: 2704165.1)* article on [My Oracle Support](#).

F.1 Applying a Rollup Pack

Once you install Oracle Revenue Management and Billing Version 2.9.0.0.0, you need to apply the above listed rollup packs. You can apply the rollup pack from a Windows machine and UNIX Standalone server. To apply the rollup pack:

1. Download the rollup pack from [My Oracle Support](#). A zip file is downloaded.
2. Unzip the downloaded file in your local folder. The contents include the `README.txt` file and three folders named `RMB_V2.9.0.0.0_App_Rollup`, `RMB_V2.9.0.0.0_DB_Rollup`, and `RMB_V2.9.0.0.0_PFDs`.
3. Change to the `RMB_V2.9.0.0.0_DB_Rollup` folder using the following command:

AIX, Linux:

```
cd <DESTINATION_FOLDER_1>/RMB_V2.9.0.0.0_DB_Rollup
```

Windows:

```
cd <DESTINATION_FOLDER_1>\RMB_V2.9.0.0.0_DB_Rollup
```

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

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

Windows:

```
ouafDatabasePatch.cmd
```

AIX, Linux:

```
ouafDatabasePatch.sh
```

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marked - a markdown parser

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<https://github.com/chjj/marked>

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swagger-ui.js

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