

Oracle® Communications Data Model

Release Notes

Release 11.3.2.3

E28443-09

October 2014

This document outlines new features for Oracle Communications Data Model Release 11.3.2. The *Release Notes* also contains important information that was not included in the documentation for Oracle Communications Data Model Release 11.3.2.3 (Add-Ons).

This document includes the complete release notes for Oracle Communications Data Model Add-Ons Release 11.3.2.3. The first section covers the information specific to Release 11.3.2.3.

This document may be updated after it is released. To check for updates to this document and to view other Oracle documentation, refer to the Documentation section on the Oracle Technology Network (OTN) web site:

<http://www.oracle.com/technetwork/documentation/index.html>

This document contains the following topics:

- [Certify with Oracle Database 12c Release 1 in Release 11.3.2.3](#)
- [Policy and Charging Analytics Added in Release 11.3.2.2](#)
- [BRM Adapter Changes in Release 11.3.2.1](#)
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1 Certify with Oracle Database 12c Release 1 in Release 11.3.2.3

This release of Oracle Communications Data Model Add-Ons (Release 11.3.2.3) is certified with Oracle Database 12c Release 1 (12.1) Enterprise Edition (12.1.0.2 or later). This release also supports Oracle Database 11g Release 2 Enterprise Edition (11.2.0.3 or later).

2 Policy and Charging Analytics Added in Release 11.3.2.2

Oracle Communications Data Model Release 11.3.2 includes the Oracle Communications Policy and Charging Analytics Add-on.

The Policy Management Adapter (Policy Adapter) provides the interface between the Policy Server through ADS, and then loads data into Oracle Communications Data Model foundation tables.

Within Oracle Communications Data Model, the policy data in the foundation layer is processed by the Policy and Charging Analytics Intra-ETL packages to populate tables at the Oracle Communications Data Model analytic layer, and OBIEE shows the Policy and Charging Analytics reports and dashboards.

2.1 Add-Ons Release 11.3.2 Prerequisites and Installation Steps

The Oracle Communications Policy and Charging Analytics Add-on Release 11.3.2.2 requires that you first create the database instance using Bigfile tablespaces and then install Oracle Communications Data Model.

Oracle Communications Policy and Charging Analytics has installation differences compared to other Oracle Communications Data Model Add-ons. Due to these differences, the high level flow of Policy and Charging Analytics Add-on installation is as follows:

1. Make sure prerequisites are met. For more information, see *Oracle Communications Data Model Adapters and Analytics Installation Guide*.
2. Perform Oracle Communications Policy and Charging Analytics Add-on preinstallation steps that include installing the Oracle database and installing Oracle Communications Data Model. For more information, see *Oracle Communications Data Model Installation Guide* and *Oracle Communications Data Model Adapters and Analytics Installation Guide*.
3. Install Oracle Communications Policy and Charging Analytics Add-on. For more information, see *Oracle Communications Data Model Adapters and Analytics Installation Guide*.
4. Perform Oracle Communications Policy and Charging Analytics Add-on postinstallation steps. For more information, see *Oracle Communications Data Model Adapters and Analytics Installation Guide*.

2.2 Release 11.3.2 Issues Resolved

Issue	Description
17741610	MAPPING NOT PRESENT IN BRM ADAPTER FOR BRM OUT OF BOX TABLES.

3 BRM Adapter Changes in Release 11.3.2.1

This section covers information specific to the Oracle Communications Data Model Add-Ons Release 11.3.2.1.

- [Add-Ons Release 11.3.2.1 Prerequisites](#)
- [Source to Staging Performance Enhancement](#)
- [Renamed Staging to Oracle Communications Data Model Interfaces](#)
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- [ETL Lookup Matrix Extension](#)
- [Introduction of BRM_GET_DD_OBJ_MAP Function](#)
- [Exception Handling Configuration](#)
- [Provided Out of Box Scenarios to Perform Data Load](#)
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3.1 Add-Ons Release 11.3.2.1 Prerequisites

If the Oracle Communications Data Model Release 11.3.2 patch for bug 17863837 has not been applied, do the following:

1. Run Oracle Communications Data Model 11.3.2 patch scripts. The scripts are available for the patch associated with bug 17863837.

3.2 Source to Staging Performance Enhancement

Temporary staging layers are removed while loading data into the staging layer. Staging is not required as source to staging is 1:1 mapping. Data is directly loaded into the staging layer without putting it in temporary staging tables.

BRM_ETL_PARAMETER functionality is enhanced to filter data at the source using ODI variables. New ODI variables are introduced and are populated with BRM_ETL_PARAMETER values.

3.3 Renamed Staging to Oracle Communications Data Model Interfaces

Temporary staging to Oracle Communications Data Model interfaces are renamed in Release 11.3.2.1 to give proper names; in this release each name matches the associated target `ocdm_sys` tables.

Package	Interface (11.3.2.1)	Target Table	Interface (11.3.2)
100 - LOOKUP	DWB_CRNCY_EXCHNG_RATE_MAP	DWB_CRNCY_EXCHNG_RATE	CONFIG_CUR_CRNCY_EXCHNG_RATE_MAP
100 - LOOKUP	DWL_ACCT_BAL_TYP_MAP	DWL_ACCT_BAL_TYP	CONFIG_BEID_BAL_TYP_MAP
100 - LOOKUP	DWL_CALL_SRVC_TYP_MAP	DWL_CALL_SRVC_TYP	IFW_USAGETYPE_SRVC_TYP_MAP
100 - LOOKUP	DWL_COLLCTN_TYP_MAP	DWL_COLLCTN_TYP	
100 - LOOKUP	DWL_CRNCY_MAP	DWL_CRNCY	
100 - LOOKUP	DWL_CUST_TYP_MAP	DWL_CUST_TYP	CONFIG_BUSINESS_TYPE_T_MAP
100 - LOOKUP	DWL_PK_OFFPK_TIME_MAP	DWL_PK_OFFPK_TIME	IFW_TIMWZONE_TIME_MAP
100 - LOOKUP	DWL_PROD_SPEC_TYP_MAP	DWL_PROD_SPEC_TYP	
10000 - BROADBAND_USAGE_EVENT_PKG	DWB_BRDBND_USG_EVT_MAP	DWB_BRDBND_USG_EVT	EVENT_BROADBAND_USAGE_BRDBND_USG_EVT_MAP
10000 - DATA_SERVICE_EVENT_PKG	DWB_DATA_SRVC_EVT_MAP (DIALUP)	DWB_DATA_SRVC_EVT	EVENT_DATA_SRVC_EVT_MAP

Package	Interface (11.3.2.1)	Target Table	Interface (11.3.2)
10000 - DATA_SERVICE_EVENT_PKG	DWB_DATA_SRVC_EVT_MAP (GSM POST-PAID)	DWB_DATA_SRVC_EVT	
10000 - DATA_SERVICE_EVENT_PKG	DWB_DATA_SRVC_EVT_MAP (GSM PRE-PAID)	DWB_DATA_SRVC_EVT	
10000 - GPRS_USAGE_EVENT_PKG	DWB_GPRS_USG_EVT_MAP (PostPaid)	DWB_GPRS_USG_EVT	EVENT_SESSION_GPRS_USG_EVT_MAP
10000 - GPRS_USAGE_EVENT_PKG	DWB_GPRS_USG_EVT_MAP (PrePaid)	DWB_GPRS_USG_EVT	EVENT_DLYD_SESSION_GPRS_USG_EVT_MAP
10000 - SMS_EVENT_PKG	DWB_SMS_EVT_MAP (PostPaid)	DWB_SMS_EVT	
10000 - SMS_EVENT_PKG	DWB_SMS_EVT_MAP (PrePaid)	DWB_SMS_EVT	
10000 - VOICE_CALL_EVENT_PKG	DWB_WRLS_CALL_EVT_MAP(PostPaid)	DWB_WRLS_CALL_EVT	EVENT_SESSION_TLCO_GSM_WRLS_CALL_EVT_MAP
10000 - VOICE_CALL_EVENT_PKG	DWB_WRLS_CALL_EVT_MAP (PrePaid)	DWB_WRLS_CALL_EVT	EVENT_DLYD_SESSION_WRLS_CALL_EVT_MAP
200 - CUSTOMER_PKG	DWR_PRTY_MAP	DWR_PRTY	ACCOUNT_PRTY_MAP
200 - CUSTOMER_PKG	DWR_CUST_MAP	DWR_CUST	ACCOUNT_CUST_MAP
200 - CUSTOMER_PKG	DWR_CUST_ADDR_MAP	DWR_CUST_ADDR	
200 - CUSTOMER_PKG	DWR_PRTY_CNCT_INFO_MAP	DWR_PRTY_CNCT_INFO	ACCOUNT_PRTY_CNCT_INFO_MAP
200 - CUSTOMER_PKG	DWR_PRTY_MAP (Payinfo_CC)	DWR_PRTY	PAYINFO_CC_PRTY_MAP
200 - CUSTOMER_PKG	DWR_PRTY_MAP (Payinfo_DD)	DWR_PRTY	PAYINFO_DD_PRTY_MAP
200 - CUSTOMER_PKG	DWR_PRTY_MAP (Payinfo_INV)	DWR_PRTY	PAYINFO_INV_T_PRTY_MAP
300 - ACCOUNT_PKG	DWR_ACCT_SGMNT	DWR_ACCT_SGMNT	
300 - ACCOUNT_PKG	DWR_ACCT_MAP	DWR_ACCT	ACCOUNT_ACCT_MAP
300 - ACCOUNT_PKG	DWR_ACCT_BAL_GRP_MAP	DWR_ACCT_BAL_GRP	BAL_GRP_GRP_MAP
300 - ACCOUNT_PKG	DWR_ACCT_PREF_INVC_DLVRY_MAP	DWR_ACCT_PREF_INVC_DLVRY	
300 - ACCOUNT_PKG	DWR_ACCT_PYMT_MTHD_MAP	DWR_ACCT_PYMT_MTHD	PAYINFO_ACCT_PREF_PYMT_MTHD_MAP
400 - SERVICE_PKG	DWR_SRVC_MAP	DWR_SRVC	
400 - SERVICE_PKG	DWR_SRVC_SPEC_MAP	DWR_SRVC_SPEC	DD_OBJECTS_SRVC_SPEC_MAP
400 - SERVICE_PKG	DWR_CUST_FCNG_SRVC_MAP	DWR_CUST_FCNG_SRVC	SERVICE_CUST_FCNG_SRVC_MAP
500 - PRODUCT_PKG	DWR_PROD_SPEC_MAP (PRODUCT_T)	DWR_PROD_SPEC	PRODUCT_DISCOUNT_PROD_MAP
500 - PRODUCT_PKG	DWR_PROD_OFR_MAP	DWR_PROD_OFR	
500 - PRODUCT_PKG	DWR_PROD_SBRP_MAP	DWR_PROD_SBRP	PURCHASED_PRODUCT_SBRP_MAP
500 - PRODUCT_PKG	DWR_PROD_OFR_PROD_SPEC_ASGN_MAP	DWR_PROD_OFR_PROD_SPEC_ASGN	PLAN_SERVICES_PROD_MKT_PLN_ASGN_MAP

Package	Interface (11.3.2.1)	Target Table	Interface (11.3.2)
500 - PRODUCT_PKG	DWR_PROD_CTLG_MAP	DWR_PROD_CTLG	
500 - PRODUCT_PKG	DWR_PROD_CTLG_PROD_OFR_ASGN_MAP	DWR_PROD_CTLG_PROD_OFR_ASGN	
500 - PRODUCT_PKG	DWR_SRVC_SPEC_PROD_SPEC_RLTN_MAP	DWR_SRVC_SPEC_PROD_SPEC_RLTN	PRODUCT_DISCOUNT_PROD_RLTN_MAP
500 - PRODUCT_PKG	DWR_AGRMNT_MAP	DWR_AGRMNT	
500 - PRODUCT_PKG	DWR_VAL_ADD_SRVC_MAP	DWR_VAL_ADD_SRVC	
500 - PRODUCT_PKG	DWR_AGRMNT_ITEM_MAP	DWR_AGRMNT_ITEM	
500 - PRODUCT_PKG	DWR_PROD_OFR_MAP	DWR_PROD_OFR	PLAN_MKT_PLN_MAP
600 - ACCOUNT_BALANCE_PKG	DWB_ACCT_BAL_MAP	DWB_ACCT_BAL	
600 - ACCOUNT_BALANCE_PKG	DWB_ACCT_BAL_IMPC_MAP	DWB_ACCT_BAL_IMPC	EVENT_BAL_IMPACTS_NTWK_EVT_ACCT_BAL_IMPC_MAP
700 - INVOICE_PKG	DWB_INVC_MAP	DWB_INVC	BILL_INVC_MAP
700 - INVOICE_PKG	DWB_INVC_ITEM_MAP	DWB_INVC_ITEM	ITEM_INVC_ITEM_MAP
700 - INVOICE_PKG	DWB_INVC_ADJ_MAP	DWB_INVC_ADJ	
700 - INVOICE_PKG	DWB_INVC_DISC_MAP	DWB_INVC_DISC	
800 - COLLECTIONS	DWB_ACCT_DEBT_MAP	DWB_ACCT_DEBT	
800 - PAYMENT_PKG	DWB_ACCT_PYMT_MAP	DWB_ACCT_PYMT	EVENT_BILLING_ACCT_RCHRGM_MAP
800 - PAYMENT_PKG	DWB_INVC_PYMT_ASGN_MAP	DWB_INVC_PYMT_ASGN	
500 - PRODUCT_PKG	DWR_PROD_OFR_PRICE_MAP	DWR_PROD_OFR_PRICE	RATE_PLAN_PROD_RTNG_PLN_MAP
	DWB_SRVC_STAT_HIST_MAP	DWB_SRVC_STAT_HIST	SERVICE_SRVC_STAT_HIST_MAP
	DWR_PROD_SBRP_PRICE_MAP	DWR_PROD_SBRP_PRICE	PURCHASED_PRODUCT_PRICE_CHRG_MAP
	DWR_SRVC_SPEC_CHAR_MAP	DWR_SRVC_SPEC_CHAR	

3.4 New Interfaces and Remapping in Release 11.3.2.1

Table mapping is changed for several tables and new mapping is added.

Major mapping changes in Release 11.3.2.1:

1. DWR_ACCT_MAP

The BILLINFO_T table from BRM maps to the DWR_ACCT Oracle Communications Data Model table. In the previous version DWR_ACCT was fed using the ACCOUNT_T table.

2. DWR_PROD_OFR

The DEAL_T table from BRM maps to the DWR_PROD_OFR Oracle Communications Data Model table. In the previous version DWR_PROD_OFR was fed using the PLAN_T table.

The PLAN_T from BRM maps to DWR_PROD_CTLG Oracle Communications Data Model table.

3. DWB_ACCT_DEBT_MAP

A new interface is added to feed DWB_ACCT_DEBT Oracle Communications Data Model table. This mapping is used in debt related reports in Oracle Communications Data Model.

4. DWB_ACCT_BAL_MAP

A new interface is added to feed the DWB_ACCT_BAL Oracle Communications Data Model table.

3.5 ETL Lookup Matrix Extension

A new lookup matrix mapping is added, you need to review the mapping and possibly make changes. For more information, see *Oracle Communications Data Model Adapters and Analytics Installation Guide*.

3.6 Introduction of BRM_GET_DD_OBJ_MAP Function

This function gives you the flexibility to configure different BRM objects for clear and understandable mapping. You need to review this mapping and you also need to make changes as required. For more information, see *Oracle Communications Data Model Adapters and Analytics Installation Guide*.

3.7 Exception Handling Configuration

Exception handling is added to each of the interfaces and procedures. The exception handling configuration changes enable you to skip any mappings which are not required and requires that you make configuration changes. For more information, see *Oracle Communications Data Model Adapters and Analytics User's Guide*.

3.8 Provided Out of Box Scenarios to Perform Data Load

Either you can make use of out of box scenarios or create custom scenarios/load plans as required.

- SRC_STG_LOAD
- STG_OCDM_LOAD
- END_TO_END_LOAD_PLAN
- END_TO_END_LOAD_PLAN_SCHEDULING

For more information, see *Oracle Communications Data Model Adapters and Analytics User's Guide*.

3.9 Issues Resolved

Issue	Description
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17741610	MAPPING NOT PRESENT IN BRM ADAPTER FOR BRM OUT OF BOX TABLES.
17741582	BRM ADAPTER PACKAGE SHOULD HANDLE FAIL OVER TO EXECUTE ALL INTERFACES IN IT
17741535	PARTY, CUSTOMER ENTITIES ARE NOT LOADED COMPLETELY ON ORACLE COMMUNICATIONS DATA MODEL FOUNDATION.
17741482	PERFORMANCE OF QUERY GENERATED BY ADAPTER IS VERY LOW CAUSING CONNECTION RESET
17741404	DATA NOT FILTERED AT SOURCE AND CAUSING PERFORMANCE ISSUE.
17707125	BRM ADAPTER FEEDING PLAN_T INTO DWR_PROD_CTLG
17686807	PLANT_T IS A "BRM CATALOG" RATHER THAN A PROD OFFERING

4 New Features Release 11.3.2

Oracle Communications Data Model Release 11.3.2 includes the following new features and changes:

- [TMF SID 12 Alignment](#)
- [Data Model Extensions to Support Retail Inventory, Point of Service, and Clickstream Data](#)
- [Data Mining Model Enhancements](#)
- [Simplification of Core Installation and New Add-Ons Installation Type](#)
- [BRM Adapter Enhancement](#)
- [NCC Adapter Enhancements](#)
- [Support for Oracle Communications Social Network Analytics](#)
- [Support for Oracle Communications Billing Analytics](#)

4.1 TMF SID 12 Alignment

To provide alignment with the TM Forum Information Framework (SID) Release 12, Oracle Communications Data Model Release 11.3.2 Logical Data Model (LDM), Physical Data Model (PDM), Intra-ETL, OLAP cubes, and data mining models are updated or replaced.

4.1.1 New Features

New features include:

- New features for Information Framework (SID) Release 12 (for example: QoS, Service Problem, Trouble Ticket, Product, Usage).
- Changes that help you understand and navigate Oracle Communications Data Model with TMF SID terminology and syntax.
- Changes for mapping to TM Forum Information Framework (SID) Release 12 aligned applications.

4.1.2 Logical Data Model (LDM) and Physical Data Model (PDM) Entity Renaming and Simplification

Oracle Communications Data Model Release 11.3.2 provides a table and column renaming between Release 11.3.1 and Release 11.3.2 to align entity names with the TMF SID counterpart, so that mapping is simplified and for a clearer understanding of Oracle Communications Data Model with TMF SID Release 12.

Between these releases, the Primary Keys and Foreign Keys (PK/FK) stay as-is if they were correct and the content was not changed. Where needed for alignment with TMF SID Release 12, reference table names change, and the main columns (KEY, CODE, NAME, DESCRIPTION) were renamed, as well as all columns related through the FK.

See: *Oracle Communications Data Model Reference* for complete information on table renaming between Release 11.3.1 and Release 11.3.2.

Table 1 LDM/PDM Entity Renaming for Oracle Communications Data Model 11.3.2

LDM(11.3.1)	PDM(11.3.1)	LDM(11.3.2)	PDM (11.3.2)
CONTRACT	DWR_CNRT	AGREEMENT	DWR_AGRMNT
LOGICAL ELEMENT	DWR_LGICL_ELMNT	LOGICAL RESOURCE	DWR_LGICL_RSCE
NETWORK ELEMENT	DWR_NTWK_ELMNT	RESOURCE	DWR_RSCE
PHYSICAL ELEMENT	DWR_PHY_ELMNT	PHYSICAL RESOURCE	DWR_PHY_RSCE
PRODUCT	DWR_PROD	PRODUCT SPECIFICATION	DWR_PROD_SPEC
PRODUCT CHARACTERISTIC	DWR_PROD_CHTRSTC	PRODUCT SPECIFICATION CHARACTERISTIC	DWR_PROD_SPEC_CHTRSTC
PRODUCT INSTANCE	DWR_PROD_INSTNC	PRODUCT	DWR_PROD
PRODUCT MARKET PLAN	DWR_PROD_MKT_PLN	PRODUCT OFFERING	DWR_PROD_OFR
PRODUCT PACKAGE	DWR_PROD_PKG	COMPOSITE PRODUCT SPECIFICATION	DWR_CMPST_PROD_SPEC
PRODUCT RATING PLAN	DWR_PROD_RTNG_PLN	PRODUCT OFFERING PRICE	DWR_PROD_OFR_PRICE
PRODUCT TYPE	DWL_PROD_TYP	PRODUCT SPECIFICATION TYPE	DWL_PROD_SPEC_TYP
SUBSCRIPTION	DWR_SBRP	PRODUCT SUBSCRIPTION	DWR_PROD_SBRP

Corrections for missing relationships, if any, were added to match the TMF SID.

Additionally, some entities were simplified and unified:

- ACCOUNT BALANCE HISTORY becomes a derived (one entry per month; current month = last full day status)
- ACCOUNT BALANCE (Derived) becomes a snapshot table: status of all account balances of any type when loaded (includes ACCOUNT BALANCE BUCKET)
- ACCOUNT BALANCE IMPACT stores details of impact (monetary, tax, points, and so on...) of any events, including all adjustments (ACCOUNT ADJUSTMENT such as Debt Write-offs, Account Payment Balance Impact, Network Event Account Balance Impact, and so on)
- ACCOUNT PAYMENT describes details of any payment type (including usual payments and, recharge, transfer, or refund)

Note: In order to reduce the impact on custom Intra-ETLs from Release 11.3.1, Oracle Communications Data Model Release 11.3.2 contains views that reproduce some tables in Release 11.3.1 (for some tables that have been dropped in Release 11.3.2). With the creation of a synonym as the old table name to the corresponding view, custom ETL should usually continue to work (at least, from the old tables that have been transformed as views). Care should be taken to consider changes in specific tables (as the business assumptions may have changed in Release 11.3.2).

4.1.3 Intra-ETL Simplification and Improved and New Derived Tables

Oracle Communications Data Model Release 11.3.2 provides rewritten Intra-ETL in PL/SQL. By default the Intra-ETL are scheduled using one Package (PKG_INTRA_ETL_PROCESS), alternatively you can call the Intra-ETL jobs using Oracle Data Integrator, or another scheduling or ETL tool.

Oracle Communications Data Model Release 11.3.2 includes improved and new derived tables:

- Important tables include: DWD_CNT_DAY for all counts, DWD_RVN_DAY for all revenue related KPIs, DWD_CUST_DNA for the mining input and output.
- Changes in call behavior and several other tables that allow you to link tables and run specific call behavior per Account, Customer, Product Offering, or Product Specifications.
- CONTACT CENTER ANALYTICS, SALE CAMPAIGN HISTORY correspond to Oracle Business Intelligence Suite Enterprise Edition 11g Apps Contact Center and Marketing star tables and views.
- Availability of KPIs. For more information, see *Oracle Communications Data Model Adapters and Analytics User's Guide*.

4.2 Data Model Extensions to Support Retail Inventory, Point of Service, and Clickstream Data

Oracle Communications Data Model has been extended to include the retail analytics of Oracle Retail Data Model to support and manage various Point of Sales. This allows Oracle Communications Data Model to analyze a Service Provider's point of sale retail items, including inventory, customer sales, and Point of Sale.

This includes the complete inventory, retail transactions, retail loyalty, customer affiliation, and so on, according to the Retail analytics.

4.3 Data Mining Model Enhancements

Oracle Communications Data Model Release 11.3.2 includes Data Mining improvements that provide:

- Improved Customer Lifetime and churn calculation taking into account user needs
- Added "Customer Life Time Value" computation programs which use "Churn Prediction" mining model output for both prepaid and postpaid customers.
- Added Prepaid Customer specific attributes. For example: Recharge and last activity.

- More Flexibility

These improvements allow Data Mining end-users to add, as needed, new attributes from the Customer DNA derived table if the default attributes are not sufficient. In addition, Customer Lifetime Value is now based on the calculation:

Number Months wanted * Monthly average margin * Retention Probability

4.4 Simplification of Core Installation and New Add-Ons Installation Type

Oracle Communications Data Model Release 11.3.1 Application Adapter Installation has changed in Release 11.3.2. Oracle Communications Data Model Release 11.3.2 uses the Add-Ons Installer (Oracle Communications Data Model Add-Ons Release 11.3.2) to install Adapters and Analytics, including BRM Adapter, NCC Adapter, Billing Analytics, and Social Network Analytics.

4.5 BRM Adapter Enhancement

Oracle Communications Data Model Release 11.3.2 BRM adapter includes the following new features:

- Re-Mapping (to renamed and reorganized tables)
- Introduction of the ETL Lookup Matrix, to allow the Intra-ETL to work as-is and to ease extensions
- Rebilling/ Corrective Billing is now supported

BRM Adapter Installation Changes

In Oracle Communications Data Model Release 11.3.2, the BRM Adapter repositories are imported from Master and Work repository dumps, rather than imported from ODI Topology. The complete installation includes two parts: the first part installs the BRM STG schema and imports the master and work repository (Oracle Communications Data Model Release 11.3.2 Add-on installer handles this part of the installation). The second part of the installation involves postinstallation manual steps as described in *Oracle Communications Data Model Adapters and Analytics Installation Guide*.

BRM Adapter Mapping Changes

Table 2 shows the Oracle Communications Data Model table changes for Release 11.3.1 that impact the BRM adapter mapping between BRM staging and Oracle Communications Data Model.

Table 2 BRM Adapter Mapping Changes

Mapping Name	Release 11.3.1 Table	Release 11.3.2 Table
ADDR_LOC_MAP	DWR_ADDR_LOC	DWR_ADDR_LOC
CONFIG_BEID_BAL_TYP_MAP	DWL_ACCT_BAL_TYP	DWL_ACCT_BAL_TYP
CONFIG_BUSINESS_TYPE_T_MAP	DWL_CUST_TYP	DWL_CUST_TYP
DD_OBJECTS_SRVC_SPEC_MAP	DWR_SRVC_SPEC	DWR_SRVC_SPEC
DEAL_PKG_ASGN_MAP	DWR_PROD_PKG_ASGN	DWR_CMPST_PROD_SPEC_ASGN

Table 2 (Cont.) BRM Adapter Mapping Changes

Mapping Name	Release 11.3.1 Table	Release 11.3.2 Table
EVENT_BAL_IMPACTS_NTWK_EVT_ACCT_BAL_IMPC_MAP	DWB_NTWK_EVT_ACCT_BAL_IMPC	DWB_ACCT_BAL_IMPC
EVENT_BILLING_ACCT_RCHRGM_MAP	DWB_ACCT_RCHRGM	DWB_ACCT_PYMT
EVENT_CALL_EVT_MAP	DWB_WRLS_CALL_EVT	DWB_WRLS_CALL_EVT
EVENT_DLYD_SESSION_GPRS_USG_EVT_MAP	DWB_GPRS_USG_EVT	DWB_GPRS_USG_EVT
EVENT_DLYD_SESSION_WRLS_CALL_EVT_MAP	DWB_WRLS_CALL_EVT	DWB_WRLS_CALL_EVT
EVENT_SESSION_GPRS_USG_EVT_MAP	DWB_GPRS_USG_EVT	DWB_GPRS_USG_EVT
EVENT_SESSION_TLCO_GSM_WRLS_CALL_EVT_MAP	DWB_WRLS_CALL_EVT	DWB_WRLS_CALL_EVT
INVOICE_INVC_DLVRY_MAP	DWB_EVT_INVC_DLVRY	DWB_EVT_INVC_DLVRY
ITEM_INVC_ITEM_MAP	DWB_INVC_ITEM	DWB_INVC_ITEM
NOTE_EVT_PRTY_INTRACN_MAP	DWB_EVT_PRTY_INTRACN	DWB_EVT_PRTY_INTRACN
PAYINFO_ACCT_PREF_PYMT_MTHD_MAP	DWR_ACCT_PREF_PYMT_MTHD	DWR_ACCT_PYMT_MTHD
PLAN_MKT_PLN_MAP	DWR_PROD_MKT_PLN	DWR_PROD_OFR
PLAN_SERVICES_PROD_MKT_PLN_ASGN_MAP	DWR_PROD_MKT_PLN_ASGN	DWR_PROD_OFR_PROD_SPEC_ASGN
PRODUCT_DISCOUNT_PROD_MAP	DWR_PROD	DWR_PROD_SPEC
PRODUCT_DISCOUNT_PROD_RLTN_MAP	DWR_SRVC_SPEC_PROD_RLTN	DWR_SRVC_SPEC_PROD_SPEC_RLTN
PURCHASED_PRODUCT_SBRP_MAP	DWR_SBRP	DWR_PROD_SBRP
RATE_PLAN_PROD_RTNG_PLN_MAP	DWR_PROD_RTNG_PLN	DWR_PROD_OFR_PRICE
SERVICE_CUST_FCNG_SRVC_MAP	DWR_CUST_FCNG_SRVC	DWR_CUST_FCNG_SRVC
SERVICE_SRVC_STAT_HIST_MAP	DWB_SRVC_STAT_HIST	DWB_SRVC_STAT_HIST
SERVICE_TELCO_FEATURES_SRVC_CHTRSTC_MA	DWR_SRVC_CHTRSTC	DWR_SRVC_SPEC_CHAR
DEAL_PROD_MAP	DWR_PROD	DWR_PROD_SPEC

4.6 NCC Adapter Enhancements

Oracle Communications Data Model Release 11.3.2 NCC adapter includes new features:

- Remapping (to renamed and reorganized tables)
- Introduction of the ETL Lookup Matrix to allow the Intra-ETL to work as-is and to enable easier use of extensions.

- Rebilling and Corrective Billing is supported

NCC Adapter Installation Changes

In Oracle Communications Data Model Release 11.3.2, the NCC adapter repositories are imported from Master and Work repository dumps, rather than imported from ODI Topology. The complete installation includes two parts: the first part installs the NCC STG schema and imports the master and work repository. Oracle Communications Data Model Release 11.3.2 Add-on installer performs the first part of the installation. The second part of the installation involves postinstallation manual steps as described in *Oracle Communications Data Model Adapters and Analytics Installation Guide*.

NCC Adapter Mapping Changes

Table 3 shows the Oracle Communications Data Model table changes impact in Release 11.3.2 for the NCC Adapter mapping between NCC staging and Oracle Communications Data Model.

Table 3 NCC Adapter Mapping Changes for Release 11.3.2

Mapping Name	Release 11.3.1 Table	Release 11.3.2 Table
BE_BALANCE_MAP	DWB_ACCT_BAL_HIST	DWB_ACCT_BAL
BE_BUCKET_MAP	DWB_ACCT_BAL_BUCKET	DWB_ACCT_BAL
CCS_ACCT_BE_WALLET_MAP	DWR_ACCT	DWR_ACCT
CCS_ACCT_CNRT_MAP	DWR_CNRT	DWR_AGRMNT
CCS_ACCT_REFERENCE_MAP	DWR_CUST	DWR_CUST
CCS_ACCT_SBRP_MAP	DWR_SBRP	DWR_PROD_SBRP
CCS_ACCT_TYPE_MAP	DWL_ACCT_TYP	DWL_ACCT_TYP
CCS_BALANCE_UNIT_MAP	DWL_UOM	DWL_UOM
CCS_RECHARGE_TYPE_MAP	DWR_PROD	DWR_PROD_SPEC
CCS_VOUCHER_BATCH_MAP	DWR_PRPD_VCHR_BTCH	DWR_PRPD_VCHR_BTCH
CCS_VOUCHER_REFERENCE_MAP	DWR_PRPD_VCHR_INSTNC	DWR_PRPD_VCHR
CCS_VOUCHER_TYPE_MAP	DWR_PROD	DWR_PROD_SPEC
CCS_BALANCE_TYPE_MAP	DWL_ACCT_BAL_TYP	DWL_ACCT_BAL_TYP
EDR_CALL_EVT	DWB_WRLS_CALL_EVT	DWB_WRLS_CALL_EVT
EDR_PREPAID	DWB_DATA_SRVC_EVT	DWB_DATA_SRVC_EVT
EDR_RECHARGE_BALANCE_TYPE	DWB_ACCT_PYMT_BAL_IMPC	DWB_ACCT_BAL_IMPC
EDR_SMS	DWB_SMS_EVT	DWB_SMS_EVT

4.7 Support for Oracle Communications Social Network Analytics

Oracle Communications Data Model provides the Social Network Analytics (SNA) Add-On that is optimized for social network analysis across large volumes of Call Data Record data (CDR) associated with an Oracle Communications Data Model data warehouse.

Social Network Analytics features include:

- Identification of social network communities.

- Network metrics characterizing the social graph.
- Network distribution information.
- Predictive scores for churn and influence at a node level, and potential revenue or value at risk.
- User interface targeted at business users and flexible ad-hoc reporting, including the ability to setup and configure or execute an analysis at a specific time at scheduled intervals.

You can use Oracle Communications Data Model Social Network Analytics and the associated reports and tools to assist you with:

- Acquiring customers
- Retaining customers
- Growing your customer base

4.8 Support for Oracle Communications Billing Analytics

Oracle Communications Data Model Release 11.3.2 with the Billing Analytics option provides additional Billing Analytics. The Billing Analytics reports are derived from the Oracle Communications Data Model tables which are populated with the BRM Adapter and the NCC Adapter.

Billing Analytics features include:

- End-to-end analytic application developed on Oracle Communications Data Model
- Leverages data fed through the BRM Adapter and the NCC Adapter
- Provides comprehensive dashboards built with Oracle Business Intelligence Suite Enterprise Edition 11g.
- Enables users to:
 - Understand existing business customers across all their products and services
 - Predict and analyze customer behavior to increase revenue and retention
- Reduces time, cost, risk, and complexity of a custom solution

Billing Analytics reports are available as an option with Oracle Communications Data Model Release 11.3.2 Add-Ons. Billing Analytics reports are broadly classified into the following areas:

Area	Description
Billed Revenue	Revenue related metrics such as total revenue, ARPU, adjustments and collections.
Billing Efficiency	Billing Efficiency leverages standard TM Forum metrics that measure the operational efficiency of the Service Provider's billing process.
Customer Metrics	Customer acquisition and churn metrics viewable across various parameters.
Prepaid Metrics	Prepaid specific metrics such as total, average recharges, and disturbed recharge cycles.
Usage Revenue	Usage specific metrics such as total minutes of usage, number of calls, top users (voice, data, SMS and MMS).

5 Issues Resolved

Table 4 Oracle Communications Data Model Resolved Issues

Number	Description
17287252	PDM ERROR: DWR_PRCES_EVT_ASGN: CHANGE FROM_PRCES_EVT_KEY TO FROM_PRCES_EVT_CD
17228196	TMF-KPI
17188562	COPY METADATA AND TMF_KPI DIRECTORIES FOR ORACLE COMMUNICATIONS DATA MODEL CORE INSTALLATION
16930759	PDM CORR.: ADD RELATIONSHIP BETWEEN PROD OFR AND PROD OFR PRICE + RENAMING
16930294	LDM COHERENCE
16909045	LDM EXT.: FURTHER ALIGNMENT OF ORACLE COMMUNICATIONS DATA MODEL ON ORDM
16902942	LDM EXT.: INCLUDE ORDM CUST PREFERENCE SUBJECT AREA TO ORACLE COMMUNICATIONS DATA MODEL
16901696	EVT_PRTY_INTRACN: ADD MAN_CUST_SNTMNT_CD AND CUST_SNTMNT_CD
16896621	UDR_EVT_CD AND UDR_EVT_SPEC_KEY MISSING IN MOST UDR EVENT SUBTYPES!
16889210	DWA_CELL_STTSTC_MO HAS COLUMN
16872833	LDM EXT.: ADD LOOKUP TABLE FOR SPMN_CD AND ADD IT TO VARIOUS UDR_EVT TABLES
16871454	DWD_STORE_EFF: SOURCE DWR_STORE_CLNDR
16864414	LDM EXT.: ADD ALSO DWB_INVC_ISSUING_ AND DISPTCHG_PRCES_EVT (2 TABLES)
16863748	LDM EXT.: ADD STORE CALENDAR (OPEN CLOSE HOURS) FROM ORDM FOR STORE EFFICENCY
16843957	RENAME ALL EVT_CLASS_KEY TO EVT_CLASS_CD (VARCHAR2(120) AND FK TO DWL_EVT_CLASS
16839737	PDM SIMPL.: RENAME DWL_DRCT_DEBT_STAT_RSN TO DWL_DRCT_DEBIT_STAT_RSN
16835004	LDM SIMPL.:BUSINESS INTERACTION VS. EVENT PARTY INTERACTION + HISTORY
16829741	PDM CORR.: SMS + MMS SHALL INCLUDE ALL FIELDS OF DWB_WRLS_CALL_EVT
16827738	LDM EXT.: DWR_AGRMNT ADD SELF RELATIONSHIP WITH CHNG REASON VIA PREV AGRMNT CODE
16827372	SID RELATIONSHIP SRVC OR PROD SPEC CHAR VAL AND RSCE SPEC CHAR VAL MISSING
16822470	DWB_BSNS_INTRACN: EXTEND PK TO INTRACN_DT & INTRACN_STAT_CD
16820777	DWR_SL_CHNL_RPRSTV: RENAME COST_CNTR_NBR TO COST_CNTR_CD
16813956	DWB_EVT_LYLTY_PROG: STRT_DT MUST BE PART OF PK
16780845	SL_CMISN: INCOHERENCE IN BASE REF DRVD AGGR IN USE OF PROD_OFR /PROD_SPEC
16769941	COMPOSITE PROD SPEC: MISSING COMPOSITE PRODUCT SPECIFICATION CODE
16752717	LDM+MNG EXT.: CUST_DNA - ADD CALL BEHAVIOR FROM DWB_XXX TABLES
16738450	LDM EXT.: DWB_DEBT_COLLCTN_ASGN: ADDING COLLCTN_AGENCY_KEY AND ORG_BSNS_UNIT_KEY
16713014	DEINSTALLATION CONTINUES EVEN WHEN CONNECTED TO OCDM_SYS SCHEMA
16704025	DWD_CNT/RVN_DAY EXT: ADD PROD OFR LVL AND PROD_SPEC_LVL
16699855	NP REQUEST LINE ITEM HIST: ADD REASON CODE ALSO THERE
16632010	ORACLE COMMUNICATIONS DATA MODEL 11.3.2 PDM QUESTIONS ON TABLE RENAMING

Table 4 (Cont.) Oracle Communications Data Model Resolved Issues

Number	Description
16594197	CREATE IETL WORKFLOW USING PL/SQL
16589320	DWD_SL_RPRSTV_STTSTC & DWD_CNTCT_CNTR_DAY RENAME _TIME TO _DRTN
16570818	EVENT LOYALTY PROGRAM SIMPLIFICATION
16566881	EVT_PRTY_INTRACN: ADD CONTACT LIST KEY TO IT AND ITS SUBTYPE.
16561967	DWB_PRTY_PRMTN_RESPN: PK
16554927	ADD PROD_OFR_KEY (FK) TO EVT_PRTY_INTRACN + ALL SUBTYPES
16553269	FORM OF EMPLOYMENT COLUMN NAME
16510502	UDR_EVT: ADD CALL DIRECTION CODE
16430368	DWD_ACCT_BAL_MO CHANGES
16375131	LDM EXT. TMF SID: DWB_INVN_ADJ: FK TO EVT_PRTY_INTRCN REQUIRED
16375070	LDM EXT FOR TMF KPI: DWB_INVN_GENRTN_PRC
16360577	LDM EXT. SID 12: ADD CONTACT MEDIUM CODE TO EVT PRTY INTRACN (+ SUB-TYPES)
16358360	LDM EXT. SID12: ADDING REMAINING AMOUNT TO ACCOUNT PAYMENT
16357958	LDM TABLE RENAMING: ADDITIONAL RENAMING.
16342097	LDM DRVD: CREATE DWD_RVN_DAY
16323778	PDM ERROR: DWR_PRPD_VCHR_INSTC COLS FROM DWR_PROD.
16316969	LDM EXT.: CREATE ACCOUNT DEBT AND SIMPLIFY CORRESPONDING IETL
16310851	LDM EXT SID12: ADD PIN AT ACCOUNT LEVEL.
16310527	LDM SIMPLIFICATION: REDUCE DWB_ACCT_BAL DWB_ACCT_BAL_IMPC AND DWB_ACCT_PYMT
16303861	LDM RENAMING CORRECTION
16297804	LDM SIMPLIF.: ACCT BAL HIST ACCT BAL IMPC ACCT PYMT: MERGE WITH OTHER TABLES
16297643	LDM EXT: ADDING CDR_TYP_CD IN ACCT_RECHRG FOR NCC
16297603	LDM EXT: ADDED PRTY_TYP_CD IN DWD_VOI_CALL_DAY TABLE.
16279184	LDM EXT. SID12: RESOURCE EXTENSION
16275581	DWB_ACCT_RCHRG + DWB_PRPD_RCHRG CHANGE
16263686	LDM EXT SID12: QOS SERVICE EXTENSION - CORRECTIONS
16245312	LDM EXT.:SID 12 SERVICE SUBJECT AREA EXTENSION.
16243297	ACCT_BAL_HIST & ACCT_BAL_BUCKET EXT.: ADD PROD_OFR AND PROD_SPEC
16242068	LDM EXT.: ADD ACCOUNT DEBT INSTEAD OF USING ACCT BAL HISTORY
16237115	LDM EXT. SID12: PRODUCT SUBJECT AREA
16231708	LDM EXT. SID 12: PRODUCT SUBJECT AREA
16229815	LDM EXT. SID12 REQ: UDR EVT SPEC CHAR VALUE
16226876	LDM EXT. FOR SID 12: PERFORMANCE SUBJECT AREA
16226356	LDM/PDM EXT FOR SID 12 : POLICY AND REST
16224901	LDM EXT. SID 12: ADDITIONS TO BUSINESS INTERACTION
16222827	DWB_CUST_FLD_SRVC_DTL: TRANSFORM ACTN_DT TO ACTN_STRT_DT AND ACTN_END_DT
16211539	LDM EXT. FOR SID 12: PARTY
16180553	DWB_DEBT_COLLCTN_ASGN: ADD CLCTR_CMISN_AMT_LCL/RPT

Table 4 (Cont.) Oracle Communications Data Model Resolved Issues

Number	Description
16178366	PARTY INTERACTION THREAD TYPE: RENAME COLS TO PARTY INTERACTION THREAD TYPE
16162279	AGREEMENT: CHANGE IN NULLABLE COLS
16103669	LDM EXT.: SID 12 LOCATION - REQUIRED.
16103312	LDM EXT.: SID 12 - SLA POLICY AND OTHERS (COMMON BUS. ENTITIES IN SID)
15990357	DWB_DBT_COLLCTN_ASGN: ADD DEBT_AMT_LCL AND RPT FOR DERIVED
15981131	ACCT_PREF_PAYT_MTHD: ADD NAME_ON_CARD (SID12 REQUIRED)
15979794	SID 12: CUSTOMER SUBJECT AREA
15961846	LDM AGREEMENT (SUBJ AREA): CHANGE FOR SID CERTIFICATION
15916433	LDM CHNG: DWB_UNIT_ALLWNC DEFINED
15884853	MAP EXT.: BE_BALANCE.LIMIT_TYPE TO ACCT_BAL_HIST.CONSUMPTION RULE
14835738	LDM EXT.: ADDITION TO FIT ALL TMF KPIS REQUEST

6 Known Issues

This release has the following known issues:

- [Section 6.1, "RPD Warning Messages"](#)
- [Section 6.2, "Deinstall Warning Message Can Be Ignored"](#)
- [Section 6.3, "Fully Configured Oracle Communications Data Model Requires More Space than Reported by Oracle Installer"](#)
- [Section 6.4, "Installer Error Message is Wrong and is not Translated"](#)
- [Section 6.5, "Installer Help Text Includes Extra Characters for Select Install Type Dialog Translation Issue"](#)
- [Section 6.6, "Installer Help Text Not Translated"](#)
- [Section 6.7, "Add-Ons Installer Installs a Single Component"](#)
- [Section 6.8, "OCDM CONFIGURATION ASSISTANT FAILED DURING SAMPLE REPORTS INSTALLATION"](#)
- [Section 6.9, "OCDM:INTRA-ETL ACTIVITY CREATE_LTV_GLMR_MODEL COMPLETED WITH ERRORS"](#)
- [Section 6.10, "GOT STUCK IN AIX.PPC64 PLATFORM ONLY WHILE CREATING ANALYTIC WORKSPACE"](#)

6.1 RPD Warning Messages

A number of warning messages appear in the RPD included in Oracle Communications Data Model. The warning messages do not impact any of the out-of-the-box reports included with Oracle Communications Data Model.

6.2 Deinstall Warning Message Can Be Ignored

Bug 13601107 deinstall warning error in the deinstall log file

The following warning message, or messages similar to the following message can be ignored on deinstall:

```
WARNING: Error while copying directory
//dbhome_1/inventory with exclude file list
'/tmp/OraInstall2012-01-11_02-37-25PM/installExcludeFile.lst' to nodes

. /logs/installActions2012-01-11_02-37-25PM.log'

. for details. You may fix the errors on the required remote nodes
Refer to the install guide for error recovery.
This deinstallation was successful
End of deinstallations
```

6.3 Fully Configured Oracle Communications Data Model Requires More Space than Reported by Oracle Installer

When installing Oracle Communications Data Model, the Oracle Installer reports *only* the amount of space required for copying the Oracle Communications Data Model files (that is, 240MB).

However, a fully-installed and configured Oracle Communications Data Model also requires space for the Database files created during the postinstall configuration of Oracle Communications Data Model.

If insufficient space is available for the Oracle Communications Data Model Database files, the Oracle Communications Data Model installation fails during configuration.

This issue is documented in bug 13243223.

Workaround

Before installing and configuring Oracle Communications Data Model, ensure that at least 3 GB is available.

6.4 Installer Error Message is Wrong and is not Translated

When installing Oracle Communications Data Model, the Oracle Installer reports an error message similar to the following when a wrong path is specified in the **Specify Home Details** dialog:

```
OUI-10137-An oracle Home with name Oradb11g_home1 already exists at location
/scratch/aaa/sw Please specify another name for oracle home
```

This error message should read as follows:

```
Oracle Communications Data Model can only be installed into one existing ORACLE
database 11gr2 Oracle Home.
Choose an existing oracle database 11gr2 oracle home for installing this
software
```

This issue is documented in bug 10128575.

Workaround

There is no workaround for this issue.

6.5 Installer Help Text Includes Extra Characters for Select Install Type Dialog Translation Issue

When installing Oracle Communications Data Model, the Oracle Installer includes extra help text in the help associated with the **Select Install Type** dialog. The dialog shows some extra characters.

This issue is documented in bug 10128520.

Workaround

There is no workaround for this issue.

6.6 Installer Help Text Not Translated

When installing Oracle Communications Data Model for a language other than English, the Oracle Installer includes English help text in the help associated with the **Select Install Type** dialog. The following dialogs are not translated: Specify Oracle Communications Data Model Schema Information, Specify Calendar Date Range, Specify Partitions for Reference and Base Tables.

This issue is documented in bug 10128517.

Workaround

There is no workaround for this issue.

6.7 Add-Ons Installer Installs a Single Component

The Oracle Communications Data Model Add-Ons installer supports installing one component at a time.

Workaround

To install multiple Oracle Communications Data Model Adapters or Analytics components, run the Add-Ons installer once for each component you want to install.

6.8 OCDM CONFIGURATION ASSISTANT FAILED DURING SAMPLE REPORTS INSTALLATION

This issue can occur in an Oracle RAC environment depending on whether the internal Oracle OLAP cube structure build work is assigned to other nodes in parallel. If the work is assigned to other nodes, you may see this issue.

This issue is documented in bug 18557960.

Workaround

Install Oracle Communications Data Model sample on a single instance.

6.9 OCDM:INTRA-ETL ACTIVITY CREATE_LTV_GLMR_MODEL COMPLETED WITH ERRORS

This issue is deferred.

This issue is documented in bug 18556496.

Workaround

To ensure the mining model creation succeeds run a specific data update directly to the DWD_CUST_DNA table (derived table direct update instead of update and population using Intra ETL program) at an appropriate time.

```
> UPDATE DWD_CUST_DNA
> SET TOT_PYMT_RVN_LAST_MO = ROUND(DBMS_RANDOM.VALUE(500,6000))
> WHERE DAY_KEY = 20110201>;
> commit;
```

This can be done only after activity "DWD_CUST_DNA" (To Populate Table => DWD_CUST_DNA) is successful as before that the table is empty. Also this update needs to be done before activity "create_ltv_glmr_model" (To Populate Table => create_ltv_glmr_model).

6.10 GOT STUCK IN AIX.PPC64 PLATFORM ONLY WHILE CREATING ANALYTIC WORKSPACE

This issue is documented in bug 18598969.

Workaround

There is no workaround for this issue.

7 Documentation Changes

The Oracle Communications Data Model documentation set for this release consists of the manuals in the previous release, plus two additional books.

The following books are new in this release:

- *Oracle Communications Data Model Adapters and Analytics User's Guide*
- *Oracle Communications Data Model Adapters and Analytics Installation Guide*

The following books includes updates:

- *Oracle Communications Data Model Installation Guide* that describes how to install and configure the Oracle Communications Data Model.
- *Oracle Communications Data Model Reference* that describes the data model structures for Oracle Communications Data Model.

8 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at

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