

Oracle® Communications Data Model

Release Notes

Release 11.3.1

E28443-03

April 2012

This document outlines new features for Release 11.3.1 of Oracle Communications Data Model. It also contains important information that was not included in the documentation for Release 11.3.1 of Oracle Communications Data Model.

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:

- [Section 1, "New Features and Changes in Release 11.3.1"](#)
- [Section 2, "New Features 11.2.5"](#)
- [Section 3, "Known Issues"](#)
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1 New Features and Changes in Release 11.3.1

This release of contains the following new features and changes:

- [Support for Billing and Revenue Management Adapter](#)
- [Data Model Extensions and Changes](#)
- [TM Forum Business Metric Automation Certification](#)
- [New Data Mining Model for Prepaid Churn Prediction](#)
- [PL/SQL Implementation of Intra-ETL](#)

1.1 Support for Billing and Revenue Management Adapter

Oracle Communications Data Model Release 11.3.1 added support for the Oracle Communications Billing and Revenue Management Adapter for Oracle Communications Data Model (BRM Adapter). The BRM Adapter provides a pre-built integration to feed data from specific Oracle Communications Billing and Revenue Management application tables to Oracle Communications Data Model.

1.2 Data Model Extensions and Changes

New Physical Tables and Corresponding Logical Data Model Entities

[Table 1](#) shows the new tables in Oracle Communications Data Model Release 11.3.1.

Lookup table changes and extensions: this includes the addition of lookup tables to make the definition of code clearer and define, in one place only throughout the model certain entities such as: type of account role, religion, and of product coverage.

Reference table additions: The reference table Customer Community is added to take into account the increasing importance of social networking, out of Social Network Analysis or SNA, either from Internet or from the call behavior (A-B number analysis). Several communities can be defined per Customer.

Invoice Status history allows the tracing of the changes of the billing process.

Contracts has been extended with a specific EVENT and with Installment contract. The later covers the requirements associated to those specific contracts.

Service Level Agreement (SLA) analysis has been extended with a table that collects any violation over time.

Some subject areas in analytics were extended in Prepaid and balance tracing in general.

Table 1 Table and Logical Data Model Additions

Table Name	Logical Data Model Entity Name
DWB_EVT_CNRT	EVENT CONTRACT
DWB_INSTMNT_CNRT	INSTALLMENT CONTRACT
DWB_INVC_STAT_HIST	INVOICE STATUS HISTORY
DWB_SRVC_LVL_AGRMNT_VILTN	SERVICE LEVEL AGREEMENT VIOLATION
DWD_ACCT_BAL_MO	ACCOUNT BALANCE MONTH DRVD
DWD_PRPD_ACCT_ACTVTN_DAY	PREPAID ACCOUNT ACTIVATION DAY DRVD
DWD_PRPD_VCHR_RCHRG_DAY	PREPAID VOUCHER RECHARGE DAY DRVD
DWD_TMF_KPI	See " TM Forum Business Metric Automation Certification " on page -3
DWD_TMF_KPI_ENTRY_RESULT	See " TM Forum Business Metric Automation Certification " on page -3
DWL_ACCT_RL_TYP	ACCOUNT ROLE TYPE
DWL_INVC_STAT_TYP	INVOICE STATUS TYPE
DWL_PROD_COVRG_AREA_TYP	PRODUCT COVERAGE AREA TYPE
DWL_RELGN	RELIGION
DWR_CUST_COMMUNITY	CUSTOMER COMMUNITY

Changed Physical Tables and corresponding Logical Data Model Entities

In Release 11.3.1, some tables were renamed for clarity. [Table 2](#) shows the renamed Physical Tables.

Table 2 Renamed Physical Tables

Old Name	New Name	LDM Entity
DWD_SBRP_CHRN_STTSTC	DWD_SBRP_STTSTC	SUBSCRIPTION STATISTIC DRVD
DWA_SBRP_CHRN_STTSTC_MO	DWA_SBRP_STTSTC_MO	SUBSCRIPTION STATISTIC MONTH AGGR
DWL_PROD_MKT_PLN_BRND	DWL_PROD_BRND	PRODUCT BRAND

1.3 TM Forum Business Metric Automation Certification

Oracle Communications Data Model Release 11.3.1 has been certified with the TM Forum's Business Metric Automation (BMA) initiative. Oracle Communications Data Model has been certified with the following BMA metric groups:

- Billing Calculation (BICal)
- Billing Inquiry, Dispute & Adjustment (BIDA)
- Billing Collection Management (BCM)
- Billing Receivables Management (BRM)
- Fulfillment Customer Order Management (COM)
- Fulfillment Service Order Management (SOM)
- Service Level Agreement Management (SLA)

Service Providers participating in TM Forum benchmark studies can now use Oracle Communications Data Model to calculate the various metrics for these categories and automatically submit the resulting data to TM Forum. A set of scripts are provided to facilitate the data submission to TMF. Additional information on the BMA initiative and certified products can be found on the TM Forum website at:

<http://www.tmforum.org/AutomationCertification/11928/home.html>

1.3.1 Using the TMF Benchmark Scripts

To create the required TMF Benchmark tables, do the following:

1. Create the tables DWD_TMF_KPI and DWD_TMF_KPI_ENTRY_RESULT:

```
create table dwd_tmf_kpi(
  batchid number(10),
  company varchar2(255),
  product varchar2(255),
  serviceproviderid number(10,0),
  researchstream_name varchar2(255),
  study_name varchar2(255),
  metric_name varchar2(255),
  datapoint_name varchar2(255),
  detail0 varchar2(255),
  detail1 varchar2(255),
  detail2 varchar2(255),
  entry varchar2(255),
  batchid number(10));

create table dwd_tmf_kpi_entry_result(
  "COMPANY"          VARCHAR2(255 BYTE),
  "PRODUCT"          VARCHAR2(255 BYTE),
```

```

"SERVICEPROVIDERID"    NUMBER(10,0),
"RESEARCHSTREAM_NAME"   VARCHAR2(255 BYTE),
"STUDY_NAME"            VARCHAR2(255 BYTE),
"METRIC_NAME"           VARCHAR2(255 BYTE),
"DATAPOINT_NAME"        VARCHAR2(255 BYTE),
"DETAIL0"               VARCHAR2(255 BYTE),
"DETAIL1"               VARCHAR2(255 BYTE),
"DETAIL2"               VARCHAR2(255 BYTE),
"ENTRY"                 VARCHAR2(255 BYTE),
"BATCHID"               NUMBER(10,0),
"STATUS"                VARCHAR2(20 BYTE),
"MESSAGE"               varchar2(255)

```

To Run the TMF Benchmark scripts, do the following:

1. Unzip the supplied zip file.
2. Go to directory TMFClient.
3. Run command:

```
java TMFMain [location of config file] [batchid]
```

Create a config file with the following parameters and save it as the parameters for step three. This file should be a plain text file:

```

##content of config file start
USERNAME=ocdm_db_username
PASSWORD=ocdm_db_password
URL=jdbc:oracle:thin:@//localhost:1521/orcl
INPUTDIR=C:\Projects\TMF\input
OUTPUTDIR=C:\Projects\TMF\output
TMFUSERNAME=g433304
TMFPASSWORD=4t153246R
##content of config file end

```

1.4 New Data Mining Model for Prepaid Churn Prediction

In previous releases Oracle Communications Data Model included a single data mining model to be used for predicting churn for both prepaid or postpaid subscribers. In Release 11.3.1 these data mining models are included as two separate mining models, which provide greater applicability for the specific subscriber type.

1.5 PL/SQL Implementation of Intra-ETL

In Release 11.3.1 the intra-ETL available with Oracle Communications Data Model are all written in PL/SQL. By default the intra-ETL are scheduled using OWB workflow, alternatively you can call the intra-ETL jobs using Oracle Data Integrator, or another scheduling or ETL tool.

2 New Features 11.2.5

This release of Oracle Communications Data Model contains the following new features and functionality:

- Support for using Oracle Communications Network Charging and Control (NCC) system as a data source for an Oracle Communications Data Model warehouse. (Bug 11654882)

Beginning with this release, the Oracle Communications Network Charging and Control Adapter for Oracle Communications Data Model (sometimes called the NCC Adapter for Oracle Communications Data Model) is an option of the Oracle Communications Data Model. You can use the NCC Adapter for Oracle Communications Data Model to populate the foundation layer (that is, the base, reference, and lookup tables) of an Oracle Communications Data Model warehouse with data from an Oracle Communications Network Charging and Control (NCC) system.

- Oracle Communications Data Model now has entities and physical objects to support additional business needs:
 - PARTNER SETTLEMENT (financial transaction and bill information) and PARTNER PAYMENT added. This allows you to track a dealer's commission, money to content provider, and money to vendor. (Bug 12359526)
 - NETWORK ELEMENT STATE HISTORY added. This provides the state history of each network element (for example, power off, in use, and decommissioned). (Bug 12358892)
 - Extension of ASSET so that it includes all financial assets including real estate, cash, and equipment, and, therefore, can be used for general ledger. (Bugs 11868009 and 12333040)
 - ACCOUNT BALANCE BUCKET entity to track the expire date, recharge date for each BUCKET (EXPIRE DATE BAND) of the prepaid balance. (Bug 11815448)
 - EMPLOYEE EXPENSE REPORT and EMPLOYEE EXPENSE REPORT ITEM added. (Bug 12333051)
 - Support for chats, informations per call center, number of agent breaks, transference reason, lines (detailed numbers for each line) per call center, and IVR details (for example, paths and menu options). (Bug 11798210)
- New sample reports showing customer order information. (Bugs 11654876 and 11789716)

3 Known Issues

This release has the following known issues:

- [Section 3.1, "RPD Warning Messages"](#)
- [Section 3.2, "BRM Adapter Known Issues"](#)
- [Section 3.3, "Deinstall Warning Message can be Ignored"](#)
- [Section 3.4, "On IBM AIX on POWER Systems \(64-bit\), Oracle Warehouse Builder Control Center May Fail to Start"](#)
- [Section 3.5, "Fully Configured Oracle Communications Data Model Requires More Space Than Reported by Oracle Installer"](#)

3.1 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.

3.2 BRM Adapter Known Issues

The following are known issues for the BRM Adapter:

- 13956479 - RELATIONSHIP BRM DEAL TO PRODUCTS IN DWR_PROD_PKG_ASGN IS NOT PRESENT
- 13956926 - MISSING SUBSCRIPTIONS WHEN ASSOCIATED PROD_MKT_PLN NOT DEFINED
- 13956507 - MISSING IMPACT OF TYPE: ACTIVITY, RECHARGE/TOP-UP IN BALANCE IMPACT

BUG 13956479

A relationship is not correct in Oracle Communications Data Model. Currently, the deal is related to itself only. This has no consequences on any further mapping.

Workaround: if this relationship is needed, add in ODI mapping in DEAL_PROD_MAP a second table DWR_PROD (DWR_PROD2) and link the product_obj_id0 to this 2nd Product table (DWR_PROD2.prod_cd) from Oracle Communications Data Model and store only the DWR_PROD2.Prod_key.

BUG 13956926

When the plan associated with a purchased product or discount (PURCHASED_PRODUCT_T / PURCHASED_DISCOUNT_T) is not defined in Oracle Communications Data Model (whatever the reason - usually because it is not defined (0) in input table), the Subscription cannot be defined either in Oracle Communications Data Model, due to forced inner join to DWR_PROD_MKT_PLN via filters DWR_PROD_MKT_PLN.CURR_IND='Y' and inner join "PMP_CD"="plan_poid".

Workaround: Please make this as outer join or update this field only later in the following update procedure. => Bug.

BUG 13956507

The following event types are not impacting DWB_NTWK_EVT_BAL_IMPACT:

```
/event/session/dialup  
/event/session  
/event/broadband/usage  
/event/activity/telco
```

The reason is the filter applied in ODI in EVENT_BAL_IMPACTS_NTWK_EVT_ACCT_BAL_IMPC_MAP is too restrictive.

Workaround: Change first filter on EVENT_T_D:

```
(EVENT_T_D.POID_TYPE like '/event/session/telco%' or EVENT_T_D.POID_TYPE like  
'/event/delayed/%' or EVENT_T_D.POID_TYPE like '/event/billing/%')
```

To:

```
(EVENT_T_D.POID_TYPE like '/event/session/%' or EVENT_T_D.POID_TYPE like  
'/event/delayed/%' or EVENT_T_D.POID_TYPE like '/event/billing/%' or EVENT_T_  
D.POID_TYPE like '/event/activity/%'  
or EVENT_T_D.POID_TYPE like '/event/broadband/%')
```

3.3 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
```

3.4 On IBM AIX on POWER Systems (64-bit), Oracle Warehouse Builder Control Center May Fail to Start

When installing Oracle Communications Data Model on IBM AIX on POWER systems (64-bit), Oracle Warehouse Builder Control Center Service may fail to start with the error ORA-29532 when started from within the Oracle Database (for example, using `start_service.sql` or the automatic startup from `check_service` job).

See: *Oracle Warehouse Builder Release Notes* for more information and for workaround.

This Oracle Warehouse Builder issue is documented in Bug 9777682.

3.5 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 post-install 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.

4 Documentation Changes

The Oracle Communications Data Model documentation set for this release consists of the same manuals as the previous release. These following updates were made to these manuals:

- *Oracle Communications Data Model Installation Guide* that describes how to install and configure the Oracle Communications Data Model.

Includes a new appendix that provides information on installing and configuring the Oracle Communications Billing and Revenue Management Adapter for Oracle Communications Data Model.

- *Oracle Communications Data Model Reference* that describes the data model structures for Oracle Communications Data Model.

Updated to reflect the new features, as listed in [Section 1, "New Features and Changes in Release 11.3.1"](#) and bug fix changes to Oracle Communications Data Model.

- *Oracle Communications Data Model Implementation and Operations Guide* that describes how to implement and maintain a data warehouse based on the Oracle Communications Data Model.

Includes a new appendix that explains how to use the Oracle Communications Billing and Revenue Management Adapter for Oracle Communications Data Model to populate the foundation layer of an Oracle Communications Data Model warehouse, and that provides more detailed information about the adapter.

5 Documentation Accessibility

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Oracle Communications Data Model Installation Guide, Release 11.3.1
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