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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 2.7.0.1.0 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 V2.7.0.1.0 Database	Lists the objects that are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database.
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 2.7.0.1.0.

Section No.	Section Name	Description
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 V4.3.0.6.0 Database	Lists the objects that are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database.
Appendix E	Oracle Utilities Application Framework System Table Guide	Lists the system tables owned by Oracle Utilities Application Framework V4.3.0.6.0 and explains the standards and guidelines to be followed while updating the data in the system tables.
Appendix F	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 2.7.0.1.0 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.
<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.

Document	Description
<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.
italic	Italic indicates a document or book title.
Monospace	Monospace indicates commands within a paragraph, URLs, code in examples, text that appears on the screen or entered in the application.

Change Log

Revision	Last Update	Updated Section	Comments
15.1	17-Jan-2019	Appendix A : New Objects in the Oracle Revenue Management and Billing V2.7.0.1.0 Database	Updated Information
		Appendix B : Application Services Configured for Default User Group	Updated Information
		Section 2.3.2.1 : Copying and Decompressing Demo Dump Patch	Updated Information
		Section 2.3.2.4 : Importing the Demo Dump File	Updated Information
15.2	08-May-2019	All Sections	Corrected formatting errors across the entire document
15.3	09-Dec-2019	Appendix C : Changing the DB User Password	Updated Information

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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 TLx ¹ (64-bit)	Oracle Database Server 12.1.0.2+ Oracle Database Server 12.2.0.x ¹
Oracle Linux 6.5+ and 7.x ¹ (64-bit)	Oracle Database Server 12.1.0.2+ Oracle Database Server 12.2.0.x ¹
Red Hat Enterprise Linux ² 6.5+ and 7.x ¹ (64-bit)	Oracle Database Server 12.1.0.2+ Oracle Database Server 12.2.0.x ¹
Oracle Solaris 11.x ¹ (SPARC 64-bit)	Oracle Database Server 12.1.0.2+ Oracle Database Server 12.2.0.x ¹
Windows Server 2012 R2 (64-bit)	Oracle Database Server 12.1.0.2+ Oracle Database Server 12.2.0.x ¹

¹ Here, **x** represents the vendor supported version.

² Oracle Revenue Management and Billing is tested and certified on Oracle Linux 6.5+ and 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 12.1.0.2 is required for Oracle Database Server 12.1.0.2+ and 12.2.0.x³.

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.

³ Here, **x** represents the vendor supported version.

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 2.7.0.1.0 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 article Master Note: Overview of Database Configuration Assistant (DBCA) (Doc ID: 1488770.1) on My Oracle Support for more information. 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.

2. Enable the following mandatory software options:
 - Oracle Spatial OR Oracle Locator
 - Oracle Text
3. 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');
```

4. 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;
```

5. Create the CIS_USER and CIS_READ roles using the following commands:

```
CREATE ROLE CIS_USER;
```

```
CREATE ROLE CIS_READ;
```

6. 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;
```

```
GRANT UNLIMITED TABLESPACE TO CISADM WITH ADMIN OPTION;
```

```
GRANT SELECT ANY TABLE TO CISADM;
```

```
GRANT CREATE DATABASE LINK TO CISADM;
```

```
GRANT CONNECT TO CISADM;
```

```
GRANT RESOURCE TO CISADM;
```

```
GRANT DBA TO CISADM WITH ADMIN OPTION;
```

```
GRANT CREATE ANY SYNONYM TO CISADM;
```

```
GRANT SELECT ANY DICTIONARY TO CISADM;
```

```
CREATE USER CISUSER PROFILE DEFAULT IDENTIFIED BY CISUSER DEFAULT
TABLESPACE CISTS_01 TEMPORARY TABLESPACE TEMP;
```

```
GRANT SELECT ANY TABLE TO CISUSER;
```

```
GRANT CIS_USER TO CISUSER;
```

```
GRANT CIS_READ TO CISUSER;
```

```
GRANT CONNECT TO CISUSER;
```

```
CREATE USER CISOPR PROFILE DEFAULT IDENTIFIED BY OPRPLUS DEFAULT
TABLESPACE CISTS_01 TEMPORARY TABLESPACE TEMP;
```

```
GRANT CONNECT, RESOURCE, EXP_FULL_DATABASE TO CISOPR;
```

```
CREATE USER CISREAD IDENTIFIED BY CISREAD DEFAULT TABLESPACE
CISTS_01 TEMPORARY TABLESPACE TEMP;
```

```
GRANT SELECT ANY TABLE TO CISREAD;
```

```
GRANT CIS_READ TO CISREAD;
```

```
GRANT CONNECT TO CISREAD;
```

7. Review the `Storage.xml` file under the `FW\FW43060\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 table `CI_ACCT` in a tablespace `MyTablespace`, 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 2.7.0.1.0. It contains the following topics:

- [Initial Install, or Installing Version 2.7.0.1.0 for the First Time](#)
- [Demo Install](#)
- [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 2.7.0.1.0 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 *the 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 V2.7.0.1.0 Oracle Database package from the Oracle Revenue Management and Billing V2.7.0.1.0 media pack which is available on [Oracle Software Delivery Cloud](#). 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 following sub-folders:
 - FW
 - RMB

2.3.1.2 Creating the Database

Note: You must have Oracle Database Server 12.1.0.2+ and 12.2.0.x⁴ 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 article *Master Note: Overview of Database Configuration Assistant (DBCA)* (Doc ID: 1488770.1) 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.

⁴ Here, **x** represents the vendor supported version.

Creating the Database on Windows

The files for creating the database are located in the DatabaseCreation/Windows directory in directory.

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 article *Master Note: Overview of Database Configuration Assistant (DBCA)* (Doc ID: 1488770.1) 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 4.3.0.6.0 prior to Oracle Revenue Management and Billing Version 2.7.0.1.0. The files for Oracle Utilities Application Framework installation are located in the FW\FW43060 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_144)

Note: Make sure to use either oradbi.jar FW 4.3 SP3 onwards only OraDBI.jar is delivered in directory jarfiles.OraDBI.exe does not support latest functionality / features introduced in OraDBi.jar such as function based index for columns, exclusion for index during upgrade etc.

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

1. [Install Oracle Utilities Application Framework Version 4.3.0.6.0](#)
2. [Install Rollup Pack for Oracle Utilities Application Framework Version 4.3.0.6.0](#)

Installing Oracle Utilities Application Framework Version 4.3.0.6.0

The oradbi.jar is the new tool to install and upgrade Oracle Utilities Application Framework and Oracle Revenue Management and Billing.

To install the schema for Oracle Utilities Application Framework Version 4.3.0.6.0, you should have the following:

- Java Development Kit 1.8
- Oracle Database
- Schema such as CISADM should exist in the database

You can execute the oradbi.jar utility in the following two modes:

- Interactive
- Command Line

To install Oracle Utilities Application Framework (OUAF) Version 4.3.0.6.0 using the Interactive mode of the 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 JAR_PATH environment variable using the following command:

AIX, Linux:

```
export JAR_PATH=TEMPDIR/FW/FW43060/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 V2.7.0.1.0 Oracle Database package.

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

Windows:

```
SET CLASS_PATH=TEMPDIR\FW\FW43060\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-
4.3.0.6.0.jar
```

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

Windows:

```
cd TEMPDIR\FW\FW43060\Install-Upgrade
```

AIX, Linux:

```
cd TEMPDIR/FW/FW43060/Install-Upgrade
```

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

Windows:

```
<Java_Home>\bin\java -Xmx1500M -cp TEMPDIR\FW\FW43060\jarfiles\*
com.oracle.ouaf.oem.install.OraDBI
```

AIX, Linux:

```
${JAVA_HOME}/bin/java -Xmx1500M -cp ${CLASS_PATH}
com.oracle.ouaf.oem.install.OraDBI
```

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

Parameter	Value
Enter the database server hostname	<DB_SERVER>
Enter the database port number(e.g. 1521)	<DB_PORT>
Enter the database name/SID	<DB_NAME>
Enter your database username	<DB_USER> Example: CISADM
Enter your password for username <DB_USER>	<DB_USER_PASSWORD>
Enter the Oracle user with read-write privileges to Database Schema(e.g. CISUSER)	<DB_USER> Example: CISUSER
Enter the Oracle user with read-only privileges to Database Schema(e.g. CISREAD)	<DB_USER> Example: CISREAD
Enter the database role with read-write privileges to Database Schema(e.g. CIS_USER)	<DB_USER_ROLE> Example: CIS_USER
Enter the database role with read-only privileges to Database Schema(e.g. CIS_READ)	<DB_USER_ROLE> Example: CIS_READ
Enter the name of the target Schema where you want to install or upgrade	<Schema_Name>

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

Ready to perform initial install of Database Rel.V4.3.0.6.0, do you want to continue (Y/N)?

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

To install Oracle Utilities Application Framework (OUAF) Version 4.3.0.6.0 using the Command Line mode of the 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 JAR_PATH environment variable using the following command:

AIX, Linux:

```
export JAR_PATH=TEMPDIR/FW/FW43060/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 V2.7.0.1.0 Oracle Database package.

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

Windows:

```
SET CLASS_PATH=TEMPDIR\FW\FW43060\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-4.3.0.6.0.jar
```

4. Create the detail.txt file with the following details:

```
-d jdbc:oracle:thin:@<Database-host>:<port>/<DB-SID>,<schema-user>,<schema-password>,<read-write-user>,<read-user>,<read-write-role>,<read-role>,<schema-user> -l 1,2 -j <JAVA_HOME> -q true
```

5. Change to the Install-Upgrade directory using the following command:

Windows:

```
cd TEMPDIR\FW\FW43060\Install-Upgrade
```

AIX, Linux:

```
cd TEMPDIR/FW/FW43060/Install-Upgrade
```

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

Windows:

```
<Java_Home>\bin\java -Xmx1500M -cp TEMPDIR\FW\FW43060\jarfiles\*  
com.oracle.ouaf.oem.install.OraDBI -f detail.txt
```

AIX, Linux:

```
${JAVA_HOME}/bin/java -Xmx1500M -cp ${CLASS_PATH}  
com.oracle.ouaf.oem.install.OraDBI -f detail.txt
```

A message appears indicating that the process is completed successfully.

On installing Oracle Utilities Application Framework Version 4.3.0.6.0, 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	856
SEQUENCE	4
TABLE	593
TRIGGER	1
VIEW	8

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 4.3.0.6.0 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 4.3.0.6.0

You can install the rollup pack for Oracle Utilities Application Framework Version 4.3.0.6.0 from a Windows machine and Linux Standalone server. To install the rollup pack for Oracle Utilities Application Framework Version 4.3.0.6.0:

1. Download the Oracle Utilities Application Framework V4.3.0.6.0 Single Fix Prerequisite Rollup for RMB V2.7.0.1.0 package from the Oracle Revenue Management and Billing V2.7.0.1.0 media pack which is available on [Oracle Software Delivery Cloud](#). A zip file is downloaded.
2. Unzip the downloaded file in the `TEMPDIR` directory. The contents include the `_ORMB-V27010-FW-PREREQ-MultiPlatform.jar` file.
3. Decompress the JAR file using the following command:

```
cd TEMPDIR
```

```
jar -xvf ORMB-V27010-FW-PREREQ-MultiPlatform.jar
```

A sub-directory named `FW-V4.3.0.6.0-Rollup` is extracted. It contains the following two sub-folders:

- Application
 - Database
4. Create a directory named `dbpatch_tools` in the `TEMPDIR` directory.
 5. Copy the `db_patch_standalone.jar` file to the `dbpatch_tools` directory.

6. 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

7. Set the TOOLSBIN environment variable using the following command:

Windows:

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

AIX, Linux:

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

8. Change to the Database directory using the following command:

Windows:

```
cd TEMPDIR\FW-V4.3.0.6.0-Rollup\Database
```

AIX, Linux:

```
cd /TEMPDIR/FW-V4.3.0.6.0-Rollup/Database
```

9. 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 cdxpath utility while installing the rollup pack for Oracle Utilities Application Framework. Henceforth, the cdxpath 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:DBPORT:ORACLE_SID>

Note: If you have changed the database user password, you will not be able to install the rollup pack for Oracle Utilities Application Framework Version 4.3.0.6.0. 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](#).

1. Enter the required parameter value. The following message appears in the command line:
Ready to process patches, Do you want to continue? (Y/N)
2. 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 4.3.0.6.0, 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	856
SEQUENCE	4
TABLE	593
TRIGGER	1
VIEW	8

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 2.7.0.1.0 using the Interactive mode of the 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 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 V2.7.0.1.0 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-  
4.3.0.6.0.jar
```

4. Change to the Install-Upgrade directory 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_Home>\bin\java -Xmx1500M -cp TEMPDIR\RMB\jarfiles\*
com.oracle.ouaf.oem.install.OraDBI
```

AIX, Linux:

```
${JAVA_HOME}/bin/java -Xmx1500M -cp ${CLASS_PATH}
com.oracle.ouaf.oem.install.OraDBI
```

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

Parameter	Value
Enter the database server hostname	<DB_SERVER>
Enter the database port number(e.g. 1521)	<DB_PORT>
Enter the database name/SID	<DB_NAME>
Enter your database username	<DB_USER> Example: CISADM
Enter your password for username <DB_USER>	<DB_USER_PASSWORD>
Enter the Oracle user with read-write privileges to Database Schema(e.g. CISUSER)	<DB_USER> Example: CISUSER
Enter the Oracle user with read-only privileges to Database Schema(e.g. CISREAD)	<DB_USER> Example: CISREAD
Enter the database role with read-write privileges to Database Schema(e.g. CIS_USER)	<DB_USER_ROLE> Example: CIS_USER
Enter the database role with read-only privileges to Database Schema(e.g. CIS_READ)	<DB_USER_ROLE> Example: CIS_READ
Enter the name of the target Schema where you want to install or upgrade	<Schema_Name>

6. Enter the required parameter values. The following message appears in the command line:
- ```
Ready to perform initial install of Database Rel.V2.7.0.1.0, do
you want to continue (Y/N)?
```
7. Type **Y** and then press **Enter**. A message appears indicating that the process is completed successfully.

To install Oracle Revenue Management and Billing (ORMB) Version 2.7.0.1.0 using the Command Line mode of the 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 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 V2.7.0.1.0 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-4.3.0.6.0.jar
```

4. Create the detail.txt file with the following details:

```
-d jdbc:oracle:thin:@<Database-host>:<port>/<DB-SID>,<schema-user>,<schema-password>,<read-write-user>,<read-user>,<read-write-role>,<read-role>,<schema-user> -l 1,2 -j <JAVA_HOME> -q true
```

5. Change to the Install-Upgrade directory using the following command:

**Windows:**

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

**AIX, Linux:**

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

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

**Windows:**

```
<Java_Home>\bin\java -Xmx1500M -cp TEMPDIR\RMB\jarfiles*
com.oracle.ouaf.oem.install.OraDBI -f detail.txt
```

**AIX, Linux:**

```
${JAVA_HOME}/bin/java -Xmx1500M -cp ${CLASS_PATH}
com.oracle.ouaf.oem.install.OraDBI -f detail.txt
```

A message appears indicating that the process is completed successfully.

On installing Oracle Revenue Management and Billing Version 2.7.0.1.0, 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     | 27    |
| INDEX        | 3513  |
| PACKAGE      | 4     |
| PACKAGE BODY | 4     |
| PROCEDURE    | 1     |
| SEQUENCE     | 32    |
| TABLE        | 2213  |
| TRIGGER      | 1     |
| TYPE         | 10    |
| TYPE BODY    | 1     |
| VIEW         | 160   |

**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 2.7.0.1.0 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 2.7.0.1.0 database, you need to do the following:

| If you...                                                     | Then                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Want to use the Transaction Feed Management feature...        | <ol style="list-style-type: none"> <li>1. <a href="#">Apply the 29126674 Patch</a></li> <li>2. <a href="#">Enable USER_LOCK Package</a></li> <li>3. <a href="#">Grant Permissions to the DBMS_LOCK Package and Recompile Database Objects</a></li> <li>4. <a href="#">Generate Database Statistics</a></li> </ol>                                                      |
| Do not want to use the Transaction Feed Management feature... | <ol style="list-style-type: none"> <li>1. <a href="#">Apply the 29126674 Patch</a></li> <li>2. <a href="#">Enable USER_LOCK Package</a></li> <li>3. <a href="#">Increase INITRANS Values</a></li> <li>4. <a href="#">Grant Permissions to the DBMS_LOCK Package and Recompile Database Objects</a></li> <li>5. <a href="#">Generate Database Statistics</a></li> </ol> |

#### **Apply the 29126674 Patch**

Once you install Oracle Revenue Management and Billing Version 2.7.0.1.0, you need to apply the MANDATORY PATCH 1 FOR ORMB VERSION 2.7.0.1.0 patch (Patch Number: 29126674). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 1 FOR ORMB VERSION 2.7.0.1.0 patch:

1. Download the MANDATORY PATCH 1 FOR ORMB VERSION 2.7.0.1.0 patch (Patch Number: 29126674) 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\_29126674\_Product\_Fix\_Design.pdf.
3. Unzip the MultiPlatform.zip file in your local folder. The contents include the V2.7.0.1.0-29126674\_MultiPlatform folder.
4. Change to the V2.7.0.1.0-29126674\_MultiPlatform folder using the following command:

#### **AIX, Linux:**

```
cd <DESTINATION_FOLDER>/V2.7.0.1.0-29126674_MultiPlatform
```

#### **Windows:**

```
cd <DESTINATION_FOLDER>\V2.7.0.1.0-29126674_MultiPlatform
```

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

The contents include a file named CCB.V2.7.0.1.0-29126674.jar and a folder named database.

1. 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.

2. Unzip the CDXPatch file using the following command:

**AIX, Linux:**

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

**Windows:**

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

The contents of the zip file are extracted in the <DESTINATION\_FOLDER\_1> folder. The contents include utility files and a folder named 29126674.

3. 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.

### **Increase INITRANS Values**

To increase the INITRANS values of some indexes and tables:

1. Connect to the ORMB database using any SQL client (such as Oracle SQL Developer or PL/SQL Developer) and the cisadm credentials.
2. Execute the following statements:  

```
ALTER TABLE CISADM.CI_BCHG_SQ INITRANS 20;
ALTER INDEX CISADM.XT081P0 INITRANS 40;
ALTER INDEX CISADM.IDX_SQ INITRANS 40;
ALTER TABLE CISADM.CI_BILL_CHG INITRANS 20;
ALTER INDEX CISADM.XT035P0 INITRANS 40;
ALTER INDEX CISADM.XT035S1 INITRANS 40;
```



```
ALTER INDEX CISADM.XT035S2 INITRANS 40;
ALTER INDEX CISADM.XT035S3 INITRANS 40;
ALTER INDEX CISADM.XT035S4 INITRANS 40;
```

**Note:** The INITRANS values can be set as per the client's data volume.

### **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/utlrp.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 2.7.0.1.0 patch (Patch Number: 29160829) 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 – `GTB27010_demodump.dmp` and `HC27010_demodump.dmp`.

### 2.3.2.2 Creating the Database

**Note:** You must have Oracle Database Server 12.1.0.2+ or 12.2.0.x5 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 article *Master Note: Overview of Database Configuration Assistant (DBCA)* (Doc ID 1488770.1) 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 the DatabaseCreation/Windows directory in 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 article *Master Note: Overview of Database Configuration Assistant (DBCA)* (Doc ID 1488770.1) 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.

---

<sup>5</sup> Here, **x** represents the vendor supported version.

### 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 `GTB27010_demodump.dmp` or `HC27010_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 `GTB27010_demodump.dmp` file. And, if you belong from the insurance industry, use the `HC27010_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, `TRGSCHEM`), 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:TRGSCHEMA
```

### 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 29126674 Patch](#)
2. [Enable USER\\_LOCK Package](#)
3. [Grant Permissions to the DBMS\\_LOCK Package and Recompile Database Objects](#)
4. [Generate Database Statistics](#)

#### **Apply the 29126674 Patch**

Once you install Oracle Revenue Management and Billing Version 2.7.0.1.0, you need to apply the MANDATORY PATCH 1 FOR ORMB VERSION 2.7.0.1.0 patch (Patch Number: 29126674). You can apply this patch from a Windows machine and UNIX Standalone server.

To apply the MANDATORY PATCH 1 FOR ORMB VERSION 2.7.0.1.0 patch:

1. Download the MANDATORY PATCH 1 FOR ORMB VERSION 2.7.0.1.0 patch (Patch Number: 29126674) 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_29126674_Product_Fix_Design.pdf`.
3. Unzip the `MultiPlatform.zip` file in your local folder. The contents include the `V2.7.0.1.0-29126674_MultiPlatform` folder.
4. Change to the `V2.7.0.1.0-29126674_MultiPlatform` folder using the following command:

#### **AIX, Linux:**

```
cd <DESTINATION_FOLDER>/V2.7.0.1.0-29126674_MultiPlatform
```

**Windows:**

```
cd <DESTINATION_FOLDER>\V2.7.0.1.0-29126674_MultiPlatform
```

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

The contents include a file named CCB.V2.7.0.1.0-29126674.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_1>
```

**Windows:**

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

The contents of the zip file are extracted in the <DESTINATION\_FOLDER\_1> folder. The contents include utility files and a folder named 29126674.

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/utlrp.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.

### **2.3.3 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.

### **2.3.4 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, see knowledge base article ID 974985.1 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. See 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

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.

- 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 behaviour 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 XML Type Support

The product supports XML Type. XML Type 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. In the database do not define FK constraints. 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
'+DATAAC1/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
- Oracle Database 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](#)
- [Oracle Fuzzy Search Support](#)
- [Storage Recommendations](#)
- [Database Configuration Recommendations](#)
- [Database Syntax](#)
- [Database Initialization Parameters](#)
- [Shrink Tables](#)

#### 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.
2. The foreign keys on a table should be indexes.

**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.

#### 5.1.2 Temporary and Undo Tablespace

To begin with, we recommend you to set the temporary tablespace to at least 100GB auto extendable till 200GB and the undo tablespace to at least 100GB auto extendable till 300GB. The upper limit of both the tablespaces will vary as per the volume of the data and preferred chunk size of the batch.

### 5.1.3 Transparent Data Encryption Recommendations

Oracle Utilities supports Oracle Transparent Data Encryption (TDE). Oracle 12c supports tablespace level encryption. 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 Exadata Hardware

For Exadata hardware, the compression recommendations are:

- For high volume tables, keep the current table partition uncompressed. All of the older partitions will be compressed based on QUERY HIGH compression.
- For high volume tables with CLOBs ensure to always keep CLOBs in securefile and medium compressed. Also keep the current table partition uncompressed. All of the older partitions will be compressed based on QUERY HIGH compression.
- Load data into the uncompressed table partitions using a conventional load and then, once data is loaded using a CTAS operation, load into a temporary heap table. Then truncate the original partition. Alter the original partition into HCC compressed and then partition exchange this with the temporary heap table.
- All multi column Indexes (primary as well as secondary) will be compressed using the default compression. HCC or OLTP compression is not applicable on the top of compressed Indexes.

### 5.1.4.2 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.

### 5.1.4.3 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.

## Oracle Fuzzy Search Support

The product supports Oracle Fuzzy searches. To use this feature, Oracle Text must be installed. After Oracle Text is installed, an index must be created on the table where the fuzzy search needs to be performed from the application. This is only an Oracle database option and is not supported by other databases. Additionally, not all languages are supported. Refer to the Oracle Database documentation for more information about fuzzy searching.

A typical syntax for implementation of fuzzy searching is as below. For the most updated syntax please refer to Oracle Fuzzy documentation.

```
GRANT CTXAPP TO <Application schema owner e.g. CISADM>;
GRANT EXECUTE ON CTX_DDL TO <Application schema owner e.g. CISADM>;
Create index <Application schema owner e.g. CISADM>.<Index_Name> on
<Application schema owner e.g. CISADM>.<Table_Name> (<column_name>)
indextype is ctxsys.context parameters ('sync (on commit)');
begin
ctx_ddl.sync_index('Application schema owner e.g.
CISADM>.<Index_Name>');
end
/
```

## 5.1.6 Storage Recommendations

This section specifies recommended options for storing the database objects.

### 5.1.6.1 SecureFile for Storing LOBs

Beginning with Oracle 11g, tables having fields with data type of CLOB or BLOBS should have the LOB Columns stored as SecureFiles.

- 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.
- For SecureFiles, make sure that the initialization parameter db\_securefile is set to ALWAYS.
- The Tablespace where you are creating the SecureFiles should be enabled with Automatic Segment Space Management (ASSM). In Oracle Database 11g, 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. See 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                                                                                                                                                                                 |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MEMORY_MAX_TARGET             | 40-50% of total available RAM on the node                                                                                                                                                         |
| 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 |
| SGA_TARGET                    | 50-70% of the value defined for the MEMORY_TARGET parameter                                                                                                                                       |
| SGA_MAX_SIZE                  | 70-80% of the value defined for the MEMORY_MAX_TARGET parameter                                                                                                                                   |
| DB_CACHE_SIZE                 | 4GB                                                                                                                                                                                               |
| PGA_AGGREGATE_TARGET          | 2GB                                                                                                                                                                                               |
| STATISTICS_LEVEL              | TYPICAL or ALL<br><b>Note:</b> This parameter is mandatory when you want to use automatic memory management.                                                                                      |
| OPTIMIZER_INDEX_COST_ADJ      | 100<br><b>Note:</b> The value for this parameter should not be changed because it can drastically degrade the batch performance.                                                                  |
| OPTIMIZER_INDEX_CACHING       | 0<br><b>Note:</b> The value for this parameter should not be changed because it can drastically degrade the batch performance.                                                                    |
| DB_BLOCK_SIZE                 | 8192                                                                                                                                                                                              |
| LOG_CHECKPOINT_INTERVAL       | 0                                                                                                                                                                                                 |
| DB_FILE_MULTIBLOCK_READ_COUNT | 8                                                                                                                                                                                                 |
| TRANSACTIONS                  | 3000                                                                                                                                                                                              |
| OPEN_CURSORS                  | 30000                                                                                                                                                                                             |
| DB_WRITER_PROCESSES           | 10<br><b>Note:</b> The value for this parameter must be within the range of 1 to 20. Ideally, it must be set to 1 or CPU_COUNT/8, whichever is greater.                                           |
| DB_FILES                      | 1024                                                                                                                                                                                              |

| Parameter              | Recommended Value                                                                                                  |
|------------------------|--------------------------------------------------------------------------------------------------------------------|
| DBWR_IO_SLAVES         | 10                                                                                                                 |
|                        | <b>Note:</b> You must set this parameter to a nonzero value only when the system does not support asynchronous IO. |
| SESSIONS               | 4500                                                                                                               |
| PROCESSES              | 3000                                                                                                               |
| DML_LOCKS              | 48600                                                                                                              |
| _B_TREE_BITMAP_PLANS   | FALSE                                                                                                              |
| SESSION_CACHED_CURSORS | 500                                                                                                                |

For example, we recommend you to specify the following values when 100GB of RAM is available on the node:

MEMORY\_MAX\_TARGET = 50G

MEMORY\_TARGET = 40G

SGA\_TARGET = 30G

SGA\_MAX\_SIZE = 40G

DB\_CACHE\_SIZE = 4G

PGAAggregate\_TARGET = 2G

STATISTICS\_LEVEL=TYPICAL

### 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 SPACE CASCADE;
ALTER TABLE CI_TXN_DETAIL_STG ENABLE ROW MOVEMENT;
ALTER TABLE CI_TXN_DETAIL_STG SHRINK SPACE CASCADE;
ALTER TABLE CI_ROLLBACK_TXN_DETAIL ENABLE ROW MOVEMENT;
ALTER TABLE CI_ROLLBACK_TXN_DETAIL SHRINK SPACE CASCADE;
```

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 Oracle Database Implementation Guidelines

This section provides specific guidelines for implementing the Oracle database.

### 5.1.11.1 Oracle Partitioning

If you use a base index as the partitioning key, rename the index to CM\*\*. If you use the primary key index of the table as the partitioning key:

- Make the index non-unique.
- Primary constraints should still exist.

The upgrade on the partitioned table works best if the partitioning key is not unique. This allows the upgrade tool to drop the PK constraints if the primary key columns are modified and recreate the PK constraints without dropping the index.



### 5.1.11.2 Database Statistics

During an install process, new database objects may be added to the target database. Before starting to use the database, generate the complete statistics for these new objects by using the DBMS\_STATS package. You should gather statistics periodically for objects where the statistics become stale over time because of changing data volumes or changes in column values. New statistics should be gathered after a schema object's data or structure is modified in ways that make the previous statistics inaccurate. For example, after loading a significant number of rows into a table, collect new statistics on the number of rows. After updating data in a table, you do not need to collect new statistics on the number of rows, but you might need new statistics on the average row length.

A sample syntax that can be used is as follows:

```
BEGIN
SYS.DBMS_STATS.GATHER_SCHEMA_STATS (OwnName => 'CISADM',Degree =>
16,Cascade => TRUE, Method_opt => 'FOR ALL COLUMNS SIZE AUTO',
Granularity => 'ALL');
END;
/
```

### 5.1.12 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 parameter QUERY\_REWRITE\_ENABLED=TRUE at database level.  
SQL – 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
3. 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.

**Reference:-**

Oracle 11g - [https://docs.oracle.com/cd/B28359\\_01/server.111/b28313/qrbasic.htm](https://docs.oracle.com/cd/B28359_01/server.111/b28313/qrbasic.htm)

Oracle 12c - <https://docs.oracle.com/database/121/DWHSG/qrbasic.htm#DWHSG01813>

Troubleshoot Materialized View –

[http://docs.oracle.com/database/121/ARPLS/d\\_mview.htm#ARPLS67193](http://docs.oracle.com/database/121/ARPLS/d_mview.htm#ARPLS67193)

```
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;
```

**Reference:-**

Oracle 11g - [https://docs.oracle.com/cd/B28359\\_01/server.111/b28313/qrbasic.htm](https://docs.oracle.com/cd/B28359_01/server.111/b28313/qrbasic.htm)

Oracle 12c - <https://docs.oracle.com/database/121/DWHSG/qrbasic.htm#DWHSG01813>

Troubleshoot Materialized View –

[http://docs.oracle.com/database/121/ARPLS/d\\_mvview.htm#ARPLS67193](http://docs.oracle.com/database/121/ARPLS/d_mvview.htm#ARPLS67193)

**Issues:-**

Query Did Not Rewrite For A User Other Than The Owner Of the Materialized View (Doc ID: 1594725.1) - A patch is available for bug report 14772096 for some platforms.

Query rewrite not working as expected with SELECT DISTINCT (Doc ID: 7661113.8) for Oracle version – 11.2.0.1 and 11.1.0.7 Fixed in version - 12.1.0.1 (Base Release), 11.2.0.2 (Server Patch Set)

## Appendix A : New Objects in the Oracle Revenue Management and Billing V2.7.0.1.0 Database

This section lists the objects that are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 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 V2.7.0.1.0 database.

#### A.1.1 New Tables

The following tables are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Table                 | Description                              |
|-----------------------|------------------------------------------|
| C1_ACCRUAL_CALC_LINE  | Accrual Calculation Lines                |
| C1_ACCUM_GRP_DA       | Accumulation Group Information for DA    |
| C1_ACCUM_GRP_LF       | Accumulation Group Information for LF    |
| CI_DATA_EX_REQ_TYPE_L | Data Extract Request Type Language Table |
| CI_DATA_EX_REQ_TYPE   | Data Extract Request Type Table          |
| CI_DATA_EX_REQ        | Data Extract Request table               |
| C1_FILE_POLLER_LOG    | File Upload Poller Log                   |
| CI_PRICEASGN_LOG      | Price Assignment Log                     |
| CI_PRICEASGN_LOG_PARM | Price Assignment Log Parameter           |

## A.1.2 Added Columns

The following columns are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Table                      | Column                 | Description                                  | Required (Yes or No) |
|----------------------------|------------------------|----------------------------------------------|----------------------|
| C1_FUNDING_REQ_TYPE        | ACCT_FUND_CUR_CHAR_CD  | Account Funding Currency Characteristic Type | No                   |
| CI_FILE_REQUEST            | APP_TXN_ID             | Approval Transaction ID                      | No                   |
| C1_ACCUM_DISC_ARG_AMT      | CREDIT_PREV_BILLED_AMT | Credit Previously Billed Amount              | No                   |
| C1_FUNDING_REQ_TYPE        | CC_ADJ_ALG_CD          | Currency Conversion Adjustment Algorithm     | No                   |
|                            | CC_PAY_ALG_CD          | Currency Conversion Payment Algorithm        | No                   |
| CI_PER                     | CUST_TIER_FLG          | Customer Tier                                | No                   |
|                            | CUST_SEG_FLG           | Customer segment                             | No                   |
| C1_ACCT_ECR_ELIGIBILITY    | FT_DIST_OBJ_VAL        | FT Distribution Object                       | No                   |
|                            | FT_DIST_OBJ_BO         | FT Distribution Object BO                    | No                   |
| CI_FILE_REQUEST            | FILE_PATH              | File Path                                    | No                   |
| CI_FILE_REQUEST_TYPE       | APPROVAL_REQUIRED      | File Upload Approval Required                | No                   |
| C1_FUNDING_REQ_DTLS        | FUND_CUR_EXCHRATE      | Funding Exchange Rate                        | No                   |
| CI_CIS_DIV_CST_LNG         | CST_LNG_CD             | Language                                     | Yes                  |
| C1_FUNDING_REQ_DTLS        | OPEN_BILLS_SW          | Open Bill Switch                             | No                   |
|                            | ORIG_OUTSTANDING_AMT   | Original Outstanding Amount                  | No                   |
| CI_FT_GL                   | ORIG_PAY_AMT           | Original Payment Amount                      | No                   |
|                            | ORIG_PAY_CCY_CD        | Original Payment Currency                    | No                   |
| C1_ACCUM_DISC_ARG_AMT      | PREV_BILLED_AMT        | Previously Billed Amount                     | No                   |
| C1_ACCUM_LF_AMT            | PREV_BILLED_AMT        | Previously Billed Amount                     | No                   |
| CI_DISAGG_TXN_PRITM_DETAIL | PRICE_ASGN_ID          | Price Assignment ID                          | No                   |
| CI_TXN_DTL_PRITM           | PRICE_ASGN_ID          | Price Assignment ID                          | No                   |
| CI_TXN_DTL_PRITM_STG       | PRICE_ASGN_ID          | Price Assignment ID                          | No                   |

| Table                         | Column               | Description                      | Required (Yes or No) |
|-------------------------------|----------------------|----------------------------------|----------------------|
| CI_TXN_DTL_PRITM              | SUMM_HASHCODE        | PriceItem Summary Hashcode       | No                   |
| CI_FILE_REQUEST               | REFERENCE_ID         | Reference ID                     | No                   |
| CI_ROLLBACK_TXN_DETAIL        | REPROCESS_SW         | Reprocess Switch                 | No                   |
| CI_TXN_DETAIL                 | RUN_GRP_ID           | Run Group Id                     | No                   |
| CI_TXN_DETAIL_STG             | RUN_GRP_ID           | Run Group Id                     | No                   |
| C1_ACCUM_LF_AMT               | RO_BILLABLE_CHG_ID   | Run Out Billable Charge ID       | No                   |
|                               | RO_PREV_BILLED_AMT   | Run Out Previously Billed Amount | No                   |
| C1_ADDRESS                    | SEASON_EFF_STATUS    | Season Status                    | No                   |
| CI_FILE_REQUEST_TRANSFORM_DTL | SOURCE_FIELD_PATH    | Source Field Path                | No                   |
| C1_FUNDING_REQ_DTLS           | THRESHOLD_RANGE_FROM | Threshold Range From             | No                   |
|                               | THRESHOLD_RANGE_TO   | Threshold Range To               | No                   |

### A.1.3 Dropped Tables

None

### A.1.4 Dropped Columns

None

## **A.1.5 Added Views**

None

## **A.1.6 Column Format Change**

None

## **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 V2.7.0.1.0 database.

## A.2.1 Algorithm Types

The following algorithm types are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Algorithm Type | Description                                              |
|----------------|----------------------------------------------------------|
| C1-ASOEXPOS    | ASO Daily Rating Post Processing                         |
| C1-ASOPRUCPY   | ASO Policy Copy Pricing Rule - Post-Processing           |
| C1-DGCALC      | Discount Guarantee Calculation                           |
| C1-DSCALC      | Discount Share Calculation                               |
| C1-FILERQAPP   | Post Processing Algorithm for File Upload Group          |
| C1-FTILMELIG   | ILM Eligibility Algorithm for Financial Transaction      |
| C1-FUNDCANCL   | Funding Request - Exclude all bills from funding request |
| C1-FUPOLRULE   | Sample File Poller Rule Preprocessing Algorithm Type     |
| C1-LFACPOST    | Level Funded Accumulation Post Processing                |
| C1-LFPOST      | Level Funded Pricing Rule - Post Processing              |
| C1-LFRTCALC    | Level Funded Amounts Rate Calculation                    |
| C1-LFVAL       | Level Funded Pricing Rule - Validation                   |
| C1-MPRIAPRD    | Mass Pricing Request - Enter Approved Algorithm          |
| C1-MPRIPTD     | Mass Pricing Request - Create To Do for Approver         |
| C1-MPRIDEFER   | Mass Pricing Request - Enter Run Batch Algorithm         |
| C1-MPRIRJTD    | Mass Pricing Request - Create To Do for Submitter        |
| C1-MPRISUBMT   | Mass Pricing Request - Enter Submit Algorithm            |
| C1-MPRIUPDPA   | Mass Pricing Request - Update Price Assignment           |
| C1-MPRIVALDN   | Mass Pricing Request BO Validation                       |
| C1-MPRTVALDN   | Mass Pricing Request Type BO Validation                  |
| C1-PAALERT     | Payment Agreement Alert                                  |
| C1-PASDTODO    | To-Do notification for scheduled payment date            |
| C1-PAUSRNTFY   | Payment Agreement User Notification                      |
| C1-PRCDAPOS    | Discount Arrangement- Post Processing                    |
| C1-PRCITM-PR   | Price Item File Upload Preprocessing Algorithm           |
| C1-PRDVERPRE   | Product Version File Upload Preprocessing Algorithm      |
| C1-PRDVERPST   | Product Version file upload post processing algorithm    |
| C1-PRICEUPL    | File Request Price Param Upload Pre Processing           |



| Algorithm Type | Description                                                |
|----------------|------------------------------------------------------------|
| C1-PRODUCTPR   | Product File Upload Preprocessing Algorithm                |
| C1-PYILMELIG   | ILM Eligibility Algorithm for Payments and Pay Events      |
| C1-REDLVLF     | Renewal decision Level Funded TO DO creation               |
| C1-RETDVAL     | Discount Arrangement - Validation                          |
| C1-SQIUPLOAD   | SQI Upload Validation                                      |
| C1-STCNINFO    | Statement Construct Information                            |
| C1-UPD-FUND    | Offset Request - Update funding Details                    |
| C1-UPDT-FUND   | Update funding after Unapply Offset                        |
| C1_ACCPRIDIS   | Account and Price item Derivation For Discount Arrangement |
| DTEXBOPSTALG   | Data Extract BO Post Processing Algorithm Type             |

## A.2.2 Algorithms

The following algorithms are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Algorithm    | Description                                                   |
|--------------|---------------------------------------------------------------|
| C1-ASOEXPOS  | ASO Daily Rating Post Processing                              |
| C1-ASOPRUCPY | ASO Policy Copy Pricing Rule Post-Processing                  |
| C1-CHRGTYALG | Charge Type determines BO algo                                |
| C1-DGCALC    | Discount Guarantee Calculation                                |
| C1-DSCALC    | Discount Share Calculation                                    |
| C1-DTEXBO    | Determines BO for data Extract                                |
| C1-FILERQAPP | Post Processing Algorithm for File Upload Interface           |
| C1-FILERQDET | Determine Account BO                                          |
| C1-FTILMELIG | ILM Eligibility Algorithm for Financial Transactions          |
| C1-FUNDCANCL | Funding Request - Exclude all bills from funding request      |
| C1-FUPOLRULE | Sample File Poller Rule Pre-processing Algorithm              |
| C1-LFACPOST  | Level Funded Accumulation Post Processing                     |
| C1-LFPOST    | Level Funded Pricing Rule - Post Processing                   |
| C1-LFRTCALC  | Level Funded Amounts Rate Calculation                         |
| C1-LFVAL     | Level Funded Pricing Rule - Validation                        |
| C1-MPRIAPRD  | Mass Pricing Request - Enter Approved Algorithm               |
| C1-MPRIAPTD  | Mass Pricing Request - Create To Do for Approver              |
| C1-MPRIDEFER | Mass Pricing Request - Monitor Deferred Algorithm             |
| C1-MPRIRJTD  | Mass Pricing Request - Create To Do for Submitter             |
| C1-MPRISUBMT | Mass Pricing Request - Mass Pricing Request Before Submission |
| C1-MPRIUPDPA | Mass Pricing Request - Update Price Assignment                |
| C1-MPRIVALDN | Mass Pricing Request BO Validation                            |
| C1-MPRTVALDN | Mass Pricing Request Type BO Validation                       |
| C1-PAALERT   | Payment Agreement Alert                                       |
| C1-PASDTODO  | To-Do notification for scheduled payment date                 |
| C1-PAUSRNTFY | Payment Agreement User Notification                           |
| C1-PRCDAPOS  | Discount Arrangement- Post Processing                         |

| Algorithm    | Description                                                                                       |
|--------------|---------------------------------------------------------------------------------------------------|
| C1-PRCITM-PR | Price Item File Upload Pre-processing Algorithm                                                   |
| C1-PRDVERPRE | Product Version File Upload Pre-processing Algorithm                                              |
| C1-PRDVERPST | Product Version file upload post processing algorithm                                             |
| C1-PRICEUPL  | File Request Price Param Upload Pre Processing                                                    |
| C1-PRODUCTPR | Product File Upload Pre-processing Algorithm                                                      |
| C1-PYILMELIG | ILM Eligibility Algorithm for Payments and Pay Segments                                           |
| C1-REDLVLF   | Renewal Decision Level Funded To Do creation                                                      |
| C1-RETDVAL   | Discount Arrangement - Validation                                                                 |
| C1-SQIUPLOAD | SQL Upload Validation                                                                             |
| C1-STCNINFO  | Statement Construct Information                                                                   |
| C1-UPD-FUND  | Offset Request - Update funding Details                                                           |
| C1-UPDT-FUND | Update funding after Unapply Offset                                                               |
| C1_ACCPRIDIS | Account and Priceitem Derivation For Discount Arrangement                                         |
| DTEXBOPSTALG | Data Extract BO Post Processing Algorithm                                                         |
| HJ-FORMULA   | Hemant's formula for Bug28819910                                                                  |
| RV-PP-PR-US  | Sum bill segment amounts for product and for usage account (To be used for PPPR price assignment) |
| TEST-GL-AL   | Payoff Amt = Bill Amt / Current Amt = Amt Due                                                     |

## A.2.3 Business Services

The following business services are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Business Service             | Description                            |
|------------------------------|----------------------------------------|
| C1-ACCTREE                   | Account Tree                           |
| C1-APPROFILECURRCONV         | Approval Profile Currency Conversion   |
| C1-AccrToDo                  | Get Accrual Parameters for Details     |
| C1-AccumulationGrpInfo       | Accumulation Group information         |
| C1-AddAccountSbscrptnUserLog | Account Subscription - Add User Log    |
| C1-AddPAMassPricing          | Mass Pricing Add Price Assignments     |
| C1-ApprTxnCre                | Approval Txn. Service for Pricing Rule |
| C1-CheckTemplateReference    | Check template referred in reg type    |

| Business Service               | Description                                             |
|--------------------------------|---------------------------------------------------------|
| C1-CopyPricingRuleService      | Copy Pricing Rule Business Service                      |
| C1-DUPPRICOM                   | Check duplicate price component sequence                |
| C1-FRTSvcCfgDtl                | File Request Type Service Config Details                |
| C1-FetchMassPricingReqStatus   | Fetch Mass Pricing Request BO Status                    |
| C1-FileManagementSystem        | File Management System Service                          |
| C1-FileRequestDispMapBusSvc    | File Request Type Display Map Service                   |
| C1-FileTransformDtlAutoGen     | File Transformation Detail Generation                   |
| C1-FundGarnishmentContract     | Funding - Get Contracts for Garnishment                 |
| C1-FundingGarnishView          | Funding - Get Tuples for Garnishment                    |
| C1-FundingRetrieveAccess       | Funding Retrieve Access                                 |
| C1-GET-STCNST                  | Get Statement Construct                                 |
| C1-GETPRICINGENTITY            | Get Pricing Entity                                      |
| C1-GetAccumulationTypeLookUp   | Get accumulation type lookup values                     |
| C1-GetEffectiveDatedAddress    | Get Effective Dated Address                             |
| C1-GetParentPersonType         | Retrieve Person Type for Parent                         |
| C1-GetPayInsAcctMainCustName   | Gets Pay Instruction's account's Main customer name     |
| C1-GetPriceParamType           | Get Price Item Parameter Type                           |
| C1-GetRefReqStatusARC          | ARC Fetch Refund/WO Request BO Status                   |
| C1-GetSpecificPricingRuleTypes | Get All the pricing rule types of a particular category |
| C1-InstallationOptions         | Installation Options                                    |
| C1-InvokeAcctBO                | Invoke Account BO for validation                        |
| C1-MPRISTATSRECDBS             | Retrieve Mass Pricing Statistic Record                  |
| C1-MassPricingReqButton        | Mass Pricing Request Status Button                      |
| C1-PERTREE                     | Person Tree                                             |
| C1-PRICEASGNTREE               | Price Assignment Tree                                   |
| C1-PriceCompSeqValidation      | Price Component Sequence Validation                     |
| C1-PricingRqTyLiCat            | Retrieve Pricing Rule Types                             |
| C1-RetMassPricingReqTypes      | Fetch Active Request Types                              |
| C1-RetrHoldInformation         | Retrieve Hold Information                               |
| C1-RetrieveAccTree             | Retrieve Account Tree                                   |

| Business Service               | Description                                                 |
|--------------------------------|-------------------------------------------------------------|
| C1-RetrieveAcctCurrencyFromBil | Retrieve Acct Currency From Bill                            |
| C1-RetrieveAcctIdType          | Fetch Id types for account configured on division           |
| C1-RetrieveHoldAmtForCurrency  | Get hold amount for the particular currency passed as input |
| C1-RetrievePerCharType         | Fetch Characteristics for Person configured on division     |
| C1-RetrievePerIdType           | Fetch Id types for Person configured on division            |
| C1-RetrievePerTree             | Retrieve Rate Schedule Tree                                 |
| C1-RetrievePersonPolicies      | Retrieve Policies for Person                                |
| C1-RetrieveProductTree         | Retrieve Product Service Tree                               |
| C1-RetrieveRegTemplates        | Retrieve Registration Templates                             |
| C1-RetriveAllBOsOnMO           | Retrieve Price Item Business Objects                        |
| C1-RetriveProductBOs           | Retrieve Product Business Objects                           |
| C1-SQIUPLOAD                   | File Upload SQL Creation                                    |
| C1_PRICEASGNUPLD               | Price Assignment Upload                                     |

## A.2.4 Portals

The following portals are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Portal      | Description                    |
|-------------|--------------------------------|
| C1ACUDAT    | Accumulation Data              |
| C1DTEXFL    | Data Extract Request Dashboard |
| C1FILEMS    | File Management System         |
| C1FNDRQBIL  | Bills                          |
| C1MASPRI    | Mass Pricing Update            |
| C1MPRIRQ    | Mass Pricing Request           |
| C1MPRISR    | Mass Pricing Request           |
| C1MPRQLGT   | Request Log                    |
| C1PADDRSTM  | Address for person tab         |
| C1PRIASGLOG | CI_PRIASGLOG                   |
| C1PRLZZ     | C1PRLZZC1PRLZZC1PRLZZ          |
| DTEX_TYP    | Data Extract Request Type      |

## A.2.5 Portal Zone

The following portal zones are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Portal      | Description                    |
|-------------|--------------------------------|
| C1ACUDAT    | Accumulation Data              |
| C1BKACTVW   | Account - Banking              |
| C1CREGSR    | Customer Registration          |
| C1CTRGBK    | Customer Registration          |
| C1CURETY    | Customer Registration Type     |
| C1CUSRGLOG  | Customer Registration Log      |
| C1CUSTRG    | Customer Registration          |
| C1DTEXFL    | Data Extract Request Dashboard |
| C1FILEMS    | File Management System         |
| C1FNDRQBIL  | Bills                          |
| C1HCACTVW   | Account                        |
| C1HCPLNVW   | Plan                           |
| C1HCPOLVW   | Policy                         |
| C1MASPRI    | Mass Pricing Update            |
| C1MPRIRQ    | Mass Pricing Request           |
| C1MPRISR    | Mass Pricing Request           |
| C1MPRQLGT   | Request Log                    |
| C1PADDRSTM  | Address for person tab         |
| C1PRIASGLOG | CI_PRIASGLOG                   |
| C1RETMPL    | Customer Registration Template |
| DTEX_TYP    | Data Extract Request Type      |

## A.2.6 Batch Controls

The following batch controls are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Batch Control | Description                                     |
|---------------|-------------------------------------------------|
| C1-ACDA       | Accumulate Discount Arrangement                 |
| C1-ACLF       | Accumulate Level Funded                         |
| C1-BCDA       | Create Billable Charge for Discount             |
| C1-BCLF       | Create Billable Charge for Level Funded         |
| C1-BLCRN      | Generate Credit note on bill.                   |
| C1-DTEX       | Data Extract Batch Control                      |
| C1-FPOLR      | File Upload poller batch                        |
| C1-FTCRL      | ILM Crawler - Financial Transactions            |
| C1-FTDTM      | FT Distribution Multi-Threaded Transition Batch |
| C1-IDTXN      | Identify And Process Disaggregated Transactions |
| C1-PRCUP      | Pricing Rules Upgrade Batch                     |
| C1-TXNPS      | Populate CI_TXN_DTL_PRITM_SUMMARY Table         |
| C1_PYCRL      | ILM Crawler - Payment and Pay Event             |

## A.2.7 Foreign Key References

The following foreign key references are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Foreign Key Reference | Description                                |
|-----------------------|--------------------------------------------|
| ADJ_ACCR              | Adjustment Foreign Key Reference           |
| C1-BSEGA              | Bill Segment for Accrual                   |
| C1-DTEXR              | Data Extract Request Type FK               |
| C1-STATE              | State                                      |
| C1-STM CN             | Statement Construct                        |
| C1_TB SGA             | Trial Bill Segment Information For Accrual |



## A.2.8 Scripts

The following scripts are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Script       | Description                                                      |
|--------------|------------------------------------------------------------------|
| C1-ARCBSAdj  | ARC - Zone visibility based on refund request status and Bill ID |
| C1-AccrCalcl | Zone Visibility - Display Zone in Portal                         |
| C1-AccumInfo | Accumulation Group Information                                   |
| C1-AccumView | Search Accumulation data -customer Zone                          |
| C1-AcuViewFl | Zone User Filters - Validation -Accumulation Data- Customer Zone |
| C1-AddrMn    | Address - Maintain for Person Tab                                |
| C1-BOAdrProc | Business Object Processing                                       |
| C1-BillGrpAd | Add Bill Group                                                   |
| C1-BldAcTree | Build Account Tree                                               |
| C1-BldPCTree | Build Price Assignment Tree                                      |
| C1-BldPeTree | Build Rate Schedule Tree                                         |
| C1-BldPrTree | Build Product Tree                                               |
| C1-DAApPre   | DA Approval - Pre-processing                                     |
| C1-DAPre     | Pricing Rule - Discount Arrangement - Pre-processing             |
| C1-DATAEXBPA | Data Extract Request Type Add and Update                         |
| C1-DEFLFVAL  | Default LF values for Claims                                     |
| C1-DTEXDEL   | Data Extract Delete Script                                       |
| C1-DeletePC  | Price Component Maintenance Script                               |
| C1-DupPCerr  | Error display for duplicate price component sequence             |
| C1-FRTBPA    | File Request Type Add and Update script                          |
| C1-FRTSS     | File Request Type Transform and Message Read                     |
| C1-FRTUPD    | File Request Type Transform and Message Update                   |
| C1-FilMgtSys | File Management System                                           |
| C1-FileMgmtS | File Management System BPA                                       |
| C1-GetLFDt   | Populate LF Pricing Rule Dates                                   |
| C1-GlatPost  | Enable MO Revision Control - Post-processing                     |

| Script       | Description                                                     |
|--------------|-----------------------------------------------------------------|
| C1-HldRqFun  | Hold Request - Maintain from funding request selected bill zone |
| C1-ISSTCNST  | Zone Visibility - Display Statement Construct                   |
| C1-InstalOpt | Read Installation Options                                       |
| C1-LFAppPre  | Level Funded Pricing Rule- Pre-processing                       |
| C1-LFPre     | Pricing Rule - Level Funded - Pre-processing                    |
| C1-MPriAddPA | Add Price Assignments to data area                              |
| C1-MPriRqTyL | Request Type - Build Active Request Type List                   |
| C1-MPricMain | Mass Pricing - Maint                                            |
| C1-PCAddUpd  | Price Component Add/Update                                      |
| C1-PCDetails | Price Component Maintenance Script                              |
| C1-PayAgrDC  | Payment Agreement Request - Maintain from Delinquency Central   |
| C1-PerLegHch | Fetch Data for Person Tree                                      |
| C1-PriCompTr | Price Component tree                                            |
| C1-RefAddBS  | Add Bill Line Items For Refund - ARC                            |
| C1-RefWrtARC | Refund/Write Off request ARC                                    |
| C1-RetButHid | Return button with label                                        |
| C1-RulChkTRT | Rule Check For Transaction Record Type                          |
| C1-SSANCBCLT | Default SSL values for Ancillary                                |
| C1-SSLAppPre | Specific Stop Loss Pricing Rule- Pre-processing                 |
| C1-SbscrpLog | Account Subscription - Add User Log Entry                       |
| C1-SelMPrReq | Request Type - Select Request Type                              |
| C1-SelPPTmpl | Policy Plan - Select Registration Template                      |
| C1-ShwACAGZn | Zone Visibility - Display Account Zone in Portal                |
| C1-ShwCUAGZn | Zone Visibility - Display Zone in Portal                        |
| C1-ShwPLPAZn | Zone Visibility - Display Zone in Portal                        |
| C1-ShwPRHier | Zone Visibility - Display Parent bill groups zone customer 360  |
| C1-ShwPRPAZn | Zone Visibility - Display Zone in Portal                        |
| C1-ShwZoneFd | Zone Visibility - Display Zone in Portal                        |
| C1-ShwZoneTx | Zone Visibility - Display Zone in Portal                        |
| C1-SwTxnFdL  | Zone Visibility - Display Zone in Portal                        |

| Script       | Description                                    |
|--------------|------------------------------------------------|
| C1-SwTxnTrL  | Zone Visibility - Display Zone in Portal       |
| C1-WOAddBS   | ARC - Add Bill Line Items to Write Off Request |
| C1HierInfVal | Hierarchy Information - Panel Validation       |
| C1_ACCRHIST  | Accrual Enhancement - Trial Bill               |
| C1_ACCRUALEN | Accrual Enhancement - Trial Bill               |
| C1_PA_SH_ADD | Return button with label                       |
| C1_VAL_FEEDT | Feed Management Dashboard - Validation Script  |
| C1_VAL_TRNFD | Feed Management Dashboard - Validation Script  |
| c1-SwTxnFdL6 | Zone Visibility - Display Zone in Portal       |

## A.2.9 New Zones In Existing Portals

The following new zones in existing portals are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Portal     | Zone         | Zone Description                  |
|------------|--------------|-----------------------------------|
| C1ACRLCL   | C1_ACR_CY_CR | Accrual Cycle Search for Cust Reg |
| C1ACRMVW   | C1_ACRCALCL  | Accrual Calculation Lines         |
| C1ACRMVW   | C1_ACRCALCT  | Accrual Calculation Lines         |
| C1ACTPER   | C1-CUSTRGTRE | Customer Registration Tree        |
| C1ACTPER   | C1-PERTREE   | Person Tree                       |
| C1ACTREE   | C1-ACCTREE   | Account Tree                      |
| C1ARC      | C1-ARCREFWO  | Bill Line Items                   |
| C1BK360PRO | C1-PRODTREE  | Product                           |
| C1BKSINF   | C1-STMTCTST  | Statement Construct               |
| C1DCDTLC   | C1-DC-PAY-AG | Payment Agreements                |
| C1PRLCLM   | C1-PRLDISC   | Discount Arrangement              |
| C1PRLCLM   | C1-PRLLF     | Level Funding                     |
| C1REQLGTB  | CI_PRIASGLOG | Price Assignment Log              |
| C1VIEPRI   | C1-RCPCSUMM  | Rate and Price Component Summary  |
| C1_FEED    | C1-FEEDMGMUL | Search                            |
| C1_FEED    | C1_FEEDL1DIV | Division Level Information        |

| Portal  | Zone         | Zone Description              |
|---------|--------------|-------------------------------|
| C1_FEED | C1_FEEDL2_N6 | Transaction Level Information |
| REQ_TYP | C1-FRTDISPZN | File Request Type             |

## A.2.10 Zones

The following zones are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Zone         | Description                                       |
|--------------|---------------------------------------------------|
| C1-ACCGRPSRC | Access Group Search                               |
| C1-ACCRTD    | Accrual for To Do Type Navigation                 |
| C1-ACCTCUR   | Retrieve Account currency from bill Id            |
| C1-ACCTIDTY  | Fetch ID Types for account configured on division |
| C1-ACCTNBRSR | Search Zone for Account Identifier                |
| C1-ACCTPR    | Fetch Persons related to an Account               |
| C1-ACCTREE   | Account Tree                                      |
| C1-ACCTTYP   | Search Zone for Account Usage Flag                |
| C1-ACCUDATVV | Accumulation Data                                 |
| C1-ACCUMGRP  | Accumulation Group Information                    |
| C1-ACCUMTYP  | Get Accumulation Type                             |
| C1-ACCUMTYPE | Get accumulation type lookup values               |
| C1-ACGPSRTM  | Access Group Search for Cust Template             |
| C1-ACTMGTSRC | Search Zone for Account Management Group          |
| C1-ACUDATAUG | Accumulation group                                |
| C1-ACUDATCUS | Parent Customer or Account ID                     |
| C1-ACUGRPSRH | Accumulation Group                                |
| C1-ACUTXNDE  | Transaction Information                           |
| C1-ARCREFWO  | Bill Line Items                                   |
| C1-BILCYCSRC | Search Zone for Bill Cycle                        |
| C1-BILLST    | Billing and Settlement Hierarchy                  |
| C1-BKACTVW   | Account Information                               |
| C1-CHARSRCH  | Characteristic Type Search                        |

| Zone         | Description                                |
|--------------|--------------------------------------------|
| C1-CHARTYPSR | Search Zone for Char Types based on Entity |
| C1-DC-PAY-AG | Payment Agreements                         |
| C1-DIVSRCH   | Search Zone for Division                   |
| C1-DTEXDISZN | Data Extract Request Type Display Zone     |
| C1-DTEXSRCH  | Data Extract Request Type Search Zone      |
| C1-DUPPRICOM | Check duplicate price component sequence   |
| C1-EXDLKPVAL | Extendable lookup values                   |
| C1-EXLBOSRCH | Business Object Search                     |
| C1-FEEDMGMUL | Search                                     |
| C1-FETCHPOSS | Fetch post processing SS -Master Config    |
| C1-FILEMGSYS | File Management System                     |
| C1-FILMGTSYS | File Management System                     |
| C1-FNDBILCNL | Selected Bills                             |
| C1-FNDHLDINF | Retrieve hold information for this bill    |
| C1-FRTDISPZN | File Request Type                          |
| C1-FUNGARCON | Fetch Garnishment Contracts for a Bill     |
| C1-FUNGARNSH | Edit Garnishment Details of Selected Bill  |
| C1-FUNSELBIL | Selected Bills                             |
| C1-GETPRIARR | Get Pricing Rule Type Rate Options         |
| C1-GETPRITEM | Retrieve Price Item                        |
| C1-GETRETPR  | Get Pricing Rule Types                     |
| C1-GETSETPRO | Retrieve Settlement Product                |
| C1-GTRETINV  | Get Retention Type Pricing Rules           |
| C1-HCACTVW   | Account Information                        |
| C1-HCPERBG   | Bill Group Information                     |
| C1-LEADDYS   | Get renewal decision lead time             |
| C1-MASPRISTA | Retrieve BO Status Mass Pricing Request    |
| C1-MASSPRUPD | Search Criteria                            |
| C1-MPACAGINF | Account Agreed Price Assignment Details    |
| C1-MPCUAGINF | Customer Agreed Price Assignment Details   |

| Zone         | Description                                             |
|--------------|---------------------------------------------------------|
| C1-MPPLPAINF | Price List Details                                      |
| C1-MPPRPAINF | Product Details                                         |
| C1-MPRICDTLS | Mass Pricing Details                                    |
| C1-MPRICSRCH | Mass Pricing Update Request                             |
| C1-MPRIREQTY | Active Mass Pricing Request Types                       |
| C1-MULTIPRIC | Check multi pricing parameter option                    |
| C1-NAMTYPsrc | Search Zone for Person Name Type                        |
| C1-PARM-TYPE | Fetch Price Item Parameter Information                  |
| C1-PERCHARTY | Fetch Characteristics for person configured on division |
| C1-PERHRCHY  | Person Legal Hierarchy                                  |
| C1-PERIDSRCH | Search Zone for Person Identifier                       |
| C1-PERLEGHCH | Person Tree                                             |
| C1-PERPOLS   | Retrieve Policies for Person                            |
| C1-PERSOIDTY | Fetch ID Types for person configured on division        |
| C1-PERTREE   | Person Tree                                             |
| C1-PHNTYPsrc | Search Zone for Phone Type                              |
| C1-PICUSNAME | Pay Ins Account's Main Customer's Name                  |
| C1-PMGRCDAYS | Fetch Pay Method Grace Days                             |
| C1-POLYTYPsr | Search Zone for Policy Type                             |
| C1-PRCITMSrc | Search Zone for PriceItem Code                          |
| C1-PRCRULTYP | Active Pricing Rule Types using Category                |
| C1-PRDSRCH2  | Price Item Details                                      |
| C1-PRLDISC   | Discount Arrangement                                    |
| C1-PRLINEITM | Pricing rule line items search                          |
| C1-PRLLF     | Level Funding                                           |
| C1-PRODBOLST | List Of Product Business Objects                        |
| C1-PRODTREE  | Product                                                 |
| C1-PRTRE     | Person Legal Hierarchy                                  |
| C1-RCPCSUMM  | Rate and Price Component Summary                        |
| C1-RETRBOS   | Retrieve Business Objects                               |

| Zone         | Description                               |
|--------------|-------------------------------------------|
| C1-RWRQSTARC | ARC-Retrieve BO Status For Refund Request |
| C1-STATSRCH  | State Search for Country                  |
| C1-STMTCST   | Statement Construct                       |
| C1DTEXRQTYZN | Data Extract Request Type Search zone     |
| C1FNDCURST   | Currency Statistics                       |
| C1_ACRCALCL  | Accrual Calculation Lines                 |
| C1_ACRCALCT  | Accrual Calculation Lines                 |
| C1_ACR_CY_CR | Accrual Cycle Search for Cust Reg         |
| C1_FEEDL1DIV | Division Level Information                |
| C1_FEEDL1_TD | TEST ZONE                                 |
| C1_FEEDL1_TN | TEST ZONE                                 |
| C1_FEEDL1_TX | Transaction Level Details                 |
| C1_FEEDL2_N6 | Transaction Level Information             |
| CI_PRIASGLOG | Price Assignment Log                      |

## A.2.11 UI Maps

The following UI maps are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| UI Map                         | Description                               |
|--------------------------------|-------------------------------------------|
| C1-AccountTree                 | Account Tree                              |
| C1-AccumulateDataGroupIdFilter | Accum Data -Filter Accumulation Group Id  |
| C1-AccumulationGroupInfoUI     | Accumulation Group Information            |
| C1-AddAccountSbscrptnUserLog   | Account Subscription - Add User Log Entry |
| C1-AppTxnPricRulASLDisp        | ASL approval Display Map                  |
| C1-AppTxnPricRuleDiscArr       | Display UI Map for Discount Arrangement   |
| C1-AppTxnPricRuleDiscountArr   | Display UI Map for Discount Arrangement   |
| C1-AppTxnPricRuleLvIFunDisplay | Pricing Rule Level Funded Display         |
| C1-CommonTreeFunctions         | Common Tree Functions                     |
| C1-CommonTreeStyles            | Common Tree Styles                        |
| C1-CustomerRegSrchPersDetails  | Customer Registration Search              |

| UI Map                         | Description                                 |
|--------------------------------|---------------------------------------------|
| C1-DATAEXREQTYPADD             | Data Extract Request Type Add               |
| C1-DTEXDISP                    | Data Extract Request Type Display UI Map    |
| C1-DTEXREQDB                   | Data Extract Request Type Dashboard UIMap   |
| C1-FRTDisplayMap               | File Request Type Display Map               |
| C1-FRTInputMap                 | File Request Type Input Map                 |
| C1-FRTServiceChildConfig       | Service Level Transformation                |
| C1-FRTServiceUIMap             | File Request Type Service UI                |
| C1-FRTTransformDetailUIMap     | File Request Type Transform UI              |
| C1-FileManagementSystemUIMap   | File Management System UI                   |
| C1-FileMgtSystemSearchFilter   | File Management System Search UI            |
| C1-FileRequesTypeUIMap         | File Request Type                           |
| C1-FileRequestTypeDisplayMap   | File Request Type Display Map               |
| C1-FileUploadApprovalDisplayMp | File Upload Approval Display Map            |
| C1-FileUploadApprovalInputUI   | File Upload Approval                        |
| C1-FundingRequestCancelConfirm | Funding - Enter Cancel Reason               |
| C1-FundingSelectedBillFilter   | Funding bills filters                       |
| C1-LFFinalSettlementRulesFrag  | Final Settlement Rules Fragment             |
| C1-MASSPRICINGBOJScriptFragDis | Java Script fragment for pricing request bo |
| C1-MASSPRICINGBOJScriptFragNew | Mass Pricing java script                    |
| C1-MassPricingDeferProcessing  | Pricing Request - Enter Defer Processing    |
| C1-MassPricingJScriptFrag      | Mass Pricing Request Type java script       |
| C1-MassPricingReqHideButton    | Hide/Display Button                         |
| C1-MassPricingReqSearch        | Search Mass Pricing Request                 |
| C1-MassPricingReqTypFragDis    | View Mass Pricing Request Type Details      |
| C1-MassPricingReqTypFragInp    | Mass Pricing Request Type BO - Maint        |
| C1-MassPricingStatsData        | Mass Pricing Statistic Data Display         |
| C1-OJTrainJSFrag               | Train Component - Script                    |
| C1-OJTrainMaint                | Train Component                             |
| C1-PRTLFBOScriptFrag           | Level Funded JS Fragment                    |
| C1-PersonTree                  | Person Tree                                 |



| UI Map                         | Description                                |
|--------------------------------|--------------------------------------------|
| C1-PolicyBOJScriptFrag         | ASO Policy Javascript Fragment             |
| C1-PolicyCharValueMaint        | Policy - Characteristic Value Maintenance  |
| C1-PriceCompCRUD               | Price Component Maintenance User Interface |
| C1-PriceCompDetailsTree        | Price Component Details                    |
| C1-PriceCompTree               | Price Component Tree                       |
| C1-PricingRuleDAMaint          | Discount Arrangement Pricing Rule          |
| C1-PricingRuleLFDisp           | Display UI Map for Level Funding.          |
| C1-PricingRuleLFMaint          | Level Funded (LF) Pricing Rule             |
| C1-ProdServTree                | Product Service Tree                       |
| C1-RuleExecutionCheckForTRT    | Rule Execution Check                       |
| C1-SSANCBCLT                   | Specific Stop-Loss (SSL) Pricing Rule      |
| C1-StateSearch                 | Search State under a country               |
| C1-ViewAccumulateDataFilterUI  | Accum Data -Filter Parent customer/Account |
| C1-ViewGarnishmentAmt          | Test Garnishment Amount                    |
| C1_ACAGHideSearchButton        | Mass Pricing Broadcast                     |
| C1_AccrualCycleSearchFilterCR  | Accrual Cycle Filter UI Map                |
| C1_AppTransRejectMsg           | Transaction ID Rejected Message            |
| C1_CUAGHideSearchButton        | Mass Pricing Broadcast                     |
| C1_FEEDTXNL0                   | Search Transaction Level                   |
| C1_MASSPRICUPD                 | Mass Pricing Update - UI                   |
| C1_PLSTHideButton              | Hide Search Button for Price List          |
| C1_PRODHideButton              | Hide Search Button for Product             |
| C1_PriceltemParam_AppTxn_Input | Price Item parameter Ui map                |
| CM_C1ACCTSUB_AppTxn_Display    | Display UI Map for C1ACCTSUB               |
| CM_C1ACCTSUB_AppTxn_Input      | Input UI Map for C1ACCTSUB                 |
| CM_C1PERSRETA_AppTxn_Display   | Display UI Map for C1PERSRETA              |
| CM_C1PERSRETA_AppTxn_Input     | Input UI Map for C1PERSRETA                |
| CM_C1PRCDA_AppTxn_Display      | Display UI Map for C1PRCDA                 |
| CM_C1PRCDA_AppTxn_Input        | Input UI Map for C1PRCDA                   |
| c1-acctPerSrch                 | Person Search filter UI                    |

## A.2.12 Lookups

The following lookups are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Field                        | Field Value | Description                            |
|------------------------------|-------------|----------------------------------------|
| ADDR_OPT_TYP_FLG             | ENBL        | Enable Effective Dated Address Feature |
| APPROVAL_TYPE_FLG            | REQL        | Request Level Approval                 |
| C1_POLICY_PAGE_SECTIONS      | POCH        | Policy Characteristics                 |
|                              | POMA        | Policy Main                            |
| C1MP_OPT_TYP_FLG             | THCN        | Thread Count                           |
|                              | TPWN        | Thread Pool Name                       |
| CONS_OPT_TYP_FLG             | AWCG        | Approval Workflow Group for Construct  |
| DA_BC_CALC_METHOD_FLG        | MAXP        | Yes                                    |
|                              | NCAP        | No                                     |
| DA_EXCLUSION_CRIT_FLG        | NETW        | Network                                |
|                              | TXID        | Provider                               |
| DA_LIMIT_OPT_FLG             | ENRL        | Enrollment Based                       |
|                              | FLAT        | Flat                                   |
| DATA_EXTRACT_FLG             | FULL        | Full                                   |
|                              | INCR        | Incremental                            |
| FINAL_SETTLE_OPT_FLG         | CLSO        | Closeout                               |
| FINAL_SETTLE_RENEWAL_FLG     | CNCL        | Cancelled                              |
|                              | RNEW        | Renewed                                |
| FUND_AMT_THSHLD_RNG_FLG      | WIRG        | Within Threshold Range                 |
|                              | WORG        | Outside Threshold Range                |
| LEVEL_FUNDED_ARRANGEMENT_FLG | BFND        | Balance Funding                        |
|                              | LPRE        | Enrollment Based Premium               |
|                              | MCPL        | Flat Rate Based Premium                |
| LF_MUDP_ARRNG_FLG            | FLAT        | Flat Dollar                            |
|                              | PCNT        | Percentage                             |
| MASS_PRICING_CRITERIA_FLG    | DECR        | Decrease Price                         |

| Field                  | Field Value | Description                         |
|------------------------|-------------|-------------------------------------|
|                        | ENDT        | End Date Price                      |
|                        | INCR        | Increase Price                      |
| MASS_PRICING_TYPE_FLG  | ABSO        | Absolute                            |
|                        | PERC        | Percentage                          |
| MDCLMTYP_FLG           | II          | Institutional Inpatient             |
|                        | II          | Institutional Inpatient             |
|                        | IO          | Institutional Outpatient            |
|                        | PF          | Professional                        |
| PA_STS_CHNG_NOT_TYPE   | ALRT        | Alert                               |
|                        | BOTH        | Both                                |
|                        | TODO        | ToDo                                |
| PARENT_OR_CHILD_FLG    | C           | Child                               |
|                        | P           | Parent                              |
| PI_ASSIGN_LVL_FLG      | ACT         | Account                             |
|                        | PL          | Price List                          |
|                        | PRD         | Product                             |
| PRICE_ENTITY_TYPE_FLAG | ACAG        | Account Agreed                      |
|                        | CUAG        | Customer Agreed                     |
|                        | PLST        | Price List                          |
|                        | PROD        | Product                             |
| PRICING_DERIVE_USING   | ABLT        | Ancillary Billable Charge Line Type |
|                        | ASLL        | ASL Line Items                      |
|                        | LFLL        | LF Line Items                       |
|                        | PRCR        | Pricing Rules                       |
|                        | SSLL        | SSL Line Items                      |
| PROCESS_PANEL_TYPE_FLG | D           | Data Area                           |
|                        | M           | UI Map                              |
| REQUEST_TYPE_FLG       | ACCT        | Account                             |
|                        | BCHG        | Billable Charge                     |
|                        | PAID        | Price Assignment                    |

| Field             | Field Value | Description       |
|-------------------|-------------|-------------------|
|                   | PRIT        | Price Item        |
| SEASON_EFF_STATUS | A           | Active            |
|                   | I           | Inactive          |
|                   | PEAD        | Person Address    |
| TXN_ZONE_NAME_FLG | FEED        | Feed Level        |
|                   | TXN         | Transaction Level |

## A.2.13 Characteristic Types

| Characteristic Type | Description                         |
|---------------------|-------------------------------------|
| ABC                 | Bill ID                             |
| C1-PAYCR            | Payment Currency Distribution Code  |
| C1-TOPPR            | Top Person Id in the Hierarchy      |
| COUNTRY             | Testing for BUG 28326953 - Country  |
| CURRENCY            | Testing for BUG 28326953 - Currency |
| PDSTR               | PDSTR                               |
| RD_PARAM            | RD_PARAM type                       |
| TEST526             | test526                             |

## A.2.14 Feature Configurations

The following feature configurations are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Feature Configuration | Description                         |
|-----------------------|-------------------------------------|
| C1-ADDRESS            | Use Effective Dated Address feature |
| C1-AWGCONST           | Construct Approval Group            |
| C1-MASPRI             | Mass Pricing Feature Configuration  |

## A.2.15 Zone Types

The following zone types are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Feature Configuration | Description                         |
|-----------------------|-------------------------------------|
| C1-DE-QUERY           | Query Data Explorer - Multiple SQLs |

## A.2.16 Business Objects

The following business objects are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Business Object               | Description                            |
|-------------------------------|----------------------------------------|
| C1-AttachmentWrapper          | wrap attachment physical Bo            |
| C1-BILL_SEG_BO                | Bill segment Business Object           |
| C1-BKAccount                  | Customer Onboarding- Banking Account   |
| C1-DATAEX                     | Data Extract Business Object           |
| C1-DEPOSIT_CTL_BO             | Deposit Control BO                     |
| C1-MATCH_EVENT                | Match Event BO                         |
| C1-MassPricingReq             | Mass Pricing Request                   |
| C1-MassPricingReqType         | Mass Pricing Request Type              |
| C1-PAY_BO                     | payment BO                             |
| C1-PricingRuleDiscArrangement | Discount Arrangement Pricing Rule      |
| C1-PricingRuleLevelFunded     | Level Funded (LF) Pricing Rule         |
| C1-PricingRuleTypeDA          | Discount Arrangement Pricing Rule Type |
| C1-PricingRuleTypeLF          | Level Funded (LF) Pricing Rule Type    |

## A.2.17 Maintenance Objects

The following maintenance objects are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Maintenance Object | Description                     |
|--------------------|---------------------------------|
| C1-DATAEX          | Data Extract Maintenance Object |

## A.2.18 To Do Types

The following to do types are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| To Do Type | Description                                 |
|------------|---------------------------------------------|
| C1-FUPLD   | File upload approval                        |
| C1-LVLFN   | Renewal Decision Level Funded ToDo creation |
| C1-PASDT   | TO DO notification for scheduled payment    |
| C1-PATDO   | Payment Agreement: Generic To Do creation   |
| CLAIMRES   | CLAIM Approval Work Flow Resolve To Do      |

## A.2.19 Application Services

The following application services are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Application Service | Description                         |
|---------------------|-------------------------------------|
| C1-ACCUDATA         | Accumulation Data                   |
| C1-GETPRICINGENTITY | Mass Pricing Update                 |
| C1-PICINGRULE       | Pricing Rules                       |
| C1-PRICEASGNTREE    | App Service for Price Assignment    |
| C1-PRICINGRULE      | Pricing Rules                       |
| C1ACUDAT            | Accumulation Data                   |
| C1DATAEXD           | Data Extract Request Type Dashboard |
| C1DTEXFL            | Data Extract Request Dashboard      |
| C1FILEMS            | File Management System              |
| C1MASPRI            | Mass Pricing Update                 |
| C1MPRIRQ            | Mass Pricing Request                |

| Application Service | Description                            |
|---------------------|----------------------------------------|
| C1MPRISR            | Mass Pricing Request                   |
| C1PRICEASGNUPLD     | Price Assignment Upload Service        |
| C1PRLZZ             | C1PRLZZC1PRLZZC1PRLZZ                  |
| CIDATAEXSER         | Data Extract Application Service       |
| DTEX_TYP            | Data Extract Request Type              |
| PRICECOMPSEQ        | Price Component Seq Validation Service |

## 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 2.7.0.1.0.

### B.1.1 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-EXTSTMTAD         |
| AUTODIAL            | C1-CONTRACTCHARSVALI | C1-EXTSTMTCHAR       |
| BILLGCONS           | C1-CONTRACTTYPECHARS | C1-EXTSTMTED         |
| BILLGRAPH           | C1-CTCGSRV           | C1-EXTSTMTITEM       |
| C1-ACCBALCNT        | C1-CTRLC             | C1-EXTSTMTITMCHR     |
| C1-ACCCRCHM         | C1-DEFAULTPP         | C1-EXTSTMTRC         |
| C1-ACCCURDET        | C1-DELPPTMP          | C1-EXTSTMTSRZ        |
| C1-ACCDDETAILZ      | C1-DFLTPTMP          | C1-EXTSTMTZ          |
| C1-ACCDISCREZ       | C1-DRRDTLSZ          | C1-GETADJ            |
| C1-ACCNBRTPAS       | 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          | C1BILLTD            |
| 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-TXNREC           | C1DISAGR            |
| C1-PPDETZ           | C1-TXNSRC           | C1EXCHRT            |
| C1-PPDISP           | C1-UNLINK           | C1FAAUD             |
| C1FLGRP             | C1POLSRCH           | C1TXNAGGRUL         |
| C1FLRQTY            | C1POLSRH            | C1TXNDTL            |
| C1FLSRCH            | C1POLTYP            | C1TXNREC            |
| C1FOAUD             | C1PPCARS            | C1TXNSRC            |
| C1HDRSR             | C1PPLAN             | C1TXRTFM            |
| C1INSPAY            | C1PPTMPL            | C1VAR               |
| C1MANAPP            | C1PPTMPO            | C1VARIANCE          |
| C1MANLOG            | C1PPVERSCHZ         | C1VIEWRL            |
| 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_CLCSESCH         | C1_EXSTS            |
| C1_BCUSACCSR        | C1_CLCTRCNTR        | C1_FEED             |
| 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_DISPBOUND        | 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_APVDTVLT       |
| 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_PRODVLT        | 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_PLCASSIGN        |
| C1_F_EXHVAL         | C1_GETTIER          | C1_PLDISEDIT        |
| C1_F_FH_VAL         | C1_GRP              | C1_PLEDIT           |
| C1_F_FINHIS         | C1_IGAI             | C1_PLISTSRCH        |
| 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            |
| C1_PRICE            | C1_SRCHPRD          | CILBSCCP            |
| C1_PRICEPARM        | 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            | CILRRTPP            | CILTBTCB            |
| CILPEQAP            | CILRRTPV            | CILTBTRP            |

| 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           | CILTAPRP            | CILTCLRP            |
| CILPRLISTASGN       | CILTAPSP            | CILTCLWP            |
| CILPTCNP            | CILTAROP            | CILTCNTP            |
| CILQATDP            | CILTARTP            | CILTCOCP            |
| CILTCPTP            | CILTMHTP            | CILTSCLP            |
| CILTCQTP            | CILTMMTP            | CILTSCYP            |
| CILTCRUP            | CILTMMSGP           | CILTSEVP            |
| CILTCURP            | CILTNBPR            | CILTSICP            |
| CILTCUSP            | CILTNCDP            | CILTSMIP            |
| CILTDARP            | CILTNUXP            | CILTSMTP            |
| CILTDASP            | CILTOCRP            | CILTSOMP            |
| CILTDCAP            | CILTOETP            | CILTSOPP            |
| CILTDCLP            | CILTOPTP            | CILTSPRP            |
| CILTDIRP            | CILTORAP            | CILTSPTP            |
| CILTDPRP            | CILTPCRP            | CILTSQIP            |
| CILTD RTP           | CILTPCTP            | CILTSQRP            |
| CILTDSTP            | CILTPDRP            | CILTSTMP            |
| CILTDWPP            | CILTPHTP            | CILTSTSP            |
| CILTDWTP            | 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             |
| CILTDIP             | 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       |
| CILTWPTP            | CILZRPOP            | DIV_PRICELISTS       |
| CILTWSCP            | CILZRPTP            | F1-APAYEXPCRTYPEBOAS |
| CILTWSDP            | CILZSCMP            | F1-ATTACHMENTBOAS    |
| CILTXNCD            | CILZSCRP            | F1-BKTCONFIG         |
| CILTXNCDL           | CILZSCZP            | F1-BOOKMARKS         |
| CILTXNSRC           | CILZTLZP            | F1-DECRPTBOAS        |
| CILTXNSRCL          | 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-WEB SVCBOAS      |
| 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            |
| F1HGMAPPING         | F1REQ               | FWLTUIMP            |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| F1IWSANM            | F1REQTYP            | FWLXOUTP            |
| F1IWSDDL            | F1REVHST            | FWLZDEXP            |
| F1IWSSVC            | F1STRDIS            | FWLZWLP             |
| 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     | C1FLRQDT            | C1REFUPLREQ         |
| C1BCHGUPLREQ        | C1GETELIGPT         | C1UPLDRQ            |
| C1BILLCYCLEUPDTUPL  | C1GLAT              | C1UPLREQ            |
| C1CONTRIDERUPDTUPL  | C1GLATEMP           | C1WOUPPLREQ         |
| C1DCDTLC            | C1GLATRQ            | C1_STDTL            |
| C1DELCTL            | C1HOLDUPLREQ        | C1_STRTE            |
| C1ELGPA             | C1LASGN             | C1_STRTY            |
| C1FILERQ            | C1PIASGN            | CISTMEXCP_SERV      |
| REQ_TYP             | ACRLSRCH            | C1-ACCTECR          |
| C1-CUSTINMSG        | C1ADDRS             | C1HCAPPSE           |
| C1-DEALPRICING      | C1ADDRSBO           | C1HCBLDT            |
| C1-FTDIST           | C1ADDRSDP           | C1HCSINF            |
| C1-FTDISTRULE       | C1ADDRSRC           | C1INMSGP            |
| C1-FTDISTTY         | C1BK360             | C1INMSRH            |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| C1-GENRQ            | C1BKAPPSE           | 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_ACVW             | 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        | CIAPPCHELGBL        |
| CICONACT            | CONRULE              | CONSTRUCT           |
| DDPRCSM             | ACCT_SUBSCRPTN_SERV  | C1-PRCRULE          |
| C1-PRC_CALC_SM      | C1-PRRLTYP           | C1-SUBSCRTYPE       |
| C1BILLSORT          | C1BLLVLUPLREQ        | C1BLLSRTUPLREQ      |
| C1ENTITYREPORT      | C1FILERQ             | C1FLRQDT            |
| C1PRICINGGROUP      | C1PROAPP             | C1PRTYP             |
| C1REPORTTMP         | C1RPTAUD             | C1RPTDEF            |
| C1SUBSTP            | C1SUBTVW             | REQ_TYP             |
| C1-ACCUDATA         | C1-CUSTREGTEMPL_SERV | C1-CUSTREGTYPE      |
| C1-GETPRICINGENTITY | C1-PICINGRULE        | C1-PRICEASGNTREE    |
| C1ACUDAT            | C1CREGSR             | C1CTRGBK            |
| C1CTR GHC           | C1FILEMS             | C1MASPRI            |
| C1MPRIRQ            | C1MPRISR             | C1RETMPL            |
| REQ_TYP             | CIDATAEXSER          | DTEX_TYP            |
| PRICECOMPSEQ        | -                    | -                   |

## B.1.2 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           |

| Application Service  | Application Service  | Application Service |
|----------------------|----------------------|---------------------|
| C1-ACCBALCNT         | C1-POLICYINVOICEFREQ | C1APPTXNBOCHN       |
| C1-ACCNBRTYPAS       | C1-POLINVDETZ        | C1APPTXNBOCHNZN     |
| C1-ADJAPPRVLREQBOAS  | C1-POLINVFRE         | C1APPTXNCHAIN       |
| C1-APAYEXPCRREQBOAS  | C1-POLINVFREZ        | C1APPTXNCRI         |
| C1-APAYEXPCRTYPEBOAS | C1-POLINVFRQ         | C1APPTXNCRT         |
| C1-APAY_STG_UP       | C1-PRISIM            | C1APPTXNGRP         |
| C1-APPRS             | C1-REFWOREQ          | C1APROF             |
| C1-APPTXN            | C1-REGENUI           | C1BILLTD            |
| 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     | C1-TXNREC            | C1COLLTYP           |
| C1-CONTRACTTYPECHRS  | C1-TXNSRC            | C1COLTYP            |
| C1-CTCGSRV           | C1-WRITEOFFREQ       | C1CPROG             |
| C1-GETEFFECTVPRICING | C1ACCRATE            | C1CSTYSR            |
| C1-GETPRICING        | C1ACMACT             | C1DISAGR            |
| C1-MAINPINFR         | C1ACTCAT             | C1EXCHRT            |
| C1-OUTAGE            | C1ACTPER             | C1FLGRP             |
| 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             | C1SACCOLLECT         | F1-BOOKMARKS        |
| C1ODBUPR             | C1SACTHI             | C1_APUR             |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| C1PASGAPPROVE       | C1SCHEDU            | C1_APVIG            |
| C1PASGREADMODIFY    | C1SCHTMP            | C1_ASNPL            |
| C1PASGREADRESOLVE   | C1SETTHR            | C1_AUDIT            |
| C1PAYMAN            | C1SRCHRL            | C1_BACCGRVAL        |
| C1PAYPTL            | C1TXNAGG            | C1_BACCTDETL        |
| C1PAYREQ            | C1TXNAGGRUL         | C1_BACCVALID        |
| C1PAYRQ             | C1TXNDTL            | C1_BACTSRCHM        |
| C1PAYSRC            | C1TXNFD             | C1_BAFH             |
| C1PAYUPL            | C1TXNSRC            | C1_BAFHZ            |
| C1POINFR            | C1TXRTFM            | 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_ADMPI            | C1_F_ADVAL          |
| C1_BO_OPT           | C1_DIVPERREL        | C1_F_APVDTVLT       |
| C1_BPAYHSRCH        | C1_DSPLY_RT         | C1_F_APVNFLT        |
| C1_BPH_INFO         | C1_EDIT             | C1_F_APVRJS         |
| C1_BPYHS            | C1_EDTBD            | C1_F_ASNCUS         |
| C1_BRD_P            | C1_EDTBUND          | C1_F_ASGNPTP        |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| 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         |
| 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_CPYBNDL        |
| C1_CHKTRDFLG        | C1_EXPPITM          | C1_F_CPYPL          |
| C1_CIAM             | C1_FEED             | 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_EDTBNDT        |
| C1_COPYPL           | C1_F_ADDMM          | C1_F_EDTEXHR        |
| C1_CPBUNDL          | 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_DISPBOUND        | 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            |



| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| 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        |
| 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            |
| C1_PRICE            | C1_SRCHPLVAL        | CILBBICP            |
| C1_PRICEPARM        | C1_SRCHPPL          | CILBLLP             |
| C1_PRITSRCH         | C1_SRCHPRD          | CILBSBHP            |
| C1_PROD             | C1_SRCH_PROF        | CILBSCCP            |
| C1_PRODPL           | C1_SRCH_TEMP        | CILBSEGP            |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| C1_PRODVAL          | C1_SRPROD           | CILBSTMP            |
| C1_PROD_ADD         | C1_STRTOLIST        | CILCAASP            |
| C1_PROD_EDIT        | C1_TEMPLATE         | CILCACCP            |
| C1_PROD_SAVE        | C1_TIER_INP         | CILCACMP            |
| C1_PROD_SRCH        | C1_TRLBL            | CILCALZP            |
| C1_PROVR_EDT        | C1_TXNAR            | CILCAMRP            |
| C1_PRZCR            | C1_VWPRD            | CILCASEXTN          |
| C1_PRZTR            | CIACNBTY            | CILCBCUP            |
| C1_PRZ_CR           | CIACTTYP            | CILCBRWP            |
| C1_PRZ_TR           | CIAPAYSTGUPL        | CILCCCIP            |
| C1_PTPLA            | CIAPPACCTYPE        | CILCCCZP            |
| C1_PYHST            | CIAPPACTTYPE        | CILCCIZP            |
| C1_RATE_DEF         | CIAPPCHELGBL        | 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         | CILACLCP            | CILCPRMP            |
| C1_SRCH             | CILACTCT            | CILCQTEP            |
| C1_SRCHPL           | CILACTHI            | CILQATDP            |
| CILCSALP            | CILICOEP            | CILQCASP            |
| CILCSESA            | CILITDDP            | CILQTDEP            |
| CILCSSEP            | CILITDQP            | CILQTDLP            |
| CILCSVAP            | CILITPDP            | CILQTDQP            |
| CILDATA             | CILLCAZP            | CILQTDSP            |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| CILDIVET            | CILLODPP            | CILQTDTP            |
| CILDIVEXT           | CILMRBHP            | CILQTDZP            |
| CILDRVWP            | CILPAPHP            | CILQTSSP            |
| CILECBLP            | CILPAPSP            | CILQTSUP            |
| 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            | CILTNGP             |
| CILTAROP            | CILTCPRP            | CILTMCRP            |
| CILTARTP            | CILTCQTP            | CILTMHTP            |
| CILTASGP            | CILTCRUP            | CILTMSGP            |
| CILTATCP            | CILTCURP            | CILTNRBP            |
| CILTATPP            | CILTCUSP            | CILTNCDP            |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| CILTATYP            | CILTCVTP            | CILTNUXP            |
| CILTBCRP            | CILTDARP            | CILTOCRP            |
| CILTBCTP            | CILTDASP            | CILTOETP            |
| CILTBFFP            | CILTD CAP           | CILTOPTP            |
| CILTB FVP           | CILTDCLP            | CILTORAP            |
| CILTBIMP            | CILTDIRP            | CILTPCRP            |
| CILTB LCP           | CILTDLOP            | CILTPCTP            |
| CILTB LPP           | CILTDPRP            | CILTPDRP            |
| CILTB NKP           | CILTDSTP            | CILTPHTP            |
| CILTB RTP           | CILTDWPP            | CILTPKGP            |
| CILTBSTP            | CILTDWTP            | CILTPMDP            |
| CILTB TCP           | CILTEBRP            | CILTPPTP            |
| CILTBTRP            | CILTECRP            | CILTPROP            |
| CILTBUDP            | CILTETTP            | CILTPRTP            |
| CILTBXTP            | CILTFAAP            | CILTPSDP            |
| CILTCAMP            | CILTFNDP            | CILTPSTP            |
| CILTCATP            | CILTFRQP            | CILTPTRP            |
| CILTCCCP            | CILTFWLP            | CILTPYTP            |
| CILTCCTP            | CILTGLDP            | CILTQRTP            |
| CILTCHTP            | CILTIDTP            | CILTRGLP            |
| CILTCIDP            | CILTINCP            | CILTRLEP            |
| CILTCLGP            | CILTINSP            | CILTRSCP            |
| CILTCLWP            | CILTITTP            | CILTRTYP            |
| CILTCNTP            | CILTDIP             | CILTSATP            |
| CILTCOCP            | CILTLETP            | CILTSCLP            |
| CILTCOTP            | CILTLKFP            | CILXJSVP            |
| CILTSCYP            | CILTWSDP            | CILXNDNP            |
| CILTSICP            | CILTXNDETAIL        | CILXOPTP            |
| CILTSOMP            | CILTXNDISAGGEXC     | CILXRCVP            |
| CILTSOPP            | CILTXNDISAGGREQ     | CILXRTTP            |
| CILTSQIP            | CILTXNHEADER        | CILXSENP            |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| CILTSQRP            | CILTXNRECTYPE       | CILXSVXP            |
| CILTSVTP            | CILTXNSOURCE        | CILXTPCP            |
| CILTSLWP            | CILTXNSRC           | CILXXSCP            |
| CILTTACP            | CILTXNSRCD          | CILXXUPP            |
| CILTTAXP            | CILTXNSRCL          | CILYASTP            |
| CILTTGRP            | CILUPFTS            | CILYDBPP            |
| CILTTMRP            | CILVFVDP            | CILYDFQP            |
| CILTTMTP            | CILVFVSP            | CILYDPIP            |
| CILTTNSP            | CILVVLEP            | CILYENRP            |
| CILTTNTP            | CILVVLSL            | CILYROBP            |
| CILTToup            | CILWDWNP            | CILZAFQP            |
| CILTTRAP            | CILWJSDP            | CILZAUQP            |
| CILTTRCP            | CILWJSSP            | CILZFNCP            |
| CILTTTMP            | CILWNUPP            | CILZPORP            |
| CILTTZNP            | CILWNUSP            | CILZRBPP            |
| CILTUOMP            | CILWPROP            | CILZRPHP            |
| CILTURPP            | CILXADPP            | CILZRPOP            |
| CILTUSCP            | CILXAIEP            | CILZSCMP            |
| CILTUSEP            | CILXAIP             | CILZSCR             |
| CILTUSGP            | CILXCLSP            | CILZSCZP            |
| CILTWCTP            | CILXCONP            | CILZTLZP            |
| CILTWDCP            | CILXENHP            | CILZZOHP            |
| CILTWETP            | CILXFRMP            | CILZZONP            |
| CILTWFP             | CILXGRPP            | CIL_FAVORITES       |
| CILTWPTP            | CILXJDBP            | CIMOAPPCHAIN        |
| CILTWSCP            | CILXJMSP            | F1MIGRTIMP          |
| CIPCHT3L            | F1-WEBSVCBOAS       | F1MIGRTX            |
| CIPFAFHP            | F1ADMIN             | F1MTXIMP            |
| CIPOLICY            | F1APPSEC            | F1OBJREVCTL         |
| CIPRICEACCOUNT      | F1ATTACH            | F1OBJRVH            |
| CIPRICEPARM         | F1ATTACHMENT        | F1REQ               |

| Application Service  | Application Service | Application Service |
|----------------------|---------------------|---------------------|
| CIPYSRCH             | F1BUNEXP            | F1REVHST            |
| CIRECON              | F1BUNIMP            | F1STRDIS            |
| CIRECONSEG           | F1CATTCH            | F1STREAS            |
| CIRSTTYP             | F1CONFIGLOG         | F1SUBRQQ            |
| 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             | FWLZWLP             | C1PIASGN            |
| FWLTSCHP             | FWLTUIMP            | C1PLASGNM           |
| C1-BILLCHARGE        | C1ELGPA             | C1REFUPLREQ         |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| C1BCHGUPLREQ        | C1GETELIGPT         | C1UPLDRQ            |
| C1BILLCYCLEUPDTUPL  | C1GLAT              | C1UPLREQ            |
| C1CONTRIDERUPDTUPL  | C1GLATEMP           | C1WOUPLEREQ         |
| C1DCDTLC            | C1GLATRQ            | C1_STRTE            |
| 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_ACYVW            | 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            |

| Application Service  | Application Service | Application Service |
|----------------------|---------------------|---------------------|
| 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      |
| C1-REVRECSCHZ        | C1-SCHEDULERMONITOR | C1-SCHPGMQZ         |
| C1-SCHSCHQZ          | C1APAYRT            | C1APAYVW            |
| C1APYINS             | C1AWFCHN            | C1AWFCRT            |
| C1AWFGRP             | C1AWFRSN            | C1AWFSET            |
| C1CONADD             | C1FILERQ            | C1FLRQDT            |
| C1PARAM              | C1PDSRCH            | C1PERS              |
| C1PERSDP             | C1PERSON            | C1PRDSVC            |
| C1PRODDP             | C1PRODUCTSERVICE    | C1PVERDP            |
| C1REPORT             | C1RPTTMP            | C1SCHCHN            |
| C1SCHJOB             | C1SCHPGM            | C1SCHSCH            |
| C1SCJMON             | C1SRCAPP            | C1SVCDSP            |
| C1VIEPRI             | REQ_TYP             | C1_BOCHN            |
| C1_CONSTRUCT         | C1_DRRSP            | C1_DRRSR            |
| C1_DRRTM             | C1_DR RTP           | 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            |



| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| C1MPRIRQ            | C1MPRISR            | C1RETMPL            |
| F1MSTCFG            | F1OUMSTQ            | F1OUMSTY            |
| PRICECOMPSEQ        | -                   | -                   |

### B.1.3 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-INSDETBK          | 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-PINVFPPOST        | C1APPCHN            |
| C1-APPRSN            | C1-POINFRDET         | C1APPCRT            |
| C1-APPTXN            | C1-POLICYINVOICEFREQ | C1APPRESP           |
| C1-APPTXNLOG         | C1-POLICYPLAN        | C1APPTXNBOCHN       |
| C1-ASAPU             | C1-POLINVDETZ        | C1APPTXNBOCHNZN     |
| 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            |

| Application Service  | Application Service | Application Service |
|----------------------|---------------------|---------------------|
| C1-DEFAULTPP         | C1-PPERROR          | 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_ADMPI            | C1_EDTER            |
| 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_EFPROD SRC       |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| 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_PLCASSIGN        |
| 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        |
| 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           |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| 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_PRICEPARM        | 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        | CIAPPCHELGBL        | CILCCSCP            |
| 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            |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| 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            | CILACCDEL           | CILDIVET            |
| C1_SAVE_TIER        | CILACLCP            | CILDIVEXT           |
| C1_SHOW_IMG         | CILBBICP            | CILECBLP            |
| C1_SRCH             | CILBBLLP            | 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            |
| CILFFTPP            | CILQCASP            | CILTBCRP            |
| CILFLGRP            | CILQTDEP            | CILTBCTP            |
| CILFMVTP            | CILQTDLP            | CILTBFFP            |
| CILFSFHP            | CILQTDQP            | CILTBFVP            |
| CILITPDP            | CILQTDSP            | CILTBIMP            |
| CILLODPP            | CILQTDTP            | CILTBLCPP           |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| CILPAPHP            | CILQTDZP            | CILTLBPP            |
| CILPAPSP            | CILQTSSP            | CILTBKNP            |
| CILPDCNP            | CILQTSUP            | CILTBRTD            |
| CILPDCSP            | CILRCMAP            | CILTBSTP            |
| CILPEPLP            | CILRENGP            | CILBTCTP            |
| CILPEQAP            | CILRRSMP            | CILBTBTP            |
| CILPEVTP            | CILRRTCP            | CILBTBTP            |
| CILPICHAR           | CILRRTSP            | CILTCAMP            |
| CILPIDIV            | CILRRTPV            | CILTCATP            |
| CILTCCCP            | CILTITTP            | CILTSARP            |
| CILTCCTP            | CILTLDIP            | CILTSATP            |
| CILTCHTP            | CILTLETP            | CILTSCLP            |
| CILTCIDP            | CILTLKFP            | CILTSCYP            |
| CILTCLGP            | CILTLNGP            | CILTSICP            |
| CILTCLRP            | CILTMCRP            | CILTSOMP            |
| CILTCLWP            | CILTMHTP            | CILTSOPP            |
| CILTCNTP            | CILTMMSGP           | CILTSQIP            |
| CILTCOCP            | CILTNUXP            | CILTSQRP            |
| CILTCQTP            | CILTOCRP            | CILTSTMP            |
| CILTCURP            | CILTOETP            | CILTSVTP            |
| CILTCUSP            | CILTOPTP            | CILTSLWP            |
| CILTDARP            | CILTORAP            | CILTTACP            |
| CILTDASP            | CILTPCRP            | CILTTAXP            |
| CILTDCAP            | CILTPCTP            | CILTTGRP            |
| CILTDCLP            | CILTPDRP            | CILTTMRP            |
| CILTDIRP            | CILTPHTP            | CILTTMTP            |
| CILTDPRP            | CILTPIFP            | CILTTNSP            |
| CILTDSTP            | CILTPKGP            | CILTTNTP            |
| CILTDWPP            | CILTPMDP            | CILTToup            |
| CILTDWTP            | CILTPPTP            | CILTTTRAP           |
| CILTEBRP            | CILTPRTP            | CILTTTMP            |

| Application Service | Application Service | Application Service  |
|---------------------|---------------------|----------------------|
| CILTECRP            | CILTPSDP            | CILTTZNP             |
| CILTETTP            | CILTPSTP            | CILTUOMP             |
| CILTFNDP            | CILTPTRP            | CILTURPP             |
| CILTFRQP            | CILTPYTP            | CILTUSCP             |
| CILTFWLP            | CILTQRTP            | CILTUSEP             |
| CILTGLDP            | CILTRGLP            | CILTUSGP             |
| CILTIDTP            | CILTRLEP            | CILTWCTP             |
| CILTINCP            | CILTRSCP            | CILTWDCP             |
| CILTINSP            | CILTRTYP            | CILTWETP             |
| CILTWFPF            | CILXOPTP            | CISATYCHG            |
| CILTWPTP            | CILXRCVP            | CTXTZONE             |
| CILTWSCP            | CILXRTPP            | DIVS                 |
| CILTWSDP            | CILXSENP            | DIV_PRICEITEMS       |
| CILTXNDETAIL        | CILXSVXP            | DIV_PRICELISTS       |
| CILTXNSRC           | CILXTPCP            | F1-APAYEXPCRTYPEBOAS |
| CILTXNSRCD          | CILXXSCP            | F1-ATTACHMENTBOAS    |
| CILTXNSRCL          | 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           |
| CILWNUPP            | CILZFNCP            | F1-SYNCREQIN         |
| CILWNUSP            | CILZPORP            | F1-SYNCREQUESTBOAS   |
| CILWPROP            | CILZRBPP            | F1-WEBSVCBOAS        |
| CILXADPP            | CILZRPHP            | F1ADMIN              |
| CILXAIEP            | CILZRPOP            | F1ATTACH             |
| CILXAIP             | CILZRPTP            | F1ATTACHMENT         |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| 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_USRFAVSCH        | 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            |
| F1MTXIMP            | FWLZWLP             | C1LASGN             |
| F1REQ               | GOTOREC             | C1PIASGN            |
| C1BCHGUPREQ         | C1DELCTL            | C1PLASGNM           |
| C1BILLCYCLEUPDTUPL  | C1ELGPA             | C1REFUPREQ          |
| C1CONTRIDERUPDTUPL  | C1GETELIGPT         | C1UPLDRQ            |
| C1DCDTLC            | C1HOLDUPLREQ        | C1UPLREQ            |



| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| C1WOUPPLREQ         | CILCPASP            | C1HCSINF            |
| C1-ACCNBRTYPAS      | 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         | CIPOLPERROLE        | 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-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-TDPG             |
| F1-XMLPG            | ACCTVIEW            | C1-ACCTAPAY_SERV    |
| C1-DISC-REPT        | C1-DRRTMPLT         | C1-MBR-DR-TY        |
| C1-REVRECPLCY       | C1ACCTAPAY          | C1APAYRT            |

| Application Service  | Application Service | Application Service |
|----------------------|---------------------|---------------------|
| C1APAYVW             | C1APYINS            | C1DISREP            |
| C1DRDIS              | C1DSRTY             | C1FILERQ            |
| C1FLRQDT             | 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            |
| C1LRULTP             | CONRULE             | PRICECOMPPRE        |
| REQ_TYP              | C1-PRRLTYP          | C1-RULEBOAS         |
| C1-TXNAGG            | C1-TXNDTL           | C1-TXNREC           |
| C1-TXNSRC            | C1BILLVL            | C1BILLSORT          |
| C1BILLTD             | C1BLLVLUPLREQ       | C1BLLSRTUPLREQ      |
| C1DISAGR             | C1ENTITYREPORT      | C1PRICINGGROUP      |
| C1PROAPP             | C1PRTYP             | C1SRCHRL            |
| C1TXNAGG             | C1TXNAGGRUL         | C1TXNDTL            |
| C1TXNFD              | C1TXNSRC            | C1TXRTFM            |
| C1_BUNDVAL           | C1_COPYBND          | C1_CPYBD            |
| C1_FEED              | C1_PRICE            | C1_TXNAR            |
| C1TXNSOURCE          | C1PRICEPARM         | F1APPLYBNDL         |
| F1BNDLEM             | F1BNDLES            | F1BNDLIM            |
| F1BNDLIS             | F1BUNEXP            | F1BUNIMP            |
| F1IWSDDL             | F1IWSVC             | F1IWSVCP            |
| F1IWSVCS             | FWLBNDLP            | C1-ACCUDATA         |
| C1-CUSTREGTEMPL_SERV | C1-CUSTREGTYPE      | C1-GETPRICINGENTITY |
| C1-PICINGRULE        | C1ACUDAT            | C1MASPRI            |
| C1MPRISR             | C1RETMPL            | F1OUMSTQ            |
| F1OUMSTY             | PRICECOMPSEQ        | -                   |

## B.1.4 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-ACCCURDET         | C1-DFLTPTMP          | C1-EXTSTMTITMCHR     |
| C1-ACCDDETAILZ       | C1-DRRDTLSZ          | C1-EXTSTMTRC         |
| C1-ACCDISCREZ        | C1-DUPBTN            | C1-EXTSTMTSRZ        |
| 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 |
| 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  |

| Application Service  | Application Service | Application Service |
|----------------------|---------------------|---------------------|
| 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-POLINVDETZ        | C1-PPTMPLZ          | C1BOCHN             |
| C1-POLINVEDI         | C1-PPTMPPOST        | 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       | REQ_TYP             | C1LISTBL            |
| C1-POLSUMZ           | C1-SHDETAILSZ       | C1MANAPP            |
| C1-PPACCTSRC         | C1-SRCHSCPT         | C1MANLOG            |
| C1-PPACTV            | C1-UNLINK           | C1MANMOD            |
| C1-PPBTNS            | C1-UNLINKPP         | C1MANRES            |
| C1-PPDET             | C1-UPLOADCSV        | C1NCISPY            |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| 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          |
| 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          |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| 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        |
| C1_F_ADPROD         | C1_F_PERSRCH        | C1_PAYUP            |
| C1_F_APVDTV         | 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_CPYBNDL        | 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_PLCASSIGN        |
| C1_F_DELEXCH        | C1_F_RSCDVAL        | C1_PLEDIT           |
| C1_F_DELSCS         | C1_F_RTDESC         | C1_PLISTSRCH        |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| 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         | CILACDEL            |
| C1_PP_PLVAL         | C1_SRCH             | CILACLCP            |
| C1_PRCAD            | C1_SRCHPL           | CILBBICP            |
| C1_PRCE_VALD        | C1_SRCHPLVAL        | CILBBLP             |
| 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         | CILCAHP             |
| C1_PRICEPARM        | 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            | CILCCIP             |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| 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            |
| CILDIVET            | CILPEQAP            | CILRRSMP            |
| CILDIVEXT           | CILPEVTP            | CILRRTCP            |
| CILECBLP            | CILPICHAR           | CILRRTSP            |
| CILEFKRP            | CILPIDIV            | CILRRTVP            |
| 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            |



| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| 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            |
| CILTBGRP            | CILTDIRP            | CILTPKGP            |
| CILTBCTP            | CILTDPRP            | CILTPMDP            |
| CILTBFFP            | CILTDSTP            | CILTPPTP            |
| CILTBFPV            | CILTDWPP            | CILTPRTP            |
| CILTBIMP            | CILTDWTP            | CILTPSDP            |
| CILTBLCB            | CILTEBRP            | CILTPSTP            |
| CILTBLLP            | CILTECRP            | CILTPTRP            |
| CILTBKBP            | CILTFNDP            | CILTPYTP            |
| CILTBRTB            | CILTFRQP            | CILTQRTB            |
| CILTBSTB            | CILTFWLP            | CILTRGLP            |
| CILTBTCB            | CILTGLDP            | CILTRLEP            |
| CILTBTRB            | CILTIDTP            | CILTRSCP            |
| CILTBXTP            | CILTINCP            | CILTRTYP            |
| CILTCAMP            | CILTINSP            | CILTSATP            |
| CILTCATP            | CILTITTP            | CILTSCLP            |
| CILTCCCP            | CILTLDIP            | CILTSCYP            |
| CILTCCTP            | CILTLETP            | CILTSICP            |
| CILTCHTP            | CILTLKFP            | CILTSOMP            |
| CILTCIDP            | CILTNGP             | CILTSOPP            |
| CILTCLGP            | CILTMCRP            | CILTSQIP            |
| CILTCLRP            | CILTMHTP            | CILTSQRP            |
| CILTCLWP            | CILTMSGP            | CILTSTMP            |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| CILTCNTP            | CILTNUXP            | CILTSVTP            |
| CILTCOCP            | CILTOCRP            | CILTSWLP            |
| CILTTACP            | CILWDWNP            | CILYROBP            |
| CILTTAXP            | CILWJSDP            | CILZAFQP            |
| CILTTGRP            | CILWJSSP            | CILZAUQP            |
| CILTTMRP            | CILWNUPP            | CILZFNCP            |
| CILTTMTP            | CILWNUSP            | CILZPGRP            |
| CILTTNSP            | CILWPROP            | CILZRBPP            |
| CILTTNTP            | CILXADPP            | CILZRPHP            |
| CILTToup            | CILXAIEP            | CILZRPOP            |
| CILTTRAP            | CILXAIEP            | CILZRPTP            |
| CILTTTTP            | CILXCLSP            | CILZSCRP            |
| CILTTZNP            | CILXCONP            | CILZSCZP            |
| CILTUOMP            | CILXENHP            | CILZTLZP            |
| CILTURPP            | CILXFRMP            | CILZZOHP            |
| CILTUSCP            | CILXGRPP            | CILZZONP            |
| CILTUSEP            | CILXJDBP            | CIL_FAVORITES       |
| CILTUSGP            | CILXJMSP            | CIPOLICY            |
| CILTWCTP            | CILXJSVP            | CIPOLPERRL          |
| CILTWDCP            | CILXNDNP            | CIPOLPERROLE        |
| CILTWETP            | CILXOPTP            | CIPOLREINSTRSN      |
| CILTWPTP            | CILXRCVP            | CIPRICEACCOUNT      |
| CILTWSCP            | CILXRTTP            | 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           |

| Application Service  | Application Service | Application Service |
|----------------------|---------------------|---------------------|
| 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            |
| 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        |

| Application Service | Application Service | Application Service |
|---------------------|---------------------|---------------------|
| F1MGDEXP            | F1MGDEXS            | C1LASGN             |
| C1BCHGUPLREQ        | C1DELCTL            | C1PIASGN            |
| C1BILLCYCLEUPDTUPL  | C1ELGPA             | C1PLASGNM           |
| C1CONTRIDERUPDTUPL  | C1GETELIGPT         | C1REFUPLREQ         |
| C1DCDTLC            | C1HOLDUPLREQ        | C1UPLDRQ            |
| C1UPLREQ            | C1WOUPLREQ          | C1LCPASP            |
| 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            |
| 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            |
| C1FILERQ            | C1FLRQDT            | C1PARAM             |
| C1PERS              | C1PERSDP            | C1PERSON            |

| Application Service | Application Service  | Application Service |
|---------------------|----------------------|---------------------|
| C1SRCAPP            | C1VIEWRL             | C1_INVCN            |
| C1_PRODUCT          | C1_RLTPM             | C1_RLTVW            |
| C1LRULTP            | C1-PRRLTYP           | C1ENTITYREPORT      |
| C1PROAPP            | C1PRTYP              | C1_PRICE            |
| C1PRICEPARM         | C1-CUSTREGTEMPL_SERV | C1-CUSTREGTYPE      |
| C1-GETPRICINGENTITY | C1MASPRI             | C1MPRISR            |
| C1RETMPL            | F1OUMSTQ             | F1OUMSTY            |
| PRICECOMPSEQ        | -                    | -                   |

## Appendix C : Changing the DB User Password

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If you have changed the database user password, you need to execute the following steps before installing the rollup pack for Oracle Utilities Application Framework Version 4.3.0.6.0:

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 V4.3.0.6.0 Database

This section lists the objects that are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 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 V4.3.0.6.0 database.

#### D.1.1 New Tables

The following tables are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Table                       | Description                       |
|-----------------------------|-----------------------------------|
| F1_ATTACHMENT_K             | Attachment Key                    |
| F1_CUBE_TYPE                | Cube Type                         |
| F1_CUBE_TYPE_L              | Cube Type Language                |
| F1_CUBE_VIEW                | Cube View                         |
| F1_CUBE_VIEW_L              | Cube View Language                |
| F1_CUBE_VIEW_LOG            | Cube View Log                     |
| F1_CUBE_VIEW_LOG_PARM       | Cube View Log Parameters          |
| F1_DEPLOYMENT               | Deployment                        |
| F1_DEPLOYMENT_ITEM_METADATA | Deployment Item Meta Data         |
| F1_DEPLOYMENT_K             | Deployment Key                    |
| F1_DEPLOYMENT_PART          | Deployment Part                   |
| F1_DEPLOYMENT_ITEM          | Deployment Part Item              |
| F1_DEPLOYMENT_PART_L        | Deployment Part Language          |
| F1_DEPLOYMENT_TYPE          | Deployment Type                   |
| F1_DEPTYP_DEPPART           | Deployment Type / Deployment Part |
| F1_DEPTYP_MDT_TYPE          | Deployment Type / MDT Type        |

| Table                       | Description                               |
|-----------------------------|-------------------------------------------|
| F1_DEPLOYMENT_TYPE_L        | Deployment Type Language                  |
| F1_DEPTYP_MSG_CAT           | Deployment Type Message Category          |
| F1_DEPTYP_USR_GRP           | Deployment Type User Group                |
| F1_CRYPTO_KEY_RING          | Key Ring                                  |
| F1_CRYPTO_KEY               | Key Ring Key                              |
| F1_CRYPTO_KEY_RING_L        | Key Ring Language                         |
| F1_CRYPTO_KEY_RING_LINK     | Key Ring Link                             |
| F1_CRYPTO_KEY_RING_LOG      | Key Ring Log                              |
| F1_CRYPTO_KEY_RING_LOG_PARM | Key Ring Log Parameter                    |
| F1_MOBILE_COMPONENT         | Mobile Component                          |
| F1_MOB_COMP_CHAR            | Mobile Component Characteristics          |
| F1_MOB_COMP_CNT             | Mobile Component Content                  |
| F1_MOBILE_COMPONENT_L       | Mobile Component Language                 |
| F1_MDT                      | Mobile Data Terminal                      |
| F1_MDT_CHAR                 | Mobile Data Terminal Characteristics      |
| F1_MDT_K                    | Mobile Data Terminal Key                  |
| F1_MDT_TYPE                 | Mobile Data Terminal Type                 |
| F1_MDT_TYPE_CHAR            | Mobile Data Terminal Type Characteristics |
| F1_MDT_TYPE_L               | Mobile Data Terminal Type Language        |
| F1_REMOTE_MSG               | Mobile Remote Message                     |
| F1_REMOTE_MSG_CHAR          | Mobile Remote Message Characteristics     |
| F1_REMOTE_MSG_K             | Mobile Remote Message Key                 |
| F1_REMOTE_MSG_LOG           | Mobile Remote Message Log                 |
| F1_REMOTE_MSG_LOG_PARM      | Mobile Remote Message Log Parameters      |
| F1_PROC_NEXT_PANEL          | Next Panel                                |
| F1_ERASURE_SCHED            | Object Erasure Schedule                   |
| F1_ERASURE_SCHED_K          | Object Erasure Schedule Key               |
| F1_ERASURE_SCHED_LOG        | Object Erasure Schedule Log               |
| F1_ERASURE_SCHED_LOG_PARM   | Object Erasure Schedule Log Parameter     |
| F1_PROC_STORE               | Process Flow                              |
| F1_PROC_STORE_DTL_ELEMENTS  | Process Flow Detail Elements              |



| Table                  | Description                              |
|------------------------|------------------------------------------|
| F1_PROC_STORE_K        | Process Flow Key                         |
| F1_PROC_STORE_LOG      | Process Flow Log                         |
| F1_PROC_STORE_LOG_PARM | Process Flow Log Parameters              |
| F1_PROC_DEFN           | Process Flow Type                        |
| F1_PROC_DEFN_L         | Process Flow Type Language               |
| F1_PROC_PANEL          | Process Panel                            |
| F1_STATS_SNPSHT_K      | Statistics Snapshot Key                  |
| F1_WEB_CAT             | Web Service Category                     |
| F1_WEB_CAT_INCL_SVC    | Web Service Category - Included Services |
| F1_WEB_CAT_L           | Web Service Category Language            |

## D.1.2 Added Views

None

## D.1.3 Dropped Tables

The following columns are dropped in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Table             | Description                             |
|-------------------|-----------------------------------------|
| F1_IWS_SVC_OPER_L | Inbound Web Service Operations Language |

## D.1.4 Unsupported Tables

None

## D.1.5 Added Columns

The following columns are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Table                    | Column             | Required (Yes or No) |
|--------------------------|--------------------|----------------------|
| F1_OUTMSG                | BO_XML_DATA_AREA   | No                   |
| F1_MIGR_REQ_INSTR_ENTITY | EXT_REFERENCE_ID   | No                   |
| F1_MIGR_REQ_INSTR_ENTITY | COMMENT_LONG       | No                   |
| F1_MIGR_REQ              | MIGR_REQ_CAT_XFLG  | No                   |
| F1_MIGR_REQ              | MIGR_REQ_CLASS_FLG | Yes                  |

| Table           | Column     | Required (Yes or No) |
|-----------------|------------|----------------------|
| F1_IWS_SVC_ANN  | SEQ_NUM    | Yes                  |
| CI_XAI_SNDR_CTX | SEQNO      | Yes                  |
| CI_XAI_RCVR_CTX | SEQNO      | Yes                  |
| CI_BATCH_CTRL   | APP_SVC_ID | Yes                  |

## D.1.6 Dropped Columns

The following columns are dropped in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Table                | Column         | Description                 |
|----------------------|----------------|-----------------------------|
| CI_CIS_DIV_CST_LNG   | LANGUAGE_CD    | Language                    |
| CI_XAI_RCVR_CTX      | CTXT_VAL       | Context Value               |
| F1_IWS_ANN_CHAR      | ADHOC_CHAR_VAL | Adhoc Characteristic Value  |
|                      | ANN_CD         | Annotation                  |
|                      | CHAR_TYPE_CD   | Characteristic Type         |
|                      | CHAR_VAL       | Characteristic Value        |
|                      | CHAR_VAL_FK1   | Characteristic Value FK 1   |
|                      | CHAR_VAL_FK2   | Characteristic Value FK 2   |
|                      | CHAR_VAL_FK3   | Characteristic Value FK 3   |
|                      | CHAR_VAL_FK4   | Characteristic Value FK 4   |
|                      | CHAR_VAL_FK5   | Characteristic Value FK 5   |
|                      | SEQ_NUM        | Sequence                    |
|                      | SRCH_CHAR_VAL  | Search Characteristic Value |
|                      | VERSION        | Version                     |
| F1_IWS_ANN_TYPE_CHAR | ADHOC_CHAR_VAL | Adhoc Characteristic Value  |
|                      | ANN_TYPE_CD    | Annotation Type             |
|                      | CHAR_TYPE_CD   | Characteristic Type         |
|                      | CHAR_VAL       | Characteristic Value        |
|                      | CHAR_VAL_FK1   | Characteristic Value FK 1   |
|                      | CHAR_VAL_FK2   | Characteristic Value FK 2   |
|                      | CHAR_VAL_FK3   | Characteristic Value FK 3   |
|                      | CHAR_VAL_FK4   | Characteristic Value FK 4   |
|                      | CHAR_VAL_FK5   | Characteristic Value FK 5   |

| Table             | Column         | Description                 |
|-------------------|----------------|-----------------------------|
|                   | SEQ_NUM        | Sequence                    |
|                   | SRCH_CHAR_VAL  | Search Characteristic Value |
|                   | VERSION        | Version                     |
| F1_IWS_SVC_OPER_L | DESCR          | Description                 |
|                   | DESCRLONG      | Detailed Description        |
|                   | IN_SVC_NAME    | Web Service Name            |
|                   | LANGUAGE_CD    | Language                    |
|                   | OPERATION_NAME | Operation Name              |
|                   | OWNER_FLG      | Owner                       |
|                   | VERSION        | Version                     |

## D.1.7 Column Format Change

The format of the following columns is changed in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Table          | Column                   | From      | To       |
|----------------|--------------------------|-----------|----------|
| F1_SYNC_REQ_IN | F1_INITIAL_LOAD_SYNC_FLG | CHAR (14) | CHAR (4) |

## 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 V4.3.0.6.0 database.

### D.2.1 Algorithms

The following algorithms are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Algorithm    | Description                                       |
|--------------|---------------------------------------------------|
| F1-ATSZCLVL  | Attachment Size Class Validation                  |
| F1-CREMDTODO | Create Message From Device Error To Do Entry      |
| F1-CUBEPRE   | Cube Type Pre-processing                          |
| F1-CVINFO    | Cube View Information                             |
| F1-DEPL-INFO | Deployment Information                            |
| F1-DEPLY-AUD | Create To Do entry when deployment is out of date |

| Algorithm    | Description                                             |
|--------------|---------------------------------------------------------|
| F1-DEPRT-AUD | Detect Changes to Deployment Part                       |
| F1-DEPRT-VAL | Deployment Part Validation                              |
| F1-DEPTY-AUD | Detect Changes to Deployment Type                       |
| F1-DEPTY-VAL | Deployment Type Validation                              |
| F1-IWSRT-VAL | Validate REST Operations Collection                     |
| F1-IWSRU-FMT | Format Resource URI in REST Operations Collection       |
| F1-KRDCKKEY  | Key Ring - Prevent Deletion if Keys Exist               |
| F1-MDTINFO   | Mobile Data Terminal Information                        |
| F1-MDTTYPVAL | Mobile Data Terminal Type Validation                    |
| F1-MDTVAL    | Mobile Data Terminal Validation                         |
| F1-MGDPURGE  | Purge Unchanged Transactions / Objects                  |
| F1-MOBCMPINF | Mobile Component Information                            |
| F1-MTDMONQUE | Message to Device Monitor Queue                         |
| F1-OBJERINFO | Object Erasure Schedule Information                     |
| F1-OBJERSOBF | User Obfuscation                                        |
| F1-OBJERSPRG | Purge Object                                            |
| F1-OBJERSUSR | User Erasure Evaluation                                 |
| F1-POPCVUSER | Populate Cube View User                                 |
| F1-PRCSMSGFD | Process Message From Device                             |
| F1-REMMSG-GD | Remote Message Guaranteed Delivery                      |
| F1-RMMSGINF  | Remote Message Information (MO)                         |
| F1-SETILMSW  | Update ILM Archive Switch to Y                          |
| F1-TDCLPR-PR | Recalculate To Do Entry's Priority                      |
| F1-TDCLPR-SR | Select To Do Entries with Calculate Priority Algorithms |
| F1-TDMON-PR  | Execute To Do Monitor Algorithms                        |
| F1-TDMON-SR  | Select To Do Entries with To Do Monitor Algorithms      |
| F1-VALCTYP   | Validate Cube Type Input Data                           |
| F1-VALCVAT   | Validate Cube View Access Type                          |
| F1_PROSTINFO | Process Flow Information                                |
| F1_VALDELPST | Process Flow Delete Validation                          |

## D.2.2 Algorithm Types

The following algorithm types are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Algorithm Type | Description                                       |
|----------------|---------------------------------------------------|
| F1-ATSZCLVL    | Attachment Size Class Validation                  |
| F1-BAT-ERLOS   | Compare Count of Records in Error to Threshold    |
| F1-BAT-RTLOS   | Compare Total Batch Run Time to Threshold         |
| F1-BAT-TPLOS   | Compare Throughput to Threshold                   |
| F1-CREMDTODO   | Create Message From Device Error To Do Entry      |
| F1-CUBEPRE     | Cube Type Pre-processing                          |
| F1-CVINFO      | Cube View Information                             |
| F1-DEPL-INFO   | Deployment Information                            |
| F1-DEPLY-AUD   | Create To Do entry when deployment is out of date |
| F1-DEPRT-AUD   | Detect Changes to Deployment Part                 |
| F1-DEPRT-VAL   | Deployment Part Validation                        |
| F1-DEPTY-AUD   | Detect Changes to Deployment Type                 |
| F1-DEPTY-VAL   | Deployment Type Validation                        |
| F1-IWSRT-VAL   | Validate REST Operations Collection               |
| F1-IWSRU-FMT   | Format Resource URI in REST Operations Collection |
| F1-KRDCKKEY    | Key Ring - Prevent Deletion if Keys Exist         |
| F1-MDTINFO     | Mobile Data Terminal Information                  |
| F1-MDTTYPVAL   | Mobile Data Terminal Type Validation              |
| F1-MDTVAL      | Mobile Data Terminal Validation                   |
| F1-MGDPURGE    | Purge Unchanged Transactions / Objects            |
| F1-MOBCMPINF   | Mobile Component Information                      |
| F1-MTDMONQUE   | Message to Device Monitor Queue                   |
| F1-OBJERINFO   | Object Erasure Schedule Information               |
| F1-OBJERSOBF   | User Obfuscation                                  |
| F1-OBJERSPRG   | Purge Object                                      |
| F1-OBJERSUSR   | User Erasure Evaluation                           |
| F1-POPCVUSER   | Populate Cube View User                           |
| F1-PRCSMSGFD   | Process Message From Device                       |

| Algorithm Type | Description                                             |
|----------------|---------------------------------------------------------|
| F1-REMMSG-GD   | Remote Message Guaranteed Delivery                      |
| F1-RMMSGINF    | Remote Message Information                              |
| F1-SETILMSW    | Update ILM Archive Switch to Y                          |
| F1-SETILMSWN   | Update ILM Archive Switch to N                          |
| F1-TDCLPR-PR   | Recalculate To Do Entry's Priority                      |
| F1-TDCLPR-SR   | Select To Do Entries with Calculate Priority Algorithms |
| F1-TDCOMPMON   | Complete To Do after X days                             |
| F1-TDMON-PR    | Execute To Do Monitor Algorithms                        |
| F1-TDMON-SR    | Select To Do Entries with To Do Monitor Algorithms      |
| F1-VALCTYP     | Validate Cube Type                                      |
| F1-VALCVAT     | Validate Cube View Access Type                          |
| F1_PROSTINFO   | Process Flow Information                                |
| F1_VALDELPST   | Process Flow Delete Validation                          |

## D.2.3 Zones

The following zones are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Zone         | Description                               |
|--------------|-------------------------------------------|
| F1-APPSECOBJ | Secured Objects                           |
| F1-ATTCHOWN  | Attachments                               |
| F1-BOCRTNCLS | Get Business Objects by MO and BO Option  |
| F1-CHARVAL   | Retrieve Characteristic Value Description |
| F1-CKCHLDBO  | Check Child BO Exists                     |
| F1-CUBEBSOSC | Cube Type Business Service Data           |
| F1-CUBETYPEV | Cube Type                                 |
| F1-CUBEVIEW  | Cube View                                 |
| F1-CUBVIWL   | Cube View Log                             |
| F1-CUBVIWQ   | Cube View Search                          |
| F1-CUBVIWQ1  | Cube View Information                     |
| F1-CVTYPLIST | Cube Type List                            |
| F1-DEPTYINFO | Deployment Type List                      |
| F1-DPELIGMO  | Get all MO's eligible for Deployment Part |

| Zone         | Description                              |
|--------------|------------------------------------------|
| F1-DPLDSPLY  | Deployment                               |
| F1-DPLITEM   | Deployment Items                         |
| F1-DPLOFD    | Out of Date Items                        |
| F1-DPLPARTS  | Retrieves Deployment Parts               |
| F1-DPLPRTDSP | Deployment Part                          |
| F1-DPLPRTINF | Deployment Part List                     |
| F1-DPLQRY    | Deployment Search                        |
| F1-DPLTYPDSP | Deployment Type                          |
| F1-DPPRTAE   | Add Items                                |
| F1-DPPRTYPS  | Referenced By Deployment Types           |
| F1-FILEADAP  | List of Valid File Adapter Values        |
| F1-FKKEYVAL  | Retrieve FK Reference Key Values         |
| F1-GETCVT    | Retrieve Cube Types                      |
| F1-IWSVCQ3   | Resource Category                        |
| F1-KEYRNGK   | Key Pairs                                |
| F1-KEYRNGL   | Key Ring Log                             |
| F1-MCUBYTP   | Mobile Component By Type                 |
| F1-MDTDSPLY  | MDT                                      |
| F1-MDTLOGSCH | Mobile Log Files Search                  |
| F1-MDTLOGSQ  | Mobile Log Files Search                  |
| F1-MDTQRY    | MDT                                      |
| F1-MDTQRYM   | MDT Search                               |
| F1-MDTTYINFO | MDT Type List                            |
| F1-MDTTYPDSP | MDT Type                                 |
| F1-MDTTYPES  | Retrieves MDT Types                      |
| F1-MMOBCTY   | Retrieve Mobile Component Types          |
| F1-MOBCMPDIS | Mobile Component                         |
| F1-MOBCONEDT | Mobile Component Content Editor          |
| F1-MOBCPQ    | Mobile Component Search                  |
| F1-MOBCPQ1   | General Information                      |
| F1-MOERSCNF  | Maintenance Object Erasure Configuration |

| Zone          | Description                                |
|---------------|--------------------------------------------|
| F1-MSGCAT     | Retrieves Message Categories               |
| F1-OBJESRSCD  | Object Erasure Schedule                    |
| F1-OBJESRSCH  | Object Erasure Schedule                    |
| F1-OBJESRSCL  | Object Erasure Schedule Log                |
| F1-OUTMSGEXE  | Outbound Message Profile Exists            |
| F1-OUTMSGTYE  | External System Links                      |
| F1-OUTMSGTYP  | Outbound Message Type                      |
| F1-PLCYOVR    | Policy's Configurable Overrides            |
| F1-PROC       | Process Flow                               |
| F1-PROCDISP   | Process Flow Type                          |
| F1-PROCFWLOG  | Process Flow Log Details                   |
| F1-PROCLS     | Process Flow Type List                     |
| F1-PROCSTRQ   | Process Flow Search                        |
| F1-PROCSTRQ1  | Process Flow Information                   |
| F1-REMSGDISP  | Mobile Remote Message                      |
| F1-REMSGLOG   | Mobile Remote Message Log                  |
| F1-REMSGQRY1  | Creation                                   |
| F1-REMSGQRY2  | Related Entity                             |
| F1-REMSGQRY3  | Identifier                                 |
| F1-REMSGQRYS  | Mobile Remote Message Search               |
| F1-RETDPDPT   | Retrieve Deployments by Deployment Part    |
| F1-RETDPDPTY  | Retrieve Deployments by Deployment Type    |
| F1-RETERSCH   | Erasure Schedule ID for MO and PK          |
| F1-RETTODO    | Retrieve To Do Entries                     |
| F1-RETWBCAT   | Web Service Category for input Web Service |
| F1-RETWBCTEX  | Web Service Category not Linked to Service |
| F1-RMSTDS     | Remote Message Status Descriptions         |
| F1-SE-VSEEDIT | Schema Designer                            |
| F1-SIGKEYRNG  | List of Signature Key Rings                |
| F1-USRGROUPS  | Retrieves User Groups                      |
| F1-WBCATADDS  | Add Web Services                           |



| Zone         | Description                          |
|--------------|--------------------------------------|
| F1-WBCATAMOS | Allowed MOs for Web Service Category |
| F1-WBCATDSP  | Web Service Category                 |
| F1-WBCATINCL | Included Web Services                |
| F1-WBCATINEX | Web Category Included Service Exists |
| F1-WBCATQ    | Web Service Category Search          |
| F1-WBCATQ1   | Code / Description                   |
| F1-WBCATQ2   | Included Web Service                 |
| F1-WBCLASS   | Catalog by Class                     |
| F1-WBSVCTYP  | Schema Types for Web Services        |
| F1-ZONEAPSRV | Retrieve Zone Application Service    |
| F1KEYRING    | Key Ring                             |
| F1KEYRINGL   | Key Ring List                        |

## D.2.4 UI Maps

The following UI maps are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| UI Map                       | Description                             |
|------------------------------|-----------------------------------------|
| F1-AcceptLogLevel            | Accept New MDT Log Level                |
| F1-ApplicationServiceDisplay | Cube Type - Application Service Display |
| F1-BusinessServiceInput      | Cube Type - Business Service Input      |
| F1-CDMIRRORLIBS              | Code Mirror Libraries                   |
| F1-CreateMDTs                | Create MDTs                             |
| F1-CryptoKeyRingUserLogAdd   | Key Ring - Add User Log Entry           |
| F1-CubeViewDisp              | Cube View - Display                     |
| F1-CubeViewProc              | Cube View - Process Flow                |
| F1-CubeViewUserLogAdd        | Cube View - Add User Log Entry          |
| F1-DepPartEntityAddSrchrFltr | Deployment Part Add Items Filters       |
| F1-DeploymentDisplay         | Deployment - Display Fragment           |
| F1-DeploymentItemFilter      | Deployment Items Filter                 |
| F1-DeploymentPartMaint       | Deployment Part Maintenance             |
| F1-DeploymentRecordAction    | Deployment - Action Button Fragment     |

| UI Map                         | Description                                |
|--------------------------------|--------------------------------------------|
| F1-DeploymentSearchFilter      | Deployment Search Filter                   |
| F1-DeploymentStatus            | Deployment Status Display                  |
| F1-DeploymentStatusDisplay     | Deployment Status - Display Fragment       |
| F1-DisplayMOPK                 | Display Information for an MO and PK1-5    |
| F1-ErasureSchedule             | Erasure Schedule - Dashboard Zone          |
| F1-ErasureScheduleUserLogAdd   | Erasure Schedule - Add User Log Entry      |
| F1-IWSQueryFilter3             | Resource Category Search Filter            |
| F1-IWSUserLogAdd               | Inbound Web Service - Add User Log Entry   |
| F1-lwsRTOperationsDisplay      | Inbound REST Web Service Operation Display |
| F1-lwsRTOperationsInput        | Inbound REST Web Service Operation Input   |
| F1-MDTActionsFrag              | MDT Actions Fragment                       |
| F1-MDTLogFilter                | Mobile Device Terminal Log File Filter     |
| F1-MDTLogLaunch                | Mobile Device Terminal Log File Launch     |
| F1-MDTLogSearch                | Mobile Device Terminal Log File Search     |
| F1-MDTSelectMDTType            | MDT - Select MDT Type                      |
| F1-MessageFromDeviceMaintUH    | Message From Device Maintenance            |
| F1-MigrObjectImportMaintenance | Migration Object - Maintenance             |
| F1-MobCompDsblFld              | Mobile Component Maintenance Fragment      |
| F1-MobCompSearchFit            | Mobile Component Search Filter             |
| F1-MobileComponentEditor       | Mobile Component Editor                    |
| F1-NavigationDisplay           | Cube Type - Navigation Display             |
| F1-NavigationInput             | Cube Type - Navigation Input               |
| F1-OJETLIBS                    | OJET libraries                             |
| F1-OpenAPILink                 | Open API Link Display                      |
| F1-OutMsgTypeActions           | Outbound Message Type Actions              |
| F1-PerfTargetActions           | Performance Target Actions                 |
| F1-PkRecordInfo                | Display MO's Primary Key Labels and Values |
| F1-ProcFlowLog                 | Process Flow Log Details                   |
| F1-ProcessController           | Process Controller Include (Zone)          |
| F1-ProcessPanels               | Process Flow Type - Panels                 |
| F1-ProcessSearchQueryFilter    | Process Flow - Query Filter                |

| UI Map                         | Description                             |
|--------------------------------|-----------------------------------------|
| F1-RemoteMessageFilter         | Remote Message - Search Filter          |
| F1-RemoteMessageRelatedEntity  | Remote Message Related Entity Fragment  |
| F1-SE-VisualSchemaEditor       | Visual Schema Editor                    |
| F1-ViewAPISpec                 | Display API Link                        |
| F1-ViewPublicKey               | View Public Key                         |
| F1-WebCatInclSvcListSrchFltr   | Web Category - Included Service Filter  |
| F1-WebCatInclSvcSearchFilter   | Web Category Included Service - Filter  |
| F1-WebSvcCatAdd                | Add Category to Web Service             |
| F1-WebSvcCatDisplay            | Display Web Service Category            |
| F1-WebSvcCatInclSvcAddSrchFltr | Search Web Services to Add by MO and PK |

## D.2.5 Maintenance Objects

The following maintenance objects are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Maintenance Object | Description               |
|--------------------|---------------------------|
| F1-CRYPTRING       | Key Ring                  |
| F1-CUBETYPE        | Cube Type                 |
| F1-CUBEVIEW        | Cube View                 |
| F1-DEPLOYMT        | Deployment                |
| F1-DEPLOYPRT       | Deployment Part           |
| F1-DEPLOYTYP       | Deployment Type           |
| F1-MDT             | Mobile Data Terminal      |
| F1-MDTTYPE         | Mobile Data Terminal Type |
| F1-MOBCOMP         | Mobile Component          |
| F1-OBJERSCH        | Object Erasure Schedule   |
| F1-PROCDEFN        | Process Flow Type         |
| F1-PROSTR          | Process Flow              |
| F1-REMOTEMSG       | Mobile Remote Message     |
| F1-WEBSVCCAT       | Web Service Category      |

## D.2.6 To Do Type

The following To Do Types are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| To Do Type | Description                       |
|------------|-----------------------------------|
| F1-DPLFD   | Deployment Out of Date            |
| F1-OESMN   | Object Erasure Monitor Errors     |
| F1-RMMON   | Remote Message Monitor Error      |
| F1-RMMMSG  | Remote Message Error              |
| F1-TDCLP   | Recalculate To Do Priority Errors |
| F1-TDMON   | To Do Monitor Errors              |

## D.2.7 Business Services

The following business services are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Business Service             | Description                               |
|------------------------------|-------------------------------------------|
| F1-AddMessageToDevice        | Add Message To Device                     |
| F1-BOCRTNCLS                 | Get Business Objects by MO and BO Option  |
| F1-CKCHLDBO                  | Check Child BO Exists                     |
| F1-CUBEBSDESC                | Cube Type Business Service Data           |
| F1-CheckEntityForDeplItem    | Check Entity For Deployment Item          |
| F1-CheckIWSOpRec             | Check IWS Operation Reference             |
| F1-CheckRemoteMessagesForMDT | Check Remote Messages for MDT             |
| F1-DBMSChainAddOrChange      | DBMS Scheduler Chain for Add or Change    |
| F1-DBMSProgramAddOrChange    | DBMS Scheduler Program for Add or Change  |
| F1-DBMSScheduleAddOrChange   | DBMS Scheduler Schedule for Add or Change |
| F1-DPLPARTS                  | Get list of Deployment Part               |
| F1-DeploymentUpToDate        | Deployment Up To Date                     |
| F1-DeviceRegistration        | Device Registration                       |
| F1-FILEADAP                  | List of Valid File Adapter Values         |
| F1-FKKEYVAL                  | Retrieve FK Reference Key Values          |
| F1-GetBatchRunStartEnd       | Get Start and End Date/Time for Batch Run |
| F1-GetDeployment             | Download Deployment                       |

| Business Service               | Description                                |
|--------------------------------|--------------------------------------------|
| F1-GetDeploymentList           | Get Eligible Deployments                   |
| F1-GetIWSWSDL                  | Retrieve Inbound SOAP Web Service WSDL     |
| F1-GetLogFileNames             | Get Log File Names                         |
| F1-GetMOPKFieldValPair         | MO's PK Field Names and Labels             |
| F1-GetOpenAPISpec              | OpenAPI Specification for REST IWS         |
| F1-GetServerMCPVersion         | Get Server MCP Version                     |
| F1-IWSAccessCheck              | Access check for Inbound REST Web Service  |
| F1-IWSRestCatalog              | REST Service Catalog                       |
| F1-InitiateDeviceSession       | Initiate Device Session                    |
| F1-ListEligibleDeplPartMOs     | Get all MO's eligible for Deployment Part  |
| F1-MCbytYP                     | Mobile Component By Type                   |
| F1-MDTTYPES                    | Get list of MDT Types                      |
| F1-MSGCAT                      | Get list of Message Category               |
| F1-ManageErasureSchedule       | Maintain Object Erasure Schedule           |
| F1-ManageErasureScheduleDriver | Manage Object Erasure                      |
| F1-PLCYOVR                     | Policy's Configurable Overrides            |
| F1-PROCFWLOG                   | Process Flow Log Details                   |
| F1-RETDPDPT                    | Retrieve Deployments by Deployment Part    |
| F1-RETDPDPTY                   | Retrieve Deployments by Deployment Type    |
| F1-RETERSCH                    | Erasure Schedule ID for MO and PK          |
| F1-RETTODO                     | Retrieve To Do Entries                     |
| F1-RETWBCAT                    | Web Service Category for input Web Service |
| F1-RMSTDS                      | Remote Message Status Descriptions         |
| F1-RequiredFieldDocGenerate    | Required Field Document Generator          |
| F1-SIGKEYRNG                   | List of Signature Key Rings                |
| F1-SynMobCompToFile            | Sync Mobile Component To File              |
| F1-SyncData                    | Remote Message Synchronize Data            |
| F1-SyncDeviceLog               | Synchronize Device Log to the Server       |
| F1-USRGROUPS                   | Get list of User Groups                    |
| F1-WBCATAMOS                   | Allowed MOs for Web Service Category       |
| F1-WBSVCTYP                    | Schema Types for Web Services              |

| Business Service | Description                       |
|------------------|-----------------------------------|
| F1-ZONEAPSRV     | Retrieve Zone Application Service |

## D.2.8 Portals

The following portal is newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Portal      | Description                 |
|-------------|-----------------------------|
| F1CUVWL     | Cube View Log               |
| F1CUVWM     | Cube View                   |
| F1CUVWQ     | Cube View Query             |
| F1CVTYPE    | Cube Type                   |
| F1DEPTYP    | Deployment Type             |
| F1DPL       | Deployment                  |
| F1DPLPRT    | Deployment Part             |
| F1DPLQRY    | Deployment Query            |
| F1ESRCFG    | Erasure Configuration       |
| F1KEYRNG    | Key Ring                    |
| F1KEYRNL    | Key Ring Log                |
| F1MDTLOGSCH | MDT Log Files               |
| F1MDTMNT    | MDT                         |
| F1MDTQRY    | MDT Query                   |
| F1MDTTY     | MDT Type                    |
| F1MOBCMP    | Mobile Component            |
| F1MOBCPQ    | Mobile Component Query      |
| F1OBERSC    | Object Erasure Schedule     |
| F1OBERSL    | Object Erasure Schedule Log |
| F1OUMSTQ    | Outbound Message Type Query |
| F1OUMSTY    | Outbound Message Type       |
| F1PROC      | Process Flow Type           |
| F1PRSTRQ    | Process Flow Query          |
| F1REMSG     | Mobile Remote Message       |
| F1REMSGLG   | Mobile Remote Message Log   |
| F1REMSGQ    | Mobile Remote Message Query |

| Portal   | Description                |
|----------|----------------------------|
| F1WBCAT  | Web Service Category       |
| F1WBCATQ | Web Service Category Query |
| F1_PROC  | Process Flow               |

## D.2.9 Business Objects

The following business objects are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Business Object              | Description                          |
|------------------------------|--------------------------------------|
| F1-AttachmentSizeClass       | Attachment Size Class                |
| F1-BusinessObjectMobileCmpnt | Mobile Business Object               |
| F1-CommonLibMobileCmpnt      | Mobile Common Library                |
| F1-CubeType                  | Cube Type                            |
| F1-CubeTypePhysical          | Physical BO for Cube Type            |
| F1-CubeView                  | Cube View                            |
| F1-CubeViewPhysicalBO        | Physical BO for Cube View            |
| F1-Deployment                | Deployment                           |
| F1-DeploymentPart            | Deployment Part                      |
| F1-DeploymentPartPhysicalBO  | Physical BO for Deployment Part      |
| F1-DeploymentType            | Deployment Type                      |
| F1-DeploymentTypePhysicalBO  | Physical BO for Deployment Type      |
| F1-EnterPluginMobileCmpnt    | Mobile Business Object Enter Plug-In |
| F1-EraseScheduleCommon       | Purge Object                         |
| F1-EraseScheduleRoot         | Erase Root                           |
| F1-EraseScheduleUser         | User Erasure                         |
| F1-FileStorage               | File Storage Configuration           |
| F1-InboundRESTWebService     | Inbound REST Web Service             |
| F1-KeyRingGeneral            | Key Ring - Internal Use Only         |
| F1-MDTPhysicalBO             | Physical BO for MDT                  |
| F1-MDTTypePhysicalBO         | Physical BO for MDT Type             |
| F1-MOErasureConfig           | MO Erasure Configuration             |
| F1-MessageFromDevice         | Message From Device                  |

| Business Object               | Description                                    |
|-------------------------------|------------------------------------------------|
| F1-MessageToDevice            | Message To Device                              |
| F1-MessageToDeviceMobileCmpnt | Mobile Message To Device                       |
| F1-MobileCompType             | Mobile Component Type                          |
| F1-MobileComponent            | Mobile Component                               |
| F1-MobileComponentLite        | Mobile Component Lite                          |
| F1-MobileComponentPhysicalBO  | Physical BO for Mobile Component               |
| F1-MobileConfigurations       | Mobile Configuration                           |
| F1-MobileDataTerminal         | Mobile Data Terminal                           |
| F1-MobileDataTerminalType     | Mobile Data Terminal Type                      |
| F1-OutboundMsgType            | Outbound Message Type                          |
| F1-PostProcPluginMobileCmpnt  | Mobile Business Object Post Processing Plug-In |
| F1-ProcessDefBundlingAddBO    | Bundling Add BO for Process Flow Type          |
| F1-ProcessDefPhysicalBO       | Physical BO for Process Flow Type              |
| F1-ProcessDefinition          | Process Flow Type                              |
| F1-ProcessStore               | Process Flow                                   |
| F1-ProcessStorePhysicalBO     | Physical BO for Process Flow                   |
| F1-ProductConfigMobileCmpnt   | Mobile Product Configuration                   |
| F1-RESTResourceCategory       | Resource Category for REST Services            |
| F1-RemoteMessageLite          | Remote Message Lite                            |
| F1-ServiceMobileCmpnt         | Mobile Service                                 |
| F1-SetOfPolicies              | Set of Policies                                |
| F1-ThemesMobileCmpnt          | Mobile Application Themes                      |
| F1-UIPageMobileCmpnt          | Mobile UI Page                                 |
| F1-UISectionMobileCmpnt       | Mobile UI Section                              |
| F1-UploadSample               | File Upload Sample                             |
| F1-UploadSampleHeader         | File Upload Sample Header                      |
| F1-ValidPolicies              | Valid Policies                                 |
| F1-WebServiceCategory         | Web Service Category                           |
| F1-WebSvcCategoryPhysicalBO   | Physical BO for Web Service Category           |
| F1-ZoneMainInfo               | Zone - Main Information                        |



## D.2.10 Portal Zone

| Portal Zone | Description                 |
|-------------|-----------------------------|
| F1CUVWL     | Cube View Log               |
| F1CUVWM     | Cube View                   |
| F1CVTYPE    | Cube Type                   |
| F1DEPTYP    | Deployment Type             |
| F1DPL       | Deployment                  |
| F1DPLPRT    | Deployment Part             |
| F1DPLQRY    | Deployment Query            |
| F1ESRCFG    | Erasure Configuration       |
| F1KEYRNG    | Key Ring                    |
| F1KEYRNL    | Key Ring Log                |
| F1MDTLOGSCH | MDT Log Files               |
| F1MDTMNT    | MDT                         |
| F1MDTQRY    | MDT Query                   |
| F1MDTTY     | MDT Type                    |
| F1MOBCMP    | Mobile Component            |
| F1MOBCPQ    | Mobile Component Query      |
| F1OBERSC    | Object Erasure Schedule     |
| F1OBERSL    | Object Erasure Schedule Log |
| F1OUMSTQ    | Outbound Message Type Query |
| F1OUMSTY    | Outbound Message Type       |
| F1PROC      | Process Flow Type           |
| F1PRSTRQ    | Process Flow Query          |
| F1REMSG     | Mobile Remote Message       |
| F1REMSGLG   | Mobile Remote Message Log   |
| F1REMSGQ    | Mobile Remote Message Query |
| F1WBCAT     | Web Service Category        |
| F1WBCATQ    | Web Service Category Query  |
| F1_PROC     | Process Flow                |

## D.2.11 New Zones In Existing Portals

The following new zones in existing portals are newly added in the Oracle Revenue Management and Billing V2.7.0.1.0 database:

| Portal       | Zone          | Zone Description |
|--------------|---------------|------------------|
| F1APPSEC     | F1-APPSECOBJ  | Secured Objects  |
| F1SVCCAT     | F1-WBCCLASS   | Catalog by Class |
| F1_SCHEMA_BO | F1-SE-VSEEDIT | Schema Designer  |
| F1_SCHEMA_BS |               |                  |
| F1_SCHEMA_DA |               |                  |
| F1_SCHEMA_MP |               |                  |
| F1_SCHEMA_SS |               |                  |

## D.2.12 Lookups

The following lookups are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Field                     | Field Value | Description        |
|---------------------------|-------------|--------------------|
| ACCESS_TYPE_FLG           | F1PR        | Private            |
|                           | F1PU        | Public             |
|                           | F1SH        | Shared             |
| ALLOW_DELETE_FLG          | F1NO        | No                 |
|                           | F1YS        | Yes                |
| AUTOSAVE_FLG              | F1NO        | No                 |
|                           | F1YS        | Yes                |
| CNTRY_FLD_USG_FLG         | NA          | Not Allowed        |
|                           | OPT         | Optional           |
| CUBE_SUMMARY_FUNCTION_FLG | F1AV        | Average            |
|                           | F1CT        | Count              |
|                           | F1MD        | Median             |
|                           | F1MN        | Min                |
|                           | F1MX        | Max                |
|                           | F1SD        | Standard Deviation |

| Field                       | Field Value | Description                 |
|-----------------------------|-------------|-----------------------------|
|                             | F1SM        | Sum                         |
| DBMS_JOB_RETURN_TYP_FLG     | ALL         | All Completed               |
|                             | NEW         | Recently Completed          |
| F1_CONTENT_TYPE_FLG         | F1CS        | CSS                         |
|                             | F1HT        | HTML                        |
|                             | F1JS        | JavaScript                  |
|                             | F1PI        | Plug-Ins                    |
|                             | F1UJ        | UI JavaScript               |
| F1_DATA_ENCRYPTION_FLG      | F1DF        | Default                     |
|                             | F1OF        | Off                         |
|                             | F1ON        | On                          |
| F1_DATA_ENCRYPTION_GC_FLG   | F1OF        | Off                         |
|                             | F1ON        | On                          |
| F1_DELIVERY_STATE_FLG       | F1DE        | Delivered                   |
|                             | F1ER        | Error                       |
|                             | F1PR        | Processed                   |
|                             | F1QD        | Queued                      |
| F1_DEPLOYMENT_STATUS_FLG    | F1DA        | Active                      |
|                             | F1DC        | Created                     |
|                             | F1DI        | Inactive                    |
| F1_DEPLOYMENT_UPTO_DATE_FLG | F1NO        | No                          |
|                             | F1YS        | Yes                         |
| F1_DPUTD_MODE_FLG           | F1DF        | Default Execution Mode      |
|                             | F1DT        | Detailed Execution Mode     |
| F1_ERASURE_ACTION           | F1AC        | Activate                    |
|                             | F1IN        | Inactivate                  |
| F1_FILEADAPTER_FLG          | FILE        | Native File Storage         |
|                             | OCI         | Oracle Cloud Object Storage |
| F1_GPS_SUPPORTED_FLG        | F1NO        | No                          |

| Field                  | Field Value | Description            |
|------------------------|-------------|------------------------|
|                        | F1YS        | Yes                    |
| F1_MBL_CONT_EXTNSN_FLG | F1AL        | Extension Allowed      |
|                        | F1NA        | Not Extendable         |
|                        | F1OV        | Overwrite              |
| F1_MDT_DEBUG_FLG       | F1OF        | Off                    |
|                        | F1ON        | On                     |
| F1_MDT_LOG_APPND_FLG   | CNSL        | Console                |
|                        | FILE        | File                   |
| F1_MDT_LOG_LEVEL_FLG   | F1DB        | DEBUG Level            |
|                        | F1DS        | Disabled               |
|                        | F1ER        | ERROR Level            |
|                        | F1FL        | FATAL Level            |
|                        | F1IN        | INFO Level             |
|                        | F1MD        | Framework Logging Only |
|                        | F1PF        | Performance Logging    |
|                        | F1WN        | WARN Level             |
| F1_MDT_LOGGING_FLG     | F1OF        | Off                    |
|                        | F1ON        | On                     |
| F1_MDT_STATUS          | F1AC        | Active                 |
|                        | F1IA        | Inactive               |
| F1_MDT_STATUS_FLG      | F1AC        | Active                 |
|                        | F1IA        | Inactive               |
| F1_MDT_THEME_FLG       | A           | Theme A                |
|                        | B           | Theme B                |
|                        | C           | Theme C                |
|                        | D           | Theme D                |
|                        | E           | Theme E                |
|                        | F           | Theme F                |
| F1_MSG_CLASS_FLG       | F1FD        | Message From Device    |
|                        | F1TD        | Message To Device      |
| F1_QUEUE_FLG           | F1ER        | Emergency              |

| Field                | Field Value | Description                   |
|----------------------|-------------|-------------------------------|
|                      | F1NR        | Normal                        |
| F1_REGION_FLG        | FRA         | Frankfurt, Germany            |
|                      | IAD         | Ashburn, VA                   |
|                      | LHR         | London, United Kingdom        |
|                      | PHX         | Phoenix, AZ metropolitan area |
| F1_SE_ADD_POSTYPE    | C           | Child Node                    |
|                      | S           | Sibling Element               |
| KEY_RING_CLASS_FLG   | F1EX        | Encryption - External         |
|                      | F1IN        | Encryption - Internal         |
|                      | F1SG        | Signature                     |
| KEY_STATUS_FLG       | F1AC        | Active                        |
|                      | F1IN        | Inactive                      |
| PANEL_TYPE_FLG       | F1DA        | Data Area                     |
|                      | F1MP        | UI Map                        |
|                      | F1PS        | Panel Set                     |
| PROC_DEFN_STATUS_FLG | F1AC        | Active                        |
|                      | F1IN        | Inactive                      |
| REST_HTTP_METHOD_FLG | POST        | Post                          |
| RETAIN_FLG           | F1NO        | No                            |
|                      | F1YS        | Yes                           |
| WEB_SVC_CLASS_FLG    | F1RT        | REST                          |
|                      | F1SP        | SOAP                          |

## D.2.13 Foreign Key References

The following foreign key references are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Foreign Key Reference | Description             |
|-----------------------|-------------------------|
| F1-CUBVW              | Cube View               |
| F1-CVTYP              | Cube Type               |
| F1-DPLMN              | Deployment              |
| F1-DPLTP              | Deployment Part         |
| F1-DPLTY              | Deployment Type         |
| F1-ERSCH              | Object Erasure Schedule |
| F1-MDT                | MDT                     |
| F1-MDTYP              | MDT Type                |
| F1-MOBCM              | Mobile Component        |
| F1-PROC               | Process Flow Type       |
| F1-PROST              | Process Flow            |
| F1-RMMSG              | Remote Message          |
| F1-WBCAT              | Web Service Category    |
| F1ER-MO               | MO Option - Erasure BO  |
| F1KEYRNG              | Key Ring                |

## D.2.14 Batch Controls

The following batch controls are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Batch Controls | Description                           |
|----------------|---------------------------------------|
| F1-BMCOM       | Build Mobile Component Package        |
| F1-DPLOY       | Create Deployment                     |
| F1-DPUTD       | Deployment Evaluation and Purge       |
| F1-OESCR       | ILM Crawler - Object Erasure Schedule |
| F1-OESMN       | Object Erasure Schedule Monitor       |
| F1-PDUPL       | Plug-in Driven File Upload Template   |
| F1-RMCRL       | ILM Crawler - Remote Message          |
| F1-RMMSG       | Remote Message Monitor                |

| Batch Controls | Description                |
|----------------|----------------------------|
| F1-TDCLP       | Recalculate To Do Priority |
| F1-TDMON       | To Do Monitor              |

## D.2.15 Application Services

The following application services are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Application Service | Description                               |
|---------------------|-------------------------------------------|
| F1-BMCOM            | Build Mobile Component Package            |
| F1-CRYPTOKEYRING    | Key Ring MO                               |
| F1-CUBETYPE         | Cube Type MO                              |
| F1-CUBEVIEW         | Cube View MO                              |
| F1-CUBEVIEWBOAS     | Cube View BO                              |
| F1-DEPLOYMENT       | Deployment MO                             |
| F1-DEPLOYMENTPART   | Deployment Part MO                        |
| F1-DEPLOYMENTTYPE   | Deployment Type MO                        |
| F1-DPLOY            | Create Deployment                         |
| F1-DPUTD            | Deployment Evaluation and Purge           |
| F1-GETWSDL          | Retrieve Inbound SOAP Web Service WSDL BS |
| F1-MDT              | Mobile Data Terminal MO                   |
| F1-MDTTYPE          | Mobile Data Terminal Type MO              |
| F1-MOBCOMPBOAS      | Mobile Component BO                       |
| F1-MOBILECOMPONENT  | Mobile Component MO                       |
| F1-MOBILESWS        | Mobile Web Services                       |
| F1-MSGFROMDEVBOAS   | Message From Device BO                    |
| F1-MSGTODEVBOAS     | Message To Device BO                      |
| F1-OBJERSRSCH       | Object Erasure Schedule                   |
| F1-OBJERSRSCHBO     | Object Erasure Schedule BO                |
| F1-OBJESRSCD        | Object Erasure Schedule Zone              |
| F1-OESCRL           | ILM Crawler - Object Erasure Schedule     |
| F1-OESMN            | Object Erasure Schedule Monitor           |
| F1-PDB              | Plug-in Driven Batch Template             |

| Application Service  | Description                        |
|----------------------|------------------------------------|
| F1-PROCDEFN          | Process Flow Type MO               |
| F1-PROCSTORE         | Process Flow MO                    |
| F1-PROCSTOREBOAS     | Process Flow BO                    |
| F1-REMOTEMESSAGE     | Remote Message MO                  |
| F1-REMOTEMSGSYNCDATA | Remote Message Synchronize Data    |
| F1-RMCRL             | ILM Crawler - Remote Message       |
| F1-RMMSG             | Remote Message Monitor             |
| F1-TDCLP             | Recalculate To Do Priority         |
| F1-TDMON             | To Do Monitor                      |
| F1-WEBSVCCAT         | Web Service Category MO            |
| F1CUVWM              | Cube View Portal                   |
| F1CUVWQ              | Cube View Query Portal             |
| F1CVTYPE             | Cube Type Portal                   |
| F1DEPTYP             | Deployment Type Portal             |
| F1DPL                | Deployment Portal                  |
| F1DPLPRT             | Deployment Part Portal             |
| F1DPLQRY             | Deployment Query Portal            |
| F1ESRCFG             | Erasure Configuration Portal       |
| F1KEYRNG             | Key Ring Portal                    |
| F1MDTMNT             | Mobile Data Terminal Portal        |
| F1MDTQRY             | Mobile Data Terminal Query Portal  |
| F1MDTTY              | Mobile Data Terminal Type Portal   |
| F1MOBCMP             | Mobile Component Portal            |
| F1MOBCPQ             | Mobile Component Query Portal      |
| F1OBERSC             | Object Erasure Schedule Portal     |
| F1OUMSTQ             | Outbound Message Type Query Portal |
| F1OUMSTY             | Outbound Message Type Portal       |
| F1PROC               | Process Flow Type Portal           |
| F1PRSTRQ             | Process Flow Query Portal          |
| F1REMSG              | Mobile Remote Message Portal       |
| F1REMSGQ             | Mobile Remote Message Query Portal |



| Application Service | Description                       |
|---------------------|-----------------------------------|
| F1WBCAT             | Web Service Category Portal       |
| F1WBCATQ            | Web Service Category Query Portal |
| F1_PROC             | Process Flow Portal               |

## D.2.16 Characteristic Types

The following characteristic type is newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Characteristic Type | Description                      |
|---------------------|----------------------------------|
| F1-COLOR            | Colors                           |
| F1-PLOVR            | Policy Configuration Overrides   |
| F1-PWD              | Password                         |
| F1BO                | Business Object                  |
| F1DEPLOY            | Deployment Type                  |
| F1KEYRNG            | Key Ring                         |
| F1MAPPMO            | Mobile Application Name MD Field |
| F1MLOGOL            | MDT Logo Icon (Large)            |
| F1MLOGOS            | MDT Logo Icon (Small)            |

## D.2.17 Scripts

The following scripts are newly added in the Oracle Utilities Application Framework V4.3.0.6.0 database:

| Scripts      | Description                              |
|--------------|------------------------------------------|
| F1-AckCurLog | Acknowledge Device Current Log Level     |
| F1-ActivtKey | Activate a Key Ring's Key                |
| F1-ActvtKey  | Activate a Key Ring's Key                |
| F1-AppSerInf | Cube Type - Retrieve Details for Display |
| F1-AtSzCIVI  | Attachment Size Class Validation         |
| F1-AttchRDet | Mobile Download Attachment               |
| F1-AttchUpd  | Mobile Attachment Upload                 |
| F1-CKrUsrLgA | Key Ring - Add User Log Entry            |
| F1-CrMDTsBPA | Create MDTs BPA                          |
| F1-CreDplymt | New Deployment                           |

| Scripts      | Description                                             |
|--------------|---------------------------------------------------------|
| F1-CreMDToDo | Create Message From Device Error To Do Entry            |
| F1-CreMDTs   | Create MDTs                                             |
| F1-CrptKrMnt | Key Ring - Maintain                                     |
| F1-CuVwLgAd  | Cube View - Add User Log Entry                          |
| F1-CuVwMain  | Cube View - Maintain                                    |
| F1-CubTypeMn | Cube Type - Maintain                                    |
| F1-CubePre   | Cube Type Pre-processing                                |
| F1-DTTMFMT   | Optional Date Time Format from User Profile             |
| F1-DepPrPrep | Deployment Part Maintenance Pre-Processing              |
| F1-DepPrtAud | Detect Changes to Deployment Part                       |
| F1-DepPrtVal | Deployment Part Validation                              |
| F1-DepTypAud | Detect Changes to Deployment Type                       |
| F1-DepTypVal | Deployment Type Validation                              |
| F1-DepInfo   | Deployment Information                                  |
| F1-DeployDis | Deployment Display                                      |
| F1-DeployAud | Create To Do entry when deployment is out of date       |
| F1-DpTyPMain | Deployment Type Maintenance                             |
| F1-DplMain   | Deployment Maintenance                                  |
| F1-DplPtMain | Deployment Part Maintenance                             |
| F1-DpprtAdE  | Add Entities to Deployment Part                         |
| F1-EraSchVis | Zone Visibility - Object Erasure Schedule (Dashboard)   |
| F1-ErsrConf  | Manage Erasure Schedule MO Options                      |
| F1-ErsrScLgA | Object Erasure Schedule - Add User Log Entry            |
| F1-FKDSS     | Get Foreign Key Details via a Service Script            |
| F1-GetDplFld | Get the Deployment Support Fields                       |
| F1-IWSRT-VAL | Validate REST Operations Collection                     |
| F1-IWSRU-FMT | Format Resource URI in REST Operations Collection       |
| F1-IWSUsrLgA | Inbound Web Service - Add User Log Entry                |
| F1-IwsRTDtI  | Inbound REST Web Service - Retrieve Details for Display |
| F1-KRDCKKEY  | Key Ring - Prevent Deletion if Keys Exist               |
| F1-MCEditor  | Mobile Component Editor                                 |

| Scripts      | Description                                          |
|--------------|------------------------------------------------------|
| F1-MDTLgVw   | View Mobile Log                                      |
| F1-MDTLogFls | MDT Log Files                                        |
| F1-MDTMain   | MDT Maintenance                                      |
| F1-MDTTpMain | Mobile Data Terminal Type Maintenance                |
| F1-MOPKInfo  | Retrieve Record Information for MO and PK1-5         |
| F1-MTDMonQue | Message to Device Monitor Queue                      |
| F1-MainPost  | Main BO Maintenance Save Processing                  |
| F1-MdtInfo   | Mobile Data Terminal Information                     |
| F1-MdtTypVal | Mobile Data Terminal Type Validation                 |
| F1-MdtVal    | Mobile Data Terminal Validation                      |
| F1-MobCmpInf | Mobile Component Information                         |
| F1-MobCoMain | Mobile Component Maintenance                         |
| F1-MsgFrmDvD | Message From Device Display                          |
| F1-MsgToDvD  | Message To Device Display                            |
| F1-OUMSTYDIS | Outbound Message Type - Retrieve Details for Display |
| F1-ObjErsObf | User Obfuscation                                     |
| F1-ObjErsUsr | User Erasure Evaluation                              |
| F1-OpenAPI   | View API Specification                               |
| F1-PPDepUTD  | Get Deployment Out Of Date Items                     |
| F1-PROC-CMN  | Placeholder Process Flow Script                      |
| F1-PROCEXEC  | Process Flow Navigation                              |
| F1-PopCVUser | Populate Cube View User                              |
| F1-PrcsMsgFD | Process Message From Device                          |
| F1-PreMDT    | Mobile Device Terminal Pre-Processing                |
| F1-PreMDTLog | MDT Log Display                                      |
| F1-ProFwTypM | Process Flow Type - Maintain                         |
| F1-ProStrMgr | Process Flow Manager                                 |
| F1-ProcFLDSS | Process Flow - Derivation                            |
| F1-ProcFwLog | Process Flow Log Details                             |
| F1-ReMsgMain | Remote Message Maintenance                           |
| F1-ReqMDTLog | Request MDT Logs                                     |

| Scripts      | Description                                                 |
|--------------|-------------------------------------------------------------|
| F1-RetActBtn | Return Activate Button                                      |
| F1-RetHidBtn | Return / Hide button with label based on BO Status          |
| F1-RmMsgInf  | Remote Message Information                                  |
| F1-SetCurLog | Set Current Log Level                                       |
| F1-SngFldVal | Single Field Filter Validation                              |
| F1-VALCTYP   | Validate Cube Type                                          |
| F1-VALCVAT   | Validate Cube View Access Type                              |
| F1-ValPSFltr | Validate Process Flow Query Filters                         |
| F1-ViewPbKey | View Public Key                                             |
| F1-WbCatAdSS | Add One or More Services to a Web Service Category          |
| F1-WbCatAdSv | Add Web Services to Web Service Category                    |
| F1-WbCatAdV  | Validate Add Web Services Zone Filters                      |
| F1-WbCatCon  | List of Web Service Categories for an input Web Service     |
| F1-WbCatInEx | Retrieve Included and Excluded Web Service Categories       |
| F1-WbCatNav  | Navigate to web service category search                     |
| F1-WbCatRmIn | Remove Web Services from Web Service Category               |
| F1-WbCtRmISS | Remove One or More Web Services from a Web Service Category |
| F1-WbSvAdCat | Add Categories to Web Service                               |
| F1-WebCatAdd | Add Category to Web Service                                 |
| F1MgOImpMnt  | Migration Object - Retrieve Details for Maintenance         |
| F1MgOImpPst  | Migration Object - Update Details for Maintenance           |
| F1MgoSqlPKs  | Migration Object - Format SQL PK Strings                    |
| F1ObjErSchM  | Object Erasure Schedule - Maintain                          |
| F1OutMsgTypM | Outbound Message Type - Maintain                            |
| F1REGEXSS    | Regex (Groovy) SS                                           |
| F1UpISmplDIm | Sample Delimited File Upload                                |
| F1UpISmplFlt | Sample Flat File Upload                                     |
| F1UpISmplXML | Sample XML File Upload                                      |
| F1WebSvcCatM | Web Service Category - Maintain                             |
| F1_BAT_ERLOS | Compare Count of Records in Error to Threshold              |
| F1_BAT_RTLOS | Compare Total Batch Run Time to Threshold                   |

| Scripts      | Description                                             |
|--------------|---------------------------------------------------------|
| F1_BAT_TPLOS | Compare Throughput to Threshold                         |
| F1_CVINFO    | Cube View Information                                   |
| F1_CubeView  | Cube View Data                                          |
| F1_CubeViewD | Cube View - Retrieve Details for Display                |
| F1_PROSTINFO | Process Flow Information                                |
| F1_TDCLPR_PR | Recalculate To Do Entry's Priority                      |
| F1_TDCLPR_SR | Select To Do Entries with Calculate Priority Algorithms |
| F1_TDCOMPMON | Complete To Do after X days                             |
| F1_TDMON_PR  | Execute To Do Monitor Algorithms                        |
| F1_TDMON_SR  | Select To Do Entries with To Do Monitor Algorithms      |
| F1_VALDELPST | Process Flow Delete Validation                          |

## Appendix E : Oracle Utilities Application Framework System Table Guide

This section lists the system tables owned by Oracle Utilities Application Framework V4.3.0.6.0 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,<br>SC_USR_GRP_PROF, SC_USR_GRP_USR,<br>SC_USER_GROUP, SC_USER_GROUP_L                                                                                                                          |
| Initial Data | User Group ALL_SERVICES and default system user SYSUSER. 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,<br>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,<br>CI_INSTALL_MSG, CI_INSTALL_MSG_L,<br>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&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,<br>CI_ALG_TYPE_PRM,<br>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,<br>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,<br>CI_APP_SVC_ACC                                                                                                                                         |
| Standard Data Fields  | <p>Application Service ID (APP_SVC_ID).</p> <p><b>Note:</b> 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,<br>CI_BATCH_CTRL_P, CI_BATCH_CTRL_P_L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Standard Data Fields  | Batch Process (BATCH_CD), Program Name<br>(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,<br>F1_BUS_OBJ_ALG, F1_BUS_OBJ_OPT,<br>F1_BUS_OBJ_STATUS,<br>F1_BUS_OBJ_STATUS_L,<br>F1_BUS_OBJ_STATUS_ALG,<br>F1_BUS_OBJ_STATUS_OPT,<br>F1_BUS_OBJ_STATUS_RSN,<br>F1_BUS_OBJ_STATUS_RSN_L,<br>F1_BUS_OBJ_STATUS_RSN_CHAR<br>F1_BUS_OBJ_TR_RULE,<br>F1_BUS_OBJ_TR_RULE_L                                                                                                         |
| Standard Data Fields  | Business Object (BUS_OBJ_CD), Status Reason<br>(BO_STATUS_REASON_CD)                                                                                                                                                                                                                                                                                                                                      |
| Customer Modification | Batch Control (BATCH_CD), Alert<br>(BO_ALERT_FLG), Sequence (SORT_SEQ5),<br>Status Reason (STATUS_REASON_FLG) fields on Business Object Status<br>Table (F1_BUS_OBJ_STATUS).<br>Instance Control (INSTANCE_CTRL_FLG), Application Service<br>(APP_SVC_ID) on Business Object Table (F1_BUS_OBJ).<br>Status Reason Selection (STATUS_REASON_SELECT_FLG) on Status<br>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<br><br><b>Note:</b> 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. |
| 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,<br>F1_EXT_LOOKUP_VAL_CHAR                                                                                                                                                                                                                                                                                                                                                                       |
| Standard Data Fields  | Business Object (BUS_OBJ_CD), Extendable Lookup Value<br>(F1_EXT_LOOKUP_VALUE)                                                                                                                                                                                                                                                                                                                                                          |
| Customer Modification | Business Object Data Area (BO_DATA_AREA)<br>Override Description (DESCR_OVRD) on Extendable Lookup Field Value<br>Language Table (F1_EXT_LOOKUP_VAL_L)<br><br><div> <b>Note:</b> When the product releases base owned records in Extendable<br/>Lookup, if there are additional elements the business object will map<br/>the element to the BO_DATA_AREA if the value is allowed to be<br/>modified by the implementation team. </div> |

### 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,<br>F1_IWS_SVC_OPER, F1_IWS_ANN_L, F1_IWS_ANN_PARM,<br>F1_IWS_ANN, F1_IWS_ANN_TYPE_L, F1_IWS_ANN_TYPE,<br>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 Legacy Object

| 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,<br>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,<br>CI_MSG, CI_MSG_L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Standard Data Fields  | <p>Message Category (MESSAGE_CAT_NBR)</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Implementer Message Categories are 80000 and 90000</li> <li>• Reserved for Tests – 99999</li> </ul> <p>Message Number (MESSAGE_NBR) for message categories</p> <ul style="list-style-type: none"> <li>• Message numbers below 1000 are reserved for common messages. Implementers must not use message numbers below 1000.</li> </ul> <p>Message Number (MESSAGE_NBR) for Java message categories</p> <ul style="list-style-type: none"> <li>• Subsystem Standard Messages - 00001 thru 02000</li> <li>• Reserved - 02001 thru 09999</li> <li>• Published Messages - 10001 thru 11000</li> <li>• Package Messages - 10001 thru 90000</li> <li>• Reserved - 90001 thru 99999</li> <li>• Each package is allocated 100 message numbers, each starting from 101.</li> <li>• Published Messages are messages that are special-interest 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.</li> <li>• Reserved message number ranges are for future use and therefore must not be used by all products.</li> </ul> |
| Customer Modification | Override Description (DESCRLONG_OVRD), Message Text Override (MESSAGE_TEXT_OVRD)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |



### E.3.2.21 Meta Data - Table and Field

| Properties            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | CI_MD_TBL, CI_MD_TBL_FLD,<br>CI_MD_TBL_L, CI_MD_TBL_FLD_L,<br>CI_MD_FLD, CI_MD_FLD_L,<br>F1_DB_OBJECTS_REPO                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Standard Data Fields  | Table Name (TBL_NAME)<br>Table names must match with the physical table name or view name in the database.<br><br>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.<br><br>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) |
| 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 Meta Data – Constraints

| Properties            | Description                                                                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | CI_MD_CONST, CI_MD_CONST_FLD                                                                                                                      |
| Standard Data Fields  | Constraint Id (CONST_ID)<br>Index Name for Primary Constraints<br><Index Name>Rnn for Foreign Key Constraints Where<br>nn: integer, 01 through 99 |
| Customer Modification | None                                                                                                                                              |

### E.3.2.23 Meta Data - 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,<br>CI_MD_MENU_ITEM,<br>CI_MD_MENU_ITEM_L,<br>CI_MD_MENU_LINE,<br>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 Meta Data - Program, Location and Services

| Properties            | Description                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | CI_MD_PRG_COM, CI_MD_PRG_LOC,<br>CI_MD_SVC, CI_MD_SVC_L,<br>CI_MD_SVC_PRG, CI_MD_PRG_MOD, CI_MD_PRG_EL_AT,<br>CI_MD_PRG_ELEM, CI_MD_PRG_SEC,<br>CI_MD_PRG_SQL, CI_MD_PRG_VAR,<br>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 Meta Data - Maintenance Object

| Properties            | Description                                                          |
|-----------------------|----------------------------------------------------------------------|
| Tables                | CI_MD_MO, CI_MD_MO_L,<br>CI_MD_MO_TBL, CI_MD_MO_OPT,<br>CI_MD_MO_ALG |
| Standard Data Fields  | Maintenance Object (MAINT_OBJ_CD)                                    |
| Customer Modification | None                                                                 |

### E.3.2.26 Meta Data - Work Tables

| Properties            | Description                                                       |
|-----------------------|-------------------------------------------------------------------|
| Tables                | CI_MD_WRK_TBL, CI_MD_WRK_TBL_L,<br>CI_MD_WRK_TBLFLD, CI_MD_MO_WRK |
| Standard Data Fields  | Work Table Name (WRK_TBL_NAME)                                    |
| Customer Modification | None                                                              |

### E.3.2.27 Meta Data - Search Object

| Properties            | Description                                                                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | CI_MD_SO, CI_MD_SO_L,<br>CI_MD_SO_RSFLD, CI_MD_SO_RSFLDAT,<br>CI_MD_SOCG, CI_MD_SOCG_FLD,<br>CI_MD_SOCG_FLDAT, CI_MD_SOCG_L,<br>CI_MD_SOCG_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,<br>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,<br>CI_NAV_OPT_CTXT, CI_NAV_OPT_USG,<br>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  | <b>Outbound Message Type Code</b> (OUTMSG_TYPE_CD) |
| Customer Modification | <b>Priority</b> (OUTMSG_PRIOR_FLG)                 |

### E.3.2.31 Portal and Zone

| Properties            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | CI_PORTAL, CI_PORTAL_L,<br>CI_PORTAL_ZONE, C1_PORTAL_OPT, CI_ZONE,<br>CI_ZONE_L, CI_ZONE_PRM,<br>CI_ZONE_HDL, CI_ZONE_HDL_L,<br>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"> <li>A new Zone can be added to the Product owned Portal Pages.</li> <li>The existing Zones cannot be removed from the Product owned Portal Pages.</li> </ul>                                                                                                                                                                                                                        |
| 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  | <b>Process Flow Type</b> (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)<br>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,<br>CI_TD_SRTKEY_TY, CI_TD_DRLKEY_TY,<br>CI_TD_SRTKEY_TY_L                                                         |
| Standard Data Fields  | <b>To Do Type</b> (TD_TYPE_CD)                                                                                                              |
| Customer Modification | Creation Batch Code (CRE_BATCH_CD),<br>Route Batch Code (RTE_BATCH_CD),<br>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  | <b>Web Service Category code</b> (WEB_SVC_CAT_CD) |
| Customer Modification | None                                              |

### E.3.2.38 XAI Configuration

| Properties            | Description                                                                                                                                                                                                                                                                                                 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables                | CI_XAI_ADAPTER, CI_XAI_ADAPTER_L,<br>CI_XAI_CLASS, CI_XAI_CLASS_L,<br>CI_XAI_ENV_HNDL,<br>CI_XAI_ENV_HNDL_L, CI_XAI_FORMAT,<br>CI_XAI_FORMAT_L, CI_XAI_RCVR,<br>CI_XAI_RCVR_L, CI_XAI_RCVR_CTX,<br>CI_XAI_RCVR_RSP, CI_XAI_RCVR_RGRP,<br>CI_XAI_SENDER, CI_XAI_SERNDER_L,<br>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,<br>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 Oracle Utilities Application Framework only Tables

All data of the tables in this group belong to Oracle Utilities Application Framework. No data modification or addition is allowed for these tables by base product development and customer modification. When an environment is upgraded to the next release of Oracle Utilities Application Framework, the upgrade process will refresh the data in these tables.

- CI\_MD\_AT\_DTL / CI\_MD\_AT\_DTL\_L
- CI\_MD\_ATT\_TY
- CI\_MD\_CTL / CI\_MD\_CTL\_L
- CI\_MD\_CTL\_TMPL

- CI\_MD\_ELTY / CI\_MD\_ELTY\_L
- CI\_MD\_ELTY\_AT
- CI\_MD\_LOOKUP\_F
- CI\_MD\_PDF / CI\_MD\_PDF\_VAL
- CI\_MD\_MSG / CI\_MD\_MSG\_L
- CI\_MD\_SRC\_TYPE / CI\_MD\_SRC\_TYPE\_L
- CI\_MD\_TMPL / CI\_MD\_TMPL\_L
- CI\_MD\_TMPL\_ELTY
- CI\_MD\_TMPL\_VAR / CI\_MD\_TMPL\_VAR\_L
- CI\_MD\_VAR / CI\_MD\_VAR\_DTL / CI\_MD\_VAR\_DTL\_L
- CI\_XAI\_EXECUTER / CI\_XAI\_EXECUTER\_L



## E.4 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         |

| Table Name        | Upgrade Action | Description                        |
|-------------------|----------------|------------------------------------|
| CI_CHAR_VAL_L     | MG             | Characteristic Type Value Language |
| 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         |

| Table Name        | Upgrade Action | Description                             |
|-------------------|----------------|-----------------------------------------|
| CI_MD_PRG_LOC     | MG             | Program Location                        |
| 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                       |

| Table Name        | Upgrade Action | Description                    |
|-------------------|----------------|--------------------------------|
| CI_NAV_OPT_CTXT   | MG             | Navigation Option Context      |
| 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           |

| Table Name              | Upgrade Action | Description                              |
|-------------------------|----------------|------------------------------------------|
| CI_XAI_ENV_HNDL_L       | MG             | XAI Envelope Handler Language            |
| 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                 |

| Table Name               | Upgrade Action | Description                                    |
|--------------------------|----------------|------------------------------------------------|
| F1_EXT_LOOKUP_VAL        | MG             | Extendable Lookup                              |
| 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    | KPMG           | Mobile Component Language                      |

| Table Name          | Upgrade Action | Description                            |
|---------------------|----------------|----------------------------------------|
| F1_MOB_COMP_CHAR    | MG             | Mobile Component Characteristics       |
| 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                   |

| Table Name        | Upgrade Action | Description                            |
|-------------------|----------------|----------------------------------------|
| CI_DAR_USR        | KP             | Data Access User                       |
| 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               |



| Table Name         | Upgrade Action | Description                       |
|--------------------|----------------|-----------------------------------|
| CI_PHONE_TYPE      | KP             | Phone Type                        |
| 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     |

| Table Name         | Upgrade Action | Description                      |
|--------------------|----------------|----------------------------------|
| CI_WF_EVT_TYPE     | KP             | WF Event Type                    |
| 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          |

| Table Name                 | Upgrade Action | Description                            |
|----------------------------|----------------|----------------------------------------|
| CI_XAI_ROUTING             | KP             | XAI Routing                            |
| 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             |

| Table Name            | Upgrade Action | Description                               |
|-----------------------|----------------|-------------------------------------------|
| F1_WEB_SVC            | KP             | Web Service Adapter                       |
| 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                         |

| Table Name        | Upgrade Action | Description                |
|-------------------|----------------|----------------------------|
| CI_MD_TMPL_VAR    | RF             | Template Variable          |
| 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       |

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- Notice Concerning Usage of Apache Software
- Notice Concerning Usage of ASM
- Notice Concerning Usage of CodeMirror
- Notice Concerning Usage of Concurrent
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**X Window System is a trademark of X Consortium, Inc. JSON Editor v0.7.22 - JSON Schema -> HTML Editor**

By Jeremy Dorn - <https://github.com/jdorn/json-editor/>

Released under the MIT license

Date: 2015-08-12

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**swagger-ui.js**

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