Oracle® Communications Data Model

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Preface

The *Oracle Communications Data Model Reference* describes the data model structures for Oracle Communications Data Model. Since the needs of each Oracle Communications Data Model environment are unique, Oracle Communications Data Model is configurable so it can be modified to address each customer's needs.

Audience (page xxvii)

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Audience

The audience for the *Oracle Communications Data Model Reference* includes the following:

- IT specialists, who maintain and adjust Oracle Communications Data Model. They are assumed to have a strong foundation in Oracle Database and PL/SQL, Analytic Workspace Manager, and Oracle Business Intelligence Suite Extended Edition.

- Database administrators, who will administer the data warehouse and the database objects that store the data. They are assumed to understand Intra-ETL, which is used to transfer data from one format to another; as well as PL/SQL and the Oracle Database.

- Business analysts, including information and data analysts, market analysts and sales analysts.

This document is also intended for data modelers, data warehouse administrators, IT staff, and ETL developers.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/

topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Related Documents

For more information about Oracle Oracle Communications Data Model, see the following documents in the Oracle Oracle Communications Data Model documentation set:

- *Oracle Communications Data Model Installation Guide*

- *Oracle Communications Data Model Release Notes*

- *Oracle Communications Data Model Implementation and Operations Guide*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Part I

Logical and Physical Data Model

This part provides introductory information and details for the Oracle Communications Data Model Logical and Physical Data model.

Part I contains the following chapters:

1

Introducing Oracle Communications Data Model

Introduces the Oracle Communications Data Model, which is a standards-based, pre-built approach to communications data warehousing.

Overview of Oracle Communications Data Model (page 1-2)
> Oracle Communications Data Model is a standards-based, pre-built approach to communications data warehousing enabling a communications company to realize the power of *insight* more quickly. Oracle Communications Data Model reduces costs for both immediate and on-going operations by leveraging out-of-box Oracle based Data Warehouse and Business Intelligence solutions, making world-class database and business intelligence technology solutions available with a communications specific data model.

What Are the Benefits of Using Oracle Communications Data Model? (page 1-2)
> With Oracle Communications Data Model, you can jump-start the design and implementation of a telecommunications data warehouse to quickly achieve a positive ROI for your data warehousing and business intelligence project with a predictable implementation effort.

What Are the Components of Oracle Communications Data Model? (page 1-3)
> Describes the parts of Oracle Communications Data Model.

What Oracle Technologies are in Oracle Communications Data Model (page 1-4)
> Several Oracle technologies are involved in building the infrastructure for telecommunications business intelligence.

What is Oracle Communications Data Model (page 1-4)

About TM Forum Information Framework (SID) Alignment (page 1-14)
> Oracle Communications Data Model is aligned with TM Forum's Information Framework (SID) Release 12. The TM Forum is the world's leading industry association focused on enabling best-in-class IT for service providers in the communications, media, and cloud service markets. The TM Forum provides business-critical industry standards and expertise to enable the creation, delivery, and monetization of digital services.

Business Areas in Oracle Communications Data Model (page 1-15)
> A **Business Area** is a broad slice through Oracle Communications Data Model grouping where all tables that cover the associated business processes (reports, metadata, Mining, OLAP, 3NF) are all accessible through the same GUI (if OBIEE is used). A business area is a conceptual

grouping used at the default report level. The reports are organized by related subject areas gathered in "business areas".

1.1 Overview of Oracle Communications Data Model

Oracle Communications Data Model is a standards-based, pre-built approach to communications data warehousing enabling a communications company to realize the power of *insight* more quickly. Oracle Communications Data Model reduces costs for both immediate and on-going operations by leveraging out-of-box Oracle based Data Warehouse and Business Intelligence solutions, making world-class database and business intelligence technology solutions available with a communications specific data model.

Oracle Communications Data Model offers a single-vendor solution package that is tightly integrated with the business intelligence platform. With pre-built data mining, Oracle Online Analytical Processing (Oracle OLAP) and dimensional models, Oracle Communications Data Model provides you with industry-specific metrics and insights that you can act on immediately to improve your bottom line. These business intelligence solution offerings take advantage of Oracle's scalability and reliability, using Oracle's familiar optimization, parallelism, and performance engineering within the database.

Oracle Communications Data Model can be used in any application environment and is easily extendable.

Oracle Communications Data Model includes an exhaustive set of embedded advanced analytics, using Oracle's OLAP and data mining technology. You can take advantage of pre-built and pre-tested solution sets designed by industry experts that deliver relevant insights, are actionable, and aimed at improving both top-line and bottom-line results. You can see summarized, aggregated information or quickly navigate to drill-down transaction details to better understand business issues.

For example, with Oracle Communications Data Model's out-of-the-box reports, you can generate reports for network analysis and churn analysis. Network analysis provides air-time, subscription, roaming, load@busy hour, under utilization and patterns reports. With churn analysis you can gain improved insight into churning that provides switching and termination trends, payment and recharging patterns, subscribers life cycle and profiling. You can add your own reports as well. Oracle Communications Data Model, combined with Oracle technology, provides all of the components required for a complete and extendable Communications Data Warehouse and Business Intelligence framework to eliminate complex and costly integration requirements, all designed to reduce your total cost of ownership.

1.2 What Are the Benefits of Using Oracle Communications Data Model?

With Oracle Communications Data Model, you can jump-start the design and implementation of a telecommunications data warehouse to quickly achieve a positive ROI for your data warehousing and business intelligence project with a predictable implementation effort.

Oracle Communications Data Model provides the following features:

- Query and Reporting for information: provides extraction of detailed and summary data.

- OLAP for data analysis: provides summaries, trends, and forecasts.

- Data Mining for insight and prediction: provides knowledge discovery of hidden patterns and insights.

- Oracle Communications Data Model is aligned with the TM Forum's Information Framework (SID) Release 12.

Oracle Communications Data Model provides an off-the-shelf data warehouse framework that is both adaptable and extendable. Alignment with communications industry standards ensures interoperability with other systems. The pre-built, pretuned data model with intelligent insight into detailed communications and market data, allows you to quickly gain value from your data warehousing effort, supports diverse analytical requirements, and assists in building future analytical applications. Fast, easy and predictable implementation reduces risks and enables you to achieve strategic value more rapidly by eliminating deployment delays and expenses associated with built-from-scratch or proprietary data warehouse solutions.

> **See Also:**
>
> About TM Forum Information Framework (SID) Alignment (page 1-14)

1.3 What Are the Components of Oracle Communications Data Model?

Describes the parts of Oracle Communications Data Model.

Oracle Communications Data Model includes the following components:

- Logical Model Foundation

  Logical Data Model Foundation (page 2-1) describes the logical data model.

- Logical Model Dimensions

  Logical Data Model Dimensions (page 3-1) describes the dimensions.

- Physical Model

  Oracle Communications Data Model Physical Data Model (page 4-1) describes the physical data model. The logical to physical mapping is detailed in Oracle Communications Data Model Logical to Physical Mapping (page 5-1).

- Intra-ETL database packages and SQL scripts to extract, transform, and load (ETL) data from one layer of Oracle Communications Data Model to another.

  For detailed information on the intra-ETL packages and SQL scripts see Oracle Communications Data Model Intra-ETL (page 7-1).

- OLAP Models for Oracle Communications Data Model

  Oracle Communications Data Model OLAP Model Dimensions (page 8-1) and Oracle Communications Data Model OLAP Model Cubes (page 9-1) describe the OLAP Models.

- Pre-defined Data Mining Models

  See Oracle Communications Data Model Data Mining Models (page 10-1).

- Utility Scripts

  See Oracle Communications Data Model Utility Scripts (page 12-1).

- Reports and dashboards

  Oracle Communications Data Model Reports (page 13-1) shows the reports.

- Installation scripts

  For more information on installation, refer to the *Oracle Communications Data Model Installation Guide*.

1.4 What Oracle Technologies are in Oracle Communications Data Model

Several Oracle technologies are involved in building the infrastructure for telecommunications business intelligence.

Oracle Database with OLAP, Data Mining and Partitioning Option

Oracle Communications Data Model utilizes a complete Oracle technical stack. It leverages the following data warehousing features of the Oracle database: SQL model, compression, partitioning, advanced statistical functions, materialized views, data mining, and online analytical processing (OLAP).

> **Tip:**
>
> To achieve cost-effective scalability, availability, and reliability, you can consider using Oracle Real Application Clusters (Oracle RAC) and commodity hardware.

Oracle Development Tools

Use the Oracle tools shown in the following table to customize the predefined logical and physical models provided with Oracle Communications Data Model, or to populate the target relational tables, materialized views, or OLAP cubes.

Table 1-1 Oracle Development Tools Used with Oracle Communications Data Model

Name	Use
Oracle SQL Data Modeler	To create the logical model
SQL Developer or SQL*Plus	To create or modify database objects
Analytic Workspace Manager	To populate the target OLAP cubes

Oracle Business Intelligence Suite Extended Edition Presentation Tools

Oracle Business Intelligence Suite Extended Edition is a comprehensive suite of enterprise Business Intelligence products that delivers a full range of analysis and reporting capabilities. You can use Oracle Business Intelligence Suite Extended Edition Answers and Dashboard presentation tools to customize the predefined dashboard reports that are provided with Oracle Communications Data Model.

1.5 What is Oracle Communications Data Model

leverages several Oracle Database data warehouse and Business Intelligence concepts that need to be clarified to understand the structure and use of .

provides "One Single True Vision of the Business". This unique architecture provides the Communications Service Provider (CSP) Flexibility, Agility, Scalability and Accuracy to obtain a real competitive advantage.

A typical enterprise data warehouse architecture, as shown in , is composed of several layers ordered by the growing actionable value of the information in the warehouse:

- The Data Source layer (operational systems, Commercial-Off-The_shelf solution, unstructured and syndicated data, with possibly a Master Data Management system).

- The Staging layer: Typically used for transformation and data cleansing. It is also sometimes used as Operational Data Store, in particular for real-time operational reporting.

- The Foundation layer: It is typically used to store all transactions and reference data at the most atomic level. Best practices require that this level is 3rd normal form, to avoid data redundancy.

- The Access and Performance or Analytical layer: this is the layer optimized for the business end-users. It usually contains the star schema to answer business questions, and OLAP tools, and mining models.

- The Information (or Information Access) layer: This is the metadata layer and above, accessed by end-users through their Business Intelligence or reporting tools, or even external analytical tools (other OLAP or Mining tools). This layer is usually changeable by normal end-users (within their roles and responsibility). This is where the performance management applications provide their reports, where user roles, alerts, guided analytics, dashboards and reports are defined (usually by a specific BI administrator).

- The data movement from one layer to the other runs through ETL / ELT tools. One distinguishes the standard ETL/ELT (from data sources to foundation layer) from the intra-ETLs (from foundation layer up to the reporting).

Figure 1-1   Data Warehouse Reference Architecture with Communications Data Model (Green)
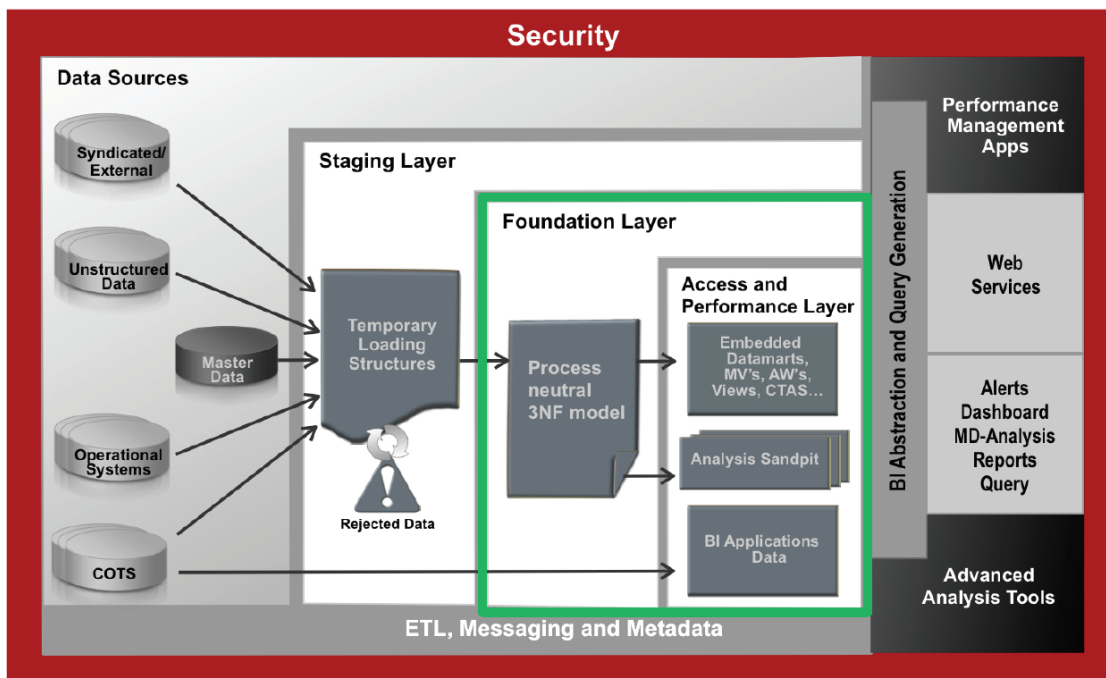
Within a standard enterprise data warehouse architecture, as shown in Figure 1-1 (page 1-5), if an adapter is used, for example the NCC Adapter or the BRM Adapter, the Staging area is also provided. covers Foundation Layer, plus the intra-ETL part, and includes parts of the reporting area if OBIEE is used (also includes the pre-built OBIEE repository).

To summarize includes the parts shown in Figure 1-2 (page 1-6).

Figure 1-2   Oracle Communications Data Model Inner Structure
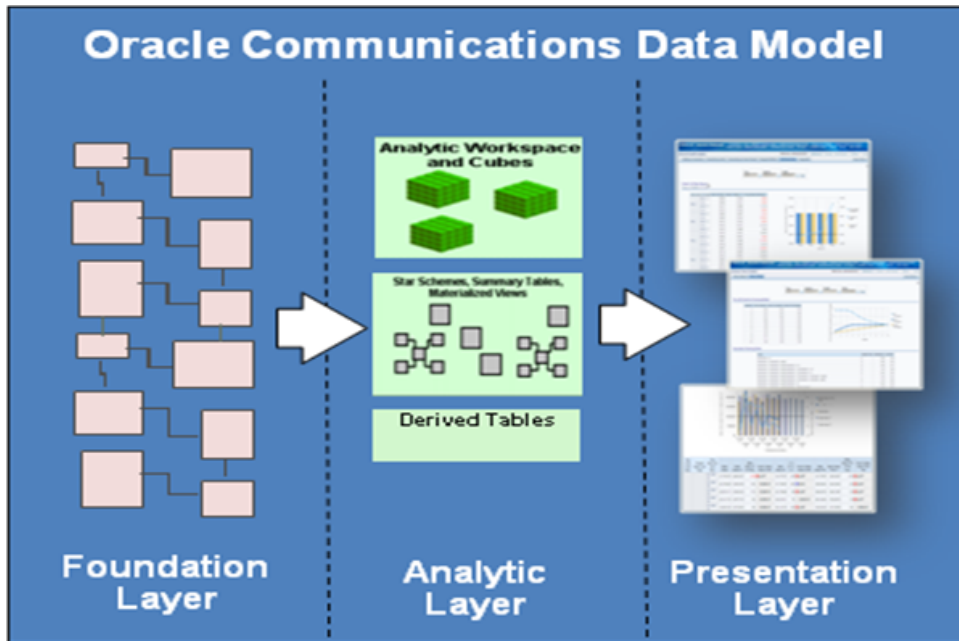
The Foundation Layer (FDL) is composed of the components shown in the following table:

Table 1-2   Oracle Communications Data Model Foundation Layer Components

Component	Usage
Reference entities and tables	• Used to store master reference entities required by a service provider's operation • Non-changing infrequently-changing data • These entities translate into dimensions and hierarchies • Physically, table names start with "DWR_".
Base entities and tables	• They store transactions from systems of record (CRM, Billing, OSS, and so on). • It contains data at atomic level with the lowest level of granularity possible • Required to perform detailed analysis, and uncovering causal effects and associations • Physically, table names start with "DWB_"
Lookup entities and tables	• Hold descriptions for common code lookups (for example, plan type, reason code, and so on). • Their goal is to save space since one does not have to store long descriptions in each transaction record. • Physically, table names start with "DWL_"
Control tables	• These are only used and filled by the intra-ETLs. • Physically, tables names start with "DWC_"

The Analytic Layer serves as an abstraction layer to simplify analytical access; this layer is a subject oriented representation of data ("shellfish" model). The analytic layer is easily understood by end-users and is simpler to navigate. This layer consists of aggregates, summaries, hierarchical relationships, and so on. The analytic layer is composed of star schemas, materialized views, OLAP cubes, and so on and is populated using intra-ETL processes from data in the Foundation Data Layer (FDL). The Analytic layer is composed of the components shown in the following table:

Table 1-3   Oracle Communications Data Model Analytic Layer Components

Component	Usage
DERIVED entities and tables	Provide a transition level to STARs. This layer is denormalized and is typically used for operational reporting and data mining, to uncover new insights and predict the future and: • Provides information that can only be derived from base data, usually at day level. • Includes information such as churn factors, profiling and prediction, congestion or under utilization, and so on. • Leverages data mining, advanced statistics, and complex queries. • Physically, tables start with "DWD_". Examples of derived tables include: Account Debt per Day, Account Payments per Day, Call Center Calls per Day, Commissions per Day, Connections/ Disconnections Day, Costs - Customer & Organizational, Customer Mining, Market Share per Month, Network Availability per Day, Sales Campaign Summary, Sales Representative Statistics, and so on. There are also six mining models at this level: Customer profiling/segmentation, Lifetime value prediction, Customer sentiment, Churn prediction, Important churn factors, Cross-sell opportunity.
AGGREGATE entities and tables	Provide information to analyze and summarize, usually at the monthly level and: • Leverages base and derived data models to provide aggregated data such as summaries, averages, and so on. • Enables dimensional analysis on wide variety of subject areas. • Leverages Oracle OLAP cubes (pre-built OLAP cubes are available. For more information, see Oracle Communications Data Model OLAP Model Cubes (page 9-1). • Contains tables starting with "DWA_"; usually materialized views. • Represents the information access layer: It covers all the metadata.

1.5.1 About Business Areas and Subject Areas in Oracle Communications Data Model

A **Business Area** is a broad slice through Oracle Communications Data Model grouping where all tables that cover the associated business processes (reports, metadata, Mining, OLAP, 3NF) are all accessible through the same GUI (if OBIEE is used). A business area is a conceptual grouping, used at the default report level. The reports are organized by related subject areas gathered in "business areas". Table 1-4 (page 1-15) lists the Oracle Communications Data Model business areas.

Figure 1-3 (page 1-9) represents a Business Area: a broad slice through Oracle Communications Data Model covering all the entities and mapped business processes associated with the business area.

A **Subject Area** is a thin slice through Oracle Communications Data Model grouping all tables, mainly at the foundation layer, that cover a specific (logical) concept, business process or question. For example, the subject area PARTY defines the notion of a "PARTY". The "Individual" and "Organization" are both a subset of PARTY. The CUSTOMER, OPERATOR, and VENDOR are example of Party types. At the opposite of this abstract subject area, the subject area CALL CENTER, with pre-built aggregates provided in Oracle Communications Data Model on top of the foundation layer covers all the customer interactions that are done through a call center, whether inquiry, complaints, or change requests.

From an implementation perspective, Oracle Communications Data Model can be filled by subject or business area, without taking care of having to feed all tables in order to have tangible and usable results.

After filling all reports of a given business area with data, this does not mean that the whole business area is covered. Feeding all the tables needed to have all reports of a given business area probably also feeds some reports of other business areas. For example, some PRODUCT, COST and COLLECTION AGENCY entities are required in the Business Area Revenue (for the Revenue OLAP cube). This also partly covers the Product Management, Cost and Contribution, as well as the Partner Management business areas.

Figure 1-3   Business Area: A broad Slice through Oracle Communications Data Model
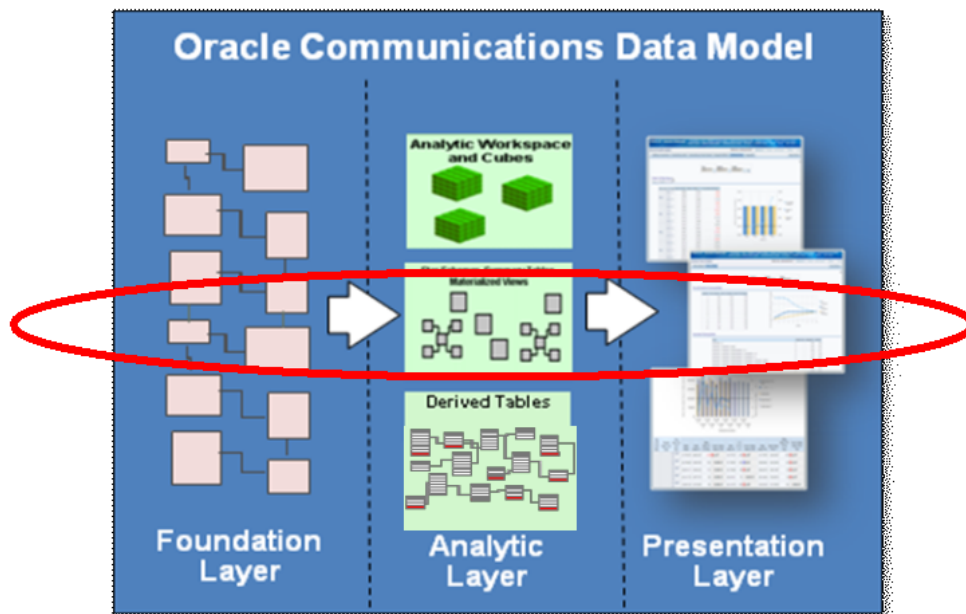
1.5.2 About the Logical Data Model and Physical Data Model

A logical data model describes how to store information that defines business processes. The logical data model is an interface between business and technical staff, and allows these groups to provide a common understanding of business data elements and requirements.

The logical data model also provides the foundation for designing an Enterprise Data Warehouse. In Oracle Communications Data Model, the logical data model is designed to avoid data redundancy, as much as possible, without impacting performance, and thus prevent data and business transaction inconsistency. The idea is to facilitate data re-use and sharing, hence reducing development and maintenance cycle and cost.

The logical data model is a single source for the model definition, with its own naming conventions that are valid for both business and IT.

In describing the business processes independently of the data sources and the technology, the logical data model clarifies the functional specifications, while avoiding (unnecessary) assumptions.

This implies that, in principle, the logical data model of Oracle Communications Data Model could work on any platform. However, on top of the fact that it would not be supported by Oracle, such an implementation would not benefit from all the pre-built pre-integrated technologies leveraged with Oracle Communications Data Model, in particular in the analytical layer, such as Partitioning, OLAP, Mining models, and so on.

The Oracle Communications Data Model physical data model is the concrete implementation of the logical data model. It is fully technology dependent. The physical data model transforms business relationships into keys or indexes. It takes into account the infrastructure and technology to optimize the performance for end-users. The physical data model has its own naming convention in parallel to the one of the logical data model. Looking at the physical data model, one should be able to

"build-back" the logical data model from the entity relationship, even if one could not have all the key understanding of a business process behind, unless one knows the business.

1.5.3 About Entity Relationships in Oracle Communications Data Model

A relationship between two entities should exist in the model only if there is a direct (business) relationship between those entities. You can categorize the relationships as:

- Description or added information: (typically for Lookup tables) An entity contains codes that describes or validates the various values that an attribute of the original entity possesses. Physically, the two entities are related through a Foreign Key.

- Direct relationship: Typically, when two entities are related from a business point of view, the model needs to make sure this relationship is explicitly present and described. A direct relationship contains a direct business link between the entities (typically serves, uses, owns, and so on). There must be a distinction between clear 1 to many (1:n) or 0 to many (0:n), and many to many (n:m) relationship.

  - 0:n or 1:n relationships: typically business types like "owns", "has got", "serves", "uses"… It is usually directly linked to an attribute (like description), and may be a foreign key link.

  - m:n relationships: If the relationship can be "many to many", use an "Assignment" Entity between the entities to transform this m:n relationship in m:1 (or 0) and (0 or) 1:n.

Self-Relationship:

Very often, two rows of a given entity (say `"ENTITY"`) have to be related with one another. Most of the time, Oracle Communications Data Model uses a table named `"ENTITY ASSIGNMENT"`.

For example: `PARTY` and `PARTY ASSIGNMENT`, as shown in .

Figure 1-4   PARTY and PARTY ASSIGNMENT Entities
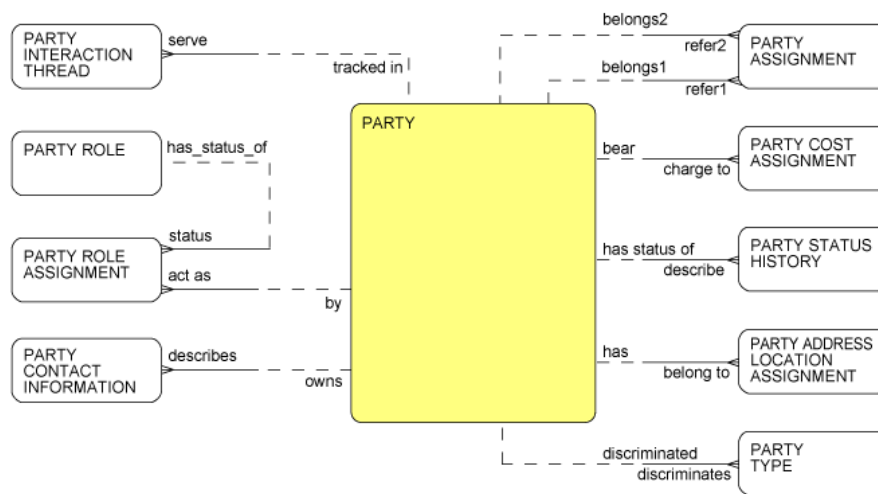
`PARTY ASSIGNMENT` represents the relationship between two parties uniquely identified in Oracle Communications Data Model, whatever the role they play within the model: As Customer, Employee, dealer or even all three for the same individual!

In Party, the *PARTY TYPE* is a "person", an "organization", or an "organization business unit". It is not "Customer". This is a Party role. A given Party can have several roles which are "chosen" depending on the type of business interaction that takes place. However, the type never changes.

The only exception to this rule is with ADDRESS LOCATION. One uses the "ADDRESS RELATED" table, for example to feed the fact that an alternative billing address has been given by customer when the first one fails or because he is in holiday.

1.5.4 Understanding Named and Flexible Hierarchies

A named hierarchy is a pre-built hierarchy of general interest, usually used/seen in the market, with fixed levels (with a specific name for each).

A flexible hierarchy is a hierarchical structure that is freely definable: for levels, attributes per level, relationships and numbers of hierarchies (for the same base entity) with various possible versions.

These hierarchies do the following:

- Follow Slowly Changing dimension Type II rules.

- Have the same leaf level (Organization Business Unit for "Organization" and Address Location for "Geography")

- Have pre-built tools to feed/change them easily (for implementation team).

- Can be associated in parallel (for example, In an Organization, several hierarchies can be defined: Administrative Hierarchy and Sales Hierarchy)

ORGANIZATION BUSINESS UNIT refers to lowest-level internal business unit of the organization that delivers a limited range of specific communications services or merchandise through any sales channel (website, store, and so on), as shown in Figure 1-5 (page 1-11).

Figure 1-5   Organization Business Unit Entity
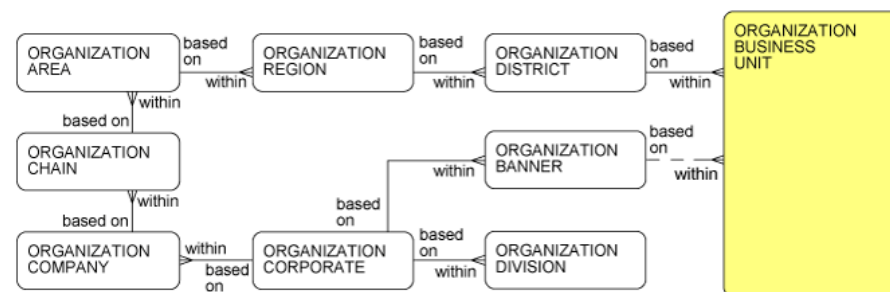
ORGANIZATION BUSINESS ENTITY refers to any internal logical entity that is recognized as a part of the enterprise for business analysis and transactions. Classification for a business entity can include company, operation unit, store, or warehouse. This is part of "Flexible Hierarchy" of organization.

Address Related is the only exception in Oracle Communications Data Model to relationship between the same entity.

Calendar and Time in Oracle Communications Data Model

Oracle Communications Data Model includes five pre-defined calendars:

- Business: allows to define operator's own Calendar according to its business operation.)

- Gregorian: Standard 365-days calendar

- Fiscal: Follows Accounting or Legal Requirements

- Ad: Follows Ad Cycle

- Planning: Planning cycle calendar

In Oracle Communications Data Model, the business calendar is by default the same as the natural calendar (=Gregorian), since most of operators run billing process monthly according to natural calendar. Business calendar can be modified according to different business operations.

A flexible calendar script can populate the calendar based on input parameters.

Time Transformation

A Time Transformation does the following:

- Relates the elements of time-based attributes to other elements of the same attribute and specify the relationship between elements for some time-based frame of reference.

- Supports both "one-to-one" and "many to many" Transformation …

  - For every element in the table, there is one corresponding element for the time frame in question (for example, current week to the same week last year).

  - Supports "many-to-many" transformations for calculating year-to-date, season-to-date and similar totals. These tables specify all of the elements that are to be included in calculating a total from a given reference point.

- Time of Day allows granularity to the Quarter-hour level.

- Year-to-date transformation specifies all of the days or weeks that are included in the transformation from a given day or week since the beginning of the year.

Product and Product Instance: In Product Management and Provisioning Business Area

PRODUCT: is what customer can get. It composes the offering:

- Sub-Types of `PRODUCT` are `PRODUCT PACKAGE`, `SERVICE`, `ITEM`, `EQUIPMENT`

- `PRODUCT` may have valid equipment functionality and versions.

- `PRODUCT` may be particularly offered only locally or in a limited region.

PRODUCT INSTANCE: represents the real instance of a given `PRODUCT` that a customer can purchase or rent. For example:

- Specified Song Corresponding to Product `MUSIC DOWNLOAD`

- TV channel Corresponding to Product PAY TV

- Product Instance could also be a physical instance of Equipment which customer can leverage to access the service from operator. It could be used for inventory management. For example:

  - Handset (with IMEI)

- Land line phone (with serial number)

- Set-top box

- Cable modem

Concept: Business Interaction / Events in All business areas

Business Interaction: "an arrangement, contract, or communication between an enterprise and one or more other entities such as individuals and organizations (or parts of organizations). Interactions take on the form of requests, responses, and notifications". (TMF-SID definition)

Event: an interaction of any kind between at least two parties. There are two types of events:

- "Network" Event: A Call Data Record or a Traffic event on the network made by a customer, a partner, or someone else calling the customer (but not originated from the CSP itself)

- "Non-Network" Event: all other (business) interactions:

   - Customer interaction with the call center, the web interface…,

   - SLA with partners

   - Interaction between Mediation and Order Management System

Scenario 2: Product and Subscription

For a Standard Offer with a two hundred dollar monthly fee that includes three products for customer, as in Figure 1-6 (page 1-13).

Figure 1-6   Product and Subscription Offer for Customer A
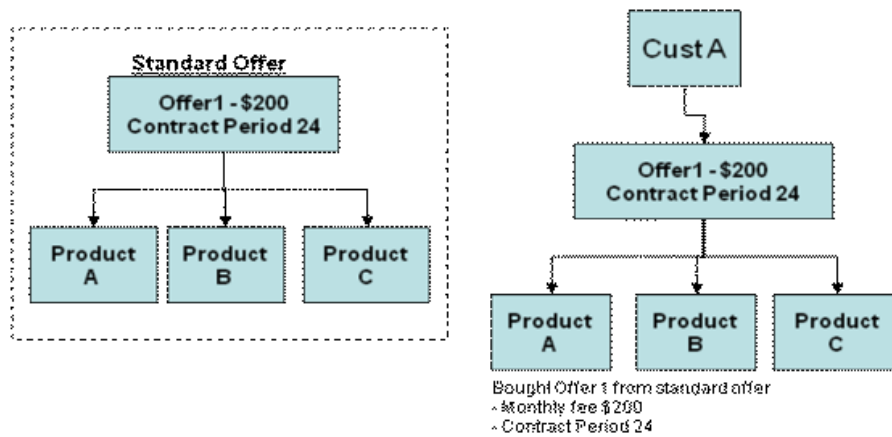
Figure 1-7 (page 1-14) shows this relationship in Oracle Communications Data Model.

Figure 1-7   Product and Subscription Scenario
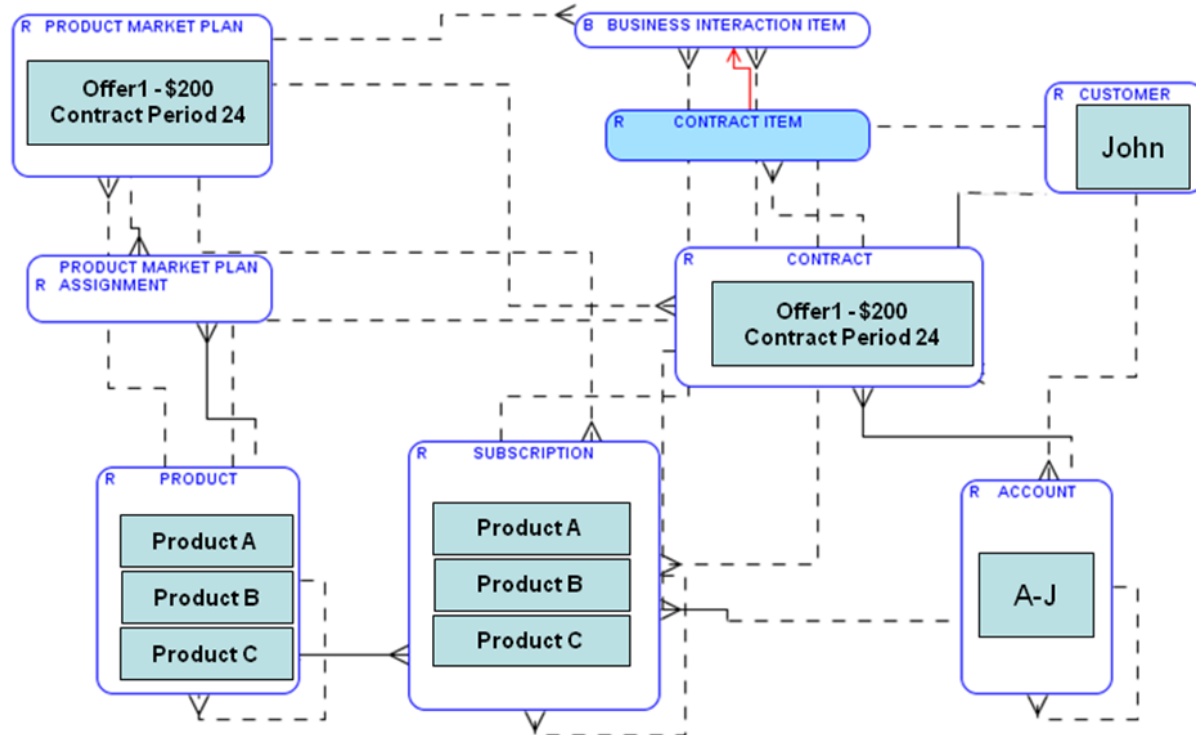
1.6 About TM Forum Information Framework (SID) Alignment

Oracle Communications Data Model is aligned with TM Forum's Information Framework (SID) Release 12. The TM Forum is the world's leading industry association focused on enabling best-in-class IT for service providers in the communications, media, and cloud service markets. The TM Forum provides business-critical industry standards and expertise to enable the creation, delivery, and monetization of digital services.

The TM Forum's Information Framework (SID) provides a common reference model for enterprise information in the communications industry. The SID model does the following:

- Attempts to cover all information required in a Service Provider's operations.

- Provides an information reference model and a common vocabulary.

- Consists of business entities and their associated attribute definitions. Business entities describe items of interest to the business. For example, customer order, product offering, service specification, and so on. The attributes are facts that describe a business entity.

> **See Also:**
>
> http://www.tmforum.org/

1.7 Business Areas in Oracle Communications Data Model

A **Business Area** is a broad slice through Oracle Communications Data Model grouping where all tables that cover the associated business processes (reports, metadata, Mining, OLAP, 3NF) are all accessible through the same GUI (if OBIEE is used). A business area is a conceptual grouping used at the default report level. The reports are organized by related subject areas gathered in "business areas".

The following table lists the Oracle Communications Data Model business areas.

Table 1-4   Business Areas

Business Area	Description
Customer Management	Covers the complete customer lifecycle, from acquisition to churn, including the customer interaction. This area also contains the notion of account (shared with revenue), contract, subscription, and so on.
Revenue	Covers all revenue sources (pre-paid/postpaid, equipment rental, or sales), the sales process, the debt, payment and refund/adjustment processes. This area is the accounting view of a customer or the sales process.
Product Management	Covers the complete product lifecycle, from creation to drop-off
Provisioning and Activation	Covers the complete order management and installation process. This area is also the place for a number portability, trouble ticketing (shared with Customer Management) and SLA management item
Network	Covers all the network related subject areas that are not provisioning. In this area, the complete network of the Service Provider can be described and analyzed. This covers network usage, and network health
Marketing	Covers all the loyalty, campaign, and promotion processes with the notion of prospect and contact list, as well as market share (common with Customer management)
Cost and Contributions	Is the financial perspective of the business, with all the costs associated with running a communications service provider business, whether as operator, MVNO, or simple content provider. This area intersects with all other business areas, but limits itself to cost and profitability measurements
Partner Management	Covers all types of partners, whether interconnection or roaming operators, content providers, dealers (sales), suppliers, external debt collection agencies, and so on

2

Logical Data Model Foundation

The logical data model of the Oracle Communications Data Model defines the business entities and their relationships and provides an understanding of the business and data requirements for the Oracle Communications Data Model data warehouse.

Logical Entities for Business Areas (page 2-1)
> Lists the logical entities in the data model, grouped by business area.

Logical Data Model Entity Dictionary (page 2-22)
> Shows the logical data model entities and corresponding descriptions, in alphabetical order.

2.1 Logical Entities for Business Areas

Lists the logical entities in the data model, grouped by business area.

Note:

The notion of a business area is not strict. That is, some business areas are overlapping. Thus, a logical entity can belong to, or be needed in, several business areas. Some logical entities are not explicitly listed because they either only represent a relationship between tables, are not critically important to any business area, or are simply lookup entities.

The following are the business area logical data model entities:

Note:

The business area figures showing complete diagrams with attributes and entities are available with the Oracle Communications Data Model IP Patch. The IP Patch includes additional documentation. To obtain the IP Patch and for the latest information about Oracle Communications Data Model patch sets, go to My Oracle Support at `https://support.oracle.com`.

Business Area: Cost (page 2-2)

Business Area: Customer Management (page 2-3)

Business Area: Marketing (page 2-9)

Business Area: Network (page 2-11)

Business Area: Partner Management (page 2-14)

2.1.1 Business Area: Cost

Cost Business Area Logical Entities

This section lists the logical entities for Cost.

2.1.2 Business Area: Customer Management

Customer Management Business Area Logical Entities

This section lists the logical entities for Customer Management.

2.1.3 Business Area: Marketing

Marketing Business Area Logical Entity

This section lists the logical entities for Marketing.

2.1.4 Business Area: Network

Network Business Area Logical Entity

This section lists the logical entities for Network.

2.1.5 Business Area: Partner Management

Partner Management Business Area Logical Entity

This section lists the logical entities for Partner Management.

2.1.6 Business Area: Product Management

Product Management Business Area Logical Entity

This section lists the logical entities for Product Management.

2.1.7 Business Area: Provisioning and Service

Provisioning and Service Business Area Logical Entity

This section lists the logical entities for Provisioning and Service.

2.1.8 Business Area: Revenue

Revenue Business Area Logical Entities

This section lists the logical entities for Revenue.

2.2 Logical Data Model Entity Dictionary

Shows the logical data model entities and corresponding descriptions, in alphabetical order.

Table 2-1   A to C Entity Descriptions

Entity Name	Type	Description
802 SERVICE	Reference	Semantics that define how traffic is forwarded based on the value of the priority field in the 802.1P header.
ACCESS METHOD	Reference	Methods that a customer accesses or uses as a service. For example: • Fixed Line telephone numbers • Wireless telephone numbers • xDSL account • IDD Calling card number
ACCESS METHOD ACCOUNT ASSIGNMENT	Reference	Assigns ACCESS METHOD (page 2-22)s to an account.
ACCESS METHOD ASSIGNMENT	Reference	Assignment of an ACCESS METHOD (page 2-22) to a related ACCESS METHOD (page 2-22).

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
ACCESS METHOD ASSIGNMENT TYPE	Lookup	Type of relationship between two ACCESS METHOD (page 2-22)s. For example: • Replace • Bind together
ACCESS METHOD CATEGORY	Lookup	Categorizes further the ACCESS METHOD (page 2-22). Optional for reporting.
ACCESS METHOD ELEMENT	Reference	The ACCESS METHOD (page 2-22) may be split into multiple elements for better management. Each element is a segment in the ACCESS METHOD (page 2-22), which represents a group of access methods. For example, for the access method for a phone number, where access method elements are: • Country code • Area code • Local number
ACCESS METHOD ELEMENT ASSIGNMENT	Reference	Association of ACCESS METHOD ELEMENT (page 2-23)s to ACCESS METHOD (page 2-22). There is no validity period since a change in access method automatically changes the elements composing the access method.
ACCESS METHOD ELEMENT TYPE	Lookup	Lookup for type of ACCESS METHOD ELEMENT (page 2-23). For example: • Country code of phone number • Area code of phone number
ACCESS METHOD EQUIPMENT ASSIGNMENT	Reference	How the access method binds to an equipment instance. For example: • Cell phone number binds onto a cell phone • Login code binds to a modem
ACCESS METHOD GEOGRAPHY ASSIGNMENT	Reference	Assigns the access method to a geographic region.
ACCESS METHOD PARTY ASSIGNMENT	Reference	Assigns access method to a party.
ACCESS METHOD PARTY ASSIGNMENT TYPE	Lookup	Lookup for type of relationship between ACCESS METHOD (page 2-22) and PARTY (page 2-120). For example: • Management • Owned by The management type of access method party relationship specifies that an employee may be responsible for the maintenance of a group of access methods.
ACCESS METHOD POOL	Reference	The logical network resources. For example: • Telephone number • IP address

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
ACCESS METHOD PORTING HISTORY	Base	The history of access methods that the customer brought to the operator from another telecom operator, according to the number porting scheme.
ACCESS METHOD PRODUCT SUBSCRIPTION ASSIGNMENT	Reference	Assigns ACCESS METHOD (page 2-22)(s) to a PRODUCT SUBSCRIPTION (page 2-161).
ACCESS METHOD RESOURCE ASSIGNMENT	Reference	Association of an ACCESS METHOD (page 2-22) to a resource that is not defined anywhere else explicitly (for example, Equipment Instance, Switch, and so on).
ACCESS METHOD SEGMENT	Reference	Segments of ACCESS METHOD (page 2-22)s defined for usage tracking. For example: • Phone number may have the segments: Country_Code + Area_Code + Local_Number • IP address may have the segments: Type A, B, C, D, E subnetwork
ACCESS METHOD SEGMENT PROD CAPABILITY RL	Reference	The relationship between ACCESS METHOD SEGMENT (page 2-24) and PRODUCT CAPABILITY (page 2-152) to define which product capabilities require which access method segment.
ACCESS METHOD SERVICE ASSIGNMENT	Reference	Defines the relationship between a SERVICE (page 2-183) and an ACCESS METHOD (page 2-22). For example, which service (gsm voice) is using which mobile number.
ACCESS METHOD STATUS HISTORY	Base	The status of an ACCESS METHOD (page 2-22). Defines both current status and historical status. For example: • Active • Suspended • Deactivated
ACCESS METHOD STATUS REASON	Lookup	Lookup for available reasons an ACCESS METHOD (page 2-22) may have a change in status. For example: • Customer relocation • Suspension due to late-payment
ACCESS METHOD STATUS TYPE	Lookup	Lookup for available ACCESS METHOD (page 2-22) status types and descriptions. For example: • Active • Inactive • Suspended • Future Activated

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
ACCESS METHOD TYPE	Lookup	Lookup for ACCESS METHOD (page 2-22) type: Defines the types of methods by which a customer may use or access services or products. For example: • Fixed Line telephone numbers • Wireless telephone numbers • xDSL account • IDD Calling card number
ACCESSORIES	Reference	The accessories that may be purchased from the service provider in addition to the item, product, or service. For example: • Handset chains • Starter kit • Headset (earphones) • USB Cable
ACCESSORIES INSTANCE	Reference	A physical instance of ACCESSORIES (page 2-25) which customer has got as part of an option or add-on. An instance can be a specific Handset cover or headset (with Serial Number), loudspeakers, and so on.
ACCOUNT	Reference	The account is generated by a agreement between service provider and customer. For the service provider hosting different network, including CDMA, GSM, broadband, and others, one customer may have a different account for a different network or can be unified. Once set up, a customer can use account for self service from the website or from a Service Provider terminal. In this case the account is normally protected by a password.
ACCOUNT ACCOUNTING CYCLE HISTORY	Base	Billing cycle status history for ACCOUNT (page 2-25)s.
ACCOUNT ADJUSTMENT REASON	Lookup	Lookup of all the reasons for adjustments. For example: • Goodwill • Agreement after complaint
ACCOUNT AGREEMENT RELATIONSHIP	Reference	Assignment of ACCOUNT (page 2-25) to a AGREEMENT (page 2-33).
ACCOUNT ASSIGNMENT	Reference	Relationship assignments between ACCOUNT (page 2-25)s. For example, parent and child accounts.
ACCOUNT ASSIGNMENT REASON	Lookup	Lookup for available reasons ACCOUNT (page 2-25)s may be related.
ACCOUNT ASSIGNMENT TYPE	Reference	The type of relationship between two ACCOUNT (page 2-25)s. For example, a corporate account has several affiliated accounts.
ACCOUNT BALANCE	Base	This entity keeps a snapshots of ACCOUNT BALANCEs, at different period of time and for different ACCOUNT BALANCE TYPE (page 2-26).

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
ACCOUNT BALANCE ADJUSTMENT TYPE	Lookup	Lookup of all the types of adjustments. For example: • Free Monthly Fee • Free Service • Direct credit amount
ACCOUNT BALANCE GROUP	Reference	The balance group concept allows one account to have multiple balance groups, which applies to different groups of services. For example, some special discounts, or monetary balance, can be given for wireless calls, but not for fixed line service.
ACCOUNT BALANCE IMPACT	Base	The account balance change details, because of a specific event. For example: • Account payment • Rated UDR event
ACCOUNT BALANCE IMPACT REASON	Lookup	Reason for which this account and account balance type has been impacted. Typically Usage, Adjst, Pymnt, Recharge, ... Promotional recharge, and so on.
ACCOUNT BALANCE MONTH DRVD	Derived	Daily aggregate of free minutes allowance (PPA) for ACCOUNT (page 2-25) and PRODUCT OFFERING (page 2-154).
ACCOUNT BALANCE TYPE	Lookup	Type of account balance. For example: • Broadband • PTV • Wireless free call allowance
ACCOUNT BILLING CYCLE HISTORY	Reference	Billing cycle status history for ACCOUNT (page 2-25)s.
ACCOUNT BILLING FREQUENCY HISTORY	Reference	Billing frequency history for ACCOUNT (page 2-25)s.
ACCOUNT BILLING OCCURRENCE	Reference	Specifies each billing occurrence for an ACCOUNT (page 2-25). A billing occurrence may be triggered by a predefined billing cycle or some other event such as account termination. In a single account billing occurrence there may be multiple invoices generated.
ACCOUNT BILLING PERIOD HISTORY	Reference	Billing period history for ACCOUNT (page 2-25)s.
ACCOUNT BUSINESS INTERACTION ROLE	Reference	The business interaction role which can be assigned by a CUSTOMER ACCOUNT (page 2-62).
ACCOUNT COST	Base	Subtype of COST (page 2-60), which associates a specific incurred cost to an ACCOUNT (page 2-25) (through an EMPLOYEE (page 2-72)).
ACCOUNT CREDIT LIMIT	Base	Credit limit assigned to an account, subscription, or agreement.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
ACCOUNT DEBT	Base	Information about the ACCOUNT (page 2-25) and debt collection process, as soon as an ACCOUNT (page 2-25) is tagged as being in debt until the day it is resolved (included).
ACCOUNT DEBT ACTION	Base	Action or Activity associated with the Account Debt Process. It can be the fact to start a payment agreement (with a payment plan) or anything similar.
ACCOUNT DEBT MONTH AGGR	Aggregate	The summarized monthly debt status for each CUSTOMER TYPE (page 2-68).
ACCOUNT DEBT MONTH DERIVED	Derived	Summery of payment and collection by internal collector.
ACCOUNT EVENT TYPE	Lookup	Lookup for account event types.
ACCOUNT FIRST ACTIVITY DERIVED	Derived	Collects first usage and payment per account. This entity should be filled once and updated maximal twice per account (one for payment, one per incoming and outgoing usage). It is then never touched.
ACCOUNT LAST ACTIVITY DERIVED	Derived	Collects last usage and payment per account. This entity should be filled at least every day per account until full account deactivation.
ACCOUNT MANAGEMENT HISTORY	Base	Subtype of PARTY ACCOUNT ASSIGNMENT (page 2-120). The account management history tracks the management relationship from employee to the accounts, including account creation, through sales channel, and accounts update or termination.
ACCOUNT PARTY PRODUCT OFFERING RELATIONSHIP	Reference	Assigns accounts and parties to PRODUCT OFFERING (page 2-154).
ACCOUNT PAYMENT	Base	Allocations of funds from a receipt made by a party to an account. The receipt of a single sum from a party as a credit against an outstanding balance for the provision and supply of products or services.
ACCOUNT PAYMENT DAY DRVD	Derived	Daily aggregation of payments made by all customers.
ACCOUNT PAYMENT METHOD	Reference	Contains preferred payment methods for the account.
ACCOUNT PAYMENT METHOD STATUS	Base	Status history of each account preferred payment method. For example: • Active • Inactive • Invalid
ACCOUNT PAYMENT METHOD STATUS HIST DRVD	Derived	Collects the changes on payment method status.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
ACCOUNT PAYMENT METHOD STATUS REASON	Lookup	Lookup for specific status of the account payment method. For example: • Activated • Deactivated • Disabled
ACCOUNT PAYMENT METHOD STATUS TYPE	Lookup	Lookup for types of ACCOUNT PAYMENT METHOD STATUS (page 2-27). For example: • Active • Inactive • Payment Rejected
ACCOUNT PAYMENT MONTH AGGR	Aggregate	Monthly summary of payments made by all customers.
ACCOUNT PAYMENT PAYMENT PLAN ASSIGNMENT	Base	Association of an ACCOUNT PAYMENT (page 2-27) to a specific PAYMENT PLAN (page 2-127) (after agreement). This association is critical to control whether the PAYMENT PLAN (page 2-127) is fulfilled on time or not.
ACCOUNT PAYMENT PLAN ASSIGNMENT	Reference	Association of a PAYMENT PLAN (page 2-127) to an ACCOUNT (page 2-25).
ACCOUNT PREFERRED INVOICE DELIVERY	Reference	The preferred invoice delivery type history for ACCOUNT (page 2-25).
ACCOUNT PRODUCT OFFERING PARTICIPATION HISTORY	Base	Defines the history of how account uses the PRODUCT OFFERING (page 2-154).
ACCOUNT PRODUCT SUBSCRIPTION ASSIGNMENT	Reference	History of subscriptions by an ACCOUNT (page 2-25).
ACCOUNT PRODUCT SUBSCRIPTION ASSIGNMENT REASON	Lookup	Each account to subscription relationship may have a reason associated with it. For example: • Warrant account • Payment account
ACCOUNT PROFILE	Reference	Records more details about the ACCOUNT (page 2-25).
ACCOUNT PROFILE TYPE	Lookup	Lists the various types of ACCOUNT PROFILE (page 2-28). In some cases, it may be used to store the service category of a given account (for example, MSS).
ACCOUNT REFUND REASON	Lookup	Lookup for the reasons why a refund may occur. For example: • Invoice Adjustment • Tax Refund
ACCOUNT ROLE TYPE	Lookup	The type of ACCOUNT ROLEs, for example, primary account, secondary account, and so on.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
ACCOUNT SEGMENT	Reference	The segments identifying distinct groupings of accounts with similar characteristics. The account segments are typically generated from the data mining analysis.
ACCOUNT SEGMENT ASSIGNMENT HISTORY	Reference	Assign account segment to each account.
ACCOUNT SEGMENTATION MODEL	Reference	Used to cluster the account.
ACCOUNT STATISTIC MONTH AGGR	Aggregate	Monthly summary per ACCOUNT (page 2-25) for subscriptions, ARPU, Lifespan, and so on.
ACCOUNT STATUS HISTORY	Base	The history of account status change, including activation, suspension, and so on.
ACCOUNT STATUS REASON	Lookup	Lookup for account status reasons, or possible reasons a given account status has been changed.
ACCOUNT STATUS TYPE	Lookup	Lookup for account status types.
ACCOUNT TAX EXEMPT ASSIGNMENT	Reference	Association of TAX EXEMPT (page 2-205)s to accounts. There may be several tax exemptions for a given account.
ACCOUNT TYPE	Lookup	Lookup for account type. For example: • Prepaid • Postpaid
ACCOUNTING CYCLE	Lookup	Internal Billing cycle which is used to calculate the usage amount and update the account balance for accounting GL purpose.
ACCOUNTING ITEM CATEGORY	Lookup	Lookup for categories that can be associated with incurred costs. For example: • Operations • Staffing • Supplies
ACCRUAL EVENT	Base	Any events that lead to an increase in Loyalty Points to any membership account (loyalty). This entity focuses on the origin (type, organization or partner, and so on) of the increase of points (and the amount). The events that could feed Loyalty Program Event as earning points should all come from Billing System, whatever their origin (usage, customer order, payment and so on). Retail Transactions could also feed this entity.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
ACTIVITY CATEGORY	Lookup	Helps to categorized activity events. Typically there are four categories: • REP ACTVTY: for Sales Representative Activities • Contact: for any type of contact with customer or prospect - and when defined, usually related with EVENT PARTY INTERACTION (page 2-78). • INTERN: for internal activities not directly related with customers or prospects (such as meetings, intra-calls, and so on). • ACW: or "After Call Work" for activities following a contact, while customer or prospect is not on the line or in the shop.
ACTIVITY JEOPARDY	Base	Association of activities that failed (jeopardy) with the various reasons for which it failed (one row per reason per activity).
ACTIVITY JEOPARDY REASON	Lookup	Lists the possible reasons for jeopardy of any activity.
ACTIVITY JEOPARDY TYPE	Lookup	Lists the types of Jeopardy for any activity (field support or employee related normally). It is used as general classification of issues for statistics.
ACTIVITY PROVISIONING PLAN	Reference	Lists all the output of the activity planning process linked to service or resource provisioning, usually related to engineering activities on the network. ACTIVITY PROVISIONING PLAN should contain the list of provisioning plans (of activities) at any point in time.
ACTIVITY PROVISIONING PLAN DETAIL	Reference	Tracks the provisioning plan(s) assigned to an order.
ACTIVITY RELATIONSHIP TYPE	Lookup	Type of relationship between (employee) activities. This entity is not physicalized.
ACTIVITY RESULT TYPE	Lookup	Lookup for available Result Types for EMPLOYEE (page 2-72) activities. For example: 1000 - Successful 2000 - Failed 5000 - Pending
ACTIVITY TYPE	Lookup	Type of EMPLOYEE (page 2-72) activities, used for grouping and reporting purpose.
ADDITIONAL TEXT	Reference	Additional text can save multiple lingual notes or comments for products, parties, and other information.
ADDRESS LOCATION	Reference	Address details for physical or mailing address.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
ADDRESS LOCATION ADMIN AREA ASSIGNMENT	Reference	Association of an ADDRESS LOCATION (page 2-30) to a given ADMINISTRATIVE AREA (page 2-32).Since there can be several levels of jurisdictions and administration, there can be several administrative areas associated with the same address location. Normally, in case of clear administrative hierarchy (for example, Local finance administration and country level finance administration), the lowest possible level should only be used.
ADDRESS LOCATION CATEGORY	Lookup	Tracks other names used by the same ADDRESS LOCATION (page 2-30).
ADDRESS LOCATION NAME	Reference	Tracks other names used by the same ADDRESS LOCATION (page 2-30).
ADDRESS PHONE	Reference	Phone Numbers given by individuals or organization as contact data (typically from Retail Shops). It should not be used to store the ACCESS METHOD (page 2-22). It is used from a loyalty retail perspective.
ADDRESS RELATED	Reference	Entity associates addresses with other addresses. Addresses can be associated in many ways. For example, one address is an alternate for another address for those locations with multiple addresses.
ADDRESS RELATED REASON	Lookup	Lookup for reasons addresses may be related.
ADDRESS RELATED TYPE	Lookup	Lookup for the type of relationship between two addresses.
ADDRESS STATUS	Base	Current status of an address location. For example: • Active • Current • Changed • Old address
ADDRESS STATUS HISTORY	Base	History of the status for any ADDRESS LOCATION (page 2-30). For example: Active, Obsolete
ADDRESS STATUS REASON	Lookup	Lookup for the reason for a change to the current ADDRESS STATUS (page 2-31).
ADDRESS TYPE	Lookup	Lookup for address types. For example: • Home • Office • Warehouse • Billing
ADDRESS VERIFICATION TYPE	Lookup	Type of verification for the address (automatic, manual, 3rd party, and so on).

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
ADHOC COLLECTION	Base	Represents the "on demand" or "adhoc" Statistics Collection, that are not part of the standard statistics collection flow or process. It is typically triggered by EMPLOYEE (page 2-72) after a network fault, an alarm, or a service problem.
ADJACENCY GRAPH	Reference	A Graph expressing an adjacency requirement or property, independently from how this is realized.
ADJUSTMENT TYPE	Lookup	Type of INVOICE ADJUSTMENT (page 2-92).
ADMINISTRATIVE AREA	Reference	Area defined by an administration; necessarily associated with a jurisdiction of any type. For example: MUNICIPALITY CENSUS DISTRICT ELECTORAL AREA COUNTY PARISH
ADVERTISING PERIOD	Reference	Defines an advertising period.
ADVERTISING QUARTER	Reference	Defines a quarter in an advertising calendar.
ADVERTISING WEEK	Reference	Defines a week in an advertising calendar.
ADVERTISING YEAR	Reference	Defines a year in an advertising calendar.
AF SERVICE	Reference	Defines how to forward network traffic by adding specific semantics that characterize the operation of the Assured Forwarding (AF) Service (RFC2597).
AGE BAND	Lookup	Lookup to bin the customer into different groups according age. For example: • 0~20 years • 20~30 year • 40-50 years • 50-60 years
AGE GROUP	Lookup	Group of ages for Individual only; should be filled with what Marketing requires.
AGE GROUP CATEGORY	Lookup	Type or grouping of Age band. It can go from Customer On Net (age) in month to Individual Age Band (in years) or company existence age (in years).
AGE ON NET BAND	Lookup	Defines subscriber life cycle ranges. For example: • 0-1 month • 1-2 months
AGENT	Reference	Agent in the software modelling sense. This is not a sales representative.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
AGREEMENT	Reference	Legal agreement between a Communications Service Provider and an account. An agreement could be tacit (for example for a prepaid service). Thus, is recommended to define a dummy agreement for any prepaid subscription.
		Although AGREEMENT (page 2-33) is a subtype of BUSINESS INTERACTION (page 2-40) (TMF SID), it is not a base table but a reference table, as a signed AGREEMENT (page 2-33) is usually used as a reference in most analytics. Similarly for AGREEMENT ITEM (page 2-34). Hence, not all the columns of BUSINESS INTERACTION (page 2-40) are inherited.
AGREEMENT ACCOUNT SUBSCRIPTION PRODUCT AGGR	Aggregate	An aggregated view for reporting and linking purposes that keeps track of current relationships between CUSTOMER (page 2-62), ACCOUNT (page 2-25), AGREEMENT (page 2-33) and PRODUCT SUBSCRIPTION (page 2-161).
AGREEMENT APPROVAL	Base	Approval for the AGREEMENT (page 2-33) from the operator's authorized employee, if the agreement requires higher level approval or review.
AGREEMENT APPROVAL ASSIGNMENT	Base	Agreement Approval Assignment is only to be used when the chain of approvals is not linear. In case of multiple parallel Authorization Requests for Approval, this entity shall be used.
AGREEMENT ASSIGNMENT	Reference	Defines relationship(s) between agreements.
AGREEMENT ASSIGNMENT REASON	Lookup	Lookup for reasons of why two agreements are related. For example:
		The reason for one agreement to be replaced by another:
		• CNRT-END: The first agreement was naturally terminated
		• DLT-Delete:
		• CUST-CHNG: Voluntary change by customer
		• OP-INIT: Service Provider, operator, solicited the agreement change, normally to increase the ARPU value
		The reason for one agreement to depend on another:
		• Equipment dependency
		• Network dependency
AGREEMENT ASSIGNMENT TYPE	Lookup	Lookup for types of assignment between two agreements. For example:
		• RPLC: a new agreement replaces the original agreement
		• UPGRADE: a new agreement replace original one with upgraded product
		• DEPEND: a agreement depends on existence of another agreement
AGREEMENT CHANGE INITIATOR TYPE	Lookup	Lookup to classify the initiator of the agreement change.

Table 2-1 (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
AGREEMENT CHANGE REASON	Lookup	Reasons for a change in AGREEMENT (page 2-33). Typically, it could be CUSTOMER (page 2-62) take-over, or simple information update (CUSTOMER (page 2-62) or main product offering level) that triggers a change in agreement information or relationship.
AGREEMENT CHANGE TYPE	Lookup	Lookup of all the type of agreement changes. For example: • Contract Renew • Contract Terminate
AGREEMENT CHANGED DRVD	Derived	Derived information about customer's current or future agreement for analytical purposes. This entity captures only changed agreements, including REPLACE or TERMINATE.
AGREEMENT DOCUMENT	Reference	The document(s) provided by the customer when a agreement was signed. For example: • Photocopy image of customer ID • The agreement itself • Any other documents attached to the agreement
AGREEMENT DRVD	Derived	Derived information about customer's current or future agreement for analytical purposes.
AGREEMENT INTENT	Reference	Goal of any AGREEMENT (page 2-33) (intent). It is defined once so that all similar agreements can refer to the same Statement of intent.
AGREEMENT ITEM	Reference	Detail items for the AGREEMENT (page 2-33). Each item may use a different PRODUCT SPECIFICATION (page 2-158). Although AGREEMENT ITEM is a subtype of BUSINESS INTERACTION (page 2-40) (TMF SID), similar to AGREEMENT (page 2-33), it is a reference table and not a base table. Hence, not all the columns of BUSINESS INTERACTION ITEM (page 2-41) will be strictly inherited (but other attribute names will be used).
AGREEMENT PRODUCT SPECIFICATION ASSIGNMENT	Reference	This entity is superceded by AGREEMENT ITEM (page 2-34). It is deprecated and should only be used by legacy systems.
AGREEMENT REVENUE DAY DRVD	Derived	Summary of postpaid revenue per AGREEMENT (page 2-33) for any given day. All fact fields are sum-able. It is an extension of the REVENUE DAY DRVD (page 2-178) from a different point of view.
AGREEMENT SLA RELATIONSHIP	Reference	Association of SERVICE LEVEL AGREEMENT (page 2-187) with the main AGREEMENT (page 2-33) signed by customers. Normally, only customer specific SERVICE LEVEL AGREEMENT (page 2-187) are mentioned, but one could generalize also to add a relationship for and agreement with "tacit" SERVICE LEVEL AGREEMENT (page 2-187).
AGREEMENT STATUS	Base	The status history of the AGREEMENT (page 2-33).

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
AGREEMENT STATUS REASON	Lookup	Lookup for description of the agreement status change. For example: • Customer originated product change • Customer originated churn • Provider originated: Bad payment (leading to suspension) • Customer originated: Debt paid (leading to reactivation) • Customer originated: Banqueroute
AGREEMENT STATUS TYPE	Lookup	Lookup for all possible types of AGREEMENT STATUS (page 2-34). For example: • Newly created for new account • Renewed automatically • Naturally expired or terminated
AGREEMENT TERM	Base	The value of terms attached to the AGREEMENT (page 2-33). For example: • Monetary amount • Period • Premium • Initial points The value can vary at different time period of agreement. For example, the monthly fee might be 100 for the first six months and 80 for the last six months. A penalty calculation can also be based on the months left in agreement.
AGREEMENT TERM TYPE	Lookup	Lookup for all possible terms which may be attached to a AGREEMENT (page 2-33). For example: • Monetary amount • Period • Premium • Initial points • Cancellation policy • Subsidy
AGREEMENT TYPE	Lookup	Lookup for agreement types.
AGGREGATION INTERFACE	Reference	Defines a DEVICE INTERFACE (page 2-70) that functions as an Aggregation Interface; that is, an interface on the aggregation portion of the network. The objective of this role is to enable the definition of POLICY (page 2-135)s such that all Aggregation Interfaces in a particular Domain can receive the same common configuration commands.
ALLOWANCE SUBSCRIPTION PRICE ALTERNATION	Reference	An allowance, a number of something allowed before charging begins, for a PRODUCT SUBSCRIPTION (page 2-161).
AMERICAN PROPERTY ADDRESS	Reference	The Property Address format used in USA.
ANZSIC CLASSIFICATION	Reference	The SIC code used in Australia and New Zealand.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
APPOINTMENT	Base	The appointment between two parties to define a future time for conducting businesses. For example: • A customer visit appointment, between a sales representative and a customer. • A technical support appointment between a customer and an engineer.
APPOINTMENT CALENDAR	Base	Appointments assigning times for vendor or provider to deliver or provide a service.
APPOINTMENT TYPE	Lookup	Lookup for appointment types. For example: • Recurring • Scheduled
ARPU BAND	Lookup	Average Revenue per Unit Band definitions. For example: • $0-100 • $101-200
ARPU BASE CUSTOMER TYPE AGGR	Aggregate	The monthly summary of revenue values for ARPU calculation on CUSTOMER TYPE (page 2-68) level.
ASSET	Reference	Any tangible or intangible economic resource, owned by the operator, which may be of interest to the financial status of the operator. For example, an asset may be a network element, for example routers, switches, or a business asset like land, building, or patent, and so on.
ASSET APPRAISAL HISTORY	Base	The valuation history of the ASSET (page 2-36).
ASSET CONDITION HISTORY	Base	The condition history of an ASSET (page 2-36), as inspected by an internal employee or a contractor. This is important for vehicles or buildings.
ASSET DEPRECIATION HISTORY	Base	The financial depreciation history of a given ASSET (page 2-36).
ASSET PARTY ASSOCIATION	Reference	The relationship between a PARTY (page 2-120) and an ASSET (page 2-36).
ASSET SITE ASSIGNMENT	Reference	The history of locations of each ASSET (page 2-36). An ASSET (page 2-36) may be moved among different SITE (page 2-197)s in its life cycle.
ASSET TYPE	Lookup	The Type of ASSET (page 2-36). For example: • Land • Building • Computer

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
ATM INTERFACE	Reference	Asynchronous Transfer Mode (ATM), is a network technology based on transferring data in cells of a fixed size. The cell used with ATM is relatively small compared to that used with older technologies. In principle, the small, constant cell size allows ATM equipment to transmit video, audio, and computer data over the same network, and assure that no single type of data can dominate network traffic. ATM creates a fixed route between two points whenever data transfer begins. This differs from TCP/IP, in which messages are divided into packets and each packet can take a different route from source to destination. This difference makes it easier to track and bill data usage across an ATM network, but it makes it less adaptable to sudden surges in network traffic.
AUTHORIZATION METHOD	Lookup	Method used to authorize a payment (PIN, Signature, TAN, TAN SMS, and so on) or an official document like an agreement (Certified Email or PDF, signature, and so on).
AUTONOMOUS SYSTEM	Reference	An Autonomous System (AS) provides a structured view of routing by segregating the system that is using routing. For example: • The Internet • A corporate intranet • Company extranet This segregates the system into a set of separately administered domains and each has its own independent routing policies. This is defined in RFC1771.
AUXILIARY COMPONENT	Reference	This entity represents managed entities, such as power supplies, fans, and cables, which are required for the proper operation of the Device but have a primary function that is different than the primary end-user function(s) of the Device. The difference between Auxiliary Components and other subclasses of EQUIPMENT (page 2-74) are whether the physical object performs a function intrinsic to the main function of the Device. For example, consider a ROUTER (page 2-180). The routers main function is to route and forward packets. A Power Supply is an Auxiliary Component, because even though it is needed for the proper operation of the ROUTER (page 2-180), it does not directly help in routing and forwarding packets. A Line Card, that provides routing functionality, is a subclass of EQUIPMENT (page 2-74) because its purpose is to route and forward packets. Similar examples exist for different types of equipment, where their criteria may be different. For example, instead of whether it routes or forwards packets, the criterion "does it carry signal" may be useful to appropriately classify components.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
AWARD LEVEL	Lookup	The level of customer's loyalty, based on the LOYALTY PROGRAM (page 2-103) and ability to contribute to the revenue of the carrier. For example: • Platinum • Gold • Silver • Bronze
BANK	Reference	Bank information that may be used in transactions.
BANK DIRECT DEBIT CHANNEL	Reference	Subtype of the PAYMENT CHANNEL (page 2-127), which tracks various bank channels where customers can pay by direct debt method.
BARING REASON	Lookup	Lookup defining reasons a customer may be banned from using a service.
BASE DAY	Reference	The abstracted information about a day, which serves as a base for DAY (page 2-68).
BASE STATION CONTROLLER	Reference	Subtype of RESOURCE (page 2-171), which lists the Base Station Controller (BSC) of the network. The Base Station Controller provides, classically, the intelligence behind the BASE TRANSCEIVER STATION (page 2-38) (BTS)s. Typically a BSC has tens or hundreds of BTSs under its control. The BSC handles allocation of radio channels, receives measurements from the mobile phones, and controls handovers from BTS to BTS.
BASE TRANSCEIVER STATION	Reference	Base Transceiver Station (BTS) is the equipment which facilitates the wireless communication between User Equipment (UE) and the network.
BASEBAND UNIT	Reference	The BaseBand Unit (BBU) is part of 3G Node B base station system, which is in charge of base station control.
BER FER ERROR RATIO DAY DRVD	Derived	Daily BER (Bit Error Rate) and FER (Frame Error Rate) statistics about the network elements.
BER FER ERROR RATIO MONTH AGGR	Aggregate	Monthly BER (Bit Error Rate) and FER (Frame Error Rate) statistics about the network elements. Derived from BER FER ERROR RATIO DAY DRVD (page 2-38).
BER FER TYPE	Lookup	Lookup to indicate the statistics value for BER (Bit Error Rate) or FER (Frame Error Rate).
BILLING CYCLE	Lookup	Documents each billing run/cycle. Typically the billing cycle is per month. Sometimes a customer may be billed at a different date inside the billing cycle. For example: • The first day of month • 10th day of month
BILLING FREQUENCY	Lookup	The billing frequency specifies the number of billing periods that comprise the billing cycle.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
BILLING OCCURRENCE TYPE	Lookup	Type of billing occurrence which could be classified by the trigger type. For example: • Triggered by customer inquiry. • Triggered by automatic billing cycle.
BILLING PERIOD	Lookup	The billing period specifies the unit to be used to calculate the billing cycle (such as days or months).
BILLING STATUS CATEGORY	Lookup	Lookup for category of billing status. For example: • Successfully Billed • Failure to Bill
BILLING STATUS REASON	Lookup	Lookup for reasons why the UDR EVENT (page 2-208) is at certain billing status. For example: • Wrong format • Missing account information
BILLING STATUS TYPE	Lookup	Lookup for the status type of billing result, including the reasons. For example: • Incorrect_data_failed • Incorrect_user_not_found • Successful
BLACK LIST HISTORY	Base	History of all black-listed customers.
BRAND	Lookup	The brands associated with hardware (usually this applies for handsets, but also for ITEM SPECIFICATION (page 2-97)s).
BRIDGING PROTOCOL	Reference	Bridging Protocols operate at the data link layer of the OSI model, and are used to define communications over different types of homogeneous and heterogeneous local area networks.
BROADBAND RATING PLAN	Reference	Subtype of PRODUCT OFFERING PRICE (page 2-155) applied to BROADBAND SERVICE (page 2-39).
BROADBAND SERVICE	Reference	Broadband service is subtype of SERVICE (page 2-183), to track the broadband services used by the user.
BROADBAND USAGE EVENT	Base	The broadband network usage event, normally implemented as a period while customer is connected to the network. This is charged based on time usage. Some internet connection product might charge by data volume.
BROWSER TYPE	Lookup	Lookup for brand of client browser. For example: • Internet Explorer • Firefox
BROWSER VERSION	Reference	Version of customer browser, such as Internet Explorer 6.0, Firefox 3.6, and so on.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
BUSINESS ASSET	Reference	Any business asset that may be of financial interest to the operator. For example: • Land • Buildings • Equipment, such as office computers Note: the equipment which is part of the network is in the entity: RESOURCE (page 2-171)
BUSINESS HALF MONTH	Reference	Defines month-in-half in a business calendar.
BUSINESS HALF YEAR	Reference	Defines half year in a business calendar.
BUSINESS INTERACTION	Reference	Describes an arrangement, agreement, communication, or joint activity between one or more PARTY ROLE (page 2-124)s, RESOURCE ROLE (page 2-175)s, or CUSTOMER ACCOUNT (page 2-62)s. A Business Interaction may consist of one or more BUSINESS INTERACTION ITEM (page 2-41)s. A BUSINESS INTERACTION ITEM (page 2-41) may refer to a Product, Service, RESOURCE (page 2-171), or one of their specifications. A Business Interaction is further defined by one or more Places. One Business Interaction may reference another Business Interaction and one BUSINESS INTERACTION ITEM (page 2-41) may reference another BUSINESS INTERACTION ITEM (page 2-41) on the same or different Business Interaction. There are five types of Business Interactions: • Requests • Responses • Notifications • Agreements • Instructions
BUSINESS INTERACTION ASSIGNMENT	Reference	Defines the relationship between two BUSINESS INTERACTION (page 2-40)s.
BUSINESS INTERACTION ASSIGNMENT TYPE	Lookup	Interaction type such as subordinate business interaction.
BUSINESS INTERACTION CHARACTERISTIC	Reference	A characteristic quality or distinctive feature of a BUSINESS INTERACTION (page 2-40).
BUSINESS INTERACTION CHARACTERISTIC TYPE	Lookup	Type of BUSINESS INTERACTION CHARACTERISTIC (page 2-40).
BUSINESS INTERACTION CHARACTERISTIC VALUE	Reference	A value of a BUSINESS INTERACTION CHARACTERISTIC (page 2-40).

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
BUSINESS INTERACTION CHARACTERISTIC VALUE USE	Base	Effective association (or usage) by an instance of a business interaction with a given BUSINESS INTERACTION CHARACTERISTIC (page 2-40) and Characteristic Value.
BUSINESS INTERACTION DOCUMENT	Reference	Various proof documents provided for business interaction. It may be related to Customer Document if it is required.
BUSINESS INTERACTION HISTORY	Base	The temporary status of an interaction, non current, if it was not COMPLETED when it was first loaded.
BUSINESS INTERACTION ITEM	Base	The purpose for the Business Interaction expressed in terms of a Product Type, PRODUCT OFFERING (page 2-154), Service Type, or RESOURCE SPECIFICATION (page 2-176) or may refer to a Product, Service, or RESOURCE (page 2-171). The detail items included in the BUSINESS INTERACTION (page 2-40).
BUSINESS INTERACTION ITEM PRICE	Base	This is the actual price charged to the BUSINESS INTERACTION ITEM (page 2-41), despite the original list and discount price from product setting. An amount associated with a BUSINESS INTERACTION ITEM (page 2-41) that is valued by the associated product offering Price
BUSINESS INTERACTION ITEM SPECIFICATION	Reference	Specification of how a given BUSINESS INTERACTION ITEM (page 2-41) is supposed to be filled (data, information, and so on). Normally ignored because the content expected is obvious, this entity is present for completeness only.
BUSINESS INTERACTION LOCATION ASSIGNMENT	Reference	The BUSINESS INTERACTION ROLE (page 2-41) which can be assigned to an address. For example: • Billing address • Shipment address
BUSINESS INTERACTION PAYMENT ASSIGNMENT	Base	The association between a payment and BUSINESS INTERACTION (page 2-40). For example, a payment for a agreement or a customer order.
BUSINESS INTERACTION ROLE	Reference	The roles which can be played by PARTY (page 2-120) or other business interaction elements like Resource, and so on.
BUSINESS INTERACTION SPECIFICATION	Reference	The invariant characteristics (attributes in the business view, and methods, constraints, relationships, and behavior in the system view) and behavior of a BUSINESS INTERACTION (page 2-40). This is done by optionally defining a set of BUSINESS INTERACTION SPECIFICATION (page 2-41) items, each of which aggregates one or more other types of Specifications. This helps to ensure that different BUSINESS INTERACTION (page 2-40) have the same basic characteristics and behavior by deriving them from the same BUSINESS INTERACTION SPECIFICATION (page 2-41).

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
BUSINESS INTERACTION STATUS REASON	Lookup	The reason to explain why a BUSINESS INTERACTION (page 2-40) has had a change in status.
BUSINESS INTERACTION VERSION	Reference	Represents the ability to distinguish between different instances of RESOURCE SPECIFICATION (page 2-176)s. It represents a particular form or variety of a RESOURCE SPECIFICATION (page 2-176) that is different from others or from the original. The form represents differences in attributes, methods, relationships, or constraints that characterize this particular RESOURCE SPECIFICATION (page 2-176), but which are not enough to warrant creating a new RESOURCE SPECIFICATION (page 2-176).
BUSINESS LEGAL STATUS	Lookup	The legal status of the company. For example, a Public Company, Private, and so on.
BUSINESS MONTH	Reference	Defines month in a business calendar.
BUSINESS QUARTER	Reference	Defines quarter in a business calendar.
BUSINESS UNIT JOB ROLE	Reference	Assigns job roles to a business unit within the organization.
BUSINESS UNIT SHIFT	Reference	Work shift associated with the Business Unit, mapped to the Employee job roles for the allocation for these shifts.
BUSINESS WEEK	Reference	Defines week in a business calendar.
BUSINESS YEAR	Reference	Defines year in a business calendar.
CABLE	Reference	A container of conductors or fibres. At least two connectors are attached to a cable.
CABLE MODEM	Reference	Subtype of EQUIPMENT INSTANCE (page 2-75), which collects all cable modem instances installed at customer's site connecting to the network of the Communications Service Provider.
CALENDAR HALF MONTH	Reference	Defines month-in-half in a Gregorian or Normal Calendar.
CALENDAR HALF YEAR	Reference	Defines half year in a Gregorian or Normal Calendar.
CALENDAR MONTH	Reference	Defines month in a Gregorian or Normal Calendar.
CALENDAR QUARTER	Reference	Defines quarter in a Gregorian or Normal Calendar.
CALENDAR WEEK	Reference	Defines weeks in a Gregorian or Normal Calendar.
CALENDAR YEAR	Reference	Defines years in a Gregorian or Normal Calendar.
CALL CENTER	Reference	Defines call centers for a carrier or provider.
CALL CENTER AGENT	Reference	Agents of a call center.
CALL CENTER AGENT TYPE	Lookup	Lookup for call center agent types. For example: Employee or IVR.

Table 2-1 (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CALL CENTER CALL MONTH AGGR	Aggregate	Monthly summary of customer call statistics for the call center.
CALL CENTER CASE MONTH AGGR	Aggregate	Monthly summary of statistics for all the cases initiated or resolved by the call center.
CALL CENTER CASE SUB TYPE	Lookup	Lookup to further characterizes the type of cases from the call center. The case subtype helps to split a given case type into various subtypes. For example, for the case type, "Srv: Service Request", the subtype could be classified as "Package Upgrade", "Package Downgrade", "Simple Contract Renewal", or "Onsite Support".
CALL CENTER CASE TITLE	Lookup	Further classifies the CALL CENTER CASE SUB TYPE (page 2-43). For example, for call center case type "Service Request", and call center case subtype "Technical Support", the call center case title could be: • Handset Technical Support • Product Usage Technical Support • Network Fault Technical Support
CALL CENTER CASE TYPE	Lookup	Lookup for type of call center cases. For example: • Cmpl: Complaint • Inqry: Inquiry • Srv: Service Request
CALL CENTER SERVICE CAPABILITY	Reference	Assigns to the CALL CENTER (page 2-42), the languages, products, or geographical areas which the call center can serve.
CALL DIRECTION	Lookup	To indicate incoming call or outgoing call.
CALL DURATION BAND	Lookup	Time Band of call duration. For example: 1: 0-5 min 2: 5-30 min 3: 30-120 min 4: >120 min
CALL FORWARD	Reference	A type of phone service. The calling party can be on hold if receiving party is in a call.
CALL OTHER TYPE	Lookup	This is to record any other characteristics of the call, such as, 3-party call, or any user defined special type of call.
CALL RECYCLED REASON	Lookup	Lookup for reasons why the voice carrying channel is being recycled during the call.
CALL ROUTING TYPE	Lookup	Lookup to define how the call was routed. For example: • Calling from external carrier • From Wireless to Land Phone
CALL SERVICE TYPE	Lookup	Lookup for service types that could be used in a call. For example: • Toll-Free number such as 800/400 • Emergency Call such as 911, 112, 110

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CALL SOURCE DESTINATION	Reference	Entity represents all the possible zones associated with a combination of any sources and destinations. Those call sources or destinations classify the calls into different groups, such as local call, long distance domestic call, or internal call. Note: it is not the purpose of this entity to reproduce the A-B number mapping (this is a billing operation). This entity only represents the result of such a mapping.
CALL SUCCESS FAILURE TYPE	Lookup	Lookup to classify calls into successful calls or unsuccessful due to various reasons or causes. Call success failure, along with the call direction helps in facilitating the required analysis for roaming calls.
CALL SURCHARGE	Lookup	Any extra charge on the call in addition to the normal rating.
CALL TERMINATION REASON	Lookup	Lookup for the reasons a call may be terminated. For example: • Dropped • Successful End
CALL TYPE	Lookup	Lookup to further classify call category into call types. For example: • Voice Voice • SMS and MMS • Data and FAX • Information services • GPRS services for Data and Fax
CALLER ID	Reference	Subtype of PRODUCT SPECIFICATION (page 2-158), with specific information about CALLER ID (page 2-44) service.
CAMPAIGN	Reference	Campaigns are the entire communication strategy for a specific marketing communications program. The marketing communications program is frequently in support of promotional events and individual promotions but can be standalone. A campaign is always associated with a MEDIA OBJECT (page 2-107), such as a television campaign.
CAMPAIGN CHANNEL	Reference	Channel by which a CAMPAIGN (page 2-44) is exposed to a customer. For example: News group or media company which issues newspaper, television affiliate, and so on. A piece of newspaper of a block/slot on the paper is a publication/media object. The campaign channel can be categorized by CAMPAIGN CHANNEL TYPE (page 2-44).
CAMPAIGN CHANNEL ASSIGNMENT	Reference	The assignment to define which CAMPAIGN (page 2-44) is lunched at which CAMPAIGN CHANNEL (page 2-44).
CAMPAIGN CHANNEL TYPE	Lookup	Lookup for campaign channel type. For example: newspaper, Television, Magazine.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CAMPAIGN CHARACTERISTIC	Reference	A characteristic quality or distinctive feature of a CAMPAIGN (page 2-44). The characteristic can take on a discrete value, such as the number of press releases, can take on a range of values, for example the number of prospects reached is 50,000 - 100,000, or can be derived from a formula, for example, the number of brokerage house pickups = the sum of all brokerage house instance characteristics.
CAMPAIGN CHARACTERISTIC RELATIONSHIP	Reference	Relationship between CAMPAIGN CHARACTERISTIC (page 2-45)s (Typically, dependency, mutual exclusivity, and so on).
CAMPAIGN CHARACTERISTIC VALUE	Reference	A number or text that can be assigned to a CAMPAIGN CHARACTERISTIC (page 2-45).
CAMPAIGN CHARACTERISTIC VALUE USE	Reference	lists the effective use in a campaign of a given CAMPAIGN CHARACTERISTIC (page 2-45) with its related value. It must be associated with a concrete CAMPAIGN (page 2-44).
CAMPAIGN COST	Base	Subtype of COST (page 2-60) which can apply to a CAMPAIGN (page 2-44).
CAMPAIGN DOCUMENT	Reference	The customer documents provided during campaign activities.
CAMPAIGN HISTORY DAY DRVD	Derived	Daily aggregate of campaign results by PROMOTION RESULT TYPE (page 2-163).
CAMPAIGN MANAGEMENT HISTORY	Reference	The history of campaign party role about management of a CAMPAIGN (page 2-44). The party here can be not only the sales or marketing employee at TELCO operator, it can also be campaign partner.
CAMPAIGN MEDIA	Reference	Relationship between a CAMPAIGN (page 2-44) and the MEDIA OBJECT (page 2-107) chosen to run this campaign (Radio, TV, newspaper, posters, Internet Adds, and so on).
CAMPAIGN MEDIA SELLING ITEM	Reference	Item, resource, associated with the CAMPAIGN (page 2-44) and the MEDIA OBJECT (page 2-107) used. It could go from specific accessories that one could get with a specific promotion.
CAMPAIGN MESSAGE	Reference	Details regarding message broadcast or sent during a CAMPAIGN (page 2-44).
CAMPAIGN MESSAGE CREATIVE	Base	Information about the creative content of the message.
CAMPAIGN MESSAGE DEPICTION	Reference	Details about how the execution message is depicted for a CAMPAIGN (page 2-44).
CAMPAIGN PURPOSE TYPE	Lookup	Lookup for types of campaign purposes. For example: • Acquire new customers • Consolidate existing customers • Retention existing customers

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CAMPAIGN RELATIONSHIP	Reference	Defines the relationship between two CAMPAIGN (page 2-44)s. For example: • Replace/upgrade • Enhance
CAMPAIGN STATUS	Lookup	Status of CAMPAIGN (page 2-44).
CAMPAIGN TERM VALUE	Reference	The term value for a given campaign.
CAMPAIGN TYPE	Lookup	Lookup for type of campaign. For example: • A targeted promotion (to specific individuals, account or group of accounts) • A mass market promotion (to a massive audience usually through radio, Television and newspaper)
CANNIBALIZATION DETAIL DAY DRVD	Derived	The calculated detail information related to the tariff/package change of customers. For prepaid customers, usually it is impossible to track customer movement between products due to lack of customer identification. For some customers, they may change at the next "beginning of the month".
CAPACITY	Reference	This is an abstract base entity that is the parent for both the PHYSICAL CAPACITY (page 2-130) and the LOGICAL CAPACITY (page 2-100). These entities define the minimum and maximum requirements, limits, or other variable features of another entity.
CARD	Reference	Represents a type of physical container that can be plugged into a SLOT (page 2-198). A card may represent a primary function, for example, a networking card, or an auxiliary function, for example, a memory card, that supports another card. All objects of this type are capable of carrying electrical and optical signals. A card also provides a mounting point for other types of Managed Physical Resources, such as Chips or Cards.
CARD HOLDER VERIFICATION TYPE	Lookup	Verification Method to check a Card Holder self (personal ID, Birthday, extra PIN...), typically for Credit Card but it could be generalized.
CARD RELATIONSHIP	Reference	This association entity represents the semantics of the Card On Card aggregation. The Card Relationship defines an attribute that describes how the CARD (page 2-46) is mounted on or plugged into another CARD (page 2-46).
CARD TYPE	Lookup	Lookup for codes denoting which kind of card was accepted. For example: • Amex • Diners • Disc • JCB • MC • Visa

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CATALOG	Reference	Grouping of product offerings to be presented in a certain context. The type of catalog and the media and its characteristics are described in the associated entities.
CATALOG ASSIGNMENT	Reference	Details how catalog can be related to other catalogs (e.g. mutually exclusive, Restrict to Decorated , and so on).
CATALOG CATALOG ITEM ASSIGNMENT	Reference	List of Item a Catalog has got at a defined point in time.
CATALOG CONCRETE	Reference	An instance of the decorator pattern. This entity is the target object that subclasses of CatalogDecorator will wrap. The Decorator Pattern enables additional responsibilities to be dynamically attached to an object. It uses composition and wrapping instead of inheritance.
CATALOG DECORATOR	TBS	An instance of the decorator pattern. This class is the superclass of objects that will decorate the ConcreteCatalog Class.
CATALOG ITEM	Reference	Catalog Item defines the type of objects that can be contained in a catalog.
CATALOG ITEM ASSIGNMENT	Reference	Details how catalog Item can be related to other catalogs Items (For example, mutually exclusive, restrict to decorated , and so on...)
CATALOG TYPE	Lookup	Lookups for the various types of catalogs. Types could be whether for Product (ProductCatalog), Services (ServiceCatalog), Resources (ResourceCatalog) as required by TMF SID. Or it could be used in broader sense for their target (residentials, business, ...) or their media (paper, ...) or any characteristics of choice.
CELL	Reference	The cell in a wireless network such as GSM, which is an area serviced by the BASE TRANSCEIVER STATION (page 2-38) (BTS).
CELL OUTAGE REASON	Lookup	Lookup for reasons a cell outage could occur. For example: • Power failure • Natural disaster • Theft
CELL SECTOR	Reference	Most cells are split into sectors or individual areas to make them more efficient and to let them to carry more calls. The cell site equipment provides each sector with its own set of channels.
CELL SITE	Reference	This is where the base station radio equipment and their antennas are located. A cell site gives radio coverage to a cell.
CELL SITE COST	Base	Subtype of COST (page 2-60) which could apply to a CELL SITE (page 2-47). For example: • Expenses for the cell site building • Rent • Maintenance

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CELL SITE TYPE	Lookup	Lookup for type of CELL SITE (page 2-47). For example: the cell site type can be classified by GSM/CDMA/PHS/broadband/Pay TV.
CELL STATISTIC DAY DRVD	Derived	The network parameters and run time statistics captured at the cell level.
CELL STATISTIC MONTH AGGR	Aggregate	The network parameters and run time statistics for all CELL SITE (page 2-47)s aggregated at the month and certain geography level.
CELL TYPE	Lookup	Lookup for all possible cell types. For example, Macro, Micro, and Pico: • Macro cells are large geographical area where subscriber base is less dense. • Micro cells are small cells in side the macro cells to cover high subscriber density and uneven distribution. • Pico cells are used in large buildings, where signals from ground towers are poor.
CERTIFICATE TYPE	Lookup	Type of Certificate (Medical, Tax Authority, Government, and so on).
CFS NETWORK SERVICE ASSIGNMENT	Reference	Relationship between the CUSTOMER FACING SERVICES and the NETWORK SERVICES they require and leverage (typically parenthood).
CFS SPECIFICATION VERSION DETAIL	Reference	Defines the relationship of the CFS Type aggregation. Specifically, it enables an application to define which set of versions of this CUSTOMER FACING SERVICE (page 2-64) Type are appropriate for a given task.
CHANGE PROPOSED BY TYPE	Lookup	Lookup for who proposed the changes for a customer tariff change. For example: • By customer • By operator
CHANNEL	Reference	Identifies all the channels through which customers interact with the telco provider for sales or services purposes.
CHANNEL COST	Base	Subtype of COST (page 2-60), which collects all costs specifically related to a given sales channel.
CHANNEL TYPE	Lookup	Lookup for types of channels as defined by their functions. For example: • Sales channel • Payment channel • Debt collection channel • Loyalty program channel (where to join/change/redeem loyalty program)
CHASSIS	Reference	A Chassis is a type of Secure Holder that encloses other Managed Physical Entities and provides a definable functionality in its own right, such as a desktop or a network device. For example, a router or a switch.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CHASSIS POSITION	Reference	Represents the semantics of the Chassis In Rack aggregation. Defines two attributes: Position and Location, to define where the CHASSIS (page 2-48) is located in the RACK (page 2-169).
CHURN SVM FACTOR	Derived	Mining target entity to store churn factors retrieved from SVM mining model.
CHURN SVM ROC	Derived	Mining target entity to store churn ROC details calculated using SVM mining model.
CIRCUIT CATEGORY	Lookup	Lookup for categories to classify the type of circuit. For example: • Analogue Voice • Digital Data Services (DDS) • ATM
CIRCUIT COMPONENT	Reference	Describes each component of each circuit. Typically a circuit will include several components. For example, a Digital Data Services circuit linking two customer sites may include three components: 1. From the customer site to the exchange/switch 2. From the switch to another switch 3. From the second switch to the second customer site There are two scenarios: • The circuit component links two switches. • The circuit component links a switch with a customer site For the first scenario, where two switches are linked, the switch_id and secondary_switch_id attributes will identify the two switches. The site_id attribute will be null. If the circuit component links a switch with a customer site, then the switch_id attribute will identify the switch and the site_id attribute will identify the customer site. The secondary_switch_id attribute will be null.
CIRCUIT COMPONENT TYPE	Lookup	Characterizes the circuit component, by type: PORT, PIPE, CONNECTOR, ... The effective type can be defined to fit the subtypes of this entity (but must not be).
CIRCUIT CROSS REFERENCE	Reference	Cross references one or more Circuits of External Operator to the circuit definition in network inventory. It inherits only logically from RESOURCE CROSS REFERENCE. For consistency, and because it has usually. its own column name (CIRCUIT instead of RESOURCE), a new entity has been created in LDM with repeated columns.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CIRCUIT RENTAL EVENT TYPE	Lookup	Lookup for types of rental events. For example: • Rental Initial • Monthly Charge • Maintenance Charge • Termination
CIRCUIT TRAFFIC	Base	The traffic volume statistics over certain periods, where periods are implementation dependent but generally hourly, for each CIRCUIT COMPONENT (page 2-49).
CIRCUIT TYPE	Lookup	Lookup for type of detailed circuit types. For example: For interconnect: • T1 or E1, carry 1.5mbps • T2 6.312 Mbit/s • T3 44Mbit/s For customer connection ADSL: • ADSL 1: Normally 1Mbit/s • ADSL 2x
CLASS BASE WEIGHTED FAIR QUEUE SERVICE	Reference	Specifies the algorithm that schedules packets in queues and guarantees a certain transmission rate. If a queue is not in use, the bandwidth is made available to other queues.
CLASSIFIER SERVICE	Reference	Describes the internal component of the forwarding path, used to recognize and distinguish among different packet streams or flows.
CLIENT	Reference	Client (part of the software application). This is not the customer.
CLIENT HOST	Reference	Host on which the CLIENT (page 2-50) runs (from a software application perspective). It is a Resource identification expected.
CLIENT VERSION	Reference	Version of the CLIENT (page 2-50) (part of a software application that the end-user is running).
COLLECTION	Reference	This entity represents collections of Managed Entity objects. A Collection enables common attributes, methods, relationships, and other semantics to be applied to different types of Collections of Managed Entity objects. These can then be refined in the subclasses of Collection.
COLLECTION AGENCY	Reference	Subtype of a PARTY (page 2-120), who collects the customer debt on behalf of the operator under a financial agreement. For example: • Debt collection • Roaming settlement collection
COLLECTION TYPE	Lookup	Type of Statistic Collection (alerts, alarms, network KPIs, and so on).

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
COMMISSION DRVD	Derived	Statistics of all commissions granted to the sales agents because of the sales of products and services in the given period.
COMMISSION MONTH AGGR	Aggregate	Monthly aggregation of all commissions granted to the sales agents because of the sales of products and services in the given period.
COMMISSION TYPE	Lookup	Lookup for commission types that may be paid to sales representatives. For example: • FLAT: flat rate • PERCENTAGE: percent of transaction amount
COMMUNICATION SERVICE	Reference	The service type of product, including fixed line phone call, wireless phone call, and so on.
COMP INTEL CHARACTERISTIC	Reference	A characteristic quality or distinctive feature of a COMPETITOR INTELLIGENCE (page 2-52). The characteristic can take on a discrete value, such as number of press releases, can take on a range of values, for example, number customers within a MARKET SEGMENT (page 2-106) (50,000 - 100,000), or can be derived from a formula, for example, number of products offered in a MARKET SEGMENT (page 2-106) = the number of the COMPETITOR (page 2-52)'s Products associated to the MARKET SEGMENT (page 2-106).
COMP INTEL CHARACTERISTIC VALUE	Reference	A number or text that can be assigned to a COMP INTEL CHARACTERISTIC (page 2-51).
COMP INTEL MARKET SEGMENT	Reference	A MARKET SEGMENT (page 2-106) in which a COMPETITOR (page 2-52) makes Product available.
COMP PROD CRRL CHARACTERISTIC	Reference	A characteristic quality or distinctive feature of a COMPETITOR PRODUCT CORRELATION (page 2-52). The characteristic can be take on a discrete value, such as geographic disbursement (central, national, cascading). The characteristic can take on a range of values, (for example, Competitor Product Offering revenue of $500,000 - $1,000,000), or can be derived from a formula (for example, number of MARKET SEGMENT (page 2-106)s in correlation = number of MARKET SEGMENT (page 2-106)s related to this correlation).
COMP PROD CRRL CHARACTERISTIC ASSIGNMENT	Reference	Assign the COMP PROD CRRL CHARACTERISTIC (page 2-51) to the related COMPETITOR INTELLIGENCE (page 2-52) characteristic.
COMP PROD CRRL CHARACTERISTIC RELATIONSHIP	Reference	Defines the relationship between two COMP PROD CRRL CHARACTERISTIC (page 2-51)s.
COMP PROD CRRL CHARACTERISTIC VALUE	Reference	A number or text that can be assigned to a COMP PROD CRRL CHARACTERISTIC (page 2-51).

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
COMP PROD CRRL CHARACTERISTIC VALUE USE	Reference	Specifies the effective use of a given Competitor Correlation Product Characteristic and the related value. It must be associated with a concrete Competitor Product Correlation.
COMPENSATORY REASON	Lookup	Possible REASON (page 2-169)s for being compensated (Standard Sales program, accelerator, or Hardware Defect, and so on).
COMPETITIVE TIER	Reference	A classification of a COMPETITOR (page 2-52), such as by size, product lines offered, and so on.
COMPETITOR	Reference	A PARTY (page 2-120) that offers PRODUCT SPECIFICATION (page 2-158) similar to the enterprise's PRODUCT SPECIFICATION (page 2-158) in a MARKET SEGMENT (page 2-106).
COMPETITOR INTELLIGENCE	Reference	Facts gathered about a COMPETITOR (page 2-52)'s plans and activities. These facts perform COMPETITOR SWOT (page 2-52) analysis to better understand a COMPETITOR (page 2-52).
COMPETITOR INTELLIGENCE PARTY ROLE	Reference	The PARTY (page 2-120) who developed the COMPETITOR INTELLIGENCE (page 2-52).
COMPETITOR MARKET SEGMENT ASSIGNMENT	Reference	A MARKET SEGMENT (page 2-106) served by a COMPETITOR (page 2-52).
COMPETITOR MARKET SEGMENT SWOT	Reference	Specifies a Strength, Weakness, Opportunity, or Threat in a MARKET SEGMENT (page 2-106) served by a COMPETITOR (page 2-52).
COMPETITOR PRODUCT CORRELATION	Reference	A comparison or relationship between an enterprise-s PRODUCT SPECIFICATION (page 2-158) with a COMPETITOR (page 2-52)s' Product. Information about the correlation may include MARKET SEGMENT (page 2-106)s, Product Offering life cycle stage, Jurisdiction, or definable COMP PROD CRRL CHARACTERISTIC (page 2-51)s.
COMPETITOR SWOT	Reference	General (non-MARKET SEGMENT (page 2-106) specific) Strength, Weakness, Opportunity, or Threat when compared to a COMPETITOR (page 2-52).
COMPETITOR TIER ASSIGNMENT	Reference	A classification of a COMPETITOR (page 2-52), such as by size, product lines offered, and so forth.
COMPLEX ADDRESS	Reference	Complex Address describes the internal address for a complex (for GEOGRAPHY COMPLEX (page 2-83)). For example, the internal road, building number, and so on.
COMPOSITE COMP PROD CRRL CHARACTERISTIC	Reference	A type of COMP INTEL CHARACTERISTIC (page 2-51) that is formed by aggregating other COMP INTEL CHARACTERISTIC (page 2-51), which may be Composite or Atomic COMP INTEL CHARACTERISTIC (page 2-51).

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
COMPOSITE PROD OFFER PRICE COMPONENT ASSIGNMENT	Reference	Association of price component to Composite Product Offering. It allows building complex pricing.
COMPOSITE PRODUCT SPECIFICATION	Reference	Groups of PRODUCT SPECIFICATION (page 2-158)s bundled to serve as basis of a PRODUCT OFFERING (page 2-154). The composite product specification is not customer facing and a customer should subscribe to a composite product specification through the PRODUCT OFFERING (page 2-154). For example: • Tariff Liberty 60, Wireless phone, 3 Friends & Family Network Intern Numbers • DSL 32Mbit/s + VoIP Phone + TV Entertainment + Pay TV Soccer Championship
COMPOSITE PRODUCT SPECIFICATION ASSIGNMENT	Reference	Assigns PRODUCT SPECIFICATION (page 2-158)(s) to a COMPOSITE PRODUCT SPECIFICATION (page 2-53).
COMPOSITE PRODUCT SPECIFICATION CHARGE TYPE	Lookup	Lookup for type codes and descriptions for COMPOSITE PRODUCT SPECIFICATION (page 2-53) charge on a PRODUCT SPECIFICATION (page 2-158). For example: • One time charge • Usage Duration charge • Usage per Call charge • Usage amount charge (Data transfer) • Monthly Cycle Forward Fee • Monthly Cycle Arrear Fee • Free Unit Charge • Free Charge
COMPOSITE PRODUCT SPECIFICATION TYPE	Lookup	Type of COMPOSITE PRODUCT SPECIFICATION (page 2-53). It groups COMPOSITE PRODUCT SPECIFICATION (page 2-53)s that share common characteristics.
COMPOSITE PRODUCT SUBSCRIPTION PRICE	Reference	A PRODUCT PRICE COMPONENT (page 2-157) (associated with PRODUCT SUBSCRIPTION (page 2-161)) that is made up of parts.
COMPOSITE SERVICE	Reference	A group of services together forming a new service.
COMPOSITE SERVICE INCLUSION	Reference	Defines the relationship between and atomic service. Composite service inclusion defines how the COMPOSITE SERVICE (page 2-53) is formed.
COMPOSITE SERVICE TYPE INCLUSION	Reference	Tracks the relationship of which atomic service type each composite service type includes.
COMPOUND CONDITIONING ELEMENT	Reference	Abstract entity that defines "compound" traffic conditioning elements.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
COMPOUND RESOURCE	Reference	This is the abstract base entity for all composite entities that are inherently manageable and form a PRODUCT SPECIFICATION (page 2-158).
		The key difference between network element and COMPOUND RESOURCE (page 2-54) is that network element describes either a Physical or a Logical entity. In contrast, COMPOUND RESOURCE (page 2-54) describes managed entities that are collections of other managed entities. A key point is that each managed entity that is part of a COMPOUND RESOURCE (page 2-54) can be individually managed as either a PHYSICAL RESOURCE (page 2-133) or a LOGICAL RESOURCE (page 2-102).
COMPOUND RESOURCE COLLECTION	Reference	An entity that is individually manageable.
		A Compound Element Collection is an aggregate entity consisting of RESOURCE (page 2-171) and optionally Compound Element Collection entities. As such, a Compound Element Collection represents a set of PHYSICAL RESOURCE (page 2-133)s and LOGICAL RESOURCE (page 2-102)s that collectively represent a managed entity. For example, a Network is a subclass of Compound Element Collection. A Network can be made up of other Networks and SubNetworks. Each Network or SubNetwork can be made up of physical and logical components, gathered and represented by an RESOURCE (page 2-171) Collection. Each node in the network can be represented by a RESOURCE (page 2-171).
COMPOUND RESOURCE COMPOUND DETAIL ASSIGNMENT	Reference	Defines the semantics of aggregating COMPOUND RESOURCE (page 2-54)s using aggregation. It associates the various components. Also see the TMF SID and the DEN-ng system for more details. See also COMPOUND RESOURCE DETAIL (page 2-54).
COMPOUND RESOURCE DETAIL	Reference	Defines the semantics of the COMPOUND RESOURCE (page 2-54) aggregation. Compound Element Detail is abstract, because only its subclasses should be instantiated. There are three concrete subclasses of this class, which are used to represent the aggregation of PHYSICAL RESOURCE (page 2-133), LOGICAL RESOURCE (page 2-102), and COMPOUND RESOURCE (page 2-54) into this particular COMPOUND RESOURCE (page 2-54).
COMPOUND RESOURCE DETAIL TYPE	Lookup	The various types for a COMPOUND RESOURCE DETAIL (page 2-54). For example: • PHA: Physical Aspect • LGA: Logical Aspect • OTHA: Other Aspect
COMPOUND RESOURCE PHYSICAL DETAIL	Reference	This is a concrete entity that defines the semantics of aggregating PHYSICAL RESOURCE (page 2-133) into a COMPOUND RESOURCE (page 2-54).

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
COMPOUND RESOURCE ROLE	Reference	This entity is a role that is defined by the interaction between PHYSICAL RESOURCE ROLE (page 2-133)s and LOGICAL RESOURCE ROLE (page 2-102). There must be at least one or more PHYSICAL RESOURCE ROLE (page 2-133)s and one or more LOGICAL RESOURCE ROLE (page 2-102) to form a Compound Element Role. However, neither a PHYSICAL RESOURCE ROLE (page 2-133) nor a Logical Element Role has to belong to a Compound Resource Role.
COMPOUND RESOURCE ROLE ASSIGNMENT	Reference	Implements the relationship between COMPOUND RESOURCE (page 2-54) and network element role.
COMPOUND RESOURCE ROLE SPEC	Reference	Specification of COMPOUND RESOURCE ROLE (page 2-55): it details the common characteristics of a COMPOUND RESOURCE ROLE (page 2-55).
COMPOUND RESOURCE SPEC	Reference	This is the abstract base entity that defines the invariant characteristics and behavior, attributes, methods, constraints, and relationships, of a COMPOUND RESOURCE (page 2-54). The key difference between a Compound Resource Spec and either a PHYSICAL RESOURCE SPECIFICATION (page 2-134) and a LOGICAL RESOURCE SPECIFICATION (page 2-102) is that a PHYSICAL RESOURCE SPECIFICATION (page 2-134) and LOGICAL RESOURCE SPECIFICATION (page 2-102) define templates for specifying the invariant characteristics and behavior of PHYSICAL RESOURCE (page 2-133)s and LOGICAL RESOURCE (page 2-102)s, respectively. In contrast, a Compound Resource Spec describes templates that contain at least one PHYSICAL RESOURCE SPECIFICATION (page 2-134) and at least one LOGICAL RESOURCE SPECIFICATION (page 2-102). Optionally, one or more Compound Resource Specs may also be specified. Thus, a Compound Resource Spec is in effect a "shorthand notation" for specifying complementary PHYSICAL RESOURCE SPECIFICATION (page 2-134)s and LOGICAL RESOURCE SPECIFICATION (page 2-102)s.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
COMPOUND RESOURCE SPECIFICATION ATOMIC	Reference	This entity describes specific attributes, behavior, relationships, constraints, and semantics for building COMPOUND RESOURCE (page 2-54) objects. The purpose of this entity is to track specifications of COMPOUND RESOURCE (page 2-54)s separately from other types of Resource Specifications. This entity inherits the Modifies Resource Spec aggregation, and therefore can be used with the corresponding COMPOUND RESOURCE (page 2-54) entity. The key difference between a COMPOUND RESOURCE SPEC (page 2-55) and either a PHYSICAL RESOURCE SPECIFICATION (page 2-134) and a Logical Resource Type is that a PHYSICAL RESOURCE SPECIFICATION (page 2-134) and Logical Resource Type define templates for specifying the invariant characteristics and behavior of PHYSICAL RESOURCE (page 2-133)s and LOGICAL RESOURCE (page 2-102)s, respectively. In contrast, a COMPOUND RESOURCE SPEC (page 2-55) describes templates that contain at least one PHYSICAL RESOURCE SPECIFICATION (page 2-134) and at least one Logical Resource Type. Optionally, one or more COMPOUND RESOURCE SPEC (page 2-55)s may also be specified. The difference between a Compound Resource Spec Atomic entity and a COMPOUND RESOURCE SPECIFICATION COMPOSITE (page 2-57) entity is that a Compound Resource Spec Atomic entity is designed to be a standalone entity. Note that it still aggregates at least one PHYSICAL RESOURCE SPECIFICATION (page 2-134) and at least one Logical Resource Type; however, the result is that this Compound Resource Spec Atomic entity can be used by itself.) In contrast, a COMPOUND RESOURCE SPECIFICATION COMPOSITE (page 2-57) entity is made up of one or more COMPOUND RESOURCE SPEC (page 2-55)s, one of which must be a Compound Resource Spec Atomic entity.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
COMPOUND RESOURCE SPECIFICATION COMPOSITE	Reference	This entity describes specific attributes, behavior, relationships, constraints, and semantics for building composite COMPOUND RESOURCE (page 2-54) objects. The purpose of this entity is to track specifications of COMPOUND RESOURCE (page 2-54)s separately from other types of Resource Specifications.
		This entity inherits the modifies Resource Spec aggregation, and therefore can be used with the corresponding COMPOUND RESOURCE (page 2-54) entity. The key difference between a COMPOUND RESOURCE SPEC (page 2-55) and either a PHYSICAL RESOURCE SPECIFICATION (page 2-134) and a Logical Resource Type is that a PHYSICAL RESOURCE SPECIFICATION (page 2-134) and Logical Resource Type define templates for specifying the invariant characteristics and behavior of PHYSICAL RESOURCE (page 2-133)s and LOGICAL RESOURCE (page 2-102)s, respectively. In contrast, a COMPOUND RESOURCE SPEC (page 2-55) describes templates that contain at least one PHYSICAL RESOURCE SPECIFICATION (page 2-134) and at least one Logical Resource Type. Optionally, one or more COMPOUND RESOURCE SPEC (page 2-55)s may also be specified. The difference between a COMPOUND RESOURCE SPECIFICATION ATOMIC (page 2-56) entity and a Compound Resource Spec Composite entity is that a COMPOUND RESOURCE SPECIFICATION COMPOSITE (page 2-57) entity is designed to be a standalone entity. (Note that it still aggregates at least one PHYSICAL RESOURCE SPECIFICATION (page 2-134) and at least one Logical Resource Type; however, the result is that this COMPOUND RESOURCE SPECIFICATION ATOMIC (page 2-56) entity can be used by itself.) In contrast, a Compound Resource Spec Composite entity is made up of one or more COMPOUND RESOURCE SPEC (page 2-55)s, one of which must be a COMPOUND RESOURCE SPECIFICATION COMPOSITE (page 2-57) entity.
COMPOUND RESOURCE TP DETAIL	Reference	Concrete entity that links TERMINATION POINT (page 2-206) to COMPOUND RESOURCE (page 2-54). For example, it will describe characteristics and behavior of the TERMINATION POINT (page 2-206)s that comprise this particular Resource Port in terms of dependencies and how a TERMINATION POINT (page 2-206) interacts with other TERMINATION POINT (page 2-206)s.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
COMPOUND RESOURCE UNIT	Reference	A Resource Unit is an entity that is individually manageable. The Compound Resource Unit is an aggregate entity consisting of both physical and logical aspects of a managed Resource. For example, a ROUTER (page 2-180) is a Resource Unit. Different PHYSICAL RESOURCE (page 2-133) objects can model the physical aspects of the ROUTER (page 2-180) in detail. For example, its CARD (page 2-46)s, the number and type of PHYSICAL PORT (page 2-133)s that are on each CARD (page 2-46), and so forth), and different LOGICAL RESOURCE (page 2-102) objects can model the logical aspects of the ROUTER (page 2-180) in detail (For example, what Software it is running, how many DEVICE INTERFACE (page 2-70)s of what type are currently enabled, if there are any outstanding Faults or Alarms, and so forth). Resource aggregates all PHYSICAL RESOURCE (page 2-133) and LOGICAL RESOURCE (page 2-102) objects, enabling a high-level view of the physical and logical aspects of the Resource to be provided.
CONFIGURABLE PRODSPECCHARRACTERISTIC PRODSPECIFICATION ASSIGNMENT	Reference	Assigns one or more CONFIGURABLE PRODUCT SPECIFICATION CHARACTERISTIC (page 2-58)s to a PRODUCT SPECIFICATION (page 2-158). Multiple products may have the same CONFIGURABLE PRODUCT SPECIFICATION CHARACTERISTIC (page 2-58)s.
CONFIGURABLE PRODUCT SPECIFICATION CHARACTERISTIC	Reference	Available features that may be associated with one or more PRODUCT SPECIFICATION (page 2-158)s. For example, for a handset there are features such as: • MP3 indicator • MIDIindicator • 3G indicator • JAVA indicator • GSM 1800 indicator
CONNECTION	Reference	This is a class of managed objects responsible for the transparent transfer of information between CONNECTION TERMINATION POINT (page 2-58)s. A Connection is a component of a Trail. Several connections can be bundled into a higher rate trail. A sequence of one or more Connections are linked to form a Trail. A Connection may be either uni- or bi-directional.
CONNECTION TERMINATION POINT	Reference	This is an actual or potential end point of a Network connection. For example, this can represent a logical channel or a timeslot on a physical link. All PHYSICAL PORT (page 2-133)s connect to at least one type of CTP.
CONNECTIVITY ADJACENCY GRAPH ASSIGNMENT		Association expresses the fact that an adjacency Graph which is expressing intent is realized by a Connectivity Graph representing actual and concrete connectivity. (abstract table, not physicalized).
CONNECTIVITY GRAPH	Reference	A relation within a Graph between a set of origin vertices toward a set of destination vertices (abstract entity).

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CONSEQUENCE PERFORMANCE NOTIFICATION	Reference	A communication that occurs as part of a PERFORMANCE CONSEQUENCE (page 2-128). A Notification is typically one-sided, in that no Response is expected. For example, an alert be raised as the result of a PERFORMANCE OBJECTIVE (page 2-129) being violated.
CONSEQUENCE PERFORMANCE NOTIFICATION SPEC	Reference	The invariant characteristics that define a communication (notification) that occurs as part of a PERFORMANCE CONSEQUENCE (page 2-128). A Notification is typically one-sided, in that no Response is expected. For example, an alarm may be raised as the result of a PERFORMANCE OBJECTIVE (page 2-129) being violated.
CONTACT CENTER DAY DERIVED	Derived	Specifies customer contact statistics. The customer contacts are analyzed.
CONTACT LIST	Reference	Lists of potential and existing CUSTOMER (page 2-62)s for CAMPAIGN (page 2-44)s. Contact lists can be created by the TELCO from marketing activity, running certain models, or obtained from another organization.
CONTACT LIST CHANGE REASON	Lookup	Lookup for possible reasons for changing the CONTACT LIST (page 2-59).
CONTACT LIST COST	Base	Subtype of COST (page 2-60), which applies to a specified CONTACT LIST (page 2-59) (usually this is a cost associated with the purchase and maintenance of a contact list).
CONTACT LIST RECURRENCE TYPE	Lookup	A categorization of the recurrence of a CONTACT LIST (page 2-59). For example: • W = Once a Week • M = Once a Month • Y = Once a Year • MI = Once a Month with Invoice.
CONTACT MEDIUM	Lookup	Medium used to get into Contact with customer or third party in a business interaction. Typically phone, letter, fax, visit, or chat.
CONTACT ROLES	Lookup	Describes the various roles a contact individual may play in the relationship with the operator.
CONTENT	Reference	Keeps all downloadable content provided to the customer through the operator's network. For example: • Weather reports • Constellation • Jokes
CONTENT DELIVERY EVENT	Base	EVENT (page 2-76) in which content was downloaded.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CONTENT PRICE	Reference	Price for downloading/ordering the content. This price is for individual content clip. There might be other contents priced as a flat rate rather than different price for each content. In this case, the pricing information should be in PRODUCT OFFERING PRICE (page 2-155).
CONTENT PRICING TYPE	Lookup	Lookup for types of content pricing. For example: • Charge per download • Monthly fixed rate
CONTENT PROVIDER	Reference	Provider for content that would be consumed by end user. The contents could be video, audio clips, or text content.
CONTENT TYPE	Lookup	Lookup for content types. For example: • Constellation • Jokes • Weather report
CORE INTERFACE	Reference	Defines a DEVICE INTERFACE (page 2-70) role that functions as a Core Interface, that is, an interface in the core of the network. The objective of this role is to enable the definition of POLICY (page 2-135)s such that all Core Interfaces in a particular Domain can receive the same common configuration commands.
COST	Base	Costs that have been incurred from operations and events at trackable levels. For example: • Gift offer expense • Employee salary • Commission • Promotion delivery cost • Carrier billing charge (for roaming/LAC/and so on)
COST CENTER	Reference	Cost Center of a COURIER (page 2-61) or provider to which costs can be charged.
COST CENTER BUDGET	Base	The budget of each cost center at a specific financial period. The budget of each COST CENTER (page 2-60) at a specific financial period
COST CENTER DRVD	Derived	Statistics of all expenses by each business unit inside the carrier. It can be used for auditing and budgeting.
COST CENTER MONTH AGGR	Aggregate	Summary at month level of COST (page 2-60) associated with COST CENTER (page 2-60) and ORGANIZATION BUSINESS UNIT (page 2-117)s.
COST REASON	Lookup	Lookup of all possible reasons why the cost occurred. For example: • Natural disaster • Operator error

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
COST SUBTYPE	Lookup	Lookup to further classify COST TYPE (page 2-61)s. For example: • Acquisition cost • Retention cost • Salary • Damaged • New machine • Repair fee
COST TYPE	Lookup	Lookup for types of costs. For example, the cost is to the CUSTOMER (page 2-62), CHANNEL (page 2-48), COURIER (page 2-61), or to the EMPLOYEE (page 2-72) (Mobile Monthly Claim or Purchase).
COUNT DAY DRVD	Derived	Critical Aggregation Summary at day level of various measures (counts) at customer, account, agreement, Main Product Subscription, and Product Subscription level as a function of Customer Type, County, Organization Business Unit, Product Offer level and Product Specification Level (full Hierarchies). It collects summable measures (like number of new customers, new subscriptions, churners, and so on) over the day as well as non-summable measures, like number of active accounts (end of day), suspended subscriptions, and so on. The measures are supposed to be all at the end of the day considered.
COUNT MONTH AGGR	Aggregate	Similar to COUNT DAY DRVD (page 2-61) but at month level. The measures are supposed to be all at the end of the month considered (or the last past full day of data available of the current month).
COUPON SCAN	Lookup	Specifies the barcode on a store or manufacturer coupon. The coupon scan code comprises two parts: • The first is a fixed 12 character code that contains the manufacturer identification, family code, and coupon value. • The second is based on Code 128 and comprises up to 20 characters which specify the manufacturers number system character, the offer code, and end of offer code. The supplementary Code 128 was introduced as a guideline in 1997. These codes are included: Primary Label, Secondary Label, Coupon ID.
COUPON TYPE	Lookup	Lookup for type of coupon used.
COURIER	Reference	The party who provides the Courier service for the Telecom Operator.
COURIER COST	Base	Subtype of COST (page 2-60) which applies to a COURIER (page 2-61) for delivering products or invoices to the customer.

Table 2-1 (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CPE LOGICAL DEVICE ROLE	Reference	Defines required logical features to implement the specific role of a CPE (Customer Premise Edge) device, as used in a PRODUCT SPECIFICATION (page 2-158) or SERVICE (page 2-183).
CREDIT CATEGORY	Reference	List of credit categories available that may be assigned to customers. For example: • Excellent • Good • High risk
CREDIT SCORE PROVIDER	Reference	Provides reference financial rating scores for each customers to the service provider. This information is also called the "Credit Rating Agency".
CROSSED THRESHOLD	Reference	Indicates the identifier of the threshold that caused the alarm. It has to be in relation with a RESOURCE ALARM (page 2-171).
CURRENCY	Lookup	Lookup for currencies that may be used in a transaction.
CURRENCY EXCHANGE RATE	Base	Exchange rate against the primary currency, as determined by exchange rate type and value date.
CURRENCY GEOGRAPHY ENTITY ASSIGNMENT	Reference	Assigns currency usage to a geographic area.
CUSTOM QUEUING SERVICE	Reference	Custom Queueing enables the designer to specify a particular number of bytes, packets, or flows to forward from a specific Queue each time the Queue is serviced.
CUSTOM TABLE COLUMN CHARACTERISTIC	Reference	All the customers, including individual and organization customers. A customer is generally defined as a party using one or more services from the operator.
CUSTOMER	Reference	Information pertaining to customers.
CUSTOMER ACCOUNT	Reference	Account associated to a CUSTOMER (page 2-62) from a pure Retail shop perspective. It has otherwise the same behavior as ACCOUNT (page 2-25), but is specific to the retail view, to allow the possibility for the same customer to have two accounts: one for Retail, one for standard Telecommunications Provider (Billing and CRM) just in case they are separate and might not be easily conciliable upfront.
CUSTOMER ACQUISITION SUMMARY MONTH AGGR	Aggregate	Monthly summary of newly acquired customers by PRODUCT SPECIFICATION (page 2-158).
CUSTOMER ADDRESS	Reference	Address associated with a customer as given to the Retail Unit in contact with customer.
CUSTOMER AFFILIATION	Reference	Associates a CUSTOMER (page 2-62) with a CUSTOMER GROUP (page 2-65).

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CUSTOMER CHURN MONTH AGGR	Aggregate	Summary of churners per month by reason.
CUSTOMER CLASS	Lookup	Lookup for Customer Classification codes. For example: • HLCU-High Local Call Usage Customers • HNCU-High National Call Usage Customers • HINCU-High InterNational Call Usage Customers
CUSTOMER CLASS ASSIGNMENT	Reference	Assign customer to a customer class. A customer may belong to different customer classes because of their usage behavior at different times, therefore customer to customer class is a many to many relationship.
CUSTOMER CLUSTER	Reference	Identifies the cluster that the CUSTOMER (page 2-62) falls into, based on buying behavior.
CUSTOMER CLUSTER TYPE	Lookup	Define types of CUSTOMER CLUSTER (page 2-63).
CUSTOMER COMMENT	Data Mining	Specifies storing concatenated customer comments in last 1 year, customer comments' score, and so on.
CUSTOMER COMMUNITY	Reference	The Customer Communities identified by mining algorithm.
CUSTOMER COST	Base	Subtype of COST (page 2-60) which applies to a customer. For example, the cost of a gift that is sent to a customer.
CUSTOMER COST DRVD	Derived	Statistics of various costs incurred to the customer. This information is important from the analysis point of view. For example, subscriber acquisition cost, subscriber retention cost, and so on.
CUSTOMER COST MONTH AGGR	Aggregate	Statistics of various costs incurred to the customer. These details are important for analysis such as: • Subscriber retention cost • Subscriber acquisition cost
CUSTOMER DEBT COLLECTION MONTH AGGR	Aggregate	Summary of customer in debt per month (status at the end of the month or latest past full day of the current month).
CUSTOMER DECISION TREE NODE	Reference	Mining target entity to store Decision Tree mining model details.
CUSTOMER DNA DRVD	Derived	The D.N.A of the customer at month level collects any information available about the customer (socio-demographic data, products, purchase, payment and recharge behavior, call behavior, interactions with call center and support, issues, complains, and so on, for mining purposes.
CUSTOMER DOCUMENT	Reference	Various types of customer proof documents provided for a CUSTOMER ORDER (page 2-66), AGREEMENT (page 2-33), and so on.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CUSTOMER EQUIPMENT INSTALLATION DAY DRVD	Derived	Statistics related to customer equipment installation activities for each customer. These statistics typically include: modems, routers, or DSL boxes for internet and Television equipment
CUSTOMER EQUIPMENT INSTALLATION MO AGGR	Aggregate	Monthly summary of customer equipment installation activities. These statistics typically include: modems, routers, or DSL boxes for internet and Television equipment.
CUSTOMER FACING SERVICE	Reference	This is the base entity for defining CUSTOMER FACING SERVICE (page 2-64)s. A CUSTOMER FACING SERVICE (page 2-64) is an abstraction that defines the characteristics and behavior of a particular SERVICE (page 2-183) as seen by the Customer or other appropriate PARTY ROLE (page 2-124). Thus, this PARTY ROLE (page 2-124) purchases, leases, uses, and is otherwise directly aware of this type of SERVICE (page 2-183). This is in direct contrast to RESOURCE FACING SERVICE (page 2-173)s which support CUSTOMER FACING SERVICE (page 2-64)s but are not seen or purchased directly by the Customer. For example, a VPN is an example of a CUSTOMER FACING SERVICE (page 2-64), while the sub-services that perform different types of routing between network devices making up the VPN are examples of RESOURCE FACING SERVICE (page 2-173)s.
CUSTOMER FACING SERVICE ROLE	Reference	Defines a SERVICE (page 2-183) in terms of a set of SERVICE ROLE (page 2-191)s for a CUSTOMER FACING SERVICE (page 2-64). This entity defines SERVICE ROLE (page 2-191)s that represent the variable characteristics of a CUSTOMER FACING SERVICE (page 2-64) in terms of the roles that this SERVICE (page 2-183) plays. This entity enables the CUSTOMER FACING SERVICE (page 2-64) to be managed abstractly using SERVICE ROLE (page 2-191)s. The Customer Facing Service Role also helps define the SERVICE (page 2-183) in terms of the functions that it has or provides.
CUSTOMER FACING SERVICE SPECIFICATION	Reference	Specifies the invariant characteristics and behavior of a particular CUSTOMER FACING SERVICE (page 2-64) as seen by the CUSTOMER (page 2-62).
CUSTOMER FACING SERVICE SPECIFICATION ATOMIC	Reference	This entity defines CUSTOMER FACING SERVICE SPECIFICATION (page 2-64)s that do not have any subordinate CUSTOMER FACING SERVICE SPECIFICATION (page 2-64)s. In other words, a Customer Facing Service Spec Atomic is a standalone CUSTOMER FACING SERVICE SPECIFICATION (page 2-64), and does not require any supporting CUSTOMER FACING SERVICE SPECIFICATION (page 2-64)s to define the invariant characteristics (that is, non-changing attributes, methods, relationships, and constraints) of any CUSTOMER FACING SERVICE (page 2-64)s that it serves as a template for.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CUSTOMER FACING SERVICE SPECIFICATION COMPOSITE	Reference	This entity defines an integrated set of CUSTOMER FACING SERVICE (page 2-64)s that collectively meets the needs of a SERVICE (page 2-183) requested by a Customer. For example, the Customer may have requested GoldService, which is a SERVICE PACKAGE (page 2-188) that defines a set of SERVICE BUNDLE (page 2-184)s, each of which has its own QoS. Each individual CUSTOMER FACING SERVICE (page 2-64) that is part of the SERVICE PACKAGE (page 2-188) can be derived from a CUSTOMER FACING SERVICE SPECIFICATION (page 2-64). In this case, a Customer Facing Service Spec Composite will aggregate all of the individual CUSTOMER FACING SERVICE SPECIFICATION (page 2-64)s into a single named object. This object is a standalone object. However, it consists of other Customer Facing Service Spec Composite and/or the CUSTOMER FACING SERVICE SPECIFICATION ATOMIC (page 2-64) entities. That is the primary difference between this entity and the Customer Facing Service Spec Atomic entity.
CUSTOMER FACING SERVICE SPECIFICATION ROLE	Reference	Defines a Service Specification, in terms of a set of Service Specification Roles, for a CUSTOMER FACING SERVICE (page 2-64). This is the base entity for defining Service Specification Roles that are used to represent the invariant characteristics of a CUSTOMER FACING SERVICE (page 2-64). This entity enables the CUSTOMER FACING SERVICE (page 2-64) to be managed abstractly using Service Specification Roles. The Customer Facing Service Spec Role also helps define the Service Specification in terms of the functions that it has or provides.
CUSTOMER FACING SERVICE SPECIFICATION VERSION	Reference	Keeps the historical versions of CUSTOMER FACING SERVICE SPECIFICATION (page 2-64).
CUSTOMER FIELD SERVICE ACTIVITY	Base	On site installation for the customer with particular equipment instance.
CUSTOMER FIELD SERVICE DETAIL	Base	Details regarding customer service.
CUSTOMER GROSS ORDER QUARTERLY	Aggregate	This entity gives order measures (number of orders and total order amount) in same quarters of consecutive years. For example: • Order measures of Jan 2012 and Jan 2013 • Order measures of Dec 2011 and Dec 2012 Provides information on order measures varying year over year.
CUSTOMER GROUP	Lookup	The lookup code for grouping the customers based on criteria defined by the service operator.
CUSTOMER GROUP ASSIGNMENT	Reference	A grouping of the customers based on criteria defined by the service operator.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CUSTOMER GROUP ITEM	Reference	The list of criteria used to group the CUSTOMER (page 2-62)s under a specific CUSTOMER GROUP (page 2-65).
CUSTOMER INDIVIDUAL	Reference	Subtype of CUSTOMER (page 2-62) (and PARTY (page 2-120)), which contains details of individuals as opposed to organizations.
CUSTOMER OCCASION	Reference	Event celebrated or observed by a customer. For example: • Birthday • Anniversary • Company establishment day
CUSTOMER OCCASION TYPE	Lookup	Lookup for occasion type. For example: Wedding Anniversary, Birthday, Company founding anniversary, and so on.
CUSTOMER ORDER	Base	Orders placed by customers. This customer order is currently for service providers shop service, where a customer can place an order for a handset, a broadband installation request, or make some other order.
CUSTOMER ORDER DAY DERIVED	Derived	Daily summary of CUSTOMER ORDER (page 2-66)s and their status (end of the corresponding day).
CUSTOMER ORDER DOCUMENT	Reference	The document provided while submitted CUSTOMER ORDER (page 2-66).
CUSTOMER ORDER LINE ITEM	Base	Details regarding items in the CUSTOMER ORDER (page 2-66).
CUSTOMER ORDER LINE ITEM DAY DERIVED	Derived	Summary of the details of CUSTOMER ORDER LINE ITEM (page 2-66) status, per day. It allows identifying typical or recurrent issues in specific order types on specific items.
CUSTOMER ORDER LINE ITEM STATE ASSIGN	Base	Current state of an order line item.
CUSTOMER ORDER MONTH AGGR	Aggregate	Summarizes orders placed by customers at month level of aggregation. Using this entity, order measures (number of orders and total order amount) across order status, order type, product, product type dimensions can be computed
CUSTOMER ORDER PAYMENT	Base	Payments applied to a CUSTOMER ORDER (page 2-66).
CUSTOMER ORDER PRIORITY TYPE	Lookup	Lookup for possible priorities which can be assigned to a CUSTOMER ORDER (page 2-66).
CUSTOMER ORDER STATE ASSIGNMENT	Base	Current state of a CUSTOMER ORDER (page 2-66).
CUSTOMER ORDER STATE CHANGE REASON	Lookup	All type of reason for customer order state and customer order line item state changes.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CUSTOMER ORGANIZATION	Reference	Subtype of CUSTOMER (page 2-62) (and PARTY (page 2-120)), which contains details of organizations as opposed to individuals. An organization can also consist of one individual only (for example: independent).
CUSTOMER PREFERENCE	Reference	Merchandise preferences of a Key Customer, for classes of items or other general categories. It can be extended to more than just goods.
CUSTOMER PRODUCT AFFILIATION	Derived	Mining target entity to store prediction results of target promotion mining model.
CUSTOMER RELATIONSHIP	Reference	Association between CUSTOMER (page 2-62)s. Information regarding the CUSTOMER (page 2-62) or PROSPECT (page 2-165) that is restricted to comply with privacy and other laws. This table is encrypted. For example: associating the Husband-Wife relationship.
CUSTOMER RELATIONSHIP TYPE	Lookup	Lookup for types of relationships that may exist between CUSTOMER (page 2-62)s. For example: • Married • Employee-employer • Parent-child
CUSTOMER RESTRICTED INFO	Reference	Detail information about a customer that may be deemed private.
CUSTOMER REVENUE BAND	Lookup	Entity contains a customer classification in revenue terms. For example: Customer with charges between $100 to $200.
CUSTOMER REVENUE BAND ASSIGNMENT	Reference	Assigns a revenue band to a customer.
CUSTOMER REVENUE TYPE	Lookup	Lookup for types of revenue a customer may bring to the operator. For example: • Recharging • Rent fee • One time equipment purchase
CUSTOMER RFMP SCORE	Derived	Recency, Frequency, Monetary, and Profitability Value Score of a CUSTOMER (page 2-62), by ORGANIZATION BUSINESS UNIT (page 2-117).
CUSTOMER SCORE	Reference	Scores or Score ranges that may be assigned to a customer based on credit, behavior, or other criteria. For example: • 1, 2, 3, 4, 5 • 1-10, 11-20
CUSTOMER SEGMENT	Reference	Market or customer segments to which customer may be assigned.
CUSTOMER SEGMENT DETAIL	Reference	Specifies details for storing each customer segment derived from segmentation mining model.

Table 2-1   (Cont.) A to C Entity Descriptions

Entity Name	Type	Description
CUSTOMER SEGMENTATION MODEL	Reference	The segmentation model used to profile the customers. For example: • KMeans by Revenue from Market Department • O-Clustering by IT department
CUSTOMER SENTIMENT MANUAL SCORE	Derived	Specifies predefined dictionary to manually score customers' comments.
CUSTOMER SIC ASSIGNMENT	Reference	Assigns SIC/NASIC code to customers.
CUSTOMER SKU SALES RETURN DAY DRVD	Derived	SKU ITEM (page 2-197) purchases and returns by CUSTOMER (page 2-62) for an ORGANIZATION BUSINESS UNIT (page 2-117).
CUSTOMER SOURCE	Reference	Initial source or contact with customer. For example: • Sales campaign • Advertisement • Call center • Dealer
CUSTOMER STATUS REASON	Lookup	List of the possible REASON (page 2-169)s for setting a customer in a given status.
CUSTOMER TYPE	Lookup	Lookup for type of customer. For example: Individual or Corporate.

Table 2-2   D to F Entity Descriptions

Entity Name	Type	Description
DATA SERVICE EVENT	Base	Data Service Events. For example • Fixed Line modem dial • Broadband access • GPRS service
DATA USAGE DAY DRVD	Derived	Daily aggregate of data usage.
DATA USAGE MONTH AGGR	Aggregate	Monthly aggregate of data usage.
DAY	Reference	Defines day, the lowest level of all calendars.
DAY ACTUAL CONDITION	Reference	Weather, external and internal conditions that may have impacted performance on a given day at a given location.
DAY TODATE TRANSFORMATION	Reference	Documents how todate transformation can be implemented at day level.
DAY TRANSFORMATION	Reference	Transformation for a day. For example, maps a day last year to a corresponding day this year, or a day last year, to a day last month, and so on.

Table 2-2   (Cont.) D to F Entity Descriptions

Entity Name	Type	Description
DEAL	Reference	A deal refers to a special offer from a supplier to the telecom provider. The deal generally provides allowances, discounts, special favorable terms of payment or other incentives to motivate the service provider to buy more products or services from a supplier.
DEAL LINE ITEM	Reference	Identifies a specific product or service that is offered as part of a deal to the service provider and defines how the deal cost is to be handled.
DEALER	Reference	The PARTY (page 2-120) who resells products from the operator.
DEALER DISCOUNT GROUP ASSIGNMENT	Reference	Assigns DEALER (page 2-69) to a discount group(s).
DEBT AGING BAND	Lookup	Ranges of time used to group debt based on the age of the debt. For example: • 0-90 days • 91-180 days
DEFICIT ROUND ROBIN SCHEDULING SERVICE	Reference	Provide weighted fair distribution of bandwidth for multiple Queues that contain variable-length packets.
DEMOGRAPHIC CHARACTERISTIC	Reference	A feature or quality used to make recognizable or to define somebody or something, such as age, income, education, revenue, and so forth.
DEMOGRAPHIC CHARACTERISTIC ASSIGNMENT	Reference	Relates two demographic characteristics (typically, parent child relationship).
DEMOGRAPHIC CHARACTERISTIC VALUE	Reference	A single value or range of values that defines a DEMOGRAPHIC CHARACTERISTIC (page 2-69).
DEMOGRAPHY ATTRIBUTE	Reference	User defined demographic attributes that can be assigned values.
DEMOGRAPHY GROUP	Reference	The domain of classifications used to group profile information about a PARTY (page 2-120). For example: • CH - Credit History • ED- Education • EM - Employment • EQ- Equipment • HB - Hobbies • HH - Household • OR - Organization And other relevant demographics and psychographics.
DERIVED VALUE	Reference	Derived value of the customer based on predetermined criteria.

Table 2-2   (Cont.) D to F Entity Descriptions

Entity Name	Type	Description
DESTINATION TYPE	Lookup	Lookup for the types of destination associated with CALL SOURCE DESTINATION (page 2-44). For example: • National Fixed • National Mobile • International Fixed • International Mobile
DEVICE INTERFACE	Reference	This is a concrete entity that represents the (logical) interface or sub-interface of a device. This entity is not a transmission entity; rather, DEVICE INTERFACE (page 2-70)s are used to program SERVICE (page 2-183)s and LOGICAL RESOURCE (page 2-102)s on a Device. For example, use a Device Interface to program a logical connection from a device to a network medium. Different types of Device Interfaces exist for the different types of network media. For example IP compared with ATM, that are used in a network to enable such media to be programmed. The combination of a LOGICAL DEVICE (page 2-100) and a Device Interface is what a developer programs to define SERVICE (page 2-183)s that run on the device.
DEVICE INTERFACE DETAIL	Reference	In general, there are multiple ways to manage a DEVICE INTERFACE (page 2-70). The first distinction lies in what is being managed. the model defines two types of management commands categories: configuration and operational. Configuration commands are used to configure the DEVICE INTERFACE (page 2-70) (and also the LOGICAL DEVICE (page 2-100) for commands that affect multiple specific DEVICE INTERFACE (page 2-70)s). Operational commands are used to monitor and troubleshoot the software, network connectivity, and the Device itself.
DEVICE INTERFACE PHYSICAL PORT ASSIGNMENT	Lookup	Defines which PHYSICAL PORT (page 2-133) can support which DEVICE INTERFACE (page 2-70).
DEVICE INTERFACE ROLE	Reference	Represents different types of roles that can be associated with a particular DEVICE INTERFACE (page 2-70).
DEVICE INTERFACE TP ASSIGNMENT	Reference	Defines the relationship between DEVICE INTERFACE (page 2-70) and TERMINATION POINT (page 2-206).
DIFFSERV SERVICE	Reference	Semantics that define how traffic is forwarded based on the value of the DSCP (DiffServ Code Point) of a packet.
DIRECT DEBIT STATUS REASON	Lookup	Lookup for the various reasons the current status is direct debit payment. For example: • Customer preferred choice: when the customer does not want to use a credit card. • Customer imposed: which means the CSP imposes this status after problems with credit card or cash payments.
DIRECTED EDGE	Reference	A relation within a Graph between a set of origin vertices toward a set of destination vertices.

Table 2-2   (Cont.) D to F Entity Descriptions

Entity Name	Type	Description
DIRECTED EDGE VERTEX RELATIONSHIP	Reference	Relationship between vertices and Directed Edge.
DISCOUNT GROUP	Reference	Discount groups that employees or partners may be a part of.
DISCOUNT LINE ITEM	Base	Line Item associated with discounts in a retail transaction.
DISCOUNT SUBSCRIPTION PRICE ALTERATION	Reference	A discount, a reduction of price, for a PRODUCT SUBSCRIPTION (page 2-161).
DISPOSITION TYPE	Lookup	Denotes what disposition a returned item was in. For example: • Return to vendor • Return to stock • Write off
DISTANCE BAND	Lookup	Distance ranges to characterize UDR EVENT (page 2-208)s by geographical distance.
DIVERT RETRIEVE REASON	Lookup	Lookup for all reasons for diverting a call or retrieving a call from a Mailbox. For example: • Line busy (divert) • Line off (divert) • No answer (divert) • Customer originated (divert / retrieve) • Mailbox originated (retrieve only)
DIVERT RETRIEVE TYPE	Lookup	Lookup for types for diverting a call or retrieving a call. For example: • Divert • Retrieve Subscriber's calls are diverted to voice mail or to a Unified Messaging Service (UMS) mailbox as specified by the subscriber instructions or settings. For example, calls can be diverted when a subscriber is busy on another call, or when the subscriber has switched off the handset, or when a subscriber is not reachable. The subscriber can later retrieve all calls that are stored on the mailbox by accessing the mailbox through specified numbers or using the Internet, in case of UMS. All this traffic generated by diverted calls and retrieved calls is to be analyzed based on the type of call such as diverted or retrieved. The Divert Retrieve type helps in achieving this analysis by organizing calls as diverted or retrieved calls.
DOCUMENT CONDITION TYPE	Lookup	Lookup for possible document condition types. For example: • Complete • Incomplete • Unavailable

Table 2-2   (Cont.) D to F Entity Descriptions

Entity Name	Type	Description
DOCUMENT TYPE	Lookup	Lookup for document types. For example: • Driver license photocopy • Address certification • Bank card photocopy
DOCUMENT TYPE GROUP	Lookup	The group of DOCUMENT TYPE (page 2-72)s of which customer may provide to service provider for identification. For example: • Mandatory Document • Legal Requirement • Income Proof Document
DOCUMENT TYPE GROUP ASSIGNMENT	Reference	Assigns different DOCUMENT TYPE (page 2-72)s into different DOCUMENT TYPE GROUP (page 2-72)s.
DOMAIN	Reference	Domain from a web portal point of view.
DOMAIN TYPE	Lookup	Type of DOMAIN (page 2-72) (web related).
DROPPER SERVICE	Reference	Specifies the dropper service. Droppers are distinguished by the algorithm that they use to drop traffic.
DSL MODEM	Reference	The xDSL modem to implement Broadband on copper wire (router). The DSLAM (Digital Subscriber Line Access Multiplexer) aggregates multiple xDSL users into the core IP network.
EDGE INTERFACE	Reference	Defines a DEVICE INTERFACE (page 2-70) role that functions as an Edge Interface; that is, an interface on the edge of the network. The objective of this role is to enable the definition of POLICY (page 2-135)s such that all Edge Interfaces in a particular Domain can receive the same common configuration commands.
EDUCATION	Lookup	Demographic education levels that may be assigned to customers.
EF SERVICE	Reference	Specifies the policy to forward network traffic by adding specific semantics that characterize the operation of the Expedited Forwarding (EF) Service (RFC3246 and RFC3247).
EMAIL ADDRESS	Reference	List of email addresses as a generalization of ADDRESS LOCATION (page 2-30). Typically used for Retail shops.
EMAIL SERVICE	Reference	Specifies all the Email mail boxes allocated to CUSTOMER (page 2-62).
EMPLOYEE	Reference	Subtype of individual indicating an employee of the provider.
EMPLOYEE ACTUAL LABOR HOURLY	Base	Worked shifts by hourly employees.
EMPLOYEE ACTUAL LABOR SALARIED	Base	Worked shifts by salaried employees.

Table 2-2   (Cont.) D to F Entity Descriptions

Entity Name	Type	Description
EMPLOYEE COST	Base	Subtype of COST (page 2-60), which applies to employee. For example, salary and bonus for employee.
EMPLOYEE DESIGNATION	Lookup	The various designations present in an organization for the employees. For example: • Call Center Agent • Manager Customer Care • Consultant • Principal Consultant
EMPLOYEE DISCOUNT GROUP ASSIGNMENT	Reference	Assigns EMPLOYEE (page 2-72) to DISCOUNT GROUP (page 2-71)(s).
EMPLOYEE EXPENSE REPORT	Base	The expense reports submitted by employees, including contractors, to claim their business expenses. The EMPLOYEE (page 2-72) (Party) and PAYMENT CHANNEL (page 2-127) (channel) are captured by its super entity EVENT (page 2-76). The expense submit date is the event begin date.
EMPLOYEE EXPENSE REPORT ITEM	Base	The detail line item of each EMPLOYEE EXPENSE REPORT (page 2-73).
EMPLOYEE EXPENSE REPORT STATE	Base	The different state of a given EMPLOYEE EXPENSE REPORT (page 2-73). For example: • Submitted • Pending Approval • Approved • Paid
EMPLOYEE JOB ROLE ASSIGNMENT	Reference	Assigns EMPLOYEE (page 2-72) to JOB ROLE (page 2-98) (s).
EMPLOYEE JOB ROLE TYPE	Lookup	Relevance of job role assignment to employee. For example: Primary, Secondary, and so on.
EMPLOYEE LANGUAGE CAPABILITY	Reference	Specifies the languages the employee can use to serve customers, especially for call center agents and sales representatives.
EMPLOYEE RESTRICTED INFO	Reference	Detail information about the EMPLOYEE (page 2-72) that may be deemed private.
EMPLOYEE SCHEDULE	Reference	Planned staffing schedule of location, role, shift, and employees.
EMPLOYEE TRAINING RECORD	Base	List the trainings an employee has received. The employee training record is normally meant to apply to the call center agent, who is trained on specific products and or services.
EMPLOYEE TYPE	Lookup	Lookup of employee type. For example: • Part-Time • Contractual • Full-Time

Table 2-2   (Cont.) D to F Entity Descriptions

Entity Name	Type	Description
ENROLL CHANNEL	Lookup	Channel through which a customer gets enrolled into a LOYALTY PROGRAM (page 2-103).
ENROLL TYPE	Lookup	Type of ENROLL CHANNEL (page 2-74).
ENTITY	Reference	This entity represents entities that cannot be directly managed. For example, a hub.
ENTITY ROLE	Reference	This is an abstract base entity that defines the concept of various types of roles for entities that describe the function of the entities.
ENTITY SPECIFICATION	Reference	This is an abstract base entity that defines the invariant characteristics, attributes, methods, constraints, and relationships, of another entity.
ENTRY METHOD	Lookup	Lookup for method used of entering transaction data. For example: • Entry Through Key • Entry Through Magnetic Ink Character Recognition • Entry Through MSR • Entry Through Scanning • Entry Through Smart Card
ENVIRONMENT TYPE	Lookup	Defines the temperature, relative humidity, lighting, and other physical or climatic environmental requirements for storing and displaying the item.
EQUIPMENT	Reference	The devices, delivered by COURIER (page 2-61) or collected at the DEALER (page 2-69) shop, that a CUSTOMER (page 2-62) can use to access services. The device might be Cell Phone, Fixed Line Phone, Fax Machine, and so on. The devices might be lent or sold to the customer. The equipment entity is a subtype of PRODUCT SPECIFICATION (page 2-158).
EQUIPMENT CENTER	Reference	Facility housing devices.
EQUIPMENT CENTER COST	Base	Subtype of COST (page 2-60), which collects all costs that are specifically related to a given EQUIPMENT CENTER (page 2-74) (facility rent, taxes, and so on).
EQUIPMENT FUNCTIONALITY	Reference	The function of the EQUIPMENT (page 2-74). For example: • Make wireless calls • Send SMS • Send MMS
EQUIPMENT FUNCTIONALITY ASSIGNMENT	Reference	Assigns functionality to EQUIPMENT (page 2-74).

Table 2-2   (Cont.) D to F Entity Descriptions

Entity Name	Type	Description
EQUIPMENT HOLDER	Reference	Represents physical objects that are both manageable and able to host, hold, or contain other physical objects. Examples of physical objects that can be represented by instances of this object class are RACK (page 2-169)s, CHASSIS (page 2-48)s, Shelves, and SLOT (page 2-198)s. The difference between subclasses of Equipment Holder, such as a SLOT (page 2-198) or a CHASSIS (page 2-48), and subclasses of EQUIPMENT (page 2-74) that have a Holder role, such as a CARD (page 2-46), is that the subclasses of Equipment Holder are dedicated to holding other Hardware. The subclasses of EQUIPMENT (page 2-74) that have a holder role have a holding capability as a secondary capability, usually for expansion. Their primary function, however, is not to hold other objects.
EQUIPMENT INSTANCE	Reference	Implement communications. For example: • Handset (with IMEI) • Land line phone (with serial number) • Set-top box • Cable modem
EQUIPMENT INSTANCE STATUS TYPE	Lookup	Lookup for type of specific equipment instance status type. For example: • Purchased from vendor • In inventory • In customer • Broken • Reserved
EQUIPMENT RENTING AGREEMENT	Reference	Sub-type of AGREEMENT (page 2-33) in which customer leases some equipment. Those equipment that still belong to the service provider. When the AGREEMENT (page 2-33) terminates, the device should be returned to service provider.
ERRORED FIXED LINE CALL EVENT	Base	Fixed Line CDRs that are with error (suspended by the rating system typically)
ERRORED GPRS USAGE EVENT	Base	GPRS CDRs that are with error (suspended by the rating system typically)
ERRORED MEDIATED CALL EVENT	Base	The errored/recycled mediated event record from billing engine.
ERRORED MMS EVENT	Base	MMS CDRs that are with error (suspended by the rating system typically)
ERRORED RATED WIRELESS CALL EVENT	Base	The errored/recycled rated event record from billing engine.
ERRORED RAW WIRELESS CALL EVENT	Base	The errored/recycled/rejected raw event record from the mediation process.
ERRORED SMS EVENT	Base	SMS CDRs that are with error (suspended by the rating system typically)

Table 2-2   (Cont.) D to F Entity Descriptions

Entity Name	Type	Description
ERRORED WIRELESS CONTENT DOWNLOADING EVENT	Base	Wireless content Download CDRs that are with error (suspended by the rating system typically)
ETHERNET INTERFACE	Reference	Lists of the various Ethernet Device Interfaces.
EVENT	Base	Describes the interactions with the Communications Service Provider. Event contains only "non-network" events (anything other than a call data record).
		An event can occur related to a provider. For example, for equipment down or a service disruption. An event can occur related to a CUSTOMER (page 2-62). For example, for a service order or a bill payment.
		Events store customer behavior to make special campaigns or to analyze the cost of customers. Normally an event incurs some cost and may generate revenue for the operator.
		The information specific to the type of event, or event interaction, is stored in corresponding event subtypes.
EVENT ACCESS METHOD ACTIVITY	Base	Occurrence of Access Method Usage.
EVENT ACCOUNT	Base	Events occurring on an account. For example: • Account create • Account suspension/resume • Line (account) termination attempted (convinced back by representatives) • Line termination
EVENT AGREEMENT	Base	Events related to agreement creation, cancellation, churn, or change, usually triggered after a business interaction.
EVENT ASSIGNMENT	Base	Describes relationship between unique events.
EVENT ASSIGNMENT REASON	Lookup	Lookup for all possible reasons why a relationship exists between two EVENT (page 2-76)s. For example: • Premise • Result in
EVENT ASSIGNMENT TYPE	Lookup	Lookup for all types of relationships between two EVENT (page 2-76)s.
EVENT CATEGORY	Lookup	Lookup for EVENT CATEGORY (page 2-76) which is further grouped into EVENT TYPE (page 2-80). For example: • Loyalty Program Event • Access Method Event
EVENT CIRCUIT RENTAL	Base	Subtype of "Non UDR Events", corresponding to the rental of a fixed line (broadband or phone line). The rental normally incurs charges for various type of activities. For example: • Initial Installation • Maintenance Check • Termination

Table 2-2   (Cont.) D to F Entity Descriptions

Entity Name	Type	Description
EVENT CLASS	Lookup	Lookup for the classification for the types of EVENT (page 2-76)s that can occur. For example: • IN: involves only Communications Service Provider • OUT: involves customer
EVENT COMPOSITE PRODUCT SPECIFICATION	Base	Events associated with an offer or COMPOSITE PRODUCT SPECIFICATION (page 2-53). Subtype of EVENT (page 2-76).
EVENT COST	Base	Subtype of COST (page 2-60), which is specifically related to a given EVENT (page 2-76). This cost is usually for a non-UDR event such as an interaction with a customer. For example, for on-site maintenance after a service issue or a break-down.
EVENT EMIT DETAIL	Reference	The expressions that determine what, if any, constraints are to be applied to this Policy Event Set. This entity also defines additional semantics to help identify the type of this event.
EVENT EMP ACTIVITY PARTY INTERACTION ASSIGNMENT	Base	Association of Employee activities with a list of event party interactions.it allows to defined exactly which employee did what with whom while doing some general activities... (like CALL CENTER ACTIVITY).
EVENT EMPLOYEE ACTIVITY	Base	Specifies the EMPLOYEE (page 2-72) activities (sales, installation, and so on). Subtype of EVENT (page 2-76).
EVENT EMPLOYEE PAYROLL	Base	Event in which payroll payment was made to an employee (excludes sales commission). Subtype of EVENT (page 2-76).
EVENT EQUIPMENT INSTANCE	Base	Events per instance of EQUIPMENT (page 2-74). Subtype of EVENT (page 2-76).
EVENT FINANCIAL	Base	Financial event involving an account or billing statement. Subtype of EVENT (page 2-76).
EVENT FLEXIBLE CHARACTERISTIC VALUE USE	Reference	A subtype entity of EVENT (page 2-76),it keeps all events ,which occurred for a specified Geographic Area which may affect the Business. For example, an Earth Quake, Power Outage, Strike, those event may lead to unexpected network service failure.
EVENT GEOGRAPHY	Base	Events affecting a Geographic Area that may have an impact on a provider's business. Subtype of EVENT (page 2-76). For example: • Earthquake • Power Outage • Labor Strike
EVENT LOCATION	Reference	Assigns an address location to the EVENT (page 2-76).

Table 2-2　(Cont.) D to F Entity Descriptions

Entity Name	Type	Description
EVENT LOYALTY PROGRAM	Base	Events associated with each event or transaction on a customer loyalty program. For example: • Loyalty points earned by the customer • Bonus points awarded to the customer • Points redeemed by the customer
EVENT PARTY ASSIGNMENT	Base	Many to many relationship assigning a party or multiple parties to event(s).
EVENT PARTY INTERACTION	Base	Interactions or communications with the customer. For example: • Faults • Inbound and outbound telemarketing • Direct mail • SMS • Email • Service calls • Complaints • Debt collection
EVENT PARTY INTERACTION CHARACTERISTIC VALUE	Reference	A value of a given Party Interaction Characteristic, associated with a full thread of interaction. The first interaction of the thread is the so-called "party interaction code".
EVENT PARTY INTERACTION CHAT DETAIL	Base	Subtype of EVENT PARTY INTERACTION (page 2-78) which represents the chat history details between the service representative and the CUSTOMER (page 2-62). Each chat message is saved as one record.
EVENT PARTY INTERACTION ITEM	Base	When multiple threads are discussed in a single EVENT PARTY INTERACTION (page 2-78), this line item lists the involved threads and other information including accounts, subscriptions, and so on.
EVENT PARTY INTERACTION PARTICIPATION	Base	Tracks multiple employees who participate in a same interaction with a customer
EVENT PARTY PROFILE	Base	Event in which party profile information was modified or updated.
EVENT PARTY ROLE	Lookup	Role played by a PARTY (page 2-120) in an EVENT (page 2-76). For example: • Customer who reported the event • Customer affected by event • Party who caused the event

Table 2-2   (Cont.) D to F Entity Descriptions

Entity Name	Type	Description
EVENT PREPAID MOBILE	Base	Actions involving PREPAID MOBILE EVENT TYPE (page 2-148) account. Subtype of EVENT ACCOUNT (page 2-76). For example: • Initial activation • Recharges • Adjustments • Deactivation
EVENT PRODUCT SUBSCRIPTION WIRELESS	Base	Events associated with a subscription. Subtype of EVENT (page 2-76). For example: • Subscription activation • Reimbursement on prepaid account • Termination • Suspension because of insufficient deposit
EVENT REASON	Lookup	Lookup for event reasons. For example: arrearage.
EVENT REASON CATEGORY	Lookup	Lookup for event reason categories. Categories are further grouped into event reasons.
EVENT RESOLUTION	Reference	The domain of results that may occur in the resolution of an EVENT (page 2-76).
EVENT RESPONSE REASON	Lookup	Lookup for possible response reasons that may be used in an EVENT (page 2-76).
EVENT RESULT	Lookup	Lookup for the description of a result or any events. For example: • Successfully processed • Escalated • Refused by CSP • Refused by customer • Failed – Impossible • Failed – process error
EVENT SIM CARD	Base	Events associated with a SIM CARD (page 2-196). Subtype of EVENT (page 2-76).
EVENT STATUS	Base	Lookup for event status. For example: • Completed • Pending • In-Progress • Suspended • Cancelled • Abandoned
EVENT STATUS REASON	Lookup	Lookup for event status reasons. For example: • Insufficient funds • Stolen card

Table 2-2   (Cont.) D to F Entity Descriptions

Entity Name	Type	Description
EVENT STATUS TYPE	Lookup	Lookup for EVENT STATUS (page 2-79). For example: • Complete • Pending • In-Progress • Suspended • Cancelled • Abandoned
EVENT SUBSCRIPTION CHANGE	Base	Events involving temporal provisioning and relinquishment of products and services to current subscription base.
EVENT TRIGGER DETAIL	Reference	Tracks the execution, evaluation of POLICY RULE (page 2-145) on each POLICY EVENT (page 2-143).

EVENT TYPE	Lookup	Lookup for event type. For example:
		• In Loyalty Program Event
		    1.1 Points Accumulation
		    1.2 Redemption
		• Access Method Event
		    2.1 Access Method Login (connect)
		    2.2 Access Method Logout (disconnect)
		    2.3 Access Method Suspension (because of late payment or other reason)

EXCHANGE LOCATION	Reference	Specifies service area served by the central office.
EXCLUDE PORT DETAIL	Reference	The attribute exclusionFunction is designed to be populated from an external management system, and represents the criteria for excluding one or more Ports. A predefined exclusion function is to limit the role that a Port plays to an edge role. However, this class enables additional functions to be used to exclude Ports.
EXPENSE REPORT PARTY ASSIGNMENT	Base	The involvement of different PARTY (page 2-120)s in a given EMPLOYEE EXPENSE REPORT (page 2-73). For example: • The employee who claims the expense • The employee who approves the expense • The customer involved in the expense justification
EXPENSE REPORT STATE TYPE	Lookup	Lookup for the types of STATE which an EMPLOYEE EXPENSE REPORT (page 2-73) may be in. For example: • Submitted • Pending approval • Approved • Paid
EXPENSE TYPE	Lookup	Lookup for type of expense being claimed. For example: • P = expense was pre-paid by the company • C = Cash advance • E = Actual expense incurred by requestor

Table 2-2   (Cont.) D to F Entity Descriptions

Entity Name	Type	Description
EXPIRY BASIS TYPE	Lookup	Type of Basis or REASON (page 2-169) for Expiry. It could be time-based (x months, or so) after first activation or after first or last call, or event based (something happened or a specific date like New Year passed so it expires).
EXTERNAL CREDIT PROFILE	Reference	A source of information that helps define the credit worthiness of the customer.
EXTERNAL CREDIT PROFILE ASSIGNMENT	Reference	Indicate which external agency or institute provided the credit profile for the given customer.
EXTERNAL INFORMATION SOURCE	Reference	Source from which the demographic information or customer information is obtained.
EXTERNAL OPERATOR	Reference	All operators the Service Provider does business with, including inland competitors or roaming partners.
EXTERNAL ORGANIZATION TYPE	Lookup	Lookup for types of external organizations.
FACTOR COMPANY	Reference	Stores the information about the factor company, which is the financial instrument holding the receivables.
FAIR QUEUING SERVICE	Reference	Ensure that each Queue receives a fair share of the set of applicable metrics, for example bandwidth, that are divided among the different Queue instances.
FAULT RESOLUTION TYPE	Lookup	Lookup for available types of network fault resolution.
FAULT TYPE	Lookup	Lookup for available types of faults.
FDA	Reference	The FDA is the Fibre Distribution Area. The FDA is an aggregated fiber broadband geographical area served. Each area served is one "Network Site".
FIELD ACTIVITY RESULT TYPE	Lookup	Lookup for available result types for customer field activities that are performed by support engineers. For example: • S - Successful • F - Failed
FIELD ACTIVITY TYPE	Lookup	Lookup for types of customer field activities that may be performed by support engineers. For example: • Installation • Troubleshooting • Upgrade

Table 2-2   (Cont.) D to F Entity Descriptions

Entity Name	Type	Description
FIREWALL ROLE	Reference	Abstracts the different routing capabilities necessary for a LOGICAL DEVICE (page 2-100) to have. This helps simplify the modeling of (especially) network devices, which have many different sets of capabilities. For example, most routers can do routing, forwarding, and firewalling of traffic. By modeling these capabilities as three roles, router functionality is both abstracted and categorized, so that the differences between firewalling done by a router and firewalling done by a dedicated firewall device can be differentiated.
FISCAL HALF MONTH	Reference	Defines half-month in a fiscal calendar.
FISCAL HALF YEAR	Reference	Defines half-year in a fiscal calendar.
FISCAL MONTH	Reference	Defines month in a fiscal calendar.
FISCAL QUARTER	Reference	Defines quarter in a fiscal calendar.
FISCAL WEEK	Reference	Defines week in a fiscal calendar.
FISCAL YEAR	Reference	Defines year in a fiscal calendar.
FIXED LINE CALL EVENT	Base	Event involving a call made on a Fixed Line telephone.
FIXED LINE PORT	Reference	The port ID associated with the telephone plug that provides a customer with fixed line service. The Fixed Line Port connects a customer's phone to a SWITCH (page 2-204).
FIXED LINE RATING PLAN	Reference	Subtype of PRODUCT OFFERING PRICE (page 2-155) associated only with Fixed Lines.
FIXED LINE SERVICE	Reference	Subtype of SERVICE (page 2-183) for detail information on the fixed line service.
FLEXIBLE CHARACTERISTIC	Reference	An abstracted entity to provide common structure for all types of characteristics. All of the various types of characteristics may be applicable to the subject, including product, service, network element, and so on. This entity provides a flexible way to define additional attributes for those entities with complex features.
FLEXIBLE CHARACTERISTIC ASSIGNMENT	Reference	Assigns the characteristic to the subject.
FLEXIBLE CHARACTERISTIC ASSIGNMENT TYPE	Reference	Lookup of ASSIGNMENT TYPE. For example: • Depending on • Having feature of • Conflict with
FLEXIBLE CHARACTERISTIC RELATIONSHIP	Reference	Relationship between characteristics, for example, one characteristic may conflict with another.

Table 2-2   (Cont.) D to F Entity Descriptions

Entity Name	Type	Description
FLEXIBLE CHARACTERISTIC TYPE	Lookup	Lookup of FLEXIBLE CHARACTERISTIC (page 2-82) types.
FLEXIBLE CHARACTERISTIC VALUE	Reference	Possible values that a characteristic may take, including predefined choices or free numeric values.
FLEXIBLE CHARACTERISTIC VALUE ASSIGNMENT	Reference	Assigns the characteristic value to the applicable subject.
FLEXIBLE CHARACTERISTIC VALUE RELATIONSHIP	Reference	Relationship between two flexible characteristic values. For example, exclusiveness, same as, and so on.
FORWARDING GRAPH	Reference	An Adjacency Graph expressing the adjacency requirements between the Connection points of the Network Functions composing a Network Service.
FORWARDING GRAPH NETWORK SERVICE ASSIGNMENT	Reference	Relationship between Network Services and their Forwarding Graphs
FRAUD PROFILE CLASS	Lookup	Lookup for all possible classes of fraud profile that customers or dealers may commit.
FSAM	Reference	FSAM (Fibre Serving Area Module) is an aggregation of FDA (page 2-81)s. The FSAM is a group of served areas by the operators of the service, mostly FTTH, or Optical Fiber Broadband.
FUEL SALE STATUS	Lookup	Lookup for status codes that may be applied to a fuel sale.

Table 2-3   G to J Entity Descriptions

Entity Name	Type	Description
GENDER	Lookup	Lookup for gender.
GEOGRAPHY BUILDING	Reference	Building level in GEOGRAPHY HIERARCHY (page 2-84).
GEOGRAPHY CITY	Reference	Cities defined in a GEOGRAPHY HIERARCHY (page 2-84).
GEOGRAPHY CITY COUNTY RELATIONSHIP	Reference	Relates counties and Cities with one another.
GEOGRAPHY COMPLEX	Reference	Specifies the complex level in GEOGRAPHY HIERARCHY (page 2-84). The complex includes the complexes, a few building forming an enclosed area, in a city, at Universities, or industrial parks, and so on.
GEOGRAPHY COUNTRY	Reference	Countries defined in a GEOGRAPHY HIERARCHY (page 2-84).
GEOGRAPHY COUNTY	Reference	Counties defined in a GEOGRAPHY HIERARCHY (page 2-84).

Table 2-3   (Cont.) G to J Entity Descriptions

Entity Name	Type	Description
GEOGRAPHY DEMOGRAPHIC GROUP	Reference	User-defined classification for DEMOGRAPHY ATTRIBUTE (page 2-69)s.
GEOGRAPHY DEMOGRAPHY ATTRIBUTE	Reference	User defined attributes to describe demographic information for a given Geography.
GEOGRAPHY DEMOGRAPHY VALUE	Reference	User defined values corresponding to the DEMOGRAPHY ATTRIBUTE (page 2-69)s.
GEOGRAPHY ENTITY	Reference	User defined geographic units.
GEOGRAPHY ENTITY ASSIGNMENT	Reference	Assignment of GEOGRAPHY ENTITY (page 2-84)s to a user defined hierarchy level.
GEOGRAPHY ENTITY HIER LEVEL ASSIGNMENT	Reference	Assigns GEOGRAPHY ENTITY (page 2-84)s to GEOGRAPHY HIERARCHY LEVEL (page 2-84)s.
GEOGRAPHY HIERARCHY	Reference	User defined geographic hierarchies.
GEOGRAPHY HIERARCHY LEVEL	Reference	User defined levels within a geographic hierarchy.
GEOGRAPHY HIERARCHY LEVEL ASSIGNMENT	Reference	Assignment of a GEOGRAPHY HIERARCHY (page 2-84) level to a GEOGRAPHY ENTITY (page 2-84).
GEOGRAPHY LEVEL	Reference	User defined name and descriptions for GEOGRAPHY HIERARCHY LEVEL (page 2-84).
GEOGRAPHY LEVEL ATTRIBUTE	Reference	User defined attributes associated with a GEOGRAPHY LEVEL (page 2-84).
GEOGRAPHY LEVEL ATTRIBUTE VALUE	Reference	Values assigned to the GEOGRAPHY LEVEL ATTRIBUTE (page 2-84)s.
GEOGRAPHY REGION	Reference	Defines a region in a GEOGRAPHY HIERARCHY (page 2-84).
GEOGRAPHY STATE	Reference	Defines a state in a GEOGRAPHY HIERARCHY (page 2-84).
GEOGRAPHY STREET	Reference	Defines a city in GEOGRAPHY HIERARCHY (page 2-84).
GEOGRAPHY SUB REGION	Reference	Defines a subregion in a GEOGRAPHY HIERARCHY (page 2-84).
GEOGRAPHY WORLD	Reference	Top level of GEOGRAPHY HIERARCHY (page 2-84).
GGSN	Reference	GGSN (Gateway GPRS Support Node) is the key component in GPRS and 3G system, which links the access network data into the IP-Network.
GIVE AWAY ITEM DAY DRVD	Derived	Statistics of all give away items to the customer for promotion or retention purposes.
GIVE AWAY TYPE	Lookup	Lookup for types of give-aways.

Table 2-3   (Cont.) G to J Entity Descriptions

Entity Name	Type	Description
GL ACCOUNT	Reference	The GL accounts are defined to track financial status from a specific angle. All GL Journals are posted to various GL Accounts to reflect financial impact of each business transaction. Each account is defined by certain codes and flags, including whether the account is enabled, whether detail posting or detail budgeting is allowed, and others.
GL ACCOUNT ASSIGNMENT	Reference	Defines the relationship between two GL ACCOUNT (page 2-85)s to form an Account Hierarchy. It stores lists of the detail accounts associated with each summary account.
GL ACCOUNT SEGMENT	Reference	Defines different types of GL ACCOUNT (page 2-85), including: Cash, Bank, Equipment, and so on.
GL ACCOUNT TYPE	Lookup	Lookup for types of GL ACCOUNT (page 2-85)s. For example: • Asset • Liability • Equity
GL BALANCE	Base	Specifies actual, budget, and encumbrance balances for detail and summary accounts.
GL COST CENTER SEGMENT	Reference	Subtype of GL SEGMENT (page 2-86) linking GL ACCOUNT (page 2-85) to a specific COST CENTER (page 2-60).
GL JE LINE SUBLEDGER ASSIGNMENT	Base	Defines the relationship between GL Journal Entry lines and Subledger journal entry Lines.It stores individual transactions from subledgers that have been summarized into General Ledger journal entry lines. Defines the relationship between GL JOURNAL ENTRY LINE (page 2-85)s and GL SUBLEDGER JOURNAL ENTRY LINE (page 2-87)s. Represents individual transactions from subledgers that have been summarized into General Ledger journal entry lines.
GL JOURNAL ENTRY	Base	Specifies journal entries.
GL JOURNAL ENTRY BATCH	Base	Specifies journal entry batches.
GL JOURNAL ENTRY CATEGORY	Lookup	Lookup for journal entry categories. Specifies the category name and description. Each journal entry in the General Ledger is assigned a journal entry category to identify its purpose. For example: • Purchase Invoices • Receiving
GL JOURNAL ENTRY LINE	Base	Specifies the journal entry lines to track changes to each GL ACCOUNT (page 2-85) made by a certain GL JOURNAL ENTRY (page 2-85). There is a one-to-many relationship between GL JOURNAL ENTRY (page 2-85)s and journal entry lines.

Table 2-3   (Cont.) G to J Entity Descriptions

Entity Name	Type	Description
GL LEDGER	Reference	Defines information about the ledgers and the ledger sets defined in the Financial system. A GL Ledger is defined by 4C, chart of accounts (COA), functional currency, accounting calendar, and Accounting method.
GL LEDGER ACCOUNT ASSIGNMENT	Reference	Assigns the GL ACCOUNT (page 2-85)s to GL LEDGER (page 2-86)s to form the Chart Of Account (COA).
GL ORGANIZATION BUSINESS UNIT SEGMENT	Reference	Assigns the GL ACCOUNT (page 2-85) to corresponding ORGANIZATION BUSINESS UNIT (page 2-117).
GL PERIOD	Reference	Specifies information about the accounting periods defined with an Accounting Calendar.
GL PRODUCT SPECIFICATION SEGMENT	Reference	Assigns the GL ACCOUNT (page 2-85) to corresponding PRODUCT SPECIFICATION (page 2-158).
GL PROJECT SEGMENT	Reference	Assigns the GL ACCOUNT (page 2-85) to corresponding PROJECT (page 2-162).
GL REFERENCE	Reference	Groups or Categories referred from General Ledger to classify all revenue related activities.

GL SEGMENT	Reference	Each GL ACCOUNT (page 2-85) contains a few independent segments, which are determined by the Financial System setup. For example, telecom operators may setup their GL Account in this format:
		
		`<Country, Cost Center, Account, SubAccount>`
		
		`1 Y3G1 US 1001 2000`
		`2 Y1C1 JP 1001 3000`
		`3 Y2C1 CN 2001 4000`
		
		In this example, Country, Cost Center, and so on, are all different GL Segments. Account 1001 may stand for Cash, while 2001 stands for Bank, and 4000 stands for a specific bank account, and so on. Each of the GL ACCOUNT (page 2-85)s may be linked (rolled up) to a specific business entity (Concept), such as organization business unit, project, and so on, through the subentities of GL Segment.
		
		Note: Do not confuse Account in this description with ACCOUNT (page 2-25), which is customer account.

GL SEGMENT TYPE	Lookup	Lookup for type of GL SEGMENT (page 2-86). For example: • Project • Account • Project
GL SUBLEDGER	Reference	Specifies the subsidiary ledger, and represents original business transaction information that varies depending on the application.

Table 2-3   (Cont.) G to J Entity Descriptions

Entity Name	Type	Description
GL SUBLEDGER JOURNAL ENTRY	Base	Represents subledger journal entries. The subledger Journal Ledger records the transaction at original level, that is each invoice, or each Purchase Order should have one entry in subledger journal entry.
GL SUBLEDGER JOURNAL ENTRY LINE	Base	Represents the subledger journal entry lines. There is a one-to-many relationship between subledger journal entry headers and subledger. The GL Subledger Journal Entry Line breaks down the GL SUBLEDGER JOURNAL ENTRY (page 2-87) into different GL ACCOUNT (page 2-85)s.
GPRS SERVICE	Reference	Subtype of PRODUCT SPECIFICATION (page 2-158), with more information about GPRS (General Packet Radio Service).
		The service provider provides various services such as Internet, WAP to its customers or subscribers over GPRS. The information about the usage of these services is to be analyzed at individual and aggregate level. The GPRS service dimension organizes all GPRS services.
GPRS USAGE EVENT	Base	Specifies the GPRS Session Event. This describes most of the fields you find in the GPRS S-CDRs and G-CDRs as defined by ETSI.
GRAPH	Reference	A Topological Construct composed of a set of vertices connected by Directed Edges (abstract entity).
GRAPH DIRECTED EDGE RELATIONSHIP	Reference	Relationships between Graphs and Directed Edges
GRAPH VERTEX RELATIONSHIP	Reference	Relationships between Graphs and Vertices.
HALF HOUR	Reference	Half-hours defined as part of time.
HALF MONTH TODATE TRANSFORMATION	Reference	Todate transformation information at the half-month level.
HALF MONTH TRANSFORMATION	Reference	Transformations with respect to half-month. For example: • This half-month last year • This year last half-month
HALF YEAR TODATE TRANSFORMATION	Reference	Cumulative time transformations at the half-year level.
HALF YEAR TRANSFORMATION	Reference	Transformations with respect to half-year. For example: • This half-year last year • This year last half-year
HANDSET INSTANCE	Reference	Instance of a handset.
HANDSET MODEL	Reference	Models of handsets.

Table 2-3 (Cont.) G to J Entity Descriptions

Entity Name	Type	Description
HARDWARE	Reference	This entity represents any type of hardware entity that exists as an atomic unit that is not a PHYSICAL LINK (page 2-132) or a PHYSICAL CONNECTOR (page 2-131). Hardware is defined as any component that has a distinct physical identity and can be a component of a PHYSICAL DEVICE (page 2-131). An object has a physical identity if it has a physical manifestation that enables it to be held and have a label attached to it. Thus, software, files, protocols, and policies are not physical objects.
HEAD TAIL DROPPER SERVICE	Reference	Specifies the behavior of either a head dropper or tail dropper (for example, a dropper which drops from the head or tail of its queue, respectively). Subtype of DROPPER SERVICE (page 2-72).
HOLDER ATOMIC	Reference	Represents atomic holders of EQUIPMENT (page 2-74) that are individually manageable and do not form composite, or nested, Equipment Holders. Each Holder Atomic object can be a FRU.
HOLDER COMPOSITE	Reference	Represents Equipment Holders that are made up of other Equipment Holders (that is, instances of this entity and the Holder Atomic entity). This provides the semantics of collecting a set of components, each of which is individually manageable, and being able to manage the set of objects as a whole. This containment is modeled using the Has Holders aggregation.
HOME SUBSCRIBER SERVER	Reference	The server holding customer account information in Intelligent Network (IN), or Internet Multimedia System (IMS). For example: • Home Subscriber Server (HSS) from IMS • Service Control Point (SCP)
HOUR	Reference	Hours defined as part of time.
HOUSEHOLD	Reference	Captures household information for the household that the individual customer may belong to.
IDD	Reference	Subtype of PRODUCT SPECIFICATION (page 2-158) that provides information about IDD service.
IDD CALL EVENT	Base	Event involving an International Direct Dial (IDD (page 2-88)) call.
IMPRESSION	Base	Details collected when a user accesses a web page.
IMPRESSION EVENT TYPE	Lookup	Lookup for types of details collected when a user accesses a web page.
IN PLATFORM	Reference	IN (Intelligent Network) platforms operated by the telecom service provider. The Prepaid mobile or toll-free business normally relies on IN platform.

Table 2-3   (Cont.) G to J Entity Descriptions

Entity Name	Type	Description
IN PLATFORM DAY DRVD	Derived	Daily summation of parameters related to the IN PLATFORM (page 2-88) functioning and performance on a daily level.
IN PLATFORM MONTH AGGR	Aggregate	Monthly summation of parameters related to the IN PLATFORM (page 2-88) functioning and performance on a monthly level.
IN ROUTING DEVICE	Reference	Specifies all the different types of devices, such as VLR, HLR, and SCP servers, which are utilized in a network to decide the call routing in IN Network or Wireless IN Network (IN is Intelligent Network).
INDIVIDUAL DEMOGRAPHY PROFILE	Reference	The demographic values for individual customer and customer household.
INDIVIDUAL DEMOGRAPHY VALUE	Reference	Values assigned to user-defined DEMOGRAPHY ATTRIBUTE (page 2-69)s.
INDIVIDUAL NAME	Reference	Records all names used by the individual party along the history.
INITIATIVE RESULT TYPE	Lookup	Lookup for all possible results of initiatives. For example, the result is: • Becomes a customer • Does not become a customer
INITIATIVE TYPE	Lookup	Lookup for available initiative types.
INSTALLMENT AGREEMENT	Reference	The installment payment scheme for customer bills.
INTERACTION ANSWER CHOICE	Base	Defined answers, choices, corresponding to initiative questions.
INTERACTION CHANNEL	Reference	Channels used for Provider or Customer interactions. For example: • Call center • Online business system • Counter
INTERACTION DIRECTION	Lookup	Lookup for available directions for initiatives. For example: • Inbound • Outbound
INTERACTION NAVIGATION ASSIGNMENT	Reference	The navigation path between each two navigation items. For example, from Welcome Page to Log in page, or from Hot Offering to a specific PRODUCT OFFERING (page 2-154) advertisement page, and so on. The navigation may change over the time, for example, a product may be on the Hot Offering page for only a short period.

Table 2-3   (Cont.) G to J Entity Descriptions

Entity Name	Type	Description
INTERACTION NAVIGATION HISTORY	Base	The history of customer navigation path in each interaction call, or web visit. For example, in an IVR call, a customer may go through the following steps: **1.** Welcome **2.** Broadband **3.** Account balance query These actions are realized as three records in the history.
INTERACTION NAVIGATION ITEM	Reference	Specifies all the possible places where customer may go to in the IVR or Web service context.
INTERACTION NAVIGATION ITEM TYPE	Lookup	Lookup for the type of Interaction Navigation. For example: • IVR Main Menu • Home Page • Account Activation • Account Balance Query • Network Fault Request
INTERACTION NAVIGATION LEVEL	Lookup	Lookup for the level of Interaction Navigation according to the path depth the item is in.
INTERACTION NAVIGATION TYPE	Lookup	Lookup for the type of INTERACTION NAVIGATION ITEM (page 2-90). For example: • IVR • Web Page
INTERACTION NAVIGATION TYPE VERSION	Reference	Historical versions of INTERACTION NAVIGATION ITEM (page 2-90)s.
INTERACTION PRIORITY TYPE	Lookup	Lookup for the different priorities which can be assigned to each EVENT PARTY INTERACTION (page 2-78).
INTERACTION QUESTION RESPONSE	Base	Responses provided by CUSTOMER (page 2-62) to interaction questions.
INTERACTION REASON	Lookup	Lookup for interaction reasons. For example: • Debt collection • Service call • Inbound marketing • Outbound marketing • Customer complaints
INTERACTION RESULT TYPE	Lookup	Lookup for possible responses to customer interaction. For example: • Showed interest without decision • Offer accepted • Never call again

Table 2-3   (Cont.) G to J Entity Descriptions

Entity Name	Type	Description
INTERACTION STATUS	Lookup	Lookup for available interaction status. For example: • Planned • In-progress • Executed • Closed
INTERACTION STATUS TYPE	Lookup	Classification of Interaction Status for reporting purpose. Currently used similarly to INTERACTION STATUS (page 2-91).
INTERACTION TRANSFER HISTORY	Base	The history of interaction transfers.
INTERACTION TRANSFER REASON	Lookup	Lookup for reasons that an interaction is transferred from one agent to another one. For example: • Wrong routing • Another business interaction • To supervisor
INTERACTION TYPE	Lookup	Lookup for types of interactions between company and CUSTOMER (page 2-62). For example: • Email • Call Center Inbound • Call Center Outbound • Walk-In to the shop • Letter
INTERNET ACCESS EVENT	Base	Subtype of UDR EVENT (page 2-208), which captures customer internet surfing history with detailed URL and time information.
INVENTORY ADJUSTMENT DOCUMENT LINE ITEM	Base	The detail line item which applies an increment or decrement to the item's unit on hand and or the financial valuation.
INVENTORY ADJUSTMENT ITEM DAY DRVD	Derived	Inventory adjustment information at the item, ORGANIZATION BUSINESS UNIT (page 2-117), day-reason level.
INVENTORY CONTROL DOCUMENT	Base	A written or printed paper, or digital equivalent, that evidences the movement of merchandise or supply SKU ITEM (page 2-197)s.
INVENTORY CONTROL DOCUMENT LINE ITEM	Base	Detail line on an INVENTORY CONTROL DOCUMENT (page 2-91) that identifies the SKU ITEM (page 2-197), and unit of measure exchanged, or the freight, charges, taxes, and allowances applicable to a particular inventory control event and action.
INVENTORY ITEM STATE	Base	Specifies a unit record of a particular stock ITEM SPECIFICATION (page 2-97), held in a particular Inventory Location, in a particular Inventory State and controlled or managed by a particular Revenue Center.

Table 2-3 (Cont.) G to J Entity Descriptions

Entity Name	Type	Description
INVENTORY LOCATION	Reference	Physical location where the retailer stores merchandise. The inventory location may be colocated at a SITE (page 2-197) and does not include containers, ships, and trucks that are in transit.
INVENTORY POSITION DEPARTMENT DAY AGGR	Aggregate	Daily status and value of inventory. For example: • Stock on hand • On order for an ORGANIZATION BUSINESS UNIT (page 2-117) and SKU ITEM (page 2-197)
INVENTORY POSITION ITEM DAY DRVD	Derived	Status and value of inventory. For example: • Stock on hand • On order for an ORGANIZATION BUSINESS UNIT (page 2-117) and SKU ITEM (page 2-197)
INVENTORY POSITION SUBCLASS MONTH AGGR	Aggregate	Daily status and value of inventory. For example: • Stock on hand • On order for an ORGANIZATION BUSINESS UNIT (page 2-117) and item subclass
INVENTORY RECEIPT ITEM DAY DRVD	Derived	Daily record of inventory receipts by item and ORGANIZATION BUSINESS UNIT (page 2-117).
INVENTORY TRANSFER ITEM DAY DRVD	Derived	Daily summary of transfer in and transfer out document statistics. Provides a daily summary of inventory transfers at the item, to ORGANIZATION BUSINESS UNIT (page 2-117), from ORGANIZATION BUSINESS UNIT (page 2-117), and transfer type. Daily summary of transfer in and transfer out document statistics summary of transfer in and transfer out document statistics.
INVENTORY UNAVAILABLE ITEM DAY DRVD	Derived	Weekly record of inventory receipts by subclass and ORGANIZATION BUSINESS UNIT (page 2-117).
INVENTORY VENDOR COMPLIANCE DAY DRVD	Derived	Daily summary of Vendors' Inventory Compliance.
INVOICE	Base	Invoices issued to accounts representing request for payment for goods and services for a specified period.
INVOICE ADJUSTMENT	Base	Adjustments made on the INVOICE (page 2-92).
INVOICE ADJUSTMENT MONTH AGGR	Aggregate	Monthly aggregation of calculated measures for all adjustments made on the INVOICE (page 2-92)s.
INVOICE ADJUSTMENT QUOTA	Reference	Quota of INVOICE ADJUSTMENT (page 2-92)s assigned to EMPLOYEE (page 2-72).

Table 2-3   (Cont.) G to J Entity Descriptions

Entity Name	Type	Description
INVOICE ADJUSTMENT REASON	Lookup	Lookup for the possible reasons for an adjustment on a customer's or on a partner's bill. For example: • Service Activation Error • Billing Error • Goodwill • VIP, Loyalty Program, Customer • Promotion Event • Service downgrade/fault compensation • Customer complain
INVOICE ADJUSTMENT TYPE	Lookup	Lookup for available adjustment types that may be applied to customer invoices. For example: 1. Direct Total Amount Adjustment 2. Discount Total Bill Amount Adjustment 3. Monthly Fee Adjustment 4. Recharge Fee Adjustment (Prepaid) 5. Activation Fee Adjustment 6. Free-Unit Amount Adjustment 7. Item Charge Adjustment 8. Loyalty Points Adjustment 9. Others
INVOICE AGING DAY DRVD	Derived	Daily Summary of aging of invoices (from the time they are open until they closed) for reporting purposes.
INVOICE DAY DRVD	Derived	Statistics on Invoices for further aggregation. Postpaid customers are billed/invoiced for the usage of services on monthly basis, that is, bill for every subscriber based on his package, category, and usage is calculated, printed and sent to the customer account address for payment.
INVOICE DELIVERY FORMAT	Reference	The format specification, including header, font, and so on, of each invoice delivered to the customer.
INVOICE DELIVERY TYPE	Lookup	Lookup for available delivery types of INVOICE (page 2-92) to customer. For example: • Printed letter • Email • Duplicate printed letter on request
INVOICE DISCOUNT	Base	Discount applied to INVOICE (page 2-92).
INVOICE DISCOUNT REASON	Lookup	Lookup for available discount reasons.

Table 2-3   (Cont.) G to J Entity Descriptions

Entity Name	Type	Description
INVOICE DISCOUNT TYPE	Lookup	Lookup for available discount types that may be applied to customer invoice.
INVOICE GENERATION PROCESS	Base	Process specific for the generation of the Invoices (Billing process) as a subtype of PROCESS EVENT (page 2-151).
INVOICE ITEM	Base	Any line that appears on the INVOICE (page 2-92) which is specific to the product components a customer has. The invoice item is not necessarily associated with a monetary charge or a credit (but invoice item usually does have an associated monetary charge or credit). The invoice item is usually a billable item to a given account, onto which usage or other events are charged. The unbillable items that could be part of the invoice item are "Loyalty Points", "Free Unit Amount/Rollover", and so on. For example: • Wireless Call • Ringtone Downloading • Monthly Fixed Rate
INVOICE ITEM DETAIL	Base	Additional details regarding INVOICE ITEM (page 2-94) including Product Usage Level.
INVOICE ITEM DETAIL TYPE	Lookup	Lookup for invoice item detail types (item detail is the description of each column of a given item in a bill). The invoice item detail type may be classified in a mobile line. For example: • Call Date • Duration • Dialed Digits • Units • Direction • Zone • Charge Net • VAT • Total Charge
INVOICE ITEM RELATIONSHIP	Base	Define the relationship between INVOICE ITEM (page 2-94)s.
INVOICE ITEM TYPE	Lookup	Lookup for invoice item types. For example: • 1 = Long Distance Minutes of Usage • 2 = Access Charge • 3 = Monthly Fee • 4 = Equipment Charge • 5 = Roaming Minutes of Usage • 6 = Equipment Rental • 7 = Installation Charge • 8 = Adjustment or Discount • 9 = Call Record Detail

Table 2-3   (Cont.) G to J Entity Descriptions

Entity Name	Type	Description
INVOICE ITEM USAGE DETAIL	Base	A subtype of Invoice Item that only details usage related invoice items that DO appear on the invoice. It is typically the list of rated CDRs (can be also rated 0) that appears on the detailed list.
INVOICE ITEM USAGE DETAIL SPEC	Base	The common characteristics (or specifications) associated with the (invoice) Item Detail of a Usage event on an invoice.
INVOICE MONTH AGGR	Aggregate	Monthly aggregation of all invoices to postpaid customers at customer type level.
INVOICE PAYMENT ASSIGNMENT	Base	Matches the payment to an INVOICE (page 2-92).
INVOICE PAYMENT TERM	Base	Payment terms of each INVOICE (page 2-92). For example: • Payment days
INVOICE PAYMENT TERM TYPE	Lookup	Lookup for available types of payment terms.
INVOICE PROCESS ASSIGNMENT	Reference	Describes the successful processes related to invoice generation, issuing and dispatching.
INVOICE STATUS	Lookup	Lookup for possible status of the invoices.
INVOICE STATUS HISTORY	Base	Status history for an INVOICE (page 2-92), for example, the invoice may experience a status change from open to closed, or from open to extended.
INVOICE STATUS TYPE	Lookup	Type of INVOICE (page 2-92) status. For example: • Open (not paid) • Closed (paid) • Extended (due date is changed)
INVOICE TAX ITEM	Base	The Tax item applied to the INVOICE (page 2-92).
INVOICE TYPE	Lookup	Lookup for type of INVOICE (page 2-92) according to invoice generation process. For example: • Summary Invoice for hierarchical account • Standard Invoice • Trial Billing Invoice
INVOLVEMENT ROLE	Lookup	Information about the role in which a resource, a service, or a product is involved.
IP ADDRESS	Reference	Represents an IP address. The IP Address can be either in v4 or v6 form, and can be formatted as dotted decimal or CIDR. One or more host aliases can also be supplied.
IP ADDRESS POOL	Reference	Subtype of ACCESS METHOD POOL (page 2-23), which lists all IP addresses available to customers.
IP CAN TYPE	Lookup	List of the various type of IP Connectivity Access Network - typically for Policy but could be leveraged for something else.

Table 2-3   (Cont.) G to J Entity Descriptions

Entity Name	Type	Description
IP SUBNET	Reference	A portion of a network that shares a common address component. On TCP/IP networks, subnets are defined as all devices whose IP addresses have the same prefix. For example, all devices with IP addresses that start with 100.100.100 would be part of the same subnet.
IPV4 ADDRESS	Reference	Refines the generic IP ADDRESS (page 2-95) to add formatting capabilities that are specific to IPv4.
ISP	Reference	Internet Service Provider (ISP).
ISP BUSINESS	Reference	The business that the ISP (page 2-96) may provide. For example: • Company | Services • A $ 45.00 Broadband DSL Access 20Mbps Down, 896Kps Up • A $ 25.00 Broadband DSL Access 7Mbps, 896Kps Up • A $ 19.99 Broadband DSL Access 1.5Mbps, 896Kps Up • A $ x.xx Wireless Broadband or cable modem Access This only covers ISP specific business (not Application Provider business).
ISP BUSINESS ASSIGNMENT	Reference	Relates an ISP (page 2-96) to the Communications Service Provider through a "business" relationship. This entity assigns the definition of the relationship, in entity ISP BUSINESS (page 2-96), with the corresponding ISP (page 2-96).
ISP BUSINESS TYPE	Lookup	Lookup for high level of ISP business type. For example, Cooper Line Internet Connection (may further divided as DSL, ISDN), Colocation, DNS Name, and so on. For example: • Virtual private server • Dedicated hosting • Colocation center • Web hosting • Free hosting • Shared hosting • Clustered hosting • Reseller hosting • Application-specific • Blog hosting • Image hosting • Video hosting • Wiki farms • File hosting • Remote backup service • Game server hosting • DNS hosting • E-mail hosting
ISP TYPE	Lookup	Lookup for types of ISP (page 2-96)s.

Table 2-3   (Cont.) G to J Entity Descriptions

Entity Name	Type	Description
ISP USAGE EVENT	Base	Records traffic details of each session the user conducts with the Internet Service Provider ISP (page 2-96). The entity documents the connect and disconnect date and time and the number of local and international bytes downloaded, and uploaded. There will typically be multiple rows for each long running session. The entity will be implementation dependent, but normally there will be a record generated each hour, all records for the one session will have the same connect and disconnect date times, but the event start/end datetimes will identify the period that the usage (bytes) covers.
ISP USER	Reference	Identifies the user names associated with the Internet Service Provider (ISP (page 2-96)) subscription.
ITEM CLASS	Reference	Classification of Items (as resource).
ITEM CLUSTER	Reference	Grouping of items based on common characteristics.
ITEM COMPANY	Reference	Top level of the item merchandise hierarchy.
ITEM DEPARTMENT	Reference	Fourth level in item hierarchy below ITEM GROUP (page 2-97). Item department consists of one or more item classes.
ITEM DIVISION	Reference	Second level in item hierarchy below ITEM COMPANY (page 2-97). Item Division consists of one or more ITEM GROUP (page 2-97)s.
ITEM GROUP	Reference	Third level in item hierarchy, below ITEM DIVISION (page 2-97). Item Group consists of one or more ITEM DEPARTMENT (page 2-97)s
ITEM LOOKUP METHOD	Lookup	Method by which the SKU ITEM (page 2-197) selling price was retrieved and entered into the Point of Sale system during a RETAIL SALES RETURN LINE ITEM (page 2-177) transaction.
ITEM SPECIFICATION	Reference	The tangible product item which customer can buy and normally it incurs cost (COGS) from its vendor. The examples include handset models, starter kit packages and recharge vouchers. Details describing the item or PRODUCT SPECIFICATION (page 2-158).
ITEM SUBCLASS	Reference	The sixth level in item hierarchy, below ITEM CLASS (page 2-97). Item Subclass consists of one or more items.
ITEM TYPE	Lookup	Type of Item. It is available for Retail type of grouping (such as Hardware, Accessories, and so on) or any other grouping the Communications Provider prefers.
IVR INTERACTION NAVIGATION HISTORY	Base	Specifies the IVR interaction navigation history.

Table 2-3 (Cont.) G to J Entity Descriptions

Entity Name	Type	Description
IVR MENU CONTENT	Reference	Detailed Content description of the IVR Menu with the different choices, and paths (scripts) available. It should be use as part of a complete IVR navigation description.
IVR MENU ITEM	Lookup	The IVR MENU ITEM (page 2-98), which can be used to construct the whole IVR navigation system. Each IVR MENU ITEM (page 2-98) represents a group or a specific business function.
JOB	Reference	The occupation of the customer, which is the principal activity the customer performs to earn money.
JOB ROLE	Reference	Job Roles defined in the company that may be assigned to employees. For example: • Sales representative • Support • Product manager • Customer representative • Call center agent
JOURNAL ENTRY LINE CUSTOMER ORDER ITEM ASSIGNMENT	Base	Cross-Reference from GL SUBLEDGER JOURNAL ENTRY LINE (page 2-87) to CUSTOMER ORDER LINE ITEM (page 2-66).
JOURNAL ENTRY LINE INVOICE ITEM ASSIGNMENT	Base	Cross-Reference from GL SUBLEDGER JOURNAL ENTRY LINE (page 2-87) to INVOICE ITEM (page 2-94).
JURISDICTION	Reference	List of areas over which authority extends in relationship with the SKU ITEM (page 2-197) Service Provider in a way or another.

Table 2-4 K to N Entity Descriptions

Entity Name	Type	Description
KEY PERFORMANCE INDICATOR SLS PARM	Reference	A measure of a specific aspect of the performance of a SERVICE (page 2-183) (network or non-network) or a group of SERVICE (page 2-183)s of the same type.
KEY QUALITY INDICATOR SLS PARM	Reference	A measure of a specific aspect of the performance of a product, subscription, or a service. A Key Quality Indicator (KQI) draws data to compute the measure from several sources, including KPIs.
LAN	Reference	A Local Area Network (LAN) is a computer network covering a specific local area, such as a home, office, or small group of buildings. The LAN provides communication between computers and devices.
LAN PROTOCOL	Reference	LAN Protocols operate at the lowest two levels of the OSI model, that is, physical and data link, and are used to define communications over different types of local area media.
LAND PARCEL ADDRESS	Reference	Subtype of ADDRESS LOCATION (page 2-30).

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
LAND USE TYPE	Lookup	List of possible operations on land, carried out by humans, with the intention to obtain products and benefits through using land resources.
LANGUAGE	Lookup	Languages spoken or written within the company or in interactions with CUSTOMER (page 2-62)s.
LANGUAGE DIALECT	Reference	A special type of speaking or written language dialect.
LATE FIXED LINE CALL EVENT	Base	Fixed Line CDRs that are delivered late in the process, that is whose start date is already lower than the latest Intra ETL parameters start date used to load the CDRs. The only difference is that this table should be used to take those CDRs into account by looking at the LOAD date (part of the key) rather than the START DATE (not part of the key). Once those CDRs have been treated, it would be recommended to either push them to the standard CDR table OR to make sure they are considered in and application searching for CDR details.
LATE UDR EVENT	Base	UDRS that are delivered late in the process, that is whose start date is already lower than the latest Intra ETL parameters start date used to load the CDRs. The only difference is that this table should be used to take those CDRs into account by looking at the LOAD date (part of the key) rather than the START DATE (not part of the key). Once those CDRs have been treated, it would be recommended to EITHER push them to the standard CDR table OR to make sure they are considered in ANY application searching for CDR details.
LATE WIRELESS CALL EVENT	Base	Wireless CDRs (they can be SMS or MMS or GPRS or simple voice call, typically roaming calls) that are delivered late in the process, that is whose start date is already lower than the latest Intra ETL parameters start date used to load the CDRs. The only difference is that this table should be used to take those CDRs into account by looking at the LOAD date (part of the key) rather than the START DATE (not part of the key). Once those CDRs have been treated, it would be recommended to EITHER push them to the standard CDR table OR to make sure they are considered in ANY application searching for CDR details.
LAYER NETWORK	Reference	A Layer Network is defined by the complete set of Access Groups of the same type that may be associated for transferring information. The information transferred is characteristic of the layer network and is termed characteristic information. The associations of the trail terminations, that form a trail, in a layer network may be made and broken by a layer network management process thus changing its connectivity. A separate, logically distinct layer network exists for each trail termination type. The topology of a layer network is described by access groups, subnetworks, and the links between them.

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
LEGAL PROCESS STATUS TYPE	Lookup	Lookup for various states which a legal process could be in, as part of a party interaction (usually after an inability to find an agreement to pay debts).
LETTER TYPE	Lookup	Lookup for available types of letters that may be sent to CUSTOMER (page 2-62)s. For example: • Direct marketing • Legal letter • Contract confirmation letter (Welcome)
LIFECYCLE TYPE	Lookup	Type of Lifecycle, following the general marketing product lifecycle categorization. It can also be used as a further category to flag the market lifecycle period in which a specific product belong finds itself on the market.
LOCAL ADDRESS LOCATION	Reference	The local place within a given geographical address location to locate a specific object, such as a RESOURCE (page 2-171).
LOGICAL CAPACITY	Reference	This entity represents the minimum and maximum requirements, limits, or other variable features of different types of Managed Entities.
LOGICAL DEVICE	Reference	This entity represents logical concepts and services that can be managed that are associated with the device as a whole. Logical Device represents a convenient aggregation point for combining different aspects of a device (For example, software contained in the device, protocols that the devices runs, the set of services that it offers, and so forth). The Logical Device also enables the device itself to have a single logical manifestation. Conceptually, this represents the "brains" of the Device. For example, the Logical Device represents the set of entities required for a ROUTER (page 2-180) to know how to route packets.
LOGICAL DEVICE ATOMIC	Reference	Entity for representing logical concepts and services that can be managed which are associated with the device as a whole. Represents a convenient aggregation point for combining different aspects of a device (For example, software contained in the device, protocols that the devices runs, the set of services that it offers, and so forth). The Logical Device Atomic also enables the device itself to have a single logical manifestation. Represents all logical devices that are atomic in nature (For example, not made up of multiple distinct logical devices that can be separately managed).

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
LOGICAL DEVICE COMPOSITE	Reference	Entity for representing logical concepts and services that can be managed which are associated with the device as a whole. Represents a convenient aggregation point for combining different aspects of a device (For example, software contained in the device, protocols that the devices runs, the set of services that it offers, and so forth).
		The Logical Device Composite also enables the device itself to have a single logical manifestation. Represents all logical devices that are composite in nature (For example, made up of multiple distinct logical devices that can be separately managed). The composite pattern enables Logical Device Composite objects to be made up of LOGICAL DEVICE (page 2-100) objects (that is, either LOGICAL DEVICE ATOMIC (page 2-100) and/or Logical Device Composite objects).
LOGICAL DEVICE OS ASSIGNMENT	Reference	This is an association class, and defines the semantics of the Logical Device Uses OS association. This is a complex class, and consequently only a few simple attributes are shown in this viewpoint in order for the reader to get a flavor of the types of parameters defined in this class.
LOGICAL DEVICE ROLE	Reference	Defines required logical features to implement the different roles played by different LOGICAL DEVICE (page 2-100)s that are used in a PRODUCT SPECIFICATION (page 2-158) or SERVICE (page 2-183).
LOGICAL DEVICE ROLE SPEC	Reference	Entity for all Logical Device Role Specifications. The Logical Device Role Spec entity enables relationships to be defined between it and other classes in the core model. This helps prevent relationship explosion. The Logical Device Role Spec defines the invariant attributes, methods, relationships, and constraints of various types of roles associated with LOGICAL DEVICE (page 2-100)s in the model.
LOGICAL DEVICE SPECIFICATION	Reference	Grouping of Common and invariant characteristics and behavior associated with a type of LOGICAL DEVICE (page 2-100).
LOGICAL INTERFACE	Reference	An abstract entity that serves as the superclass for all virtual interfaces. Logical interfaces are also called virtual interfaces. This is because a logical interface has no hardware associated with it, and a logical interface is not physically connected to a network. A logical interface serves as a convenient aggregation point for running different relationships that affect its subclasses, thereby avoiding having to instantiate multiple relationships that are essentially the same.

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
LOGICAL RESOURCE	Reference	This entity describes different logical aspects of devices (For example, DEVICE INTERFACE (page 2-70)s) that constitute a PRODUCT SPECIFICATION (page 2-158). The Logical Resource has two main purposes. 1. To collect common attributes and relationships for all logical entities. 2. To provide a convenient, single point where relationships with other managed objects can be defined.
LOGICAL RESOURCE PHYSICAL SUPPORT	Reference	Defines how the LOGICAL RESOURCE (page 2-102) supports certain PHYSICAL RESOURCE (page 2-133)s.
LOGICAL RESOURCE ROLE	Reference	This entity defines the concept of various types of roles that can be associated with LOGICAL RESOURCE (page 2-102)s.
LOGICAL RESOURCE ROLE ASSIGNMENT	Reference	Implements the semantics of the Roles Describe Logical Resource aggregation.
LOGICAL RESOURCE ROLE SPECIFICATION	Reference	Entity for all LOGICAL RESOURCE ROLE (page 2-102) specification subclasses. The Logical Resource Role Spec enables relationships to be defined between it and other classes. This helps prevent relationship explosion. The Logical Resource Role Spec defines the invariant attributes, methods, relationships, and constraints of various types of roles associated with LOGICAL RESOURCE (page 2-102)s.
LOGICAL RESOURCE SPECIFICATION	Reference	This entity describes specific attributes, behavior, relationships, constraints, and semantics for building LOGICAL RESOURCE (page 2-102) objects. The purpose of this entity is to track specifications of LOGICAL RESOURCE (page 2-102)s separately from other types of Resource Specifications. This entity inherits the Modifies Resource Spec aggregation, and therefore can be used with the corresponding LOGICAL RESOURCE (page 2-102) entity. The difference between this entity and the Logical Resource Type Composite entity is that this entity represents standalone specifications of LOGICAL RESOURCE (page 2-102) objects. The Logical Resource Type Composite entity represents a hierarchy of specifications of LOGICAL RESOURCE (page 2-102) objects. This entity defines the invariant characteristics and behavior (attributes, methods, constraints, and relationships) of a LOGICAL RESOURCE (page 2-102)
LOGICAL RESOURCE SPECIFICATION ATOMIC	Reference	This is a concrete class for describing specific attributes, behavior, relationships, constraints, and semantics for building Logical Element objects. The purpose of this class is to be able to track specifications of Logical Elements separately from other types of ElementSpecifications..

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
LOGICAL RESOURCE SPECIFICATION COMPOSITE	Reference	This entity describes specific attributes, behavior, relationships, constraints, and semantics for building LOGICAL RESOURCE (page 2-102) objects. The purpose of this entity is to track specifications of LOGICAL RESOURCE (page 2-102) separately from other types of Resource Specifications. This entity inherits the Modifies Resource Spec aggregation, and therefore can be used with the corresponding LOGICAL RESOURCE (page 2-102) entity. The difference between this entity and the Logical Resource Type Atomic entity is that this entity represents a hierarchy of specifications for LOGICAL RESOURCE (page 2-102)s. The Logical Resource Type Atomic entity represents a single standalone specification of a LOGICAL RESOURCE (page 2-102).
LOGICAL RESOURCE SPECIFICATION PHYSICAL SUPPORT	Reference	Defines how the LOGICAL RESOURCE (page 2-102) support certain PHYSICAL RESOURCE (page 2-133)s.
LOGICAL RESOURCE SPECIFICATION VERSION	Reference	Tracks changes in individual RESOURCE SPECIFICATION (page 2-176) as it evolves with time.
LOGICAL RESOURCE TYPE VERSION	Reference	The purpose of this entity is to track Logical Resource Type specifications separately from other types of Resource Specifications. This entity inherits the modifiesResourceSpec aggregation, and therefore can be used with the corresponding Logical Resource Type specification entity.
LOGICAL RESOURCE VIRTUAL RESOURCE ASSIGNMENT	Reference	Definition of the Logical Resources provided by the virtual resources (relationship)
LOOKUP	Lookup	Abstract ENTITY (page 2-74) for all lookup entities.
LOOPBACK INTERFACE	Reference	A Loopback Interface is a virtual interface. Traffic sent to the Loopback Interface is forwarded to the Device itself for further processing. Subtype of DEVICE INTERFACE (page 2-70).
LOYALTY MEMBER POINT DAY DRVD	Derived	Similar to ACCOUNT BALANCE (page 2-25) for Loyalty Points, on a daily basis.
LOYALTY MEMBERSHIP ENROLL	Base	Describes the Loyalty membership enrollment event.
LOYALTY PROGRAM	Reference	Loyalty programs available to which customers may be members of.
LOYALTY PROGRAM MO AGGR	Aggregate	Monthly summary of LOYALTY PROGRAM (page 2-103) statistics by PRODUCT SPECIFICATION (page 2-158) and SALES CHANNEL (page 2-181).
LOYALTY TIER	Reference	Describes the LOYALTY PROGRAM (page 2-103) level of membership or tier (typically bronze, silver, gold, platinum) associated with a given loyalty program.

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
LOYALTY TIER CHANGE HISTORY	Base	Tracks all migration from one loyalty tier to the other of Membership Accounts with the reason.
LOYALTY TIER CLASS	Reference	Grouping of LOYALTY TIER (page 2-103) into "class", as required by the marketing needs.
LR STATUS	Lookup	Logical Resource Status as defined by TMF SID. The default values are: • 0: Unknown • 1: OK • 2: Initializing • 3: Starting • 4: Paused • 5: Stopping • 6: Stopped • 7: Degraded • 8: Stressed • 9: Predicted Failure • 10: Error - General • 11: Error - Non Recoverable • 12: Not Installed or Not Present • 13: In Maintenance • 14: Unable To Contact • 15: Lost Communications
MAILBOX	Reference	Mailbox allocated to a CUSTOMER (page 2-62).
MANAGE ACTION TYPE	Lookup	Lookup for type of management action that can be performed on a PRODUCT OFFERING (page 2-154). For example: • Marketing Manager • Creation • Marketing Research
MANAGED ENTITY	Reference	This is an abstract entity that represents entities in a managed environment that have the following semantics in common: • An ENTITY (page 2-74) owns or is otherwise responsible for them. • Management of the ENTITY (page 2-74) is critical for providing a service and maintaining the environment. • The ENTITY (page 2-74) is important from a management point-of-view.
MANAGED HARDWARE	Reference	This entity adds additional semantics to the Hardware base entity. These semantics provide management information on the hardware. For example, attributes defined by this entity can provide the administrative and operational state of the entity, and tell whether it has any alarms.

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
MANAGED RESOURCE	Abstract	Abstract table. A managed Resource is a Resource (as managed entity) ManagedResource is an entity that is manageable by electronic means. It produces and/or consumes other ManagedResources and/or Services, and has a distinct state. A ManagedResource may be a simple concept, such as a logical point of communication, or a complex concept, such as an Application or System.
MANAGED TRANSMISSION ENTITY	Reference	This entity describes different types of logical entities that are or help form connections that transmit and/or receive information. This represents a superclass to various ITU specs (For example, G.805 and M.3100) and the IETF concepts, such as those found in various RFCs, so that it can unite ITU and IETF concepts.
MANAGEMENT DOMAIN	Reference	Represents a special grouping of ENTITY (page 2-74)s that has two important properties. First, it is used to partition managed objects into a meaningful logical grouping. Second, it provides a means to show how management functions are distributed and scaled.
MANAGEMENT INFORMATION	Reference	Abstract entity represents entities that represent management information obtained in a managed environment. Specifically, in the process of managing an entity, information of various forms are created.
MANAGEMENT JOB	Base	Abstract Entity that stores general Information about Management of specific Job.
MANAGEMENT PROTOCOL	Reference	A Management Protocol is an abstract superclass for protocols that are dedicated to exchanging management information between network devices. This type of protocol is an application layer protocol, and is used for configuring, monitoring, and gathering information about devices.
MARITAL STATUS	Lookup	Lookup for marital status that may be assigned to an individual.
MARKER POOL	Reference	Represents a set of markings that can be used by one or more MARKER SERVICE (page 2-105)s. For example, different marker pools could be defined for different CUSTOMER (page 2-62)s as well as for different technologies.
MARKER SERVICE	Reference	Describes the Marker Service used to mark packets in a flow so that different devices in the network know how to treat the traffic that these packets belong to.
MARKER SERVICE MARKER POOL ASSIGNMENT	Reference	Association of a MARKER POOL (page 2-105) to a MARKER SERVICE (page 2-105).
MARKER TYPE	Lookup	List of the most common types of MARKER SERVICE (page 2-105), which sets existing bits in specific fields of a packet or frame:0: ToS1: DSCP2: 802-priority field3: 802-vlan id4: ISL class of service field (3 bits)5: Class of Service (other field)6: MPLS Label7: VC ID8: VC Bundle (set of VC IDs)

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
MARKET AREA	Reference	A geographic area or region or other connotation for which demographic data are available.
MARKET AREA LEVEL	Reference	Hierarchical levels of market area.
MARKET SEGMENT	Reference	A grouping of Parties, Geographic Areas, Sales Channels, and so forth. MARKET SEGMENT (page 2-106)s are the target of Marketing Campaigns, PRODUCT OFFERING (page 2-154), Product Promotions, Product Placements, and Product Programs from both internal and external, COMPETITOR (page 2-52)s, and other Providers, perspective.
MARKET SEGMENT CHARACTERISTIC	Reference	A characteristic quality or distinctive feature of a MARKET SEGMENT (page 2-106). The characteristic can be take on a discrete value, such as sex, can take on a range of values, (for example, household income of $50,000 - $100,000), or can be derived from a formula (for example, number of households = number of customer party roles).
MARKET SEGMENT CHARACTERISTIC VALUE	Reference	A number or text that can be assigned to a MARKET SEGMENT CHARACTERISTIC (page 2-106).
MARKET SEGMENT INCLUSION	Reference	The inclusion relationship between two MARKET SEGMENT (page 2-106)s.
MARKET SHARE AGGR	Aggregate	Defines market information (in particular of competitors), including Sales Revenue by Month, Address, and Business Unit.
MARKET SHARE DRVD	Derived	Defines the market information, including Sales Revenue by Month, Address, and Business Unit.
MARKET STATISTIC INCLUSION	Reference	Relationship between two market statistics.
MARKET STATISTICS	Reference	A categorization of performance measures by MARKET SEGMENT (page 2-106).
MATCHED POLICY	Base	Describes the policies that matched the incoming network trigger. Note: this entity is reserved for use by the Oracle Communications Policy and Charging Analytics solution.
MATCHED POLICY TABLE	Base	Specifies the table driven policies that matched the incoming network trigger. It can be filled with a different policy than in MATCHED POLICY (page 2-106) (policy driven rather than table driven).Having the same event for the same policy between MATCHED POLICY (page 2-106) and MATCHED POLICY TABLE is a bug in the configuration of the source. Note: this entity is reserved for use by the Oracle Communications Policy and Charging Analytics solution.

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
MEASUREMENT JOB	Reference	Contains the descriptions of the job for scheduling PM related activities: the collection of performance indicators or the production of performance indicators.
MEASUREMENT THRESHOLD JOB	Base	List the various Jobs related to Performance Measurement via Thresholds.TMF SID: A job for evaluating thresholds defined over performance indicators.(check TIP for more details).Note that this table is a BASE table as you normally have multiple jobs.A Measurement Job can measure only 1 Performance Threshold at a time
MEDIA INTERFACE	Reference	This entity serves as the superclass for all virtual interfaces. Logical Interfaces are also called virtual interfaces. This is because a Logical Interface has no hardware associated with it, and it is not physically connected to a network. The Media Interface serves as a convenient aggregation point for running different relationships that affect its subclasses, thereby avoiding having to instantiate multiple relationships that are essentially the same.
MEDIA INTERFACE LOGICAL INTERFACE ASSIGNMENT	Reference	Association of a logical interface with a media interface (USB, DVD Player...).
MEDIA INTERFACE TYPE	Lookup	Type of media interface available (USB, SD Card Reader, DVD Player,...).
MEDIA OBJECT	Reference	Any form of media in which a CAMPAIGN MESSAGE (page 2-45) may appear. For example: • Newspaper page • Television time slot
MEDIA OBJECT ASSIGNMENT	Reference	Relation of one MEDIA OBJECT (page 2-107) to another MEDIA OBJECT (page 2-107).
MEDIA OBJECT COST	Base	Costs incurred in the usage of a MEDIA OBJECT (page 2-107). Subtype of the COST (page 2-60) that collects all costs related to a specific media (Newspaper, Television spots, Fliers, and so on).
MEDIA OBJECT TYPE	Lookup	Lookup for available types of MEDIA OBJECT (page 2-107)s. For example: • Newspaper • Television
MEDIATED CALL EVENT	Base	The mediated call event with original device information, dropped call, and missed call information, which is normally ignored by rating engine. The call event are collected before the calls are rated by rating engine.
MEDIATION STATUS CATEGORY	Lookup	Lookup for category of mediation status, such as successfully mediated or failed.

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
MEDIATION STATUS REASON	Lookup	Lookup for reasons why the UDR event is at certain mediation status. For example: • Corrupted File • Missing record
MEDIATION STATUS TYPE	Lookup	Lookup of the mediation status of a given raw UDR event. For example: • <Rejected> • <Successful>
MEMBERSHIP ACCOUNT	Reference	Loyalty Account or ACCOUNT (page 2-25) specifically defined for and associated to LOYALTY PROGRAM (page 2-103)s. The same customer may have multiple membership accounts.
MEMBERSHIP ACCOUNT BALANCE HISTORY	Base	Stores the account balance history for MEMBERSHIP ACCOUNT (page 2-108) (Loyalty) as counterpart of ACCOUNT BALANCE (page 2-25).
METER PROFILE	Reference	Traffic profile that the METER SERVICE (page 2-108) can use to compare traffic against. The Meter Profile defines what levels of traffic pass through the METER SERVICE (page 2-108): Levels that are unaltered Levels that get delayed Levels that get dropped Levels that get further analyzed
METER SERVICE	Reference	A meter is a basic traffic conditioning building block. A meter determines the level of conformance of each packet or flow with respect to a pre-established traffic profile by monitoring a metric of a packet or flow (for example its arrival time). Subtype of TRAFFIC CONDITIONING SERVICE (page 2-207).
METER SERVICE PROFILE ASSIGNMENT	Reference	Association of a METER SERVICE (page 2-108) with a specific Meter or traffic Profile against which the measures (of the packet) are done.
MINING CHURN TYPE	Lookup	Specifies mining churn types.
MINING LIFE TIME SURVIVAL VALUE BAND	Lookup	Specifies customer life time survival value band details.
MINING LIFE TIME VALUE BAND	Lookup	Specifies customer life time value band details; band of customer life time value that is predicted from the data mining model. For example, 0~100 USD, 100~200 USD, and so on.
MINING SENTIMENT CATEGORY	Lookup	Specifies details of mining sentiment category.
MINUTE	Reference	Defines minutes as part of time.

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
MME	Reference	The MOBILITY MANAGEMENT ENTITY (MME) is a key component in LTE network, which authenticates users, and so on. Subtype of PHYSICAL DEVICE (page 2-131).
MMS EVENT	Base	Subtype of UDR EVENT (page 2-208), which collects all information of calls of type Multimedia Messaging Service (MMS).
MMS SERVICE	Base	Specifies the information relative to all the MMS services that customer is using. Subtype of CUSTOMER FACING SERVICE (page 2-64).
MOBILE SWITCHING CENTER	Reference	The Mobile Switching Center (MSC) is a sophisticated telephone exchange which provides circuit-switched calling, mobility management, and GSM services to the mobile phones roaming within the area that it serves. This includes voice, data and fax services, and SMS and call divert services.
MODEL TYPE	Lookup	Lookup for the model types of items. There may be different "types" for a given model. For example, for a handset a model may allow "Bluetooth" or not.
MONITORED CLASS CRITERIA	Reference	This entity collects criteria for specifying what monitored objects are referenced by a query, specifying a monitored object class in conjunction with a filter.
MONITORED INSTANCES CRITERIA	Reference	This entity collects criteria for specifying what monitored objects are referenced by a query, specifying a list of monitored object instances.
MONITORED OBJECTS CRITERIA	Reference	The entity collects the criteria for specifying what monitored objects are referenced by a query, both scheduled or ad-hoc.
MONTH TODATE TRANSFORMATION	Reference	Defines related calendar elements for performing to-date time transformations.
MONTH TRANSFORMATION	Reference	Transformations with respect to a month. For example: • This month last year • This year last month
MSC SERVER	Reference	Subtype of PHYSICAL DEVICE (page 2-131).
MSC TRAFFIC DAY DRVD	Derived	Parameters, configurations, and run time statistics related to the MSC (Mobile Switch Center) functioning and performance.
MSC TRAFFIC MONTH AGGR	Aggregate	Monthly aggregation of parameters, configurations, and run time statistics related to the MSC (Mobile Switch Center) functioning and performance.
MUSIC DOWNLOAD	Reference	Subtype of VALUE ADDED SERVICE (page 2-211) and PRODUCT SPECIFICATION (page 2-158), which contains the information relative to the music downloading service.
NAICS CLASSIFICATION	Reference	Specifies classifications in the North American Classification System (NAICS).

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
NAICS INDUSTRY	Reference	Lowest level classification for Industry in the North American Industry Classification System (NAICS).
NAICS INDUSTRY GROUP	Reference	Lookup for Classification Groups in the North American Industry Classification System (NAICS).
NAICS INDUSTRY SECTOR	Reference	Lookup for Industry Sectors in the North American Industry Classification System (NAICS).
NAICS INDUSTRY SUBSECTOR	Reference	Lookup for Industry Sub-sectors in the North American Industry Classification System (NAICS).
NATIONALITY	Lookup	Lookup for available nationalities.
NEGOTIATED SERVICE LEVEL SPEC	Reference	The negotiated service level spec, compared to predefined SLA spec.
NETWORK	Reference	Names and Service Providers for relevant Networks. The full details of a service provider are found in the PARTY (page 2-120) and Organizations entities.
		A Network is a managed object that represents an aggregation of interconnected telecommunications and management objects capable of exchanging information. The reason that a Network is subclassed from Resource Collection is that it is important that a Network represents physical and logical characteristics and behavior of this collection of telecommunications and management objects. A Network has the additional semantics of having one or more common characteristics and/or behavior. For example, a network may be owned by a single customer or provider, or be associated with the delivery of a specific set of services. A network may be nested within another (larger) network, thereby forming a containment relationship. An example of a network that is contained in another network is a transmission sub-network. The Network is owned by a single Administration and can only perform transmission functions.
NETWORK ADDRESS	Reference	Represents the generic concept of a network address. The Network Address subclasses define different types of addresses of different technologies, such as an IP ADDRESS (page 2-95) or an IPXAddress. The use of a Network Address lies in its ability to serve as a convenient point for sourcing and terminating relationships. This eliminates undue duplication of relationships that interact with the subclasses of NETWORK ADDRESS (page 2-110).
NETWORK ADDRESS INTERFACE BINDING	Reference	Defines the semantics of how this NETWORK ADDRESS (page 2-110) is contained in this particular DEVICE INTERFACE (page 2-70).
NETWORK ADDRESS TYPE	Lookup	Lookup for the type of network addresses, that is, the invariant characteristics that define a NETWORK ADDRESS (page 2-110). For example, IPv4, IPv6, IPX, and so on.

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
NETWORK ASSIGNMENT	Reference	Defines the relationship between NETWORK (page 2-110)s. For example: • One network relies on another network to function. • One network belongs to another network.
NETWORK ASSIGNMENT TYPE	Lookup	Lookup for type of network relationship. For example: • Composition (one network include another one) • RELY (one network relies on another one)
NETWORK ATOMIC	Reference	Represents a standalone Network. Network Atomics may be combined into larger Networks by aggregating them into an appropriate Network Composite object.
NETWORK AVAILABILITY DAY DRVD	Derived	Statistics of network availability measures and all outages that happened to the operator's network.
NETWORK AVAILABILITY MONTH AGGR	Aggregate	Monthly aggregation of network availability statistics and all outages that happened to the operator's network.
NETWORK CAPACITY	Reference	The network capacity of a given network route, trail, or connections.
NETWORK COMPOSITE	Reference	Represents an aggregation of Network Atomic and possibly Network Composite objects. Each Network Atomic object represents a standalone Network; these can be combined to build larger Networks by choosing the appropriate type of Network Composite object to aggregate Network Atomic objects. A Network Composite object can also aggregate Network Composite objects.
NETWORK DOMAIN	Reference	A Network Domain represents a set of Managed Physical Entities that share a common set of administrative and operational characteristics. Primary among these is the use of a common naming methodology. A Network Domain partitions Managed Entity instances into logical groupings. For example, operational and/or administrative groups, that are controlled by one or more common managers. Network Domains provide one way to administer and control the operational characteristics of a set of Managed Entities.
NETWORK DOMAIN ASSIGNMENT	Reference	Assigns RESOURCE (page 2-171) into NETWORK DOMAIN (page 2-111).
NETWORK FORWARDING SERVICE	Reference	Subtype of RESOURCE FACING SERVICE (page 2-173)
NETWORK FUNCTION	Reference	A Network Function is a Functional Block (FB) within a network infrastructure which has well-defined external interfaces and well-defined functional behavior.
NETWORK FUNCTION ASSIGNMENT	Reference	Relationship between two network functions (parenthood, dependencies, and so on)

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
NETWORK FUNCTION ATOMIC	Reference	Network Function that is not further decomposed into finer grained Network Functions. Abstract table (physicalized in NETWORK FUNCTION).
NETWORK FUNCTION COMPOSITE	Reference	Collection of Atomic and Composite Network Functions. Abstract table (physicalized in NETWORK FUNCTION).
NETWORK FUNCTION INTERNAL TOPOLOGY	Reference	An Adjacency Graph expressing the adjacency requirements between the internal connection points of the VNF Components.
NETWORK FUNCTION STATE	Reference	Internal state of a Network Function as defined by SysML state machine.
NETWORK FUNCTION TRANSFER FUNCTION	Reference	A NFTransferFunction represents the concept of processing a set of inputs to produce a set of outputs given a particular state as defined by SysML.
NETWORK FUNCTION VIRTUAL RESOURCE ASSIGNMENT	Reference	Definition of the virtual resources provided to a given NETWORK FUNCTION (relationship)
NETWORK NODE	Reference	Defines a Resource that can be a logical group of one or more equipment instances functioning as a single element. It is a sub-type of COMPOUND RESOURCE.Physically, it maps to COMPOUND RESOURCE.
NETWORK ROUTE	Reference	Defines a series of locations a network route may pass.
NETWORK ROUTE POINT	Reference	The points a NETWORK ROUTE (page 2-112) may pass through.
NETWORK ROUTE POINT ASSIGNMENT	Reference	Assignment of NETWORK ROUTE POINT (page 2-112)s to their NETWORK ROUTE (page 2-112). Multiple NETWORK ROUTE (page 2-112)s may share the same NETWORK ROUTE POINT (page 2-112).
NETWORK ROUTE SECTION	Reference	Continuous Section of NETWORK ROUTE (page 2-112),that can be easily and unambiguously defined (for example a linear section from a repeater to the next).
NETWORK SERVICE	Reference	Composition of Network Functions and defined by its functional and behavioural specification.
NETWORK SERVICE ASSIGNMENT	Reference	Relationships between NETWORK SERVICES (typically parenthood).
NETWORK SERVICE ATOMIC	Reference	Network Service that is not further decomposed into finer grained Network Services (abstract table, physicalized as NETWORK SERVICE).
NETWORK SERVICE COMPOSITE	Reference	Collection of Atomic and Composite Network Services (abstract table, physicalized as NETWORK SERVICE).
NETWORK SERVICE COVERAGE ASSIGNMENT	Reference	Defines the relationship between NETWORK TOUCHPOINT (page 2-113) and SERVICE COVERAGE AREA (page 2-186).

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
NETWORK SERVICE NETWORK FUNCTION ASSIGNMENT	Reference	Relationship between the NETWORK SERVICES and the NETWORK FUNCTIONS they require and leverage (typically parenthood).
NETWORK SITE	Reference	Specifies a place where RESOURCE (page 2-171)s are located or installed.
NETWORK SITE ADDITIONAL TEXT	Reference	Additional Text or Information for specific Network Site.
NETWORK SITE ADDRESS LOCATION HISTORY	Reference	Keeps history of the address location of a given network site.
NETWORK TOUCHPOINT	Reference	Point of service site for a subscriber to access a CELL SITE (page 2-47) or FIXED LINE PORT (page 2-82). The site is a geographical point instead of area, therefore, it belongs to some geographical entity. For example, a city or a town rather than a type of the GEOGRAPHY ENTITY (page 2-84). For example: • BTS in GSM network • Customer installation site in ADSL broadband
NETWORK TOUCHPOINT CLASS	Lookup	Lookup for available classes of NETWORK TOUCHPOINT (page 2-113). For example: • Public • Private
NETWORK TOUCHPOINT DRVD	Derived	Monthly summary of NETWORK TOUCHPOINT (page 2-113)s by NETWORK (page 2-110), County, and so on.
NETWORK TOUCHPOINT MONTH AGGR	Aggregate	Monthly summary of NETWORK TOUCHPOINT (page 2-113)s by CUSTOMER (page 2-62), NETWORK (page 2-110), Address, and so on.
NETWORK TOUCHPOINT STATUS	Lookup	Lookup for Available Status codes and descriptions of NETWORK TOUCHPOINT (page 2-113).
NETWORK TOUCHPOINT TYPE	Lookup	Lookup for the type of NETWORK TOUCHPOINT (page 2-113). For example: • Cell Site (Wireless) • International Switch (roaming partners) • Ethernet Socket at Customer site (last mile included - wireline/broadband) • Switch (wireline - exclusive last mile - wireline/broadband)
NETWORK TYPE	Lookup	Lookup for the types of NETWORK (page 2-110). Will include: • PSTN • GSM • CDMA

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
NOTIFICATION TYPE	Lookup	Lookup for types of notification a subscriber may receive when a call is received by or diverted to a UMS or VMS mailbox. For example: • SMS • Internet mail The UMS Notification Type dimension helps to organize the notifications data by notification type, along with other dimensions.
NP MOBILE MSISDN	Reference	The mobile MSISDN number of ported number.
NP REQUEST HEADER	Base	The Number Porting (NP) Request submitted by a customer (Porting In) or a recipient operator (Porting Out).
NP REQUEST LINE ITEM	Base	Request Line Item within a Number Porting (NP) request.
NP REQUEST LINE ITEM STATE HISTORY	Base	State history for Number Porting (NP) request line items.
NP REQUEST LINE ITEM STATE TYPE	Lookup	Lookup for type of Number Porting (NP) line item state. For example: • Passed • Pending
NP REQUEST STATE HISTORY	Base	State history for the Number Porting (NP) request.
NP REQUEST STATE REASON	Lookup	Lists the possible reasons why a Number Portability Request is in a specific state. Such as 'Fraud','Lack of Document'.
NP REQUEST STATE TYPE	Lookup	Lookup for type of state for Number Porting (NP) request. For example: • Pre-application • Application • Document check
NP REQUEST TYPE	Lookup	Lookup for type of Number Porting (NP) Request. For example: • Porting In • Porting Out
NP STEP	Lookup	Step involved in the Number Porting (NP) request. For example: • Application • Document check • Notify NPAC
NUMBER AREA	Reference	Defines the codes associated to a given area; these codes are typically used for calls to a fixed line number. For example: • 1 for Paris (in France) • 89 for Munich (in Germany) A number area could also be associated to other operators, and not to a geographical area. For example, 9 in France.

Table 2-4   (Cont.) K to N Entity Descriptions

Entity Name	Type	Description
NUMBER AREA TYPE	Lookup	Lists the types of Number Area. Typically, it is the type of NUMBER AREA can be - "Country Code" (the first 2 to 4 digits, so +49 for Germany or 001 for USA – from Europe) or - the national access code (simple 0 or 1). - The "Area Code" or "Numbering Plan Area Code" or "Central Office Code", which can be of fixed or variable lengths (from 1 to 5, typically 3 in US: the 1st 3 digit of a 10 digits (local) phone number (in US & Canada – NANP, 2 digits Brazil, 1 in Australia & New Zealand), - the "destination or subscriber code" - the last digits - usually not stored (as Number Area Type)
NUMBER COUNTRY	Reference	Country number. For example: • US-01 • China-86
NUMBER NETWORK TYPE	Lookup	Lookup for available classifications for the network technology, used in relation to subscriptions. For example: • in MICA-GCM: CDMA • in Flexcab - NTWK, NNSA, WRBL, and so on
NUMBER PORT DAY DRVD	Derived	Aggregation of daily Porting Requests (in/out).
NUMBER PORT MONTH AGGR	Aggregate	Monthly summary of Porting Requests (in/out).

Table 2-5   O to R Entity Descriptions

Entity Name	Type	Description
ON OFF NET TYPE	Lookup	Lookup of call classifications: • On net • Off net
OPERATING SYSTEM	Reference	An Operating System is a concrete entity that represents either software and/or firmware that runs the LOGICAL RESOURCE (page 2-102). This entity implements and manages the Resources, tasks, file systems, security, and data available on the LOGICAL RESOURCE (page 2-102). An Operating System is distinct from software applications that are run on the Resource. All applications and software must communicate with the Operating System for all operations that they need.
OPERATOR GROUP	Lookup	Classification group for operators. For example, the group can be classified as: • Global Direct Competing • Local Competitor • Allied by Stock Share

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
OPERATOR TYPE	Lookup	Lookup for operator type to classify operators. For example: • International • Local International operators normally have multiple subsidiaries whose relationship is modeled in the party relationship.
ORACLE GEOMETRY	Reference	Provides geometry information.
ORDER LINE ITEM STATE	Reference	Lookup for the status that a given order line item, in a command, can be assigned. For example: • Pending • Waiting for Customer feedback • Closed • Started • Error
ORDER LINE ITEM STATE TYPE	Lookup	Lookup for the status that a given order line item can be at. For example:"Pending" "Waiting for Customer feedback" "Closed" "Started" "Error"
ORDER STATE	Lookup	Lookup for the type of Order State. For example: • Open / Processing • Pending / Waiting for Customer Feedback • Pending / Waiting for Internal Feedback • Pending / Waiting for Third Party Feedback • Error • Closed • Cancelled
ORDER STATE TYPE	Lookup	Type of ORDER STATE (page 2-116), used for grouping or summary purpose.
ORDER TYPE	Lookup	Lookup for type of CUSTOMER ORDER (page 2-66). For example: • Order for Pickup • Order for Delivery • Order for Activation
ORGANIZATION	Reference	A sub-type of PARTY (page 2-120) that is related to the Communications Service Provider, usually from a Retail perspective. It is not part of the Communications Service Provider. It could have a role as customer upon which it the information should be repeated in CUSTOMER ORGANIZATION (page 2-67).
ORGANIZATION AREA	Reference	An ORGANIZATION HIERARCHY LEVEL (page 2-118) within an ORGANIZATION CHAIN (page 2-117). The Organization Area entity is the parent of one or more ORGANIZATION REGION (page 2-118)s.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
ORGANIZATION BANNER	Reference	The name of Company, Organization, or subsidiary that is recognizable to the consumer or the name of the store as it appears on the catalog, web channel, or brick and mortar store.
ORGANIZATION BUSINESS ENTITY	Reference	Any logical entity that is a part of the enterprise for business analysis and transactions. Classification for a business entity can include company, operation unit, store, or warehouse.
ORGANIZATION BUSINESS UNIT	Reference	A business unit of the organization that delivers a limited range of specific communications services or merchandise through any sales channel (Web Site, store, partner stands, and so on). For example, for the SuperTelco example, two Business Units could be defined as: • SuperTelco Communications (Mobile) • SuperData (Broadband)
ORGANIZATION BUSINESS UNIT COST	Base	Sub-table of COST (page 2-60). This entity associates a specific cost to an ORGANIZATION BUSINESS UNIT (page 2-117) (for those costs not covered by EMPLOYEE COST (page 2-73)).
ORGANIZATION BUSINESS UNIT HOURS DAY DRVD	Derived	Simple daily summary at ORGANIZATION BUSINESS UNIT (page 2-117) level of working, Opening and closing times. It should be limited to any units that may receive public (Retail Shops).
ORGANIZATION BUSINESS UNIT TYPE	Lookup	Lookup for type of ORGANIZATION BUSINESS UNIT (page 2-117). For example: • Call Center • Branch Office • Warehouse
ORGANIZATION CHAIN	Reference	An ORGANIZATION HIERARCHY LEVEL (page 2-118) within an ORGANIZATION COMPANY (page 2-117). Organization Chain entity is the parent of one or more ORGANIZATION AREA (page 2-116)s.
ORGANIZATION COMPANY	Reference	An ORGANIZATION HIERARCHY LEVEL (page 2-118) within an ORGANIZATION CORPORATE (page 2-117). Organization Company entity is the parent of one or more ORGANIZATION CHAIN (page 2-117)s.
ORGANIZATION CORPORATE	Reference	Highest level of ORGANIZATION HIERARCHY (page 2-118). Organization Corporate entity is the parent of one or more ORGANIZATION COMPANY (page 2-117)s.
ORGANIZATION DISTRICT	Reference	An ORGANIZATION HIERARCHY LEVEL (page 2-118) within an ORGANIZATION REGION (page 2-118). Organization District entity is the parent of one or more ORGANIZATION BUSINESS UNIT (page 2-117)s.
ORGANIZATION DIVISION	Reference	An ORGANIZATION HIERARCHY LEVEL (page 2-118) within ORGANIZATION CORPORATE (page 2-117).

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
ORGANIZATION HIERARCHY	Reference	User defined. Master list of all of the hierarchies in an organization.
ORGANIZATION HIERARCHY LEVEL	Reference	The association entity for the hierarchies and levels.
ORGANIZATION HIERARCHY LEVEL ASSIGNMENT	Reference	Assignment of Hierarchy Levels to ORGANIZATION HIERARCHY (page 2-118).
ORGANIZATION HIERARCHY VERSION	Reference	Version of ORGANIZATION HIERARCHY (page 2-118).
ORGANIZATION ITEM SELLING PRICE	Reference	Associate selling price to the item. Each organization might have different prices for the same item model.
ORGANIZATION LEVEL	Reference	List of all the business levels within an organization.
ORGANIZATION LEVEL ATTRIBUTE VALUE	Reference	Values for the user defined attributes associated with an ORGANIZATION HIERARCHY LEVEL (page 2-118).
ORGANIZATION LEVEL ATTRIBUTES	Reference	Attributes assigned to an ORGANIZATION LEVEL (page 2-118).
ORGANIZATION MARKET DATA	Reference	Publicly available and statistical information regarding the internal or external parties, such as DUNS number and number of employees.
ORGANIZATION NAME	Reference	Different types of organization names represent the associated business legal status of their organization.
ORGANIZATION REGION	Reference	An ORGANIZATION HIERARCHY LEVEL (page 2-118) within an ORGANIZATION AREA (page 2-116). Organization Region entity is the parent of one or more ORGANIZATION DISTRICT (page 2-117)s.
ORGANIZATION SERVICE WEBSITE	Reference	Subtype of the ORGANIZATION BUSINESS UNIT (page 2-117). This entity collects all information on websites managed by the operator. This normally includes only public information.
ORGANIZATION TYPE	Lookup	Type of ORGANIZATION (page 2-116). The category is similar to ORGANIZATION BUSINESS UNIT TYPE (page 2-117) but they can be different.
ORGANIZATION WAREHOUSE	Reference	Location in which goods or merchandise (routers, handsets, computers, and so on) are stored but not sold, before they are sent to the shops or utilized by CSP. For example: • Chairs • Telephone poles • Network equipment • Auto transmissions • Handsets

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
ORGANIZATIONAL DEMOGRAPHY VALUE	Reference	User defined attribute definitions and corresponding values regarding demographic statistics as related to an ORGANIZATION BUSINESS UNIT (page 2-117).
OS LICENSE ASSIGNMENT	Reference	Defines the semantics of the Party Role Licenses OS association. The OS License Assignment attributes help specify the licensing details for this particular OPERATING SYSTEM (page 2-115) instance.
OTHER INDIVIDUAL	Reference	Individual associated with a PARTY (page 2-120) organization, other than those defined such as CUSTOMER (page 2-62) or EMPLOYEE (page 2-72).
P LOGICAL DEVICE ROLE	Reference	Defines required logical features to implement the specific role of a P (Provider Core) device, as used in a PRODUCT SPECIFICATION (page 2-158) or SERVICE (page 2-183).
PACKET CONTROL UNIT OUTAGE REASON	Lookup	Lookup for reasons for a Packet Control Unit (PCU) outage in GPRS technology. For example: • Link Down • Bit Error Rate
PAGE	Reference	Web Page Description as part of a complete website navigation build-up and tracking.
PARTNER PAYMENT	Base	The payment made to the partners, such as vendors, dealers, and so on. The partners may also have accounts in the source system such as Oracle BRM, therefore, this payment may refer to that account.
PARTNER PAYMENT TYPE	Lookup	Lookup for types of partner payment transactions. For example: • Dealer commission • Purchase order Payment
PARTNER PROMOTION PROGRAM	Reference	Assigns costs of a given PROMOTION (page 2-163) to a Partner or PARTY (page 2-120) participating in the promotion.
PARTNER SETTLEMENT DRVD	Derived	Financial settlement activities that have happened to each partner within the month.
PARTNER SETTLEMENT MONTH AGGR	Aggregate	The monthly summary of financial settlement activities that have happened to partners at higher level.
PARTNER SETTLEMENT REASON	Lookup	Lookup for valid reason codes for a partner settlement.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PARTY	Reference	A party is a real person, organization, branch, subsidiary, legal entity, holding company, or some other entity. Any real thing that you would want to put a name to is a party.
		The attributes of a party are universal. In other words, they are independent of your selling, or ultimately buying relationship with the party.
		A party is not necessarily a customer. A party can represent prospects and parts of an ORGANIZATION HIERARCHY (page 2-118), including branches, head offices, corporate conglomerates, that may not necessarily have a billing relationship with the company.
		Any party that has an active account can be considered a customer.
		Historical information concerning the party is available in the Parties History.
PARTY ACCOUNT ASSIGNMENT	Reference	Assignment of a PARTY (page 2-120) to an ACCOUNT (page 2-25). Depending on type of party, the relationship can be:
		• Customer owns the ACCOUNT (page 2-25) (typically for individual customers: there is one customer and one account)
		• Multiple Customers may share the same account:
		This type of assignment is typical when several ORGANIZATION BUSINESS UNIT (page 2-117)s or individuals, association or employees, have, for example, a shared balance of free minutes to use on top of their own package (with their own ACCOUNT (page 2-25)).
PARTY ACCOUNT ASSIGNMENT TYPE	Lookup	Lookup for type of relationship between PARTY (page 2-120) and ACCOUNT (page 2-25). Depending on type of party, the relationship can be:
		• Customer owns the account
		• Multiple customers may share the same account
PARTY ADDRESS LOCATION ASSIGNMENT	Reference	Associates one or more ADDRESS LOCATION (page 2-30)s with a PARTY (page 2-120).
PARTY AGREEMENT ASSIGNMENT	Reference	Assignment of a PARTY (page 2-120) to an AGREEMENT (page 2-33), in general, or a contract.
PARTY AGREEMENT ASSIGNMENT ROLE	Lookup	Lookup for valid Roles that Parties may be assigned in PARTY AGREEMENT ASSIGNMENT (page 2-120).
PARTY AGREEMENT ASSIGNMENT TYPE	Lookup	Lookup for type of the PARTY AGREEMENT ASSIGNMENT (page 2-120)s. For example:
		• Customer agreement
		• Managing employee

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PARTY AM PRODUCT OFFERING ASSIGNMENT HISTORY	Base	The status history of assignment among PARTY (page 2-120), ACCESS METHOD (page 2-22), and PRODUCT OFFERING (page 2-154). The assignment history among ACCESS METHOD (page 2-22), PRODUCT OFFERING (page 2-154), and PARTY (page 2-120).
PARTY AM PRODUCT OFFERING ASSIGNMENT STATUS	Base	The current status and relationship between ACCESS METHOD (page 2-22), PRODUCT OFFERING (page 2-154) and PARTY (page 2-120), before being moved to PARTY AM PRODUCT OFFERING ASSIGNMENT HISTORY (page 2-121) once changed.
PARTY ASSIGNMENT	Reference	Association of a PARTY (page 2-120) with one or more other Parties.
		The relationships may include relationships between customers or between customers and the telecommunications operator. An example of the later type of relationship, are account management portfolios where an account manager will have a relationship with one or more customers.
PARTY ASSIGNMENT REASON	Lookup	Lookup for valid reasons parties may be associated with each other. For example:
		• Cooptation (customer brings in a new customer)
		• Financial Responsibility
		• Hierarchical relationship in the organization
		• Contractual agreement
PARTY ASSIGNMENT TYPE	Lookup	Lookup for the type of the party relationship. For example:
		• Father and son
		• Organizational hierarchy, subsidiary
		• Customer referral
PARTY BUSINESS INTERACTION ROLE	Reference	The business interaction role which can be assigned by a PARTY (page 2-120).
PARTY CONTACT INFORMATION	Reference	Contact information for a party.
PARTY CONTACT INFORMATION TYPE	Lookup	Lookup for the type of contact information. For example:
		• Email
		• Home telephone number
		• Office telephone number
		• Cell phone number
		• Pager number
PARTY CONTACT LIST PARTICIPATION	Lookup	Relationship between PARTY (page 2-120) and CONTACT LIST (page 2-59). For example, a party belongs to a contact list.
PARTY CONTACT LIST ROLE	Lookup	The Role of the PARTY (page 2-120) in a CONTACT LIST (page 2-59).

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PARTY COST ASSIGNMENT	Base	Assignment of cost items to a PARTY (page 2-120). One party may incur multiple costs. For example, for a customer acquisition the customer might be given any of the following items that lead to costs: • Handset • Network Device • Gifts Cost might be assigned to multiple parties. For example, for operational cost several organizations may share the same expense on a PROMOTION (page 2-163) or CAMPAIGN (page 2-44).
PARTY DEMOGRAPHIC	Reference	A demographic profile for a PARTY (page 2-120).
PARTY DEMOGRAPHIC ASSIGNMENT	Reference	Specifies the relationship between PARTY DEMOGRAPHIC (page 2-122) attributes (typically Parent Child relationship).
PARTY DEMOGRAPHIC VALUE	Reference	Defines individual and organization demography value for a given party demographic profile.
PARTY EVENT TYPE	Lookup	Lookup for valid EVENT TYPE (page 2-80)s that may be assigned to a party profile for the various event types that may be actioned against a party.
PARTY GEOGRAPHY ENTITY ASSIGNMENT	Reference	Assigns a PARTY (page 2-120) to one or more GEOGRAPHY ENTITY (page 2-84)s.
PARTY IDENTIFICATION	Reference	Identifying information unique to a PARTY (page 2-120).
PARTY IDENTIFICATION TYPE	Lookup	Lookup for valid types of PARTY IDENTIFICATION (page 2-122). For example: • Driver's License • DUNS Number
PARTY LANGUAGE CAPABILITY	Reference	Keeps the language capability score for each party.
PARTY LOCATION REASON	Lookup	Lookup for available reason code and description for why a PARTY (page 2-120) may be assigned to an address. For example: • Billing address • Shipping address
PARTY LOCATION TYPE	Lookup	The type of relationship between the PARTY (page 2-120) and the address. For example: • Office location • Primary Living location • Product Installation Address
PARTY MANAGEMENT ROLE	Lookup	Defines all roles which a party plays in a CAMPAIGN (page 2-44), such as management or potential customer.
PARTY MARKET SEGMENT ASSIGNMENT	Reference	Assigns a PARTY (page 2-120) to the market segment it belongs to.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PARTY NAME	Reference	Lists any other known names from the life history of a given party.
PARTY ORDER ASSIGNMENT	Base	Assignment of PARTY (page 2-120) to a given Order. For example: • Sales Agent gets a sales commission because of a customer order. • A customer refers another customer to the operator network. The customer may receive incentives.
PARTY ORDER ASSIGNMENT TYPE	Lookup	Lookup for available assignment type codes and descriptions pertaining to PARTY ORDER ASSIGNMENT (page 2-123). For example: • Customer of agreement • Sales agent for the order • Vendor selling the order
PARTY PARTY PROFILE ASSIGNMENT	Reference	Association of a Party with its party profile.Note that a given Party can have several party profiles at the same time.
PARTY PARTY PROFILE VALUE USE	Reference	Effective Characteristic Values used for the given Party Profile Type associated with a Party.
PARTY PRODUCT SUBSCRIPTION ASSIGNMENT	Reference	Defines a PARTY (page 2-120)'s relationship to a PRODUCT SUBSCRIPTION (page 2-161). For example: a customer owns a subscription.
PARTY PRODUCT SUBSCRIPTION ROLE	Lookup	Lookup for valid Roles that may be assigned to PARTY (page 2-120) in regards to the PRODUCT SUBSCRIPTION (page 2-161).
PARTY PROFILE	Reference	A match between a PARTY (page 2-120) and a PARTY PROFILE TYPE (page 2-123). It is based on matching PARTY (page 2-120) characteristics, such as use of a product, with the characteristics of a PARTY PROFILE TYPE (page 2-123).
PARTY PROFILE CHARACTERISTIC ASSIGNMENT	Reference	Association of (Profile specific) Characteristics to a given PARTY PROFILE (page 2-123).
PARTY PROFILE TYPE	Lookup	List of possible types of PARTY PROFILE (page 2-123). For example: • Party Preference for Marketing actions • Party Interests (Music, Sports, and so on)
PARTY PROFILE TYPE CHARACTERISTIC	Reference	The characteristic a party profile may take. For example, age, education, and so on.
PARTY PROFILE TYPE CHARACTERISTIC ASSIGNMENT	Reference	Associates a Party PROFILE type to a given (list of) Party Profile characteristic. The association of possible values to Party Profile Type is done via The association of effective values to PARTY using a given Party Profile is done via

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PARTY PROFILE TYPE CHARACTERISTIC RELATIONSHIP	Reference	The characteristic a party profile may take, for example, age, education, etc.
PARTY PROFILE TYPE CHARACTERISTIC VALUE	Reference	The actual value for each PARTY PROFILE TYPE CHARACTERISTIC (page 2-123) on the party profile.
PARTY PROFILE TYPE CHARACTERISTIC VALUE ASSIGNMENT	Reference	Associates a Party PROFILE type to a given (list of) *allowed* Party Profile characteristic values.it is not the final association to a given party.
PARTY PROJECT PARTICIPATION	Reference	Describe the roles of each party in the project.
PARTY PROMOTION RESPONSE	Base	Response of a PARTY (page 2-120) to a PROMOTION (page 2-163). Records the customers response result to the initiative. For example, positive responses: • The customer accepted the offer. • The customer increased or modified their usage. • The customer changed a specified behavior (for example moved from payment by check to an electronic payment option).
PARTY ROLE	Lookup	Lookup for Roles a PARTY (page 2-120) may be assigned in an EVENT (page 2-76).
PARTY ROLE ASSIGNMENT	Reference	Assigns party roles for the party. PARTY (page 2-120) and PARTY ROLE (page 2-124) are an X-X relationship. This relationship may change due to a agreement change, or for other reasons.
PARTY ROLE CATEGORY	Reference	Specifies a simple grouping or categorization of PARTY ROLE (page 2-124)s.
PARTY ROLE CATEGORY ASSIGNMENT	Reference	Shows the association between PARTY ROLE (page 2-124) and various PARTY ROLE CATEGORY (page 2-124)s
PARTY ROLE OS PROCESS ASSIGNMENT	Reference	Defines the semantics of the Party Role Uses Processes association. Since different PARTY ROLE (page 2-124)s have different privileges for working on and running the OPERATING SYSTEM (page 2-115), an association class is needed to accurately model these details.
PARTY ROLE PROFILE ASSIGNMENT	Reference	Association of a given party ROLE (page 2-179) (Customer, Provider, and so on) to a profile. Some profiles are only to be defined for specific roles while others can be defined for any.
PARTY ROLE STATUS	Lookup	Status history of each role that a PARTY (page 2-120) has taken.
PARTY ROLE TYPE	Lookup	Type of PARTY ROLE (page 2-124), a general grouping for reporting purpose.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PARTY SEGMENTATION METHOD	Lookup	Method used to create the segment, such as K-means clustering in Data Mining.
PARTY SERVICE ASSIGNMENT	Reference	Defines the relationship between PARTY (page 2-120) and SERVICE (page 2-183).
PARTY SERVICE ASSIGNMENT REASON	Lookup	Lookup for available reasons for a PARTY (page 2-120) and SERVICE (page 2-183) relationship.
PARTY SERVICE ASSIGNMENT ROLE	Lookup	Lookup for valid roles and descriptions a PARTY (page 2-120) may be assigned for a SERVICE (page 2-183). For example: • Service Creation role • Service consumer by customer
PARTY SIM CARD ASSIGNMENT	Reference	The relationship between SIM CARD (page 2-196) and PARTY (page 2-120).
PARTY SIM CARD ROLE	Lookup	The role which PARTY (page 2-120) add in regards to the SIM CARD (page 2-196).
PARTY SKILL	Reference	Defines skills with a score and skill level to each PARTY (page 2-120).
PARTY STATUS CATEGORY	Lookup	Higher level of Party Status. For example: • Financial Status • Credit Status • Payment Status • Personal Status • Legal Status
PARTY STATUS CHANGE REASON	Lookup	Lookup for valid reasons that may be assigned for a Party Status change. For example: • Hire • Transfer • New customer
PARTY STATUS HISTORY	Base	Defines current PARTY (page 2-120) status history regarding what Operator may be interested. Historical information captured for all lifetime of the customer or dealer. This information may be calculated from internal data; for example, from a payment, or this information may be obtained from an external source such as a credit rating agency.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PARTY STATUS TYPE	Lookup	Lookup for status type of the PARTY (page 2-120). For example: • Active • Inactive • Defaulted • New customer • VIP, Loyalty Program, customer • Black listed Credit Class is used to rank Customer Credit. For example, the entity value can be: • Good • Fair • Bad Or the customer may be defined as: • Gold • Silver • Bronze The party's credit is based on the underlying accounts held by the party.
PARTY TYPE	Lookup	Lookup for party type that classifies involved parties according to their inherent characteristics and structure. For example: • Person • Organization • Organization Unit
PASSPORT	Reference	The passport as a type of PARTY IDENTIFICATION (page 2-122).
PAY CATEGORY	Lookup	Lookup for type of pay category on a pay slip. For example: • Salary • Deductions • Contributions • Taxes
PAY TV SERVICE	Reference	Subtype of PRODUCT SPECIFICATION (page 2-158). Pay TV is subscription-based product to deliver TV channels to a customer.
PAY TYPE	Lookup	Lookup for the type of payment made to the employee. For example: • Bonus • Basic wages
PAYMENT AGING CLASS	Lookup	The classification of accounts according to payment delay history. For example: • 0-10 days • 11-20 days

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PAYMENT CHANNEL	Reference	Channel by which customer may pay for service. For example: • Bank (automatic payment) • Store (Check, cash) • Call Center (Credit Card) • Web (Credit Card)
PAYMENT METHOD TYPE	Lookup	Lookup for valid methods of payment. For example: • Cash • Check • Credit Card • Debit Card
PAYMENT PLAN	Reference	List of plans for payment (typically for Credit purpose but not only).
PAYMENT RESULT	Lookup	It allows having defined once for all the various expected results of a payment and the explanation associated to it. It avoids having to look at documentation and to be able to show it at BI level.
PAYMENT TRANSACTION TYPE	Lookup	Lookup for type codes and descriptions for transaction types associated with the ACCOUNT PAYMENT (page 2-27). The payment may be, for example: • Periodically Invoice • Installation Fee • Pre-deposit to the account • Late Pay Penalty Payment • Regular Monthly • Refund / Void
PCU OUTAGE REASON	Lookup	Possible Reasons for PCU Outage
PE LOGICAL DEVICE ROLE	Reference	Defines required logical features to implement the specific role of a PE (Provider Edge) device, as used in a PRODUCT SPECIFICATION (page 2-158) or SERVICE (page 2-183).
PEAK OFFPEAK TIME	Lookup	The definition of the time slots is usage dependent, but it is not common for all the products/packages. The time hours (Peak, off-peak, and night) can be different for different packages. The definition also varies for the following: • Normal Day • Holiday • Friday • Sunday For the special days defined in the system.
PER HOUR DRVD	Derived	Note: this entity is reserved for use by the Oracle Communications Policy and Charging Analytics solution.
PERFORMANCE	Base	A measure of the manner in which a SERVICE (page 2-183) or RESOURCE (page 2-171) is functioning.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PERFORMANCE ALARM SPECIFICATION	Reference	Details the common characteristics of Alarms related to performance measurements.
PERFORMANCE APPLICABILITY	Reference	The time of day or days during which a PERFORMANCE SPECIFICATION (page 2-129) is measured or not measured.
PERFORMANCE CAT CHARACTERISTIC VALUE	Reference	A value of a Characteristic Specification provided for PERFORMANCE CATEGORY (page 2-128) that further defines what the PERFORMANCE CATEGORY (page 2-128) is. A value of a characteristic provided for PERFORMANCE (page 2-127) that further defines what the PERFORMANCE (page 2-127) is.
PERFORMANCE CAT SPECIFICATION	Reference	The invariant characteristics that define a group or set of performance qualities that are classified together because of common characteristics.
PERFORMANCE CAT SPECIFICATION RELATIONSHIP	Reference	A specification for an association that can be established between two instances of PERFORMANCE CATEGORY (page 2-128)s. For example, a relationship can be established between a Codec instance and BearerType instance. A specification for an association that can be established between two instances of PERFORMANCE CATEGORY (page 2-128)s.
PERFORMANCE CATEGORY	Reference	A group or set of performance qualities that are classified together because of common characteristics.
PERFORMANCE CATEGORY RELATIONSHIP	Reference	An association between two instances of PERFORMANCE CATEGORY (page 2-128)s.
PERFORMANCE CHARACTERISTIC VALUE	Reference	A value of a CharacteristicSpecification provided for Performance that further defines what the Performance is.
PERFORMANCE CONSEQUENCE	Reference	An action taken if a PERFORMANCE OBJECTIVE (page 2-129) is not met.
PERFORMANCE INDICATOR	Reference	A numeric value or text determined for a PERFORMANCE INDICATOR SPECIFICATION (page 2-129). For example, a value of .005 ms that represents average packet delay.
PERFORMANCE INDICATOR DERIVATION PARAMETER	Reference	Lists the parameters used in the calculation of a PERFORMANCE INDICATOR (page 2-128). A CharacteristicSpecification can be used as a parameter or another PERFORMANCE INDICATOR SPECIFICATION (page 2-129) can be used. (TMF SID)
PERFORMANCE INDICATOR GROUP	Lookup	Defines a grouping of PERFORMANCE INDICATOR (page 2-128)s coming together (normally as a group of performance measurements).
PERFORMANCE INDICATOR GROUP SPECIFICATION	Lookup	A group of indicators, usually reported in the same message by the equipment.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PERFORMANCE INDICATOR RELATIONSHIP	Reference	An association between two PERFORMANCE INDICATOR (page 2-128)s, such as one indicator derived from another.
PERFORMANCE INDICATOR SPECIFICATION	Reference	A measure of a specific aspect of the performance of an entity, such as a lost packets or average jitter, defined for a PERFORMANCE SPECIFICATION (page 2-129) that may trigger the creation of a PERFORMANCE CONSEQUENCE (page 2-128).
PERFORMANCE INDICATOR SPECIFICATION RELATIONSHIP	Reference	An association between two PERFORMANCE INDICATOR SPECIFICATION (page 2-129)s, such as one indicator derived from another.
PERFORMANCE IP ADDRESS	Reference	A Performance-related extension to an IP ADDRESS (page 2-95).
PERFORMANCE MOBILE ADDRESS	Reference	A network address that identifies mobile Resource Resources, such as cell sites and base station controllers.
PERFORMANCE NETWORK ADDRESS	Reference	A Performance-related extension to a NETWORK ADDRESS (page 2-110). A NETWORK ADDRESS (page 2-110) defines different ways to identify where an Resource is, such as an IP ADDRESS (page 2-95), or an IPXAddress, or a Point Code.
PERFORMANCE NOTIFICATION	Reference	A communication that occurs as part of measuring performance. A Notification is typically one-sided, that is, no Response is expected.
PERFORMANCE NOTIFICATION SPECIFICATION	Reference	The invariant characteristics that define a communication (notification) that occurs as part of performance measurement. A Notification is typically one-sided, that is, no Response is expected.
PERFORMANCE OBJECTIVE	Reference	A goal for a PERFORMANCE INDICATOR (page 2-128) defined in terms of metrics, thresholds, and tolerances.
PERFORMANCE OBJECTIVE APPLICABILITY	Reference	The time of day or days during which a PERFORMANCE OBJECTIVE (page 2-129) is evaluated or not evaluated.
PERFORMANCE OBJECTIVE APPLICABILITY CONSEQUENCE	Reference	The time of day or days during which a Performance Objective Consequence applies or not to the violation of a PERFORMANCE OBJECTIVE (page 2-129).
PERFORMANCE POINT CODE	Reference	The performance gathered on a POINT CODE (page 2-135) (subtype of NETWORK ADDRESS (page 2-110)).
PERFORMANCE SPECIFICATION	Reference	The invariant characteristics that define a measure that determines how a SERVICE (page 2-183) and/or Resource is functioning.

Table 2-5 (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PERFORMANCE SPECIFICATION INTERVAL	Reference	The interval of time for represented by the PERFORMANCE SPECIFICATION (page 2-129).
PERFORMANCE SPECIFICATION INTERVAL CONVERSION	Reference	The conversion factor that defines how many instances of one PERFORMANCE SPECIFICATION INTERVAL (page 2-130)s are contained in the related PERFORMANCE SPECIFICATION INTERVAL (page 2-130).
PERFORMANCE THRESHOLD	Reference	Defines the various Performance Threshold against which to measure performance.TMF SID: A threshold base entity containing threshold rules.
PERFORMANCE THRESHOLD APPLICABILITY	Reference	Details the rules of validation for the applicability of thresholds crossings alarms related to performance measurements.
PERFORMANCE THRESHOLD APPLICABILITY CONSEQUENCE	Reference	Details the rules of consequences of applicable thresholds crossings alarms related to performance measurements.
PERFORMANCE THRESHOLD RULE	Reference	A base entity for concrete definition of thresholds (TMF SID).When Pre-defined is set, then it is a PERFORMANCE THRESHOLD RULE PREDEFINED, that is, a "black-box" logic that resides in the Performance Management Producing Application. A Performance Management consuming application can execute it assigning values to its parameters. (TMF SID - TIP).
PERFORMANCE THRESHOLD RULE DEFINITION	Reference	Describes the various types of threshold logic that can be implemented for Performance Threshold Rules.
PERFORMANCE THRESHOLD RULE PREDEF PARAM	Reference	Details the predefined or default rules associated with thresholds crossings for alarms related to performance measures.
PERIOD TO DATE TRANSFORMATION	Reference	Cumulative time transformations at the period level.
PERIOD TRANSFORMATION	Reference	Time transformations at the period level.
PERSONAL ID REQUIRED TYPE	Lookup	Possible Types of Identification (document) required for a person (Driving license, Personal ID, passport).
PHASE	Reference	Not used.
PHONE NUMBER	Reference	The phone number as a subtype of access method.
PHONE NUMBER POOL	Reference	The telephone number pool allocated to the TELCO operator.
PHYSICAL CAPACITY	Reference	This entity represents the minimum and maximum requirements, limits, or other variable features of a Managed Device or MANAGED HARDWARE (page 2-104) object.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PHYSICAL CAPACITY DETAIL	Reference	Represents the semantics of the Has PHYSICAL CAPACITY (page 2-130) association. The Physical Capacity Detail provides additional semantics describing the different types of PHYSICAL CAPACITY (page 2-130)s that this Managed Component contains, and provides methods to tell how many PHYSICAL CAPACITY (page 2-130)s are associated with this particular Managed Component instance.
PHYSICAL COMPONENT	Reference	This is the base entity for different types of Physical Components that can reside either in an EQUIPMENT (page 2-74) or an Equipment Holder object. They cannot be used as a standalone object. From a management point-of-view, this object either cannot or does not need to be split into its constituent parts. For example, an ASIC (or Chip) cannot, and a tape for data storage does not need to be split up into their constituent parts. Any piece of hardware that is not a PHYSICAL LINK (page 2-132), PHYSICAL CONNECTOR (page 2-131), EQUIPMENT (page 2-74), or Equipment Holder, is a subclass of this class.
PHYSICAL CONNECTOR	Reference	This is a concrete entity that represents any type of hardware unit that connects to other hardware units and transmit signals and/or power between them.
PHYSICAL CONTAINER	Reference	This entity adds additional semantics to the MANAGED HARDWARE (page 2-104) entity. The associated attributes define whether a MANAGED HARDWARE (page 2-104) object can be removed and/or replaced, and whether this action requires power to be removed or not when the action is performed.
PHYSICAL COUNT DOCUMENT	Base	Document associated with the manual Inventory (typically done once a year) in retail shops.
PHYSICAL COUNT DOCUMENT LINE ITEM	Base	Describes the line items in the documents associated with a manual Inventory in retail shops.
PHYSICAL DEVICE	Reference	This entity represents hardware devices that can be managed. Represents a convenient aggregation point for combining different aspects of a device (for example, the cables, connectors, cards, power supplies, and other objects that together comprise the device). Thus, it enables the device itself to have a physical manifestation (for example, the "Internet Gateway Router" can be identified as a PHYSICAL DEVICE (page 2-131)). Examples of this entity include routers and switches, computers, and other end-devices that are managed.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PHYSICAL DEVICE ATOMIC	Reference	Entity for representing hardware devices that can be managed that contains no sub-ordinate devices. In other words, this physical device is a standalone physical device. Represents a convenient aggregation point for combining different aspects of a device (for example, its physical composition and the set of services that it offers). The Physical Device Atomic also enables the device itself to have a physical manifestation. Examples of this entity include routers and switches, computers, and other end-devices that are managed.
PHYSICAL DEVICE COMPOSITE	Reference	Entity for representing hardware devices that can be managed that contains one or more sub-ordinate devices. In other words, this physical device is not a standalone physical device; rather, it represents an aggregation of physical devices. Each physical device in this aggregation can be managed. Represents a convenient aggregation point for combining different aspects of a device (for example, its physical composition and the set of services that it offers). The Physical Device Composite also enables the device itself to have a physical manifestation. Examples of this entity include routers and switches, computers, and other end-devices that are managed.
PHYSICAL DEVICE ROLE SPECIFICATION	Reference	Entity for all Physical Device Role Specification subclasses. The Physical Device Role Spec enables relationships to be defined between itself and other entities in the core model. This helps prevent relationship explosion. The Physical Device Role Spec entity defines the invariant attributes, methods, relationships, and constraints of various types of roles associated with PHYSICAL DEVICE (page 2-131)s in the model.
PHYSICAL DEVICE ROLE SPECIFICATION DETAIL	Reference	Captures the semantics of the Specifies Physical Device Roles aggregation.
PHYSICAL DEVICE SPECIFICATION	Reference	This entity describes specific attributes, behavior, relationships, constraints, and semantics for building PHYSICAL DEVICE (page 2-131) objects.
PHYSICAL EQUIPMENT	Reference	Represents physical components of a managed device, including replaceable components. An instance of this object class must be present in only a single geographic location. An Equipment object may be nested within another Equipment object, thereby creating a containment relationship. The Equipment type shall be identified by sub-classing this object class. Either the name of the sub-class or an attribute may be used for identifying the equipment type.
PHYSICAL LINK	Reference	This is a concrete entity that represents the connecting or cabling together of hardware entities. This entity enables both wireless and connector-based communication to be modeled.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PHYSICAL NETWORK FUNCTION	TBS	An implementation of a Network Function for which all the Logical Resources it is being provided are hosted directly by Physical Resources.
PHYSICAL PORT	Reference	Represents an actual or potential end point of a topological (physical) link, and corresponds directly to a physical port on a topology map. Physical Ports are always contained by another physical object - they cannot exist by themselves. The two most common examples are Physical Ports on a CARD (page 2-46) and on a CHASSIS (page 2-48).
PHYSICAL PORT RESOURCE PORT ASSIGNMENT	Reference	This entity is a concrete entity that defines the semantics of the PHYSICAL PORT (page 2-133)s In Resource Port aggregation. For example, it will describe characteristics and behavior of the PHYSICAL PORT (page 2-133)s that comprise this particular Resource Port in terms of dependencies and how a PHYSICAL PORT (page 2-133) interacts with other PHYSICAL PORT (page 2-133)s.
PHYSICAL RESOURCE	Reference	This entity describes different types of hardware that constitute a PRODUCT SPECIFICATION (page 2-158). The Physical Resource has two main purposes: **1.** To collect common attributes and relationships for all hardware. **2.** To provide a convenient, single point where relationships with other managed objects can be defined.
PHYSICAL RESOURCE ADDRESS	Reference	Not used.
PHYSICAL RESOURCE CHARACTERISTIC	Reference	This is a concrete base class for defining the characteristic features and behavior of a Physical Element Specification. Every Physical Element Specification has a variety of important attributes, methods, constraints, and relationships which distinguish that Physical Element Specification from other Physical Element Specifications. We call these Physical Element SpecCharacteristics. Each of these characteristics is used at the business level to characterize a Physical Element Specification.
PHYSICAL RESOURCE LOCAL ADDRESS ASSIGNMENT	Reference	Associates all the "local places" a given Physical Device has (in TMF SID ResrouceProvidesLocalPlaces relationship).It can be used to check which places are still "free" from an inventory perspective.
PHYSICAL RESOURCE PRODUCT SUBSCRIPTION	Reference	A subtype of PRODUCT SUBSCRIPTION (page 2-161) to track tangible device usage by the customer.
PHYSICAL RESOURCE ROLE	Reference	This is a physical role that a device has. The Physical Resource Role enables the correlation of physical components that route traffic with the logical capability of routing traffic.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PHYSICAL RESOURCE ROLE ASSIGNMENT	Reference	This class implements the semantics of the RolesDescribePhysical Element aggregation.
PHYSICAL RESOURCE ROLE SPECIFICATION	Reference	Entity for all Physical Resource Role Specification subclasses. The Physical Resource Role Spec enables relationships to be defined between it and other classes in the model. This helps prevent relationship explosion. The Physical Resource Role Spec defines the invariant attributes, methods, relationships, and constraints of various types of roles associated with Physical Resources, whether they are subclasses of PHYSICAL DEVICE (page 2-131) or Hardware, in the model. Specifies relationships to be defined between it and other classes in the model. This helps prevent relationship explosion.
PHYSICAL RESOURCE ROLE SPECIFICATION DETAIL	Reference	Captures the semantics of the PHYSICAL RESOURCE ROLE (page 2-133)s aggregation.
PHYSICAL RESOURCE SPECIFICATION	Reference	This entity defines the invariant characteristics and behavior, attributes, methods, constraints, and relationships, of a PHYSICAL RESOURCE (page 2-133).
PHYSICAL RESOURCE SPECIFICATION ATOMIC	Reference	Describes specific attributes, behavior, relationships, constraints, and semantics for building PHYSICAL RESOURCE (page 2-133) objects. The purpose of this entity is to track Physical Resource Specifications separately from other types of Resource Specifications. This entity inherits the Specifies Resource aggregation, and therefore can be used with the corresponding PHYSICAL RESOURCE (page 2-133) entity. The difference between this entity and the PHYSICAL RESOURCE SPECIFICATION COMPOSITE (page 2-134) entity is that this entity represents standalone Physical Resource Specifications. The PHYSICAL RESOURCE SPECIFICATION COMPOSITE (page 2-134) entity represents a specification that is in reality made up of a set (usually a hierarchy) of Physical Resource Specifications.
PHYSICAL RESOURCE SPECIFICATION COMPOSITE	Reference	This entity describes specific attributes, behavior, relationships, constraints, and semantics for building Physical Resource objects. The purpose of this entity is to track Physical Resource Specifications separately from other types of Resource Specifications. This entity inherits the modifiesResourceSpec aggregation, and therefore can be used with the corresponding PHYSICAL RESOURCE SPECIFICATION (page 2-134) entity. The difference between this entity and the PHYSICAL RESOURCE SPECIFICATION ATOMIC (page 2-134) entity is that this entity represents a hierarchy of Physical Resource Specifications. The PHYSICAL RESOURCE SPECIFICATION ATOMIC (page 2-134) entity represents a single standalone Physical Resource Specification.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PHYSICAL RESOURCE VIRTUAL RESOURCE ASSIGNMENT	Reference	Definition of the Physical Resources hosting the virtual resources (relationship)
PIPE	Reference	Pipe is an abstracted Link between two network resources (which are also abstracted as TERMINATION POINT (page 2-206)s).
PIT CHARACTERISTIC	Reference	Not used.
PIT CHARACTERISTIC TYPE	Lookup	Not used.
PLANNING PERIOD	Reference	Period level in the planning calendar.
PLANNING QUARTER	Reference	Quarter level in the planning calendar.
PLANNING SEASON	Reference	Season level in the planning calendar.
PLANNING WEEK	Reference	Week level in the planning calendar.
PLANNING YEAR	Reference	Year level in the planning calendar.
PLATFORM	Reference	Platform (from a Software or Applications perspective) on which an application or a software runs.
POINT BLOCK	Reference	ISUP Signaling OPC and DPC attributes. It is associated with "block point".
POINT CODE	Reference	ISUP Signaling OPC and DPC attributes that map to Region, Subregion, Node Type, and Node Name.
POINT OF SALE DEPARTMENT	Reference	Point of Sale (POS) grouping of items with similar point of sale control and processing attributes. The entity type may also be used to control sales that are not properly identified at the item level.
POINT OF SALE IDENTITY TYPE	Lookup	Lookup for type of identifier used in POS identity.
POINT OF SALE TENDER FLOW DRVD	Derived	Point of Sale (POS) Tender transactions by minute and tender type for a workstation in an ORGANIZATION BUSINESS UNIT (page 2-117).
POINT OF SALE TYPE	Lookup	Type of Point of Sale (POS) transactions.
POINTS EXPIRY BASIS	Reference	List the various periods (or basis) on which points will expire.
POLICIER SERVICE	Reference	Specifies limits for traffic flow to a configured bit rate with limited bursting capability. For example, a standard policer service has no buffering, meaning that packets that cannot be transmitted are simply dropped.
POLICY	Reference	This entity is the root of the POLICY (page 2-135) model. As such, it defines common attributes, methods and relationships that all policy subclasses use and take part in.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
POLICY ACTION	Reference	This entity represents how to form the action clause of a POLICY RULE (page 2-145). This consists of a single occurrence of a POLICY STATEMENT (page 2-147), which is of the form: {variable, operator, value} Policy actions have the semantics of "SET variable to value". There are two types of actions: - pass actions are invoked if the condition clause was TRUE - fail actions are invoked if the condition clause was FALSE.
POLICY ACTION ASSIGNMENT	Reference	This entity specifies the semantics needed for the contained Policy Actions aggregation.
POLICY ACTION ATOMIC	Reference	This is the base entity for all simple POLICY ACTION (page 2-136)s. A simple POLICY ACTION (page 2-136) consists of a single Boolean clause, which performs a single action. This consists of a single occurrence of a POLICY STATEMENT (page 2-147), which is of the form: {SET | CLEAR} POLICY VARIABLE (page 2-147) to POLICY VALUE (page 2-147). This is distinctly different from the Policy Action Vendor, which does not use a POLICY STATEMENT (page 2-147). Policy Action Atomic objects can also be used to form more complex action structures. A Policy Action Composite object contains a group of Policy Action Atomic objects; this grouping enables multiple Policy Action Atomic objects to be executed as a group. Alternatively, a Policy Action Atomic object can contain one or more Policy Action Atomic objects (and also Policy Action Composite groups if desired) to provide the semantics of a compound Policy Action. In either case, the aggregation is done using the contained Policy Actions aggregation.
POLICY ACTION COMPOSITE	Reference	Serves as a generic container in which to place Policy Action Atomic, Policy Action Vendor, or Policy Action Composite entities. The first two provide actions that this container groups, while the latter establishes a hierarchy in which to order the execution of POLICY ACTION (page 2-136)s. Both simple and complex POLICY ACTION (page 2-136)s can be placed in this container. Each Policy Action Atomic and Policy Action Vendor object is linked to this object using the containedPolicy Actions association.
POLICY ACTION PERFORMED DETAIL	TBS	Details the semantics of the PolicyActionPerformedOn association. This association defines the set of POLICY ACTION (page 2-136)s that are performed on a ManagedEntity.This association defines the set of POLICY ACTION (page 2-136)s that are performed on a ManagedEntity as a part of the policy management process. The semantics of this association are implemented by the POLICY ACTION PERFORMED DETAIL (page 2-136)s association entity.(TMF SID)
POLICY ACTION RULE ASSIGNMENT	Reference	This entity specifies the semantics needed for the Policy Action In Policy Rule aggregation. This aggregation defines the set of POLICY ACTION (page 2-136)s that are contained in this POLICY RULE (page 2-145).

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
POLICY ACTION SPECIFICATION	Reference	Lists the invariant characteristics (attributes, methods, constraints and relationships) of a POLICY ACTION (page 2-136) (TMF SID).
POLICY ACTION VENDOR	Reference	Provides a general extension mechanism for representing POLICY ACTION (page 2-136)s that have not been modeled with the attributes specified in this model. This entity uses two of its properties (Constraint and Constraint Encoding) for defining the content and format of a vendor-specific condition. Its third property (actionResponse) to provide a standard result, so that this object can be placed with other POLICY ACTION (page 2-136) objects in a POLICY RULE (page 2-145) object. Standardized extensions are not expected to use this entity.
POLICY APPLICATION	Reference	A policy application is an abstract table only defined for its sub-classes.The principal role of a POLICY APPLICATION (page 2-137) is to define generic relationships that its subclasses can participate in. (TMF SID).
POLICY APPLICATION ASSIGNMENT	Reference	This is an association class that explicitly defines which Managed Entities in a POLICY DOMAIN (page 2-142) this Policy information applies to.
POLICY APPLICATION POLICY DOMAIN ASSIGNMENT	TBS	Association of POLICY APPLICATION (page 2-137)s to POLICY DOMAIN (page 2-142) (relationship is "Policy App belongs to or applies for Policy Domain" . It is a M:N relationship.
POLICY APPLICATION ROLE	TBS	Abstract Entity (not physicalized) that defines the concept of various types of roles used to describe POLICY APPLICATION (page 2-137)s and their use in the DEN-ng model. This facilitates the use and management of POLICY (page 2-135) by defining functionality in terms of roles that are played in the managed environment.
POLICY APPLICATION ROLE ASSIGNMENT	TBS	Associates POLICY APPLICATION (page 2-137) to the Roles (POLICY APPLICATION ROLE (page 2-137)s) they may take.
POLICY BROKER	TBS	POLICY SERVER (page 2-146)s affect ManagedEntities in a particular POLICY DOMAIN (page 2-142), and are coordinated through a POLICY BROKER (page 2-137). The purpose of the POLICY BROKER (page 2-137) is to control how different POLICY SERVER (page 2-146)s interact with each other. In this regard, it has two different functions: • The first function is to ensure that conflicts between different policy rules do not exist when different POLICY SERVER (page 2-146)s are asked to work together. • The second is to coordinate the application of different policies in different POLICY SERVER (page 2-146)s. (TMF SID)

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
POLICY BROKER POLICY SERVER ASSIGNMENT	TBS	Description Details the semantics of the BrokerCoordinates association, which defines which POLICY SERVER (page 2-146)s are coordinated by which POLICY BROKER (page 2-137)s.This association defines the set of POLICY SERVER (page 2-146)s that this POLICY BROKER (page 2-137) coordinates the actions of.
POLICY BROKER ROLE	TBS	Defines the concept of various types of roles used to describe POLICY BROKER (page 2-137)s and their use in the DEN-ng model.A PolicyBrokerRole refines the generic concepts of a POLICY APPLICATION ROLE (page 2-137). Specifically, this base class is used to describe generic functionality inherent in a POLICY BROKER (page 2-137). For example, this includes the ability to present and negotiate functionality that is traded between different POLICY SERVER (page 2-146)s in different POLICY DOMAIN (page 2-142)s, as well as the ability to control the functions of a POLICY SERVER (page 2-146).(TMF SID)
POLICY CONDITION	Reference	This entity represents how to form the condition clause of a POLICY RULE (page 2-145). This entity represents rule-specific or reusable policy conditions. POLICY (page 2-135) conditions are of the form: {variable, operator, value} where the operator is usually the MATCH operator, but could be another type (for example, compare) of operator. This gives the semantics of "IF the condition is TRUE (or FALSE)". The subclasses of POLICY CONDITION (page 2-138), along with its recursive aggregation, enable simple and compound (for example, nested) POLICY CONDITION (page 2-138)s to be supported by the same structure.
POLICY CONDITION ASSIGNMENT	Reference	This entity specifies the semantics needed for the POLICY CONDITION (page 2-138) in POLICY CONDITION (page 2-138) aggregation. This aggregation defines the set of POLICY CONDITION (page 2-138)s that are contained in this POLICY CONDITION (page 2-138).
POLICY CONDITION ATOMIC	Reference	This is the base entity for all simple policy conditions. A simple policy condition consists of a single Boolean clause, which tests a single condition. This consists of a single occurrence of a POLICY STATEMENT (page 2-147), which is of the form: {variable, operator, value} This design relies on the POLICY STATEMENT (page 2-147) to supply the actual terms to form the condition clause. Thus, since everything is normalized to a condition clause, no subclasses of Policy Condition Atomic are needed. Instead, subclasses of the appropriate POLICY STATEMENT (page 2-147) classes are provided. A compound POLICY CONDITION (page 2-138) consists of one or more POLICY CONDITION (page 2-138)s contained inside a higher-level POLICY CONDITION (page 2-138). These can optionally be grouped by a POLICY CONDITION COMPOSITE (page 2-139) object if desired.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
POLICY CONDITION COMPOSITE	Reference	The POLICY CONDITION COMPOSITE (page 2-139) entity is the base entity for all complex policy conditions. A complex policy condition consists of an aggregation of POLICY CONDITION ATOMIC (page 2-138) and POLICY CONDITION COMPOSITE (page 2-139) objects, which in turn form a complex Boolean statement. Such an object still evaluates to a single Boolean TRUE or FALSE value.
		Conceptually, this is a standalone object that consists of one POLICY CONDITION (page 2-138) that provides an overall context for either a nested or a group of subordinate POLICY CONDITION (page 2-138)s to be evaluated.
POLICY CONDITION RULE ASSIGNMENT	Reference	This entity specifies the semantics needed for the POLICY CONDITION (page 2-138) In POLICY RULE (page 2-145) aggregation. This aggregation defines the set of POLICY CONDITION (page 2-138)s that are contained in this POLICY RULE (page 2-145). The Contained Policy Condition Details entity and the Policy Condition Rule Details entity have conceptually the same attributes. This is because they both provide semantics to form a condition expression. The difference lies in their placement relative to the POLICY RULE (page 2-145) entity. That is, the Contained Policy Condition Details entity combines individual expressions within a condition clause, whereas the Policy Condition Rule Details entity describes how the completed condition clause appears to the POLICY RULE (page 2-145).
POLICY CONDITION SPECIFICATION	Reference	Lists the invariant characteristics (attributes, methods, constraints and relationships) of a POLICY CONDITION (page 2-138) (TMF SID).
POLICY CONDITION TIME PERIOD	Reference	Lists the various Time Period with POLICY CONDITION (page 2-138). It gives the capability of enabling or disabling a POLICY CONDITION (page 2-138) according to a pre-determined time schedule.
POLICY CONDITION VENDOR	Reference	General extension mechanism for representing POLICY CONDITION (page 2-138)s that have not yet been modeled with the attributes specified in this model.
POLICY CONFIG ACTION ROLE	Reference	Defines the concept of various types of roles used to describe processes that control processes that can change the configuration of a Managed Object, and their use in the DEN-ng model.A POLICY CONFIG ACTION ROLE (page 2-139) refines the generic concepts of a POLICY CONFIG ROLE (page 2-140). Specifically, this base class is used to describe different processes required to create, edit, restore, or delete all or part of a configuration of a Managed Object.(TMF SID)

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
POLICY CONFIG DECISION ROLE	TBS	Defines the concept of various types of roles used to describe processes that control configuration processes, and their use in the DEN-ng model.A POLICY CONFIG DECISION ROLE (page 2-140) refines the generic concepts of a POLICY CONFIG ROLE (page 2-140). Specifically, this base class is used to describe different processes required to request decisions involving the monitoring, changing and/or verifying of the configuration of a Managed Object. These processes will orchestrate the use of one or more instances of other POLICY CONFIG ROLE (page 2-140) as part of executing the configuration decision.(TMF SID
POLICY CONFIG ROLE	TBS	Defines the concept of various types of roles used to describe configuration monitoring and checking, and their use in the DEN-ng model.A POLICY CONFIG ROLE (page 2-140) refines the generic concepts of a POLICY APPLICATION ROLE (page 2-137). Specifically, this base class is used to describe different processes required to check, change, and verify changes in the configuration of a Managed Object. For example, this includes the ability to retrieve a configuration for examination, as well as to construct, approve and deploy changes to that configuration. (TMF SID)
POLICY CONFIG VALIDATION ROLE	TBS	Defines the concept of various types of roles used to describe processes that control configuration verification processes, and their use in the DEN-ng model.A POLICY CONFIG VALIDATION ROLE (page 2-140) refines the generic concepts of a POLICY CONFIG ROLE (page 2-140). Specifically, this base class is used to describe different processes required to validate changes made to a configuration of a Managed Object.(TMF SID)
POLICY DECISION POINT	TBS	Type of POLICY APPLICATION (page 2-137). It makes policy decisions for itself or for other entities that request such decisions, such as POLICY ENFORCEMENT POINT (page 2-142)s (PEPs) and POLICY EXECUTION POINT (page 2-143)s (PXPs). One or more POLICY DECISION POINT (page 2-140)s are contained in a POLICY SERVER (page 2-146).PDPs use policies to configure or answer queries from policy-capable network elements or from an operator of the PBNM system. An example of a query is an RSVP admission request - a decision must be made to either accept or reject the request by the receiving network element. Since the network element doesn't have any idea about the overall state of the network, it makes a request of the PDP, asking the PDP if the RSVP request should be allowed. Thus, the PDP serves as the interface between the network and higher level processes.(TMF SID)

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
POLICY DECISION POINT MANAGED ENTITY ASSIGNMENT	TBS	Associates all the possible POLICY DECISION POINT (page 2-140)s to a Managed Entity (M:N relationship) as defined by "POLICY DECISION REQUESTED BY (a managed entity)" relationship.Details the semantics of the PolicyDecisionRequestedBy association. This association defines the set of PolicyDecisions that are requested by a ManagedEntity.The PolicyDecisionRequestedBy association defines the set of PolicyDecisions that are requested by a ManagedEntity. The semantics of this association are implemented by the DecisionRequestedDetails association class. This starts the management closed loop system by a request for a policy decision. Note that the full model allows for events and other entities to request policy decisions, not just ManagedEntities.(TMF SID)
POLICY DECISION POINT POLICY ENFORCEMENT POINT ASSIGNMENT	TBS	Associates Policy Decision Point to Policy Enforcement Point as "PDP Directs Enforcement Of PEP".Defines the semantics of the DirectsEnforcementOf association. This association defines the set of POLICY ENFORCEMENT POINT (page 2-142)s that are managed by this POLICY DECISION POINT (page 2-140).This association defines the set of POLICY ENFORCEMENT POINT (page 2-142)s that a given POLICY DECISION POINT (page 2-140) can direct.The semantics of this association are implemented using the PEPDirectionsDetails association class.The cardinality of this association is 1 on the POLICY DECISION POINT (page 2-140) side and 1..n on the POLICY ENFORCEMENT POINT (page 2-142)side. This means that a POLICY DECISION POINT (page 2-140) can provide decisions for one or more POLICY ENFORCEMENT POINT (page 2-142) (note that without a POLICY ENFORCEMENT POINT (page 2-142) a POLICY DECISION POINT (page 2-140) is useless). However, if multiple POLICY DECISION POINT (page 2-140)s are allowed to tell a given POLICY ENFORCEMENT POINT (page 2-142) what to do, then there is no guarantee that the POLICY DECISION POINT (page 2-140)s won't conflict with each other. Thus, there can only be one POLICY DECISION POINT (page 2-140) for a given POLICY ENFORCEMENT POINT (page 2-142).

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
POLICY DECISION POINT POLICY EXECUTION POINT ASSIGNMENT	TBS	Associates the PDP and the PXP (PDP "DirectsExecutionOf" PXP relationship).Details the semantics of the DirectsExecutionOf association. This association defines the set of POLICY EXECUTION POINT (page 2-143)s that are managed by this POLICY DECISION POINT (page 2-140).This association defines the set of POLICY EXECUTION POINT (page 2-143) that a given POLICY DECISION POINT (page 2-140) can direct.The semantics of this association are implemented using the PXPDirectionDetails association class.The cardinality of this association is 1 on the POLICY DECISION POINT (page 2-140) side and 1..n on the POLICY EXECUTION POINT (page 2-143) side. This means that a POLICY DECISION POINT (page 2-140) can provide decisions for one or more POLICY EXECUTION POINT (page 2-143)s (note that without a POLICY EXECUTION POINT (page 2-143), a POLICY DECISION POINT (page 2-140) is useless). However, if multiple POLICY DECISION POINT (page 2-140)s are allowed to tell a given POLICY EXECUTION POINT (page 2-143) what to do, then there is no guarantee that the POLICY DECISION POINT (page 2-140)s won't conflict with each other. Thus, there can only be one POLICY DECISION POINT (page 2-140) for a given POLICY EXECUTION POINT (page 2-143).
POLICY DOMAIN	Reference	A PolicyDomain is a collection of entities and services that are administered in a coordinated fashion using a set of policies. The policies are used to control the set of services and entities according to a common methodology, such as a finite state machine. (TMF SID).
POLICY ENFORCEMENT POINT	TBS	Type of POLICY APPLICATION (page 2-137), and is used to verify that a prescribed set of POLICY ACTION (page 2-136)s have been successfully executed on a set of PolicyTargets.A POLICY ENFORCEMENT POINT (page 2-142) serves as an interface between the devices that policy is executed on and the policy decision-makers (such as the POLICY DECISION POINT (page 2-140)) of the policy. POLICY ENFORCEMENT POINT (page 2-142)s request work to be performed from POLICY DECISION POINT (page 2-140)s, and then enforce decisions made by POLICY EXECUTION POINT (page 2-143)s on their PolicyTargets. One or more POLICY ENFORCEMENT POINT (page 2-142)s are contained in a POLICY SERVER (page 2-146).The combination of a POLICY EXECUTION POINT (page 2-143) and a POLICY ENFORCEMENT POINT (page 2-142) enable the act of executing a decision (made by a POLICY EXECUTION POINT (page 2-143)) to be separated from the act of ensuring that the executing actions were performed correctly, and had the desired results (both of these latter two functions are performed by the POLICY ENFORCEMENT POINT (page 2-142)).

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
POLICY EVENT	Base	Represents an aggregation of Policy Events, constrained according to the eventConstraint attribute of the Event Details aggregation entity. This set of Policy Events is then presented to one or more POLICY RULE (page 2-145)s to trigger the evaluation of their condition clauses. This entity enables an external application, such as a POLICY SERVER (page 2-146), to dynamically adjust the set of events that are being used to trigger the evaluation of a POLICY RULE (page 2-145).
POLICY EVENT ASSIGNMENT	TBS	Type of POLICY APPLICATION (page 2-137), and is used to verify that a prescribed set of POLICY ACTION (page 2-136)s have been successfully executed on a set of PolicyTargets.A POLICY ENFORCEMENT POINT (page 2-142) serves as an interface between the devices that policy is executed on and the policy decision-makers (such as the POLICY DECISION POINT (page 2-140)) of the policy. POLICY ENFORCEMENT POINT (page 2-142)s request work to be performed from POLICY DECISION POINT (page 2-140)s, and then enforce decisions made by POLICY EXECUTION POINT (page 2-143)s on their PolicyTargets. One or more POLICY ENFORCEMENT POINT (page 2-142)s are contained in a POLICY SERVER (page 2-146).The combination of a POLICY EXECUTION POINT (page 2-143) and a POLICY ENFORCEMENT POINT (page 2-142) enable the act of executing a decision (made by a POLICY EXECUTION POINT (page 2-143)) to be separated from the act of ensuring that the executing actions were performed correctly, and had the desired results (both of these latter two functions are performed by the POLICY ENFORCEMENT POINT (page 2-142)).
POLICY EVENT SPECIFICATION	Reference	Lists the invariant characteristics (attributes, methods, constraints and relationships) of a POLICY ACTION (page 2-136) (TMF SID).
POLICY EVENT SPECIFICATION TYPE	Lookup	Categorizes the type of POLICY EVENT SPECIFICATION (page 2-143). The minimum category being "Base" (for the specification of Policy Event Base) and "General" (for Specification of Policy Event in general).
POLICY EVENT TRIGGER MASK	Lookup	Lookup of the possible Event Trigger masks used to match a given POLICY (and hence triggering it).
POLICY EXECUTION POINT	TBS	A POLICY EXECUTION POINT (page 2-143) is an entity that is used to execute a prescribed set of POLICY ACTION (page 2-136)s on a set of PolicyTargets.

Table 2-5 (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
POLICY EXECUTION POINT POLICY ENFORCEMENT POINT ASSIGNMENT	TBS	The combination of a POLICY EXECUTION POINT (page 2-143) and a POLICY ENFORCEMENT POINT (page 2-142) enable the act of executing a decision (made by a POLICY DECISION POINT (page 2-140)) to be separated from the act of ensuring that the executing actions were performed correctly, and had the desired resultsIn contrast to the DirectsExecution association, the cardinality of this association is 1..n on both sides. Each side is 1..n because all POLICY EXECUTION POINT (page 2-143)s must have at least one associated POLICY ENFORCEMENT POINT (page 2-142), but may have more (if, for example, different POLICY ENFORCEMENT POINT (page 2-142)s are used for different functions that are controlled in a POLICY EXECUTION POINT (page 2-143)). This ensure that the POLICY ACTION (page 2-136)s sent by a POLICY EXECUTION POINT (page 2-143) can be checked (by the POLICY ENFORCEMENT POINT (page 2-142)). Some POLICY ENFORCEMENT POINT (page 2-142)s, however, are capable of enforcing multiple POLICY EXECUTION POINT (page 2-143), and a POLICY ENFORCEMENT POINT (page 2-142) is only relevant if it enforces the actions of a POLICY EXECUTION POINT (page 2-143). Details the semantics of the EnforcesExecutionOf association. This association defines the set of POLICY EXECUTION POINT (page 2-143) whose actions are enforced by a particular POLICY ENFORCEMENT POINT (page 2-142). (TMF SID).
POLICY GROUP	Reference	This entity is a generalized aggregation container. A Policy Group enables POLICY RULE (page 2-145)s and POLICY GROUP (page 2-144)s to be aggregated in a single container. Note that loops, including the degenerate case of a POLICY GROUP (page 2-144) that contains itself, are not allowed when POLICY GROUP (page 2-144)s contain other POLICY GROUP (page 2-144)s.
POLICY GROUP EXECUTION DETAIL	Reference	This is an association entity that defines the semantics associated with a Policy Event Set being applied to a POLICY GROUP (page 2-144). Specifically, it controls through its Execution Filter attribute which components in the POLICY GROUP (page 2-144) this Policy Event Set will be passed to, so it can be evaluated.
POLICY OPERATOR	Reference	This is a concrete entity for modeling different types of operators in a POLICY STATEMENT (page 2-147). By restricting the type of operator used in a POLICY STATEMENT (page 2-147), one can effectively restrict the semantics of that POLICY STATEMENT (page 2-147).
POLICY OPERATOR VARIABLE ASSIGNMENT	Reference	Defines the relationship between POLICY OPERATOR (page 2-144) and POLICY VARIABLE (page 2-147).

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
POLICY POLICY ACTION ASSIGNMENT	Reference	A POLICY EXECUTION POINT (page 2-143) is an entity that is used to execute a prescribed set of POLICY ACTION (page 2-136)s on a set of PolicyTargets.The combination of a POLICY EXECUTION POINT (page 2-143) and a POLICY ENFORCEMENT POINT (page 2-142) enable the act of executing a decision (made by a POLICY DECISION POINT (page 2-140)) to be separated from the act of ensuring that the executing actions were performed correctly, and had the desired results
POLICY REPOSITORY	TBS	Description This class represents an administratively-defined logical container for storing reusable policy-related information.This is defined as POLICY GROUP (page 2-144)s, POLICY RULE (page 2-145)s, POLICY CONDITION (page 2-138)s, POLICY ACTION (page 2-136)s, and POLICY STATEMENT (page 2-147)s. It can also store metadata about these policy-related objects.For the purposes of this definition: • Administratively-defined means that it resides in a single policy domain. • Logical container means that it may be implemented as either separate data store, or a special area of a data store that is used expressly to contain policy information. • Policy information means policy rules and groups, their constituent elements, and related data that may be used in the evaluation and/or execution of policy conditions, actions, and other policy component. (TMF SID)
POLICY REPOSITORY POLICY ASSIGNMENT	TBS	Associates Policies to a repository. The unique assignment type (hence undefined) is "Repository Contains Policy". Note that those POLICY (page 2-135)s can be anything from policy rules, groups, their constituents, conditions, actions required for evaluation and Execution.
POLICY ROLE	Reference	This entity defines the concept of various types of roles for different policies that are used.
POLICY RULE	Reference	Entity for realizing the "event-condition-passaction-failaction" semantics that form a the model policy rule. The semantics of this rule are that the rule is evaluated when an event occurs. If the condition clause is satisfied, then the pass-action clause will be executed (otherwise, the fail-action clause will be executed). POLICY RULE (page 2-145)s may be nested within POLICY RULE (page 2-145)s. This is often needed in networking (for example, bandwidth allocation).
POLICY RULE ASSIGNMENT	Reference	Association of Policy Base Rule (FROM) to the POLICY RULE (page 2-145) (TO) via "Contains Policy Rule Set" fixed association type.(New POLICY INFORMATION EXCHANGE model of SID)

Table 2-5 (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
POLICY RULE SPECIFICATION	Reference	Lists the invariant characteristics (attributes, methods, constraints and relationships) of a POLICY RULE (page 2-145) (TMF SID).
POLICY SERVER	TBS	A POLICY SERVER (page 2-146) is a fundamental building block of a policy-based management system. It represents both a set of core functionality for implementing policy as well as a unit of distribution in a distributed implementation.With respect to functionality, a POLICY SERVER (page 2-146) is an entity that is either manufactured or is constructed by integrating the functionality of different PDPs, PXPs, PEPs, and other applications. These other applications provide the logic to manage and control the set of PDPs, PXPs, and PEPs that constitute a POLICY SERVER (page 2-146).
POLICY SERVER POLICY APPLICATION ASSIGNMENT	TBS	Association of POLICY SERVER (page 2-146) to POLICY APPLICATION (page 2-137)s with the notion "Policy Server Contains Policy Applications".There must be at least 3 rows per Policy Server (1 PDP, 1 PEP, and 1 PXP) when defined.
POLICY SERVER ROLE	TBS	Defines the concept of various types of roles used to describe POLICY SERVER (page 2-146)s and their use in the DEN-ng model.\n\nA POLICY SERVER ROLE (page 2-146) refines the generic concepts of a POLICY APPLICATION ROLE (page 2-137). Specifically, this base class is used to describe generic functionality inherent in a POLICY SERVER (page 2-146). For example, this includes the ability to describe different types of functions (making decisions, changing configurations, and so forth) as well as invoking those functions. Other functions, such as conflict detection, may also be run at a local or global level.(TMF SID).
POLICY SET	Reference	This entity defines two types of collections. POLICY RULE (page 2-145) collects Policy Events, POLICY CONDITION (page 2-138)s, and POLICY ACTION (page 2-136)s, while POLICY GROUP (page 2-144) collects POLICY RULE (page 2-145)s and POLICY GROUP (page 2-144)s. Two important and powerful features of this arrangement are that a POLICY SET (page 2-146) defines a common decision strategy and a common set of POLICY ROLE (page 2-145)s to be used by the POLICY GROUP (page 2-144)s and the POLICY RULE (page 2-145)s that inherit from it.
POLICY SET ASSIGNMENT	Reference	Defines relationship between POLICY SET (page 2-146)s.
POLICY SET SPECIFICATION	Reference	Lists the invariant characteristics (attributes, methods, constraints and relationships) of a POLICY RULE (page 2-145) (TMF SID).

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
POLICY STATEMENT	Reference	This entity models the triplet {variable, operator, value} that is used by both the POLICY CONDITION (page 2-138) and POLICY ACTION (page 2-136) entities. The semantics are reflected in the types of operators that are allowed to be used in each case. For conditions, users want the semantics of "variable relates to value", where "relates to" is usually the match operator, but could also be other applicable operators (for example, a comparison operator). For actions, users want the semantics of "set variable to value". Here, the only operator allowed is the set operator.
POLICY TABLE	Reference	Lists the Table driven policies, that is policies defined via a table (list) of pair of key and value relationship (column name, column value) itemized sequentially (0 to n). Note that it must be fully defined for a given version.Note: this specific table breaks the 3NF rule for performance purpose.The unique identifier is POLICY TABLE, ITEM SEQUENCE NUMBER and VERSION. Physically, the Primary Key should hence be set on those 3 attributes!
POLICY VALUE	Reference	An abstract base entity for modeling different types of values that occur in a POLICY STATEMENT (page 2-147). The POLICY VALUE (page 2-147) specifies an attribute that should either be set or cleared (if used in a POLICY ACTION (page 2-136)) or matched or compared to a value of the POLICY VARIABLE (page 2-147) in a POLICY CONDITION (page 2-138).
POLICY VARIABLE	Reference	This entity models different types of variables that form a POLICY STATEMENT (page 2-147). The variable specifies an attribute or concept that should either be matched or compared to a value when the condition is evaluated.
POLICY VARIABLE VALUE ASSIGNMENT	Reference	This is an association class that contains the OCL expression that will be used to define the particular semantics of how this Value is constrained by this Variable. This includes constraints such as upper and lower bounds of the value that a POLICY VALUE (page 2-147) object can take.
POS IDENTITY TYPE	Reference	The relationship limit values for certain variable. This is an association class that contains the OCL expression that will be used to define the particular semantics of how this Value is constrained by this Variable. This includes constraints such as upper and lower bounds of the value that a PolicyValue object can take.
POSTAL SERVICE TYPE	Lookup	Lookup for type of postal service type available to the carrier. For example: • First-Class Mail • Registered Mail • Regular Mail • Postal Card
POSTCODE	Reference	Postal Code, Zip Code, or similar geographical designation.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PPA CATEGORY	Lookup	Lookup for categorizations of prepaid allowances. For example: • Local Call Allowance • Long Distance Call Allowance • Bonus Free Minutes • Internal (Inside Operators network) Call Allowance
PPA DEDUCTION TYPE	Lookup	Lookup for valid deduction types as related to prepaid allowances (PPA).
PREAMBLE MARKER SERVICE	Reference	Subtype of MARKER SERVICE (page 2-105).
PREAMBLE MARKING DETAILS ASSIGNMENT	Reference	Details the TRAFFIC CONDITIONING SERVICE (page 2-207) linked to the PREAMBLE MARKER SERVICE (page 2-148).
PREFERENCE TYPE	Lookup	The type of preference relevant to consumers or customers (for example, color preference).
PREPAID ACCOUNT STATISTIC DRVD	Derived	Monthly aggregation of prepaid account revenue, including: air time, recharge value and so on, by ACCOUNT (page 2-25), SALES CHANNEL (page 2-181), AGE ON NET BAND (page 2-32).
PREPAID ALLOWANCE DAY DRVD	Derived	The summary of daily prepaid voucher recharge.
PREPAID ALLOWANCE MONTH AGGR	Aggregate	Monthly summary of free minutes allowance (PPA) in a PRODUCT OFFERING (page 2-154).
PREPAID MOBILE EVENT TYPE	Lookup	Lookup for the prepaid mobile event types that may be actioned against a prepaid mobile subscription. The specific event types are implementation specific. For example: • Initial activation • Recharges • Adjustments • Deactivations
PREPAID RECHARGE	Base	Type of ACCOUNT PAYMENT (page 2-27) in which a PREPAID VOUCHER (page 2-148) is recharged.
PREPAID VOUCHER	Reference	The voucher a customer can buy to refill their prepaid account, normally in the form of a paper or plastic card. For example: • Prepaid Mobile Recharge Voucher • Prepaid Calling Card
PREPAID VOUCHER BATCH	Reference	Each voucher instance generation batch may produce thousands vouchers.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PREPAID VOUCHER RECHARGE OPTION	Reference	The recharge options for a type of PREPAID VOUCHER (page 2-148). A voucher can be configured with different perceived value to the customer and they may choose to redeem any one of them. For example a voucher may have the following recharge options: • $10 cash • $5 and 400 SMS • 20Mb data
PREPAID VOUCHER SPECIFICATION	Reference	Specification associated with (an instance of) a Voucher. The voucher customer can buy to refill their prepaid account, normally in form of a paper or plastic card. For example: • Prepaid Mobile Recharge Voucher with face value $50 • Prepaid Calling Card It is subtype to ITEM SPECIFICATION (page 2-97).
PRICE DERIVATION RULE	Reference	The specification of a method to be used to transform the current sell unit retail amount to the price charged to account based on a discount group.
PRICE EVENT	Reference	Type of event which may trigger a billing process, for example, event of customer using a product over its quota.
PRICE REASON	Lookup	Possible REASON (page 2-169)s for setting a given price. This is informative only.
PRICE TYPE	Lookup	Lookup for type codes and descriptions for COMPOSITE PRODUCT SPECIFICATION (page 2-53) charge on a PRODUCT SPECIFICATION (page 2-158). For example: • One time charge • Usage duration charge • Usage per call charge • Usage amount charge (data transfer) • Monthly cycle forward fee • Monthly cycle arrear fee • Free unit charge • Free charge • Factorization (call charge* a factor)
PRICE TYPE RELATION REASON	Lookup	Lookup for available reasons for PRICE TYPE (page 2-149)s to be related to each other.
PRICE TYPE RELATIONSHIP	Reference	Assignment of related PRICE TYPE (page 2-149)s.
PRIORITY CATEGORY	Lookup	Category of various priority definition, typically associated with Interactions. Please note that hierarchies (of priority) must be defined with a given category.
PRIORITY HIERARCHY	Lookup	Lists the various hierarchies possible around priorities. Please note that there is no explicit relationship with a given interaction priority as this table could be used for ANY priority.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PRIORITY HIERARCHY LEVEL	Reference	Defines how the different levels of priorities are related within a given hierarchy. Please note that there is no explicit relationship with a given interaction priority as this table could be used for ANY priority.
PRIORITY QUEUING SERVICE	Reference	Entity to monitor queues and ensure that they are used properly. Subtype of QUEUE SERVICE (page 2-168).
PROBLEM	Base	Defines any type of problems in general. Specifies details that are always applicable when dealing with problems as part of a process.
PROBLEM COMMENTS	Base	Any comments or additional text associated with a PROBLEM (page 2-150). It is a separate entity to allow several comments to a given PROBLEM (page 2-150) depending on who is dealing with it.
PROBLEM ESCALATION LEVEL	Lookup	The different levels of priority which can be assigned to any PROBLEM (page 2-150) (and concretely to SERVICE PROBLEM (page 2-190)).
PROBLEM LOCATION ASSIGNMENT	Base	Association of one or more ADDRESS LOCATION (page 2-30)s to a given PROBLEM (page 2-150). Typically, it would be the location of the source of the problem. But it could also be the address of main alarm or whatever fits the problem description.
PROBLEM RELATIONSHIP	Base	Describes Relationships between problems, in particular if they are causally related.
PROBLEM RESOURCE ASSIGNMENT	Base	Describes the resources involved in the root cause of the PROBLEM (page 2-150).
PROBLEM SERVICE ASSIGNMENT	Base	Describes the services that are associated with the root cause of the PROBLEM (page 2-150).
PROBLEM STATUS HISTORY	Base	Defines the history of status of any PROBLEM (page 2-150)s: for example, from opened to solved pending confirmation to solved.
PROBLEM TRACKING RECORD ASSIGNMENT	Base	Associates TRACKING RECORD (page 2-207)s to PROBLEM (page 2-150)s.
PROBLEM TROUBLE TICKET ASSIGNMENT	Reference	Association of TROUBLE TICKET (page 2-208)s to specific (service) PROBLEM (page 2-150)s.
PROCESS	Reference	Defines the various possible processes as defined by the Communications Service Provider. It should normally fits within eTOM but could be generalized to any type of processes at any place (within a software or from an organization perspective). It is the general description of a potentially recurring series of events with various complexity (parallelism, sequentially related or not, and so on). This entity is required to track any process events in Oracle Communications Data Model.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PROCESS COST	Base	Tracks the costs associated with a specific PROCESS EVENT (page 2-151), from any point of view (labor cost, effective cost like ink, paper and stamps, and so on).
PROCESS EVENT	Base	The effective run of a given process from start to end. Although not explicitly required, a process event is usually expected to be an atomic event (no sub-process event). But nothing in Oracle Communications Data Model prevents a building up of complex process and process event structure. Process event is not a sub-type of EVENT (page 2-76).
PROCESS EVENT ASSIGNMENT	Reference	Describes the effective or actual sequential relationship between PROCESS EVENT (page 2-151)s.
PROCESS EVENT PARAMETER VALUE OPERATOR ASSIGNMENT	Base	Assignment for a specific PROCESS EVENT (page 2-151) of Operators (logical or mathematical in general) to some of its parameters and values.
PROCESS EVENT PRODUCT OFFER PRICE ASSIGNMENT	Reference	Association of process events with a specific PRODUCT OFFERING PRICE (page 2-155) (or rate plan). This is usually used at rating or Billing time to deal with specific offering or customers (or partners like for interconnection settlement) following particular processes or calculations.
PROCESS INVOICE DAY DRVD	Derived	Daily summary of the end-to-end invoice processing (Billing, issuing, dispatching), observed from the end process (that is, Successful Dispatching).This entity is critical for the computation of some TMF KPIs.
PROCESS INVOICE DISPATCHING EVENT	Base	Defines any INVOICE (page 2-92) dispatching process (from upload to the web to standard mailing to the customers) with some specific statistics related.The process event is considered ended once the letter or email is sent or when the invoice is available for download to the customer. It does not wait to get confirmation of receipt.
PROCESS INVOICE GENERATION EVENT	Base	Lists and describes any INVOICE GENERATION PROCESS (page 2-94) (also called Billing Process itself, from invoice item collections to final invoice set-up ready for printing or publishing) with some specific statistics related. All the bill content shall be present in an electronic form, ready to be sent as-is to either the printing process or to the web publishing or formatting process (for example that turns it into a PDF if it is not already the case).
PROCESS INVOICE ISSUING EVENT	Base	Describes statistics for the process of issuing a bill. For example, printing, preparing for customer online display, creating pdf file for download, and so on.
PROCESS PARAMETER	Reference	List the parameter expected and their definition to be filled to allow given PROCESS (page 2-150)es to run.
PROCESS PARAMETER ASSIGNMENT	Reference	Association of the standard Parameter(s) expected to the PROCESS (page 2-150)es to be able to run.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PROCESS PARAMETER OPERATOR	Lookup	List of Operators (logical or mathematical in general) available to be associated with Parameters from specific processes.
PROCESS PARAMETER VALUE	Reference	Lists of effective Parameter values used per process event.
PROCESS RELATIONSHIP	Reference	Defines the standard sequential or causal relationships between processes. These are not necessarily the effectively used ones but default should be at least defined.
PROCESS RELATIONSHIP TYPE	Lookup	Type of relationship between processes. Typically, it is "SEQUENTIAL" (FROM then TO) or "PARENT" (FROM includes TO). But other relationships could be imagined.
PROCESS SPECIFICATION	Reference	Lists the specifications (that is, invariant characteristics) of a given PROCESS (page 2-150).
PROCESS SPECIFICATION RELATIONSHIP	Reference	Relationships between PROCESS SPECIFICATION (page 2-152)s, where required.
PROCESS STATUS	Lookup	Lists the possible status of a process event. The first Word of the "NAME" can be used for grouping purpose.
PROCESS TYPE	Lookup	Lists the types of PROCESS (page 2-150)es one deals with. It should correspond to the eTOM processes a priori, but there are none pre-defined.
PRODUCT	Reference	The real instance of a given PRODUCT SPECIFICATION (page 2-158) which a customer can purchase or rent (or eventually gets for free as part of a PRODUCT OFFERING (page 2-154)). The product is linked to the Customer Order Line Item and relates a product to a customer. For example: • Song specified as "You are not alone": Corresponding to Product MUSIC DOWNLOAD (page 2-109) • TV channel specified as "Discovery" - Corresponding to Product PAY TV SERVICE (page 2-126)
PRODUCT CAPABILITY	Reference	Various product capabilities, or features. For example: • Number of lines for a phone • Storage size for Email • Number of "Friends&Family" numbers
PRODUCT CAPABILITY TYPE	Lookup	Lookup for type of PRODUCT CAPABILITY (page 2-152).
PRODUCT CAPABILITY VALUE	Reference	Detailed PRODUCT CAPABILITY (page 2-152) information. The information would be quantitative by PRODUCT CAPABILITY TYPE (page 2-152).
PRODUCT CATALOG	Reference	A list of PRODUCT OFFERING (page 2-154) for sale, with prices and illustrations, for example in book form or on the web. Product Catalogs can be used by Customers during a self-care ordering process and may be used across one or more Distribution Channels.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PRODUCT CATALOG CHARACTERISTIC	Reference	A characteristic quality or distinctive feature of a Product Catalog Specification.
PRODUCT CATALOG CHARACTERISTIC ASSIGNMENT	Reference	A use of the Product Catalog Spec Characteristic by an Entity Specification to which additional properties (attributes) apply or override the properties of similar properties contained in Product Catalog Spec Characteristic.
PRODUCT CATALOG CHARACTERISTIC RELATIONSHIP	Reference	A aggregation, migration, substitution, dependency, or exclusivity relationship between/among Characteristic Specifications.
PRODUCT CATALOG CHARACTERISTIC VALUE	Reference	A value associated with a Product Catalog Characteristic.
PRODUCT CATALOG CHARACTERISTIC VALUE ASSIGNMENT	Reference	A use of the Product Catalog Spec Characteristic Value by an Product Catalog Specification to which additional properties (attributes) apply or override the properties of similar properties contained in Product Catalog Spec Characteristic Value.
PRODUCT CATALOG CHARACTERISTIC VALUE RELATIONSHIP	Reference	A aggregation, migration, substitution, dependency, or exclusivity relationship between/among Characteristic Spec Values.
PRODUCT CATALOG GEOGRAPHY ASSIGNMENT	Reference	Defines which PRODUCT CATALOG (page 2-152) is available in which geographical area.
PRODUCT CATALOG PRESENTATION TYPE	Reference	The PRODUCT CATALOG (page 2-152) presentation type. For example: • Brochure • Web pages • Video
PRODUCT CATALOG PRODUCT OFFERING ASSIGNMENT	Reference	Defines the relationship between a PRODUCT CATALOG (page 2-152) and the PRODUCT OFFERING (page 2-154)s that appeared on the PRODUCT CATALOG (page 2-152).
PRODUCT CATALOG SALES CHANNEL ASSIGNMENT	Reference	Defines where the PRODUCT CATALOG (page 2-152)s are made available to the end user.
PRODUCT CATALOG SPECIFICATION	Reference	A Product Catalog specification defines the invariant characteristics of a Product Catalog.
PRODUCT CATALOG TYPE	Lookup	Lookup for types that define the invariant characteristics of a PRODUCT CATALOG (page 2-152).
PRODUCT CHARACTERISTIC TYPE	Lookup	List the possible types of PRODUCT (page 2-152) characteristics (features, look, and so on).
PRODUCT CHARACTERISTIC VALUE	Reference	Lists the possible values a given PRODUCT (page 2-152) characteristic can take, ordered by type.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PRODUCT COVERAGE AREA	Reference	Coverage of a product over geographical area.
PRODUCT COVERAGE GEOGRAPHY DETAIL	Reference	Details the area covered by a given PRODUCT (page 2-152) or SERVICE COVERAGE AREA (page 2-186). It relies on third party marketing data associated with given ADDRESS LOCATION (page 2-30) Code within a given SERVICE COVERAGE AREA (page 2-186).
PRODUCT FUNCTIONALITY DEPENDENCY	Reference	Assignment of valid EQUIPMENT FUNCTIONALITY (page 2-74) and PRODUCT SPECIFICATION VERSION (page 2-161)s to a PRODUCT SPECIFICATION (page 2-158).
PRODUCT GEOGRAPHY ASSIGNMENT	Reference	Association of PRODUCT SPECIFICATION (page 2-158) to certain geography or region, usually as available for sales or delivery (for example, Fiber-to-home network is usually only available in big cities in the first phase of development).
PRODUCT LINE	Lookup	Lookup for the ways to classify products according business organization. For example: Wireless, Fixed Line, and so on.
PRODUCT OFFERING	Reference	Defines how a product is brought to the market, including: positioning, pricing, and bundling details. For example: • Tariff Liberty 60, with 60 Free National Minutes, 3 Friends & Family Network Intern Numbers • DSL 32Mbit/s + VoIP Phone + TV Entertainment + Pay TV Soccer Championship one year promotion
PRODUCT OFFERING ASSIGNMENT TYPE	Lookup	Lookup for type of product participation (inclusion) in the market plan. For example: • Use as gift • Main product • Revenue generation service • Base on
PRODUCT OFFERING AVAILABILITY	Reference	Reference for Available PRODUCT OFFERING (page 2-154) in different area or organization business unit.
PRODUCT OFFERING COST	Base	Sub-table of the COST TYPE (page 2-61) table. This entity associates a specific cost to a given PRODUCT OFFERING (page 2-154). The cost should not be related to the CAMPAIGN (page 2-44) or to the PROMOTION (page 2-163), but just to the PRODUCT OFFERING (page 2-154).
PRODUCT OFFERING DOCUMENT REQUIREMENT	Reference	Defines the customer document requirements of each PRODUCT OFFERING (page 2-154).
PRODUCT OFFERING GEOGRAPHY ASSIGNMENT	Reference	Relationship between PRODUCT OFFERING (page 2-154) and Geography. Some PRODUCT SPECIFICATION (page 2-158)s may only be sold in a particular area.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PRODUCT OFFERING GROUP	Reference	Hierarchy level to group the various PRODUCT OFFERING (page 2-154)s. For example: • Postpaid "Family" • Broadband "Business Unlimited" • Prepaid "Freedom"
PRODUCT OFFERING GROUP ASSIGNMENT	Reference	Defines relationship of PRODUCT OFFERING (page 2-154)s to one or more PRODUCT OFFERING GROUP (page 2-155)s.
PRODUCT OFFERING GROUP TYPE	Lookup	Lookup for the type code and description for a PRODUCT OFFERING GROUP (page 2-155).
PRODUCT OFFERING MANAGEMENT	Base	The management history of PRODUCT OFFERING (page 2-154) by the employee.
PRODUCT OFFERING MARKET SEGMENT AVAILABILITY	Reference	Defines the PRODUCT OFFERING (page 2-154) availability over certain Market Segments.
PRODUCT OFFERING ORGANIZATION AVAILABILITY	Reference	Reference for available PRODUCT OFFERING (page 2-154) subscriptions in an ORGANIZATION BUSINESS UNIT (page 2-117) (store, outlet, and so on).
PRODUCT OFFERING PRICE	Reference	Grouping mechanism for prices and usage limits associated with a PRODUCT SPECIFICATION (page 2-158).
PRODUCT OFFERING PRICE COMPONENT	Reference	Part of a PRODUCT OFFERING PRICE (page 2-155) representing a single element of the price. Sub-entities further define these elements. It corresponds to a Rate in some billing systems.
PRODUCT OFFERING PRICE COMPOSITE	Reference	A PRODUCT OFFERING PRICE (page 2-155) that is made up of parts. This could correspond to a price in a price list. Do not confuse with PRODUCT OFFERING RATING PLAN (page 2-156) which is the complete price list related to fees, usage or events, while PRODUCT OFFERING PRICE (page 2-155) could be one or several elements of it.
PRODUCT OFFERING PRICE POLICY ACTION	Reference	The outcome of the successful evaluation of a POLICY STATEMENT (page 2-147) (that is, one that has met its condition(s)). The outcome is expressed in terms of the price of a Product Offering. A Prod Offer Price Action is a type of POLICY ACTION (page 2-136).
PRODUCT OFFERING PRICE POLICY CONDITION	Reference	Part of a POLICY STATEMENT (page 2-147) representing a single constraint that defines the assessment of the rule. The constraint is specified in terms of one or more Product Offering, Product Specification Type, Product Offering Price, and/or Product Offering Price Component. Prod Offer Price Rule Condition is a type of POLICY CONDITION (page 2-138).
PRODUCT OFFERING PRICE POLICY VALUE	Reference	An amount expressed in money or another medium of exchange that is thought to be a fair exchange for a Product Offering as the result of the evaluation of a POLICY STATEMENT (page 2-147).

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PRODUCT OFFERING PRICE POLICY VARIABLE	Reference	A type of POLICY VARIABLE (page 2-147) that represents a Product Offering, Product Offering Price, or Product Specification Type.
PRODUCT OFFERING PRICE RECURRING	Reference	Recurring Product Offering Price (Typically for any periodically recurring fees).
PRODUCT OFFERING PRICE RELATIONSHIP	Reference	Defines the relationship between PRODUCT OFFERING PRICE (page 2-155) composite (or rating plan) and the product offering price composites or components (usually one uses the other).
PRODUCT OFFERING PRICE RELATIONSHIP TYPE	Lookup	Type of relationships between PRODUCT OFFERING PRICE (page 2-155)s (dependencies, parent child, and so on).
PRODUCT OFFERING PRICE TYPE	Lookup	Type of PRODUCT OFFERING (page 2-154). It can be classified by qualification of targeted customers. For example, a Handset-replacing program can be only for a Platinum Customer, while a long-distance loyalty fee discount might be applicable to everyone.
PRODUCT OFFERING PRODUCT ASSIGNMENT	Reference	The Relationship between PRODUCT OFFERING (page 2-154) and PRODUCT (page 2-152). Through this assignment, the PRODUCT OFFERING (page 2-154) can be designed based on Product. For example, the movie Avatar can be promoted with Email service. In this example, the operator can run a promotion saying: Subscribing to the Email service in this month gives you the movie Avatar for free (from IPTV or by downloading).
PRODUCT OFFERING PRODUCT OFFERING PRICE ASSIGNMENT	Reference	Association of a default PRODUCT OFFERING PRICE (page 2-155) (or price list) to a PRODUCT OFFERING (page 2-154).
PRODUCT OFFERING PRODUCT SPECIFICATION ASSIGNMENT	Reference	Assigns Products to PRODUCT OFFERING (page 2-154)s.
PRODUCT OFFERING RATING PLAN	Reference	Group of PRODUCT OFFERING PRICE (page 2-155) (composite or not) that are collected as a complete price list (or tariff plan).
PRODUCT OFFERING RATING PLAN DETAIL	Reference	Details of the PRODUCT OFFERING RATING PLAN (page 2-156), such as general rating method type, UNIT OF MEASURE (page 2-211) of Usage depending on the PRODUCT SPECIFICATION (page 2-158), and so on. This is the price list itself.
PRODUCT OFFERING RELATIONSHIP	Reference	Defines the relationship between two PRODUCT OFFERING (page 2-154)s. For example: • One PRODUCT OFFERING (page 2-154) replaced another one. • One PRODUCT OFFERING (page 2-154) is an alternation of another one.

Table 2-5 (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PRODUCT OFFERING RELATIONSHIP TYPE	Reference	Lookup for the types of PRODUCT OFFERING (page 2-154) relationships.
PRODUCT OFFERING SUBSTITUTE BY DOC	Reference	Describes how the customer may be given different PRODUCT OFFERING (page 2-154) according to available supporting documents they can provide (including income certification, Identification doc, and so on). Tracks under what circumstances what PRODUCT OFFERING (page 2-154) is available to customer.
PRODUCT OFFERING TERM	Reference	The detail term value according to each term for the market plan, including monthly charge.
PRODUCT OFFERING TYPE	Lookup	Type of the PRODUCT OFFERING (page 2-154). For example: • Prepaid Wireless • Postpaid Wireless • VAS Special Package
PRODUCT PRICE ALTERATION	Reference	Price alteration applied to the given subscription.
PRODUCT PRICE CHARGE	TBS	A component of the Product Subscription Price that represents "an amount, usually of money, that is asked for when a Product is bought, rented, or leased." (TMF SID).Note that this entity is NOT physicalized. Physically, please use PRODUCT PRICE COMPONENT with Component Type Code being "PROD PRICE CHRG".
PRODUCT PRICE COMPONENT	Reference	Part of a PRODUCT SUBSCRIPTION PRICE (page 2-161)e representing a single element of the price.
PRODUCT PRICE PARTY ROLE	Reference	The relationship between the Party Role and PRODUCT SUBSCRIPTION PRICE (page 2-161) to track who managed the PRODUCT SUBSCRIPTION PRICE (page 2-161).
PRODUCT PRODUCT CAPABILITY VALUE ASSIGNMENT	Reference	Association of a value from a given PRODUCT CAPABILITY (page 2-152), in a concrete instance of PRODUCT (page 2-152) available for sales (or product subscription).For example, a set top box that is by default Bluetooth enabled for this specific promotion in this shop should have an entry for each set-top box available for sales.
PRODUCT RELATIONSHIP	Reference	Describes the Relationship between concrete PRODUCT (page 2-152)s (as instance of PRODUCT SPECIFICATION (page 2-158)). Typically, it could be the fact that a specific high value headset has to be sold with this phone available for sales in this shop.
PRODUCT RELATIONSHIP TYPE	Lookup	Lists the possible types of relationships between PRODUCT (page 2-152)s.

Table 2-5 (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PRODUCT SPECIFICATION	Reference	The product provided by the carrier. Product includes COMPOSITE PRODUCT SPECIFICATION (page 2-53) information. The composition of a COMPOSITE PRODUCT SPECIFICATION (page 2-53) is tracked in the product relationship.
PRODUCT SPECIFICATION ADDITIONAL TEXT	Reference	Additional descriptive text for a given product, that cannot fit in any other existing attributes, or that should be customized for users with different languages.
PRODUCT SPECIFICATION ASSIGNMENT REASON	Lookup	Lookup for valid reason codes and descriptions for PRODUCT SPECIFICATION RELATIONSHIP (page 2-160).
PRODUCT SPECIFICATION CATEGORY	Lookup	Lookup for classification of the PRODUCT SPECIFICATION (page 2-158) according to certain common characteristics.
PRODUCT SPECIFICATION CHARACTERISTIC	Reference	A characteristic quality or distinctive feature of a Product Specification. The characteristic can be take on a discrete value, such as color, can take on a range of values, (for example, sensitivity of 100-240 mV), or can be derived from a formula (for example, usage time (hrs) = 30 - talk time *3). Certain characteristics, such as color, may be configured during the ordering or some other process.
PRODUCT SPECIFICATION CHARACTERISTIC CONFIGURABLE ASSIGNMENT	Reference	Association of a configurable Characteristics to a PRODUCT SPECIFICATION (page 2-158).
PRODUCT SPECIFICATION CHARACTERISTIC RELATIONSHIP	Reference	A aggregation, migration, substitution, dependency, or exclusivity relationship between/among Product Spec Characteristics.
PRODUCT SPECIFICATION CHARACTERISTIC RESOURCE SPECIFICATION CHARACTERISTIC ASSIGNMENT	Reference	Relationship between a Product Spec characteristic and its translation on the Resource Spec Characteristics. Entity to deal with the M:N relationship between those two entities.
PRODUCT SPECIFICATION CHARACTERISTIC USE	Reference	A use of the Characteristic Specification by an Product Specification to which additional properties apply.
PRODUCT SPECIFICATION CHARACTERISTIC VAL RESOURCE CHARACTERISTIC VAL ASSIGNMENT	Reference	Direct association (dependence usually) between values of PRODUCT SPECIFICATION CHARACTERISTIC (page 2-158) and the value of a given RESOURCE SPECIFICATION CHARACTERISTIC (page 2-176).

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PRODUCT SPECIFICATION CHARACTERISTIC VAL RESOURCE SPECIFICATION CHARACTERISTIC VAL ASSIGNMENT	Reference	Direct association (dependence usually) between values of Product Specification Characteristic and the value of a given Resource Specification Characteristic.
PRODUCT SPECIFICATION CHARACTERISTIC VALUE	Reference	A value of a Product Spec Characteristic chosen for a PRODUCT SPECIFICATION (page 2-158) that further defines what the PRODUCT SPECIFICATION (page 2-158) is.
PRODUCT SPECIFICATION CHARACTERISTIC VALUE RELATIONSHIP	Reference	A aggregation, migration, substitution, dependency, or exclusivity relationship between/among Product Spec Characteristics.
PRODUCT SPECIFICATION CHARACTERISTIC VALUE USE	Reference	A use of the Product Catalog Spec Characteristic Value by an Product Catalog Specification to which additional properties (attributes) apply or override the properties of similar properties contained in Product Catalog Spec Characteristic Value.
PRODUCT SPECIFICATION COLUMN	Reference	Various product COLUMNS - To be used for customization only as additional ways of adding invariant characteristics to PRODUCT SPECIFICATION (page 2-158).
PRODUCT SPECIFICATION COST	Base	Sub-table of the COST TYPE (page 2-61) table, used to associate a specific cost to a given product.
PRODUCT SPECIFICATION COVERAGE AREA TYPE	Lookup	Lookup for type code and description for PRODUCT COVERAGE AREA (page 2-154). For example: • Available • Denied • Planned
PRODUCT SPECIFICATION COVERAGE GEO DETAIL	Reference	Links detailed geographical locations to a certain PRODUCT COVERAGE AREA (page 2-154).
PRODUCT SPECIFICATION GROUP	Lookup	Categorizations or Groups into which PRODUCT (page 2-152)s may be assigned, usually based on similar functionality. For example, Operator may group product as Postpaid Wireless, Prepaid Wireless, Fixed Line Subscription, Calling Card, Paid TV, Broadband, and so on.
PRODUCT SPECIFICATION GROUP ASSIGNMENT	Reference	Defines relationship of PRODUCT SPECIFICATION (page 2-158) and one or more PRODUCT SPECIFICATION GROUP (page 2-159)s.
PRODUCT SPECIFICATION GROUP TYPE	Lookup	Lookup for codes and descriptions of types of PRODUCT SPECIFICATION GROUP (page 2-159)s.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PRODUCT SPECIFICATION HISTORY	Reference	Detailed Product History, as column name, value pairs.
PRODUCT SPECIFICATION MANAGEMENT HISTORY	Base	Defines relationship between EMPLOYEE (page 2-72), PRODUCT SPECIFICATION MANAGEMENT ROLE (page 2-160), and PRODUCT SPECIFICATION (page 2-158).
PRODUCT SPECIFICATION MANAGEMENT REASON	Lookup	Lookup for available reasons for a PRODUCT SPECIFICATION MANAGEMENT HISTORY (page 2-160) relationship.
PRODUCT SPECIFICATION MANAGEMENT ROLE	Lookup	Lookup for valid role codes and descriptions an employee may be assigned in PRODUCT SPECIFICATION MANAGEMENT HISTORY (page 2-160). For example: • Product Creation role • Publication to the market (in/out) role • Product Version Update role • Product Testing role
PRODUCT SPECIFICATION NETWORK ASSIGNMENT	Reference	Assigns a PRODUCT SPECIFICATION (page 2-158) to one or more NETWORK (page 2-110)s.
PRODUCT SPECIFICATION RELATIONSHIP	Reference	Defines a relationship between a PRODUCT SPECIFICATION (page 2-158) and a related product.
PRODUCT SPECIFICATION STATUS HISTORY	Base	A history of the Status for a PRODUCT (page 2-152). For example: • New • Broken • Returned • Lost • Reserved • Obsolete
PRODUCT SPECIFICATION STATUS TYPE	Lookup	Lookup for type of specific Product status type. For example: • Purchased from Vendor • In Warehouse • Presented In Shop • In Customer • Broken • Reserved • Free Downloading (for content)
PRODUCT SPECIFICATION TYPE	Lookup	Lookup for the type of the PRODUCT SPECIFICATION (page 2-158). For example: • Item • Service

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PRODUCT SPECIFICATION VERSION	Reference	Iteration of a PRODUCT SPECIFICATION (page 2-158) created when a minor change is made to the PRODUCT SPECIFICATION (page 2-158) setting that does not require creating a new PRODUCT SPECIFICATION (page 2-158).
PRODUCT STATUS HISTORY	Base	A history of the Status for a PRODUCT (page 2-152) instance, such as New, Broken, Returned, lost, reserved, obsolete, and so on.
PRODUCT STATUS TYPE	Lookup	Type of specific PRODUCT (page 2-152) instance status type, for example: • Purchased from Vendor • In Warehouse • Presented In Shop • In Customer • Broken • Reserved • Free Downloading (for content
PRODUCT SUBSCRIPTION	Reference	The record of customer using a product or service which may be based on a agreement. Customer's subscription to services is the basis of billing and network usage authorization.
PRODUCT SUBSCRIPTION ASSIGNMENT	Reference	Relational assignment of one PRODUCT SUBSCRIPTION (page 2-161) to another PRODUCT SUBSCRIPTION (page 2-161). This is optional.
PRODUCT SUBSCRIPTION ASSIGNMENT TYPE	Lookup	Lookup for type codes and descriptions pertaining to PRODUCT SUBSCRIPTION ASSIGNMENT (page 2-161).
PRODUCT SUBSCRIPTION EVENT TYPE	Lookup	Lookup for available type codes and descriptions for Subscription Events.
PRODUCT SUBSCRIPTION PRICE	Reference	Charge information over a specific subscription.
PRODUCT SUBSCRIPTION PRICE RELATIONSHIP	Reference	Relationship between PRODUCT SUBSCRIPTION PRICE (page 2-161)s (dependencies, conditions, and so on).
PRODUCT SUBSCRIPTION PRODUCT OFFERING PRICE ASSIGNMENT	Reference	Association of a specific PRODUCT SUBSCRIPTION (page 2-161) to a specific PRODUCT OFFERING PRICE (page 2-155). This typically describes how the final price paid (or tariff plan used) by customer is not standard (typical for B2B).
PRODUCT SUBSCRIPTION STATUS	Lookup	Lookup for available code and description for the status of a PRODUCT SUBSCRIPTION (page 2-161). For example: • Active • Inactive • In Debt

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PRODUCT SUBSCRIPTION STATUS CATEGORY	Lookup	Lookup for category codes and descriptions used to group or categorize PRODUCT SUBSCRIPTION STATUS (page 2-161).
PRODUCT SUBSCRIPTION STATUS HISTORY	Base	A history of the status of a PRODUCT SUBSCRIPTION (page 2-161). For example: • Active • Inactive • Defaulted • Terminated The subscription can simultaneously contain multiple status. For example, the subscription could be Active and In_Debt, or amount below threshold.
PRODUCT SUBSCRIPTION STATUS REASON	Lookup	Lookup for available reason codes and descriptions for defining why a PRODUCT SUBSCRIPTION (page 2-161) may be assigned a status.
PRODUCT SUBSCRIPTION STATUS TYPE	Lookup	Type of PRODUCT SUBSCRIPTION STATUS (page 2-161), for grouping purpose at reporting level.
PRODUCT SUBSCRIPTION TERM TYPE	Lookup	Lookup for available type codes and descriptions pertaining to PRODUCT SUBSCRIPTION (page 2-161)s and PRODUCT SPECIFICATION (page 2-158)s to which Values may be assigned. For example: • Monetary Amount • Period • Premium • Initial Points • Cancellation Policy
PRODUCT SUBSCRIPTION TYPE	Lookup	Lookup for available type codes and descriptions for PRODUCT SUBSCRIPTION (page 2-161)s. For example: • Prepaid Wireless • Fixed Line • Broadband
PRODUCT USERNAME	Reference	The usernames assigned to customer for given products. For example: • Instant Messenger • Web Meeting • Remoted (online) Storage • Web Self Service Account
PROJECT	Reference	The business activities, TASK (page 2-205)s, may be categorized into a specific Project according to their common purpose. For example: • 3G WCDMA network upgrade Phase II • LTE Trial Network

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PROJECT ELEMENT	Reference	The business activity which may happen to the operator. It is the super type of PROJECT (page 2-162) and TASK (page 2-205)s.
PROMOTION	Reference	The promotion reflects the tactics that an operator undertakes to generate increased incremental sales or usage volume for a specific product within a promotional event. Promotions are frequently communicated as part of a marketing campaign to ensure that awareness is generated with the target audience.
PROMOTION CLUSTER USAGE	Base	Assigns a particular CUSTOMER SEGMENT (page 2-67), cluster, to a given PROMOTION (page 2-163) or list of promotions. The customer segments are generated by certain analytic applications, including Oracle Mining, and this assignment tracks the usage of customer segments in the PROMOTION (page 2-163).
PROMOTION CONTACT LIST UTILIZATION	Base	Defines the relationship between a CONTACT LIST (page 2-59) and a PROMOTION (page 2-163): the contact list has been used for a marketing campaign to which a specific promotion was proposed.
PROMOTION COST	Base	Subtype of the COST (page 2-60), which is used to associate a specific cost uniquely associated to a given promotion. For example, a rent fee for the location where the operator performs the promotion.
PROMOTION MANAGEMENT HISTORY	Base	A history of campaign party role about management of a campaign EPISODE.
PROMOTION MESSAGE RENDERING	Reference	Details regarding each CAMPAIGN MESSAGE (page 2-45) broadcast through a MEDIA OBJECT (page 2-107).
PROMOTION PRODUCT CATALOG ASSIGNMENT	Reference	Associates PRODUCT CATALOG (page 2-152)s to a PROMOTION (page 2-163).
PROMOTION PRODUCT OFFERING ASSIGNMENT	Reference	Associates PRODUCT OFFERING (page 2-154)s to a PROMOTION (page 2-163), typically, when a given PRODUCT OFFERING (page 2-154) will be offered by the PROMOTION (page 2-163) only during a certain period.
PROMOTION RELATIONSHIP	Reference	Defines the relationship between two PROMOTION (page 2-163)s.
PROMOTION RESULT TYPE	Lookup	Lookup for the prospect reaction to a specific PROMOTION (page 2-163) during a sales campaign. For example: • Accepted • Not interested • Interested but not accepted • Not Interested but other product sold
PROMOTION SALES CHANNEL ASSIGNMENT	Reference	The allocation of PROMOTION (page 2-163) resources or actions onto each SALES CHANNEL (page 2-181).

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PROMOTION SVM FACTOR	Derived	Specifies target promotion factors retrieved from SVM mining model.
PROMOTION SVM ROC	Derived	Mining target entity to store target promotion ROC details calculated using SVM mining model.
PROMOTION TERM TYPE	Lookup	Lookup for valid type codes and descriptions of Promotion Term associated with a PROMOTION TERM VALUE (page 2-164). For example: • Number of customers • Period • Planning • Selling amount • Planning contracts number
PROMOTION TERM VALUE	Base	Assigns PROMOTION TERM TYPE (page 2-164) to a PROMOTION (page 2-163) with a value corresponding to the Term Type. For example: • Maximum Number of customers • Period • Planning selling amount • Planning contracts number
PROMOTION TYPE	Lookup	Lookup for the type of PROMOTION (page 2-163) (each for either a limited time or for the agreement duration). For example: • Monthly Fee Discount • Additional Free Service • Free Installation Cost • Give-away Equipment • Free Equipment Rental • Limited Extra Usage for Free
PROPERTY	Reference	A parcel of land with defined legal boundaries. This is a concrete Geographic Location entity.
PROPERTY ADDRESS LOCATION ASSIGNMENT	Reference	Defines the relationship of which property is using which address location to identify the property.
PROPOSAL	Reference	The proposals made available to prospects in the promotion. It could be a upsell offer like selling a new product, or a retention program (Free Minutes for Longer agreement period).
PROPOSAL RELATIONSHIP	Reference	The relationship between two PROPOSAL (page 2-164)s.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PROSPECT	Reference	An individual, collection of individuals, company, or public institution that does not currently purchase merchandise or services, but who may in the future. A prospect may also be a CUSTOMER (page 2-62) of one PRODUCT SPECIFICATION (page 2-158) (already purchased) that does not currently purchase another PRODUCT SPECIFICATION (page 2-158) (may purchase). A prospect has no recorded relationship with the provider.
PROSPECT INDIVIDUAL	Reference	Attributes of an individual PROSPECT (page 2-165), one who is not an organization.
PROSPECT ORGANIZATION	Reference	Attributes of a prospect organization.
PROSPECT PRIORITY TYPE	Lookup	The different priorities which can be assigned to the prospect and prospect interests.
PROSPECT QUALITY SCORE TYPE	Reference	Lookup for type of quality scores which can be applied to PROSPECT (page 2-165). For example: • Income • Buying Probability
PROSPECT QUALITY SCORE VALUE	Reference	The quality score value assigned to each prospect under different types of criteria.
PROSPECT REJECT REASON	Lookup	The reason to explain why an offer or PROPOSAL (page 2-164) is rejected by the prospect.
PROSPECT RESTRICTED INFORMATION	Reference	Similar to CUSTOMER RESTRICTED INFO (page 2-67), but applied only to PROSPECT (page 2-165). It contains age, marital status, and so on.
PROTOCOL	Reference	A formal set of rules and conventions that governs how two entities exchange information (usually over one or more types of network media). This entity represents Protocols that can be managed. Represents a convenient aggregation point for defining how Protocols are managed and used.
PTV FULL CHANNEL ACTIVATION	Base	Pay TV full channel activation event.
PTV QPI SERVICE EVENT	Base	The detail of QPI service.
PTV USAGE EVENT	Base	Customer usage of PAY TV SERVICE (page 2-126).
PUBLICATION	Reference	Publication to which the MEDIA OBJECT (page 2-107) used in CAMPAIGN (page 2-44) belongs.
PUBLICATION TYPE	Lookup	Lookup for code and description describing the type of publication.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PURCHASE ORDER	Base	All the purchase orders that are raised on suppliers by the purchasing unit of a business organization (purchasing organization). The types of purchase orders can be many and would typically include one-time, regular, blanket, release, and so on.
PURCHASE ORDER LINE ITEM	Base	Specifies purchase order line Item information.
PURCHASE ORDER LINE ITEM STATE	Base	Specifies the state change history of each PURCHASE ORDER LINE ITEM (page 2-166).
PURCHASE ORDER STATE	Base	Defines the records of a PURCHASE ORDER LINE ITEM (page 2-166) being in a particular state for a period of time.
PURCHASE ORDER STATE TYPE	Lookup	Lookup for the different types of state a purchase order or a line item may be at. For example: • Paid • Shipped • Returned
PV BIT STRING VALUE	Reference	Represents a single or a set of bit string values. A bit string is defined as a string whose individual characters have the value "0" or "1". No other values are allowed.
PV BOOLEAN VALUE	Reference	Represents a Boolean value (TRUE or FALSE).
PV INTEGER VALUE	Reference	Provides a list of integer or integer range values. Each integer can be of an arbitrary size.
PV IP ADDRESS VALUE	Reference	Provides an unordered list of IPv4 addresses, IPv6 addresses, ranges of IPv4 addresses, ranges of IPv6 addresses, and host names to be matched against in a policy condition. The format of each string is specified according to the ABNF definition of an IPv4 address. If a host name is matched against another valid IP address, the match is done by resolving the host name into a valid IPv4 or IPv6 address. Matching host names against each other, like matching IP addresses (of the same type) against each other, is done using a string comparison. Matching an IPv4 address against an IPv6 address fails.
PV MAC ADDRESS VALUE	Reference	Represents a single string value, or a set of string values. Each value can have wildcards.
PV STRING VALUE	Reference	Represents a single string value, or a set of string values. Each value can have wildcards.
PVAR 1QCOS VARIABLE	Reference	Represents using the IEEE 802.1q Class of Service value (which is three bits) as part of a condition expression.
PVAR BIT STRING VARIABLE	Reference	Represent a single or set of bit string variable. Thus, only Bit String Value classes can be used in the value portion of the condition expression with this POLICY VARIABLE (page 2-147).

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
PVAR DN VARIABLE	Reference	Represents a single or set of Distinguished Name variable, which may include wildcards. This variable type is specifically defined for retrieving LDAP-based data.
PVAR DSCP VARIABLE	Reference	Represents using the value of the DSCP byte as part of a condition expression.
PVAR ETHER TYPE VARIABLE	Reference	Represents using the value of the Ethertype protocol number of Ethernet frames as part of a condition expression.
PVAR IP PROTOCOL VARIABLE	Reference	Represents using the value of the IP protocol number as part of a condition expression.
PVAR IPTOS VARIABLE	Reference	Represents using the value of the IP ToS byte as part of a condition expression.
PVAR IPV4 VARIABLE	Reference	Represents using the value of IPv4 source and/or destination addresses as part of a condition expression.
PVAR IPV6 FLOW VARIABLE	Reference	Represents using the value of the flow ID in the specified packet header as part of a condition expression.
PVAR IPV6 VARIABLE	Reference	Represents using the value of IPv4 source and/or destination addresses as part of a condition expression.
PVAR IPVERSION VARIABLE	Reference	Represents filtering on a particular version of the IP protocol as part of a condition expression.
PVAR MAC VARIABLE	Reference	Represent a single or set of string variable. Each can have wildcards.
PVAR PORT VARIABLE	Reference	Represents using the value of port source and/or destination fields as part of a condition expression.
PVAR STRING VARIABLE	Reference	Represents a single or set of string variable. Each can have wildcards. Thus, only String Value classes can be used in the value portion of the condition expression with this POLICY VARIABLE (page 2-147).
PVAR VLAN VARIABLE	Reference	Represents using the IEEE 802.1q VLAN ID value (which is 12 bits) as part of a condition expression.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
QOS SERVICE	Reference	Represents a generic specification for defining the different types of Sub-Services that are required to implement a specific type of QoS. This enables business rules to be mapped to the network, and define services that the network provides.
		A QoS Service can be thought of as an aggregation of sub-services needed to realize the functionality specified by, for example, a SERVICE BUNDLE (page 2-184). This enables the network administrator to map business rules, as specified in a more abstract object or set of objects, to the network, and the network designer to engineer the network such that the network provides different functions for different types of applications.
		QoS Services are a type of RESOURCE FACING SERVICE (page 2-173) and are bundled together using SERVICE BUNDLE (page 2-184)s. QoS Services can be turned into templates using SERVICE BUNDLE SPECIFICATION (page 2-184)s.
		The QoS Service itself is a means to coordinate different technology-specific approaches to implementing QoS, such as DiffServ, ToS, and IEEE 802.x. As such, the QOS Service entity is an abstract entity.
QOS SERVICE RELATIONSHIP	Reference	Relationships between QOS SERVICE (page 2-168), to be able to build M:N relationships between those.
QOS SERVICE SPECIFICATION TYPE	Lookup	The QOS SERVICE (page 2-168) spec type.
QUARTER HOUR	Reference	Quarter Hour as defined in Time Hierarchy.
QUARTER TO DATE TRANSFORMATION	Reference	Cumulative time transformations at the quarter level.
QUARTER TRANSFORMATION	Reference	Transformation with respect to a quarter. For example: • This quarter last year • This year last quarter
QUEUE SERVICE	Reference	Queuing can be thought of as the act of delaying of packets inside a device before they are transmitted to the next device. This is often called congestion management. There are many different algorithms to do this task, each having different purposes, different implementation (and therefore programming) complexities, and different uses. Since the semantics of these algorithms are very different, each algorithm is a subtype of QUEUE SERVICE (page 2-168).
QUOTA USAGE BAND	Lookup	Defines the Quota Usage band(s), usually given as a band between a lower and upper limit of % used quota, with respect to a pre-defined quota limit. A (truly) unlimited quota can only use the first band.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
RACK	Reference	A Rack is a type of Secure Holder that represents an enclosure in which Equipment Holders, such as CHASSIS (page 2-48), are placed. Typically a Rack is nothing more than the enclosure, and all the functioning componentry is packaged in the CHASSIS (page 2-48). The logical identifier of a Rack is not typically associated with the Device (that is, the Network Resource). Compare this to either a Bay or a Shelf, whose logical identifier IS associated with the Device. Thus, the Rack is explicitly not a part of the logical model of a network. The Rack typically serves as the "master enclosure" for CHASSIS (page 2-48), Shelves and Bays. In addition, Racks can have multiple instances of multiple Devices mounted in them.
RAT TYPE	Lookup	List of the various type of Radio Access Terminal - typically for POLICY (page 2-135) but could be leveraged for something else.
RATABLE UNIT MEASUREMENT	Lookup	Lookup to specify the valid candidate Ratable Unit Measurement (RUM)s for each event type. For example: • Duration • Size • Count
RATED UDR EVENT	Base	Contains rating information attached to raw or mediated UDR EVENT (page 2-208).
RATING METHOD TYPE	Lookup	Lookup for Rating Method Type code and description. For example: • Flat Rate • Tier Rating • Threshold Rating
RAW GPRS USAGE EVENT	Base	The RAW GPRS event as acquired on network element
RAW MMS EVENT	Base	The raw MMS EVENT (page 2-109)as acquired on network element.
RAW SMS EVENT	Base	The RAW SMS event as acquired on network element.
RAW WIRELESS CALL EVENT	Base	The raw WIRELESS CALL EVENT (page 2-216).
REASON	Lookup	General "REASON" entity that lists all possible reasons for whatever events. The REASON CATEGORY (page 2-169) helps for determining which list of reasons is to be used in which case. This entity is not used in Oracle Communications Data Model.
REASON CATEGORY	Lookup	Grouping of REASON (page 2-169)s dealing with the same event, or process, or source. It can be used for reporting purpose or to choose the right list of possible reasons in a given case. This entity is not used in Oracle Communications Data Model.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
RECHARGE REVENUE SLAB	Lookup	Lookup for the bands of revenue earned from the sale of recharge coupons, for prepaid, which is called recharge revenue. The recharge revenue is to be analyzed for all currently active prepaid subscribers and for all churned subscribers until the time of termination. For example, the revenue can be banded by creating slabs for recharge revenue of $0-$25, $25-$50, and so on.
RED DROPPER SERVICE	Reference	Lists the RED Dropper Services, that represents the ability to drop network traffic using a Random Early Detection (RED) type of algorithm. The purpose of a RED algorithm is to avoid congestion (as opposed to managing congestion).
RED SERVICE ELEMENT	Reference	Lists the Random Early Detection (RED) elements, that define the drop probability, weighting, and other important parameters for distinguishing one traffic type from another traffic type for applying different dropping behavior. If the algorithm used is RED, then by definition there is only one entry in this entity (the REDServiceElement).
REDEMPTION EVENT	Base	Event related to the Redemption or use of LOYALTY PROGRAM (page 2-103) points into something (through transfer, purchase when associated with a retail line item, recharge, and so on).
REDEMPTION MO AGGR	Aggregate	Monthly summary of LOYALTY PROGRAM (page 2-103) redemption statistics.
REDEMPTION TYPE	Lookup	Lookup for redemption type that maintains all possible point redemption types and organizes redemption data by redemption type for analysis purposes.
REFERRING CATEGORY	Reference	User-defined referrer category.
REFERRING CATEGORY LEVEL	Reference	User-defined referrer category level.
REFERRING SITE	Reference	Web page containing the referring link.
REFERRING URL	Reference	URL of the REFERRING SITE (page 2-170).
REFUSE NETWORK SERVICE ASSIGNMENT	Reference	Relationship between the RESOURCE FACING SERVICES and the NETWORK SERVICES they require and leverage (typically parenthood).
RELATION TYPE	Lookup	List all Possible Types of Relationship. This entity is not used in Oracle Communications Data Model.
RELIGION	Lookup	This lookup for religion. For example: • Christianity • Jewish • Islamic • Hinduism
RELIGIOUS AFFILIATION	Reference	Lookup for religious affiliations.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
REMOTE RADIO UNIT	Reference	The Remote Radio Unit is part of Distributed Node B base station system, which manages the signals from the antennas and communicate with BBU. Using Fiber connected RRU, the antenna can be deployed far from the BBU location.
REPLACEMENT SET	Reference	Set of MANAGED ENTITY (page 2-104)s that must be replaced as a unit.
RESOURCE	Reference	All elements belonging to the network (normally, only of the Communications Service Provider) to deliver the communication services.
RESOURCE ALARM	Base	Alarms with any (somehow managed) resources. It shall store information about the alarm details or condition.
RESOURCE ALARM COMMENT	Base	Comments or additional text coming with the RESOURCE ALARM (page 2-171). It could be external weather condition or anything not easily storable in the RESOURCE ALARM (page 2-171) description.
RESOURCE ALARM RELATIONSHIP	Base	Relationships between RESOURCE ALARM (page 2-171)s, typically cascading (one triggers the other).
RESOURCE ALARM RESOURCE ASSIGNMENT	Base	Association of a given RESOURCE ALARM (page 2-171) to a given RESOURCE (page 2-171). The type of assignment allows to determine whether it is the Alarm Trigger (or control source) or Source itself that caused this RESOURCE ALARM (page 2-171) (the origin).
RESOURCE ALARM TRACKING RECORD ASSIGNMENT	Base	Association of Tracking Record of End-Users with a given RESOURCE ALARM (page 2-171).
RESOURCE BUSINESS INTERACTION ROLE	Base	The business interaction role which can be assigned by a RESOURCE (page 2-171).
RESOURCE CANDIDATE	Reference	Resource Candidates are the list of resource specification that could potentially appear on a catalog. Since not all resource Spec should appear on a catalog, this entity lists those who could.
RESOURCE CATALOG	Reference	Defines all the attributes shared by all instances of related Resource Catalogs.
RESOURCE CATALOG CANDIDATE ASSIGNMENT	Reference	Effective Association of a Catalog and a Resource Specifications (via Resource Candidate).
RESOURCE CATALOG SPECIFICATION	Reference	Defines all the attributes shared by all instances of related Resource Catalogs.

Table 2-5 (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
RESOURCE CHARACTERISTIC	Reference	A characteristic quality or distinctive feature of an Resource Specification. The characteristic can take on a discrete value, such as color, can take on a range of values, for example, sensitivity of 100-240 mV, or can be derived from a formula for example, usage time (hrs) = 30 - talk time *3. Certain characteristics, such as color, may be configured during the ordering or some other process.
RESOURCE CHARACTERISTIC ASSIGNMENT	Reference	A use of the RESOURCE CHARACTERISTIC (page 2-172) by a concrete RESOURCE (page 2-171).It could be restricted to those to which additional properties (attributes) apply or override the properties of similar properties contained in RESOURCE CHARACTERISTIC (page 2-172).
RESOURCE CHARACTERISTIC RELATIONSHIP	Reference	A aggregation, migration, substitution, dependency, or exclusivity relationship between or among RESOURCE CHARACTERISTIC (page 2-172)s.
RESOURCE CHARACTERISTIC VALUE	Reference	A number or text that can be assigned to an RESOURCE SPECIFICATION CHARACTERISTIC (page 2-176).
RESOURCE CHARACTERISTIC VALUE ASSIGNMENT	Reference	A use of the RESOURCE CHARACTERISTIC VALUE (page 2-172) by a RESOURCE (page 2-171). One could limit to those which additional properties (attributes) apply or override the properties of similar properties contained in RESOURCE CHARACTERISTIC VALUE (page 2-172).
RESOURCE CHARACTERISTIC VALUE RELATIONSHIP	Reference	A aggregation, migration, substitution, dependency, or exclusivity relationship between/among RESOURCE CHARACTERISTIC VALUE (page 2-172)s.
RESOURCE COST	Base	Subtype of COST (page 2-60), which associate a specific cost to a given network element. For example, purchase, maintenance, recycling.
RESOURCE CROSS REFERENCE	Reference	Cross references one or more Resource of External Operator (or other partners) to the definition in network inventory.It explicitly excludes circuit that should be in CIRCUIT CROSS REFERENCE (page 2-49).

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
RESOURCE FACING SERVICE	Reference	This is the base entity for defining Resource Facing Services. A Resource Facing Service is an abstraction that defines the characteristics and behavior of a particular SERVICE (page 2-183) that is not directly seen or purchased by the Customer. Resource Facing Services are "internal" Services that are required to support a CUSTOMER FACING SERVICE (page 2-64). The Customer purchases CUSTOMER FACING SERVICE (page 2-64)s, and is not aware of the Resource Facing Services which support the CUSTOMER FACING SERVICE (page 2-64)(s) that is being purchased directly by the Customer. For example, a VPN is an example of a CUSTOMER FACING SERVICE (page 2-64). This particular type of VPN may require BGP to support it. Customers do not purchase BGP, and hopefully are not even aware that BGP is running. Therefore, BGP is an example of a Resource Facing Service.
RESOURCE FACING SERVICE ROLE	Reference	Defines a SERVICE (page 2-183) in terms of a set of SERVICE ROLE (page 2-191)s for a RESOURCE FACING SERVICE (page 2-173). This is the base entity for defining SERVICE ROLE (page 2-191)s that represent the variable characteristics of a RESOURCE FACING SERVICE (page 2-173) in terms of roles that this SERVICE (page 2-183) plays. This entity enables the RESOURCE FACING SERVICE (page 2-173) to be managed abstractly using SERVICE ROLE (page 2-191)s. The Resource Facing Service Role also helps define the SERVICE (page 2-183) in terms of the functions that it has or provides.
RESOURCE FACING SERVICE SPECIFICATION	Reference	This is the base entity for defining Resource Facing Service Specs. A Resource Facing Service Spec is an abstraction that defines the invariant characteristics and behavior of a particular RESOURCE FACING SERVICE (page 2-173). This is not seen by the Customer. However, it is required by one or more CUSTOMER FACING SERVICE SPECIFICATION (page 2-64)s in order for them to function correctly. The invariant portion serves as a single common basis to build a set of variable RESOURCE FACING SERVICE (page 2-173)s that all use this common Resource Facing Service Spec.
RESOURCE FACING SERVICE SPECIFICATION ATOMIC	Reference	This entity defines a standalone RESOURCE FACING SERVICE (page 2-173) that meets the needs of a particular CUSTOMER FACING SERVICE (page 2-64). Standalone RESOURCE FACING SERVICE (page 2-173)s may be linked directly to a CUSTOMER FACING SERVICE (page 2-64) or aggregated by a Resource Facing Service Composite.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
RESOURCE FACING SERVICE SPECIFICATION COMPOSITE	Reference	This entity defines an integrated set of RESOURCE FACING SERVICE (page 2-173) that collectively meets the needs of a CUSTOMER FACING SERVICE (page 2-64). For example, the Customer may have requested "GoldService", which is a SERVICE PACKAGE (page 2-188) that defines a set of SERVICE BUNDLE (page 2-184)s, each of which has its own QoS. A set of Resource Facing Service Products can then be defined, one for each different SERVICE BUNDLE (page 2-184) instance, that provides the required QoS for each SERVICE BUNDLE (page 2-184) instance.
RESOURCE FACING SERVICE SPECIFICATION ROLE	Reference	This class defines a SERVICE SPECIFICATION (page 2-191), in terms of a set of ServiceSpecificationRoles, for a ResourceFacingService. This is the base class for defining ServiceSpecificationRoles that are used to represent the invariant characteristics of a ResourceFacingService. This enables the ResourceFacingService to be managed abstractly using ServiceSpecificationRoles. It also helps define the SERVICE SPECIFICATION (page 2-191) in terms of the functions that it has or provides.
RESOURCE FACING SERVICE SPECIFICATION VERSION	Reference	Defines historical versions of RESOURCE FACING SERVICE SPECIFICATION (page 2-173).
RESOURCE FAULT ASSIGNMENT	Base	Defines which RESOURCE (page 2-171)s are affected by a given network (or RESOURCE (page 2-171) related to the network) fault.
RESOURCE HISTORY	Base	A history of the Status for a RESOURCE (page 2-171), such as New, Broken, Returned, lost,reserved(for VIP customer). When agreement terminates, the customer may return the RESOURCE (page 2-171) or declare it as lost and possibly pay some penalty for it.
RESOURCE INVOLVEMENT ROLE	Reference	A role a business entity (such as PARTY ROLE (page 2-124) or RESOURCE ROLE (page 2-175)) plays in the relationship for a RESOURCE (page 2-171). For example: user, owner, and so forth. This is different than the role a resource plays.
RESOURCE MANAGEMENT POLICY	Reference	Defines the particular policies that are used to define how different aspects of the Resource are managed and maintained.(TMF SID)Additionally to TMF POLICY model, one can here directly relate to a RESOURCE with a RESOURCE MANAGEMENT POLICY TYPE CODE that allows to associate the way a policy applies or is associated with or more generally interacts with any given Resource.
RESOURCE NOTE	Reference	Notes associated to a given resource (any notes by anyone). It is more to be used for description. It is a kind of free field entity, to enhance information for end-users.It should only be limited to important resources.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
RESOURCE ORDER	Base	A type of Request that represents a Service Order's services decomposed into the Resources on which the services will be provisioned.
RESOURCE ORDER LINE ITEM	Base	The purpose for the RESOURCE ORDER (page 2-175) expressed in terms of a RESOURCE SPECIFICATION (page 2-176) or a RESOURCE (page 2-171).
RESOURCE PARTY ASSOCIATION	Reference	Defines which PARTY (page 2-120) produced, owns, or is using which RESOURCE (page 2-171). The PARTY (page 2-120) could a customer, employee, or vendor (initial vendor, and maintenance).
RESOURCE PARTY MANAGEMENT	Reference	Defines the relationship between PARTY (page 2-120) and its managed RESOURCE (page 2-171)s.
RESOURCE PARTY POLICY MANAGEMENT ASSIGNMENT	Reference	Association of a Resource Policy Management and a Resource Party Management
RESOURCE PERFORMANCE	Reference	A measure of the manner in which a Resource is functioning.
RESOURCE PERFORMANCE SPEC	Lookup	The invariant characteristics of a measure of the manner in which a Resource is functioning.
RESOURCE PORT	Reference	The Resource Port covers both logical and physical port together and manage as a single entity.
RESOURCE RELATIONSHIP	Reference	The relationship between two Network Resources, for example, in GSM, multiple BTSs are connected to a BSC, in Broadband Service, several customer lines may be connected to a DSL MODEM (page 2-72).
RESOURCE RELATIONSHIP TYPE	Lookup	The Type of Network Resource Relationship. For example, "Pair Connected", "Master-Subordinate", "Primary-Backup", and so on.
RESOURCE ROLE	Reference	This entity defines the concept of various types of roles associated with Resources (both physical and logical).
RESOURCE ROLE ASSIGNMENT	Reference	This abstract entity is defined to map the class that implements the semantics of the "ElementTakesOnRoles" aggregation. It also serves as the parent class for defining the classes that implement the RolesDescribePhysical Element, RolesDescribeLogical Element, and RolesDescribeCompoundl Element aggregations. These three classes are named RolesDescribePhysical ElementDetails, RolesDescribeLogical ElementDetails, and RolesDescribeCompoundl ElementDetailsm respectively.
RESOURCE ROLE PARTY ASSIGNMENT	Reference	Defines the relationship between RESOURCE ROLE (page 2-175) and PARTY (page 2-120).

Table 2-5 (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
RESOURCE ROLE PARTY ROLE ASSIGNMENT	Reference	Relationship of a party role (e.g. "Administrate", "Maintain", "Owner") with respect to a Resource Role (e.g. "Manage", "Slave",...). Please check TMF SID for more information.
RESOURCE ROLE PARTY ROLE DETAILS	Reference	Details of the relationship (typically dependency) between RESOURCE ROLE (page 2-175) and PARTY ROLE (page 2-124) (Customer, provider, and so on).
RESOURCE ROLE SPECIFICATION	Reference	This is the abstract base entity for all Resource Role Specification subclasses. The Network Resource Role Spec enables relationships to be defined between it and other network element roles. This helps prevent relationship explosion. The Network Resource Role Spec defines the invariant attributes, methods, relationships, and constraints of various types of roles associated with Resources (both physical and logical).
RESOURCE SPECIFICATION	Reference	This entity defines the invariant characteristics and behavior (attributes, methods, constraints, and relationships) of a Managed Resource.
RESOURCE SPECIFICATION CATEGORY	Lookup	Category of resource to further classify resource specification type (grouping). Available dimension for customization.
RESOURCE SPECIFICATION CHARACTERISTIC	Reference	A characteristic quality or distinctive feature of a RESOURCE SPECIFICATION (page 2-176). The characteristic can be a discrete value, such as color, can take on a range of values, (for example, sensitivity of 100-240 mV), or can be derived from a formula (for example, usage time (hrs) = 30 - talk time *3).
RESOURCE SPECIFICATION CHARACTERISTIC ASSIGNMENT	Reference	A use (or assignment) of the RESOURCE SPECIFICATION CHARACTERISTIC (page 2-176) by a SERVICE SPECIFICATION (page 2-191) which additional properties (attributes) apply or override the properties of similar properties contained in RESOURCE SPECIFICATION CHARACTERISTIC (page 2-176). This aggregation defines the set of characteristics, or distinguishing features, of a RESOURCE SPECIFICATION (page 2-176).
RESOURCE SPECIFICATION CHARACTERISTIC RELATIONSHIP	Reference	Relationship between RESOURCE SPECIFICATION CHARACTERISTIC (page 2-176)s (ParentChild, Exclusion, Requirement, and so on).
RESOURCE SPECIFICATION CHARACTERISTIC VALUE	Reference	The values (a number or text) that can be assigned to a RESOURCE SPECIFICATION CHARACTERISTIC (page 2-176).
RESOURCE SPECIFICATION CHARACTERISTIC VALUE ASSIGNMENT	Reference	Association of Values to Characteristics of Resource Specification. It should list all possible values a Resource Spec Characteristic can have.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
RESOURCE SPECIFICATION CHARACTERISTIC VALUE RELATIONSHIP	Reference	Relationship between Resource Spec Char Value (Typically, dependency like exclusion, requirement, and so on).
RESOURCE SPECIFICATION PERF ROLE	Reference	A role that a Resource Specification plays in defining a PERFORMANCE SPECIFICATION (page 2-129).
RESOURCE SPECIFICATION TYPE	Lookup	Categorize sets of RESOURCE SPECIFICATION (page 2-176)s such as ROUTER (page 2-180), SWITCH (page 2-204), and so on.
RESOURCE SPECIFICATION VERSION	Reference	Defines differences in attributes, methods, relationships, and/or constraints that characterize this particular RESOURCE SPECIFICATION (page 2-176), but which are not enough to warrant creating a new RESOURCE SPECIFICATION (page 2-176).
RESOURCE SPECIFICATION VERSION USAGE	Reference	Defines the semantics of the RESOURCE SPECIFICATION (page 2-176) aggregation. Specifically, it enables an application to define which set of versions of this RESOURCE SPECIFICATION (page 2-176) are appropriate for a given task (which RESOURCE SPECIFICATION VERSION (page 2-177) should be used when). This aggregation represents the set of versions of this RESOURCE SPECIFICATION (page 2-176).
RESOURCE STATE	Lookup	Lookup for reasons why the Resource is at certain state. For example, power failure, earthquake, new purchase, etc.
RESOURCE STATE HISTORY	Base	Tracks the state history of each resource, for example, power off, in use, decommissioned, and so on.
RESOURCE STATE REASON	Lookup	Lookup for reasons why the RESOURCE (page 2-171) is at certain state. For example, power failure, earthquake, new purchase, and so on.
RESOURCE STATE TYPE	Lookup	Lookup of the Resource State of a given RESOURCE (page 2-171), like power off, installed, decommissioned, and so on.
RESOURCE USAGE EVENT TYPE	Lookup	A detailed description of a RESOURCE (page 2-171) or network element usage event (for example, a purchase or a lease of a resource).
RETAIL SALES RETURN ITEM DAY DRVD	Derived	Summary of SKU ITEM (page 2-197) sales and returns by day, ORGANIZATION BUSINESS UNIT (page 2-117), and optionally by promotional campaign.
RETAIL SALES RETURN LINE ITEM	Base	A line item component of a RETAIL TRANSACTION (page 2-178) that records the exchange in ownership of a merchandise item (for example, a sale or return) or the sale or refund related to a service.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
RETAIL STORE	Reference	Subtype of internal organization. This usually lists the shops where the communications service provider presents the products and sells directly to customers. A retail store may contain several SELLING LOCATION (page 2-183)s.
RETAIL TENDER LINE ITEM	Base	A line item component of a RETAIL TRANSACTION (page 2-178) that records the settlement of that transaction with an offsetting, valid tender type.
RETAIL TERMINAL STATUS	Lookup	Possible status of a Retail Terminal (Cashdesk, ...).
RETAIL TOUCHPOINT	Reference	Place from where transactions take place. Meeting point for customer and retail organization. RETAIL TOUCHPOINT (page 2-178) can be both logical and physical. • Call Center: A department within a retail organization or a third-party organization that handles telephone sales service. • Store Workstation: A device used as an as interface to any retail business function, for example, the capture and storage of RETAIL TRANSACTION (page 2-178) and operational performance reporting.
RETAIL TRANSACTION	Base	A type of transaction that records the business conducted between the retail enterprise and another party involving the exchange in ownership or accountability, or both, for merchandise or tender, or both, or involving the exchange of tender for services.
RETAIL TRANSACTION LINE ITEM	Base	A detail line item of a RETAIL TRANSACTION (page 2-178) that records the business conducted between the organization store and another party involving the exchange in ownership or accountability, or both, for merchandise or tender, or both, or involving the exchange of tender for services.
RETAIL TRANSACTION LINE ITEM TYPE	Lookup	Lookup for available types of RETAIL TRANSACTION LINE ITEM (page 2-178).
RETAIL TYPE	Lookup	Lookup for types of retail processing. For example: • Regular • Promotion • Clearance
REVENUE DAY DRVD	Derived	Daily summary of any revenue stream associated with a PRODUCT OFFERING (page 2-154) and PRODUCT SPECIFICATION (page 2-158). It considers Prepaid (Expired and effectively Used Prepaid Amount), Postpaid (Invoiced or not) and other revenue streams.All measures are summmable over time or any other dimensions. This entity is critical for the computation of any revenue related KPI, and in particular ARPU.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
REVENUE MONTH AGGR	Aggregate	Monthly summary of REVENUE DAY DRVD (page 2-178). All measures are summable for a given product specification and product offering hierarchy level. Summing all measures over all dimensions without restricting to specific level of hierarchy would lead to wrong result (double counting).
RF CARRIER	Reference	Reference list of all wireless or Radio Frequency (RF) carriers.
RF NETWORK CAPACITY DAY DRVD	Derived	Daily aggregate of Radio Frequency (RF) Network Capacity utilization statistics. Radio Frequency (RF) interfaces are present at two levels in the network: • RF Interface between CELL and the Mobile Station • RF interface between MSC and the BSS
RF NETWORK CAPACITY MONTH AGGR	Aggregate	Monthly summary of Radio Frequency (RF) Network Capacity utilization statistics.
RFMP METHOD	Lookup	Lookup for different methods of calculating the Recency, Frequency, Monetary, and Profitability (RFMP) scores.
RFS SPECIFICATION VERSION DETAIL	Reference	Defines the semantics of the modifiesRFSSpec aggregation. Specifically, it enables an application to define which set of versions of this Resource Facing Service Specification are appropriate for a given task.
RINGTONE	Reference	Sub-table of, by which a customer can download music as a ringtone for the phone.
ROAMING TYPE	Lookup	Lookup for the various roaming types to classify the calls. For example: • (Standard) Outgoing Roaming • (Standard) Incoming Roaming • Inland Outgoing Roaming • Inland Incoming Roaming
ROLE	Reference	This is an abstract base entity that defines the concept of various types of roles.
ROLES HIERARCHY	Reference	Hierarchy among the job roles within an organization.
ROOT ENTITY	Reference	Provides an abstraction for most policy entities. The root entity properties enable you to name, describe, and identify all objects, manageable and unmanageable, in the environment.
ROOT ENTITY TYPE	Lookup	Abstract entity that defines a root entity in TMF SID, such as Customer, Product, and so on.
ROUND ROBIN SCHEDULING SERVICE	Reference	Scheduler that serves each active QUEUE SERVICE (page 2-168), one after another. A QUEUE SERVICE (page 2-168) is defined to be active if it has any packets that are enqueued.

Table 2-5   (Cont.) O to R Entity Descriptions

Entity Name	Type	Description
ROUTED PROTOCOL	Reference	This entity represents different types of routed protocols that can be managed. Routed protocols are those protocols that can be routed by a router. Specifically, the router must be able to interpret the logical internetwork as specified by that routed protocol. Represents a convenient aggregation point for defining how routed protocols are managed and used.
ROUTER	Reference	A type of physical device which performs routing function in IP-based network.
ROUTING DEVICE	Reference	In IN Network or Wireless, many different type of devices such as VLR, HLR, SCP servers are utilized in network to decide the call routing. This entity tracks the device information.
ROUTING PROTOCOL	Reference	This entity represents different types of routing protocols that can be managed. Routing protocols are used to determine how information is routed (for example, how it traverses an intermediate system). This entity represents a convenient aggregation point for defining how routing protocols are managed and used.
ROUTING ROLE	Reference	An abstracts entity showing the different routing capabilities necessary for a LOGICAL DEVICE (page 2-100) to have. This entity helps to simplify the modeling of network devices, which have many different sets of capabilities. For example, most routers can do routing, forwarding, and firewalling of traffic. By modeling these capabilities as three roles, router functionality is both abstracted as well as categorized, so that the differences between routing done by a router and routing done by an L3 switch can be differentiated.

Table 2-6   S to V Entity Descriptions

Entity Name	Type	Description
SALE OR RETURN ACTION	Lookup	A code denoting how the item is being treated in the line item. For example: • Layaway • Order For Delivery • Previous Layaway • Return Item • Sale Item • Return • Sale
SALES CAMPAIGN SUMMARY MONTH AGGR	Aggregate	Monthly summary of Sales Campaign results by PRODUCT OFFERING (page 2-154), CAMPAIGN CHANNEL (page 2-44), PROMOTION RESULT TYPE (page 2-163).

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SALES CHANNEL	Reference	Channel used to communicate with parties for sales purposes. For example: • Representatives • Partner-Dealers • Direct Dealers Sales channels are represented by the channel level, which also becomes the lowest level for the channel dimension.
SALES CHANNEL COMMISSION PLAN ASSIGNMENT	Base	Defines a history of which SALES CHANNEL (page 2-181) is applicable to which SALES COMMISSION PLAN (page 2-181).
SALES CHANNEL REPRESENTATIVE	Reference	The sales representative who sells the product to the customer. For example: • Sales Representative in the operator owned shops. • Direct sales representatives in the call center. • Dealer for a partner.
SALES COMMISSION DETAIL	Base	The sales commission earned by sales agent because of the agreement.
SALES COMMISSION PAYROLL	Base	The sales commission issued to the sales agent.
SALES COMMISSION PLAN	Reference	The sales commission plan for particular COMPOSITE PRODUCT SPECIFICATION (page 2-53) and sales agent level.
SALES COMMISSION PLAN DETAIL	Reference	Details about the SALES COMMISSION PLAN (page 2-181) per PRODUCT OFFERING (page 2-154) and PROMOTION (page 2-163)s, including sales quota and commission rate.
SALES REPRESENTATIVE STATISTICS DRVD	Derived	Monthly summary of sales representative performance measured by sales, commission, and so on.
SCD2	Reference	Abstracted entity to provide SCD2 capability for all its children.
SCD2 MULTILANGUAGE	Lookup	Super entity to provide SCD2 and LANGUAGE (page 2-99) support for all its children.
SCHEDULING SERVICE	Reference	A Scheduler is used in the network forwarding path to determine how output queues are serviced. This service uses the QUEUE SERVICE (page 2-168)s (that are defined in this entity) to store packets and then services these queues according to a pre-defined algorithm. When there is no congestion, the net effect is simply FIFO. However, when there is congestion, scheduling is the primary QoS action component.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SCHEDULING SERVICE ATOMIC	Reference	Defines a SCHEDULING SERVICE (page 2-181) as an independent (that is, standalone) TRAFFIC CONDITIONING SERVICE (page 2-207). This is fundamentally different than the SCHEDULING SERVICE COMPOSITE (page 2-182), which models a SCHEDULING SERVICE (page 2-181) as the combination of other existing SCHEDULING SERVICE (page 2-181)s (as well as providing its own extensions).
SCHEDULING SERVICE COMPOSITE	Reference	This entity models a SCHEDULING SERVICE (page 2-181) as a set of coordinated SCHEDULING SERVICE (page 2-181)s. This is fundamentally different than the SCHEDULING SERVICE ATOMIC (page 2-182), which is used to model a SCHEDULING SERVICE (page 2-181) as a standalone TRAFFIC CONDITIONING SERVICE (page 2-207).
SCOPED POLICY DETAIL	TBS	This entity implements the semantics of the ScopesPOLICY APPLICATION (page 2-137) aggregation. This aggregation defines which POLICY APPLICATION (page 2-137)s are scoped by a particular POLICY DOMAIN (page 2-142).
SCRIPT	Reference	A list of specific groupings of questions or statements presented to individuals during a survey.
SCRIPT ANSWER	Base	Effective Answers provided (usually by customer or end-user) to a given script
SCRIPT QUESTION	Reference	Initiative questions documents the questions asked of the customer as part of the initiative.
SCRIPT QUESTION TYPE	Lookup	The domain of values used to group script items. For example: • 1 = Yes or No answers • 2 = Provide a Value • 3 = Give a Range • 4 = Free form answer
SEARCH	Reference	Lists the possible types of "Search" over the website, as part of a WEB VISIT and NAVIGATION.
SEASON	Lookup	Seasons and their attributes. Seasons are arbitrary periods around which some providers organize their buying and selling patterns. Each day should fall within no more than one season.
SECOND	Reference	Second hierarchy level as defined in Time Hierarchy.
SECURE HOLDER	Reference	This entity is a type of Holder Composite that serves as the parent for the RACK (page 2-169) and CHASSIS (page 2-48) entities. This entity generalizes common properties that apply to RACK (page 2-169)s and CHASSIS (page 2-48).
SECURITY REQUIRED TYPE	Lookup	Lookup for type and description of security requirements that may be associated with an ITEM SPECIFICATION (page 2-97).

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SEGMENT CRITERIA	Reference	Minimum and Maximum scores for each segment associated with an ACCOUNT SEGMENT (page 2-29) or CUSTOMER SEGMENT (page 2-67).
SEGMENT TYPE	Lookup	Lookup for type codes and descriptions used to define ACCOUNT SEGMENTATION MODEL (page 2-29) or CUSTOMER SEGMENTATION MODEL (page 2-68).
SELLING LOCATION	Reference	Physical location in a RETAIL STORE (page 2-178) specifically dedicated to selling or displaying merchandise.
SELLING LOCATION TYPE	Lookup	Lookup for type code and description used to define a SELLING LOCATION (page 2-183): For example: • Store • Floor • Aisle • Shelf
SERIAL INTERFACE	TBS	Lists all Serial Device Interfaces (concretely). (TMF SID).
SERVER	Reference	Lists the Server (Hardware and Software) on which applications can run or users can log in.
SERVER FARM	Reference	Lists and details the Farms of SERVER (page 2-183)s available (when meaningful from a network, offering, analytics or end-user perspective)
SERVER STATUS	Lookup	Possible Global Status of the SERVER (page 2-183) from an external point of view (on, off, frozen, starting, shutting down).
SERVICE	Reference	Service is an internal technical presentation of available PRODUCT SPECIFICATION (page 2-158)s to the end user. Different customers may subscribe to different services under the same product name. For example, for a service of 4MB Broadband, the service may be implemented by ADSL service or by FTTH (Optical Fiber).
SERVICE ADDRESS LOCATION ASSIGNMENT	Reference	Collects the history of the assignment of a given SERVICE (page 2-183) to a given location.

Table 2-6　(Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SERVICE BUNDLE	Reference	Conceptually, a Service Bundle is thought of as a collection of Resource Facing Service Specifications. This entity enables the needs of different sets of Resource Facing Service Specifications to be grouped together - hence, the name "bundle". Since these are Resource Facing Specifications, they define reusable templates for implementing the Resource Facing Services that are required by a particular CUSTOMER FACING SERVICE (page 2-64) (as represented by a SERVICE PACKAGE (page 2-188)). Service Bundles were designed to define a set of Class of Service specifications that were required by a CUSTOMER FACING SERVICE (page 2-64) to work together. A SERVICE PACKAGE (page 2-188) is the entity that models the requirements of the CUSTOMER FACING SERVICE (page 2-64). Thus, SERVICE PACKAGE (page 2-188)s can specify different packaging of CUSTOMER FACING SERVICE (page 2-64) that are sold to the Customer, and Service Bundles specify the set of Resource Facing Services that each CUSTOMER FACING SERVICE (page 2-64) requires. Service Bundles are a natural way to implement the requirements of a SERVICE PACKAGE (page 2-188), and are related to a SERVICE PACKAGE (page 2-188) through the Service Package Uses Service Bundles aggregation.
SERVICE BUNDLE SPECIFICATION	Reference	A Service Bundle Spec is the base entity for defining the different classes of bundled Resource Facing Service Specs that a Customer (or some other appropriate PARTY ROLE (page 2-124)) can subscribe to. The preferred way to represent a Customer subscription of this nature is by defining a Service Bundle Spec that defines the set of Resource Facing Service Specs that are being used. Conceptually, a Service Bundle Spec is thought of as a collection to enable the needs of different sets of Resource Facing Service Specs to be grouped together. The "bundle" conveys the concept of grouped Service Specs that are related. Since these are Resource Facing Specifications, they define reusable templates for implementing the Resource Facing Services that are required by a particular CUSTOMER FACING SERVICE (page 2-64) (as represented by a SERVICE PACKAGE (page 2-188)).

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SERVICE BUNDLE SPECIFICATION ATOMIC	Reference	A Service Bundle Spec Atomic object models different SERVICE BUNDLE SPECIFICATION (page 2-184)s as a set of different instances of individual, independent Resource Facing Service Specs. This is fundamentally different than the SERVICE BUNDLE SPECIFICATION COMPOSITE (page 2-185) entity, which models one SERVICE BUNDLE SPECIFICATION COMPOSITE (page 2-185) as the combination of other existing SERVICE PACKAGE SPECIFICATION (page 2-189)s (as well as providing its own extensions). For example, assume that the Gold Package service offering (which is a subclass of Service Package, not SERVICE PACKAGE SPECIFICATION (page 2-189)), requires two different CoS Service instances. This may be because the Gold Package service offering has two different groups of applications that require two different types of traffic conditioning mechanisms. This is represented by a Service Bundle Spec Atomic object. Now, assume that the Platinum Package service offering includes the Gold Package service offering and a new service offering requiring a new set of traffic conditioning mechanisms. This requires a second Service Bundle Spec Atomic object, as users want to reuse the first Service Bundle Spec Atomic object. These could be aggregated to form an instance of a SERVICE BUNDLE SPECIFICATION COMPOSITE (page 2-185) entity.
SERVICE BUNDLE SPECIFICATION COMPOSITE	Reference	A Service Bundle Spec Composite defines an integrated set of SERVICE BUNDLE SPECIFICATION (page 2-184)s that collectively meets the needs of a Resource Facing Service Spec Composite entity. This is fundamentally different than the Service Bundle Spec Atomic object, which models one Service Bundle Spec as the combination of other existing SERVICE PACKAGE SPECIFICATION (page 2-189)s (as well as providing its own extensions). For example, assume that the Gold Package service offering (which is a subclass of SERVICE PACKAGE (page 2-188), not SERVICE PACKAGE SPECIFICATION (page 2-189)), requires two different CoS Service instances. This may be because the Gold Package service offering has two different groups of applications that require two different types of traffic conditioning mechanisms. This is represented by a SERVICE BUNDLE SPECIFICATION ATOMIC (page 2-185) entity. Now, assume that the Platinum Package service offering includes the Gold Package service offering and a new service offering requiring a new set of traffic conditioning mechanisms. This requires a second SERVICE BUNDLE SPECIFICATION ATOMIC (page 2-185) entity, as you want to reuse the first SERVICE BUNDLE SPECIFICATION ATOMIC (page 2-185) entity. These could be aggregated to form an instance of a Service Bundle Spec Composite object.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SERVICE BUSINESS ACTOR	Reference	represents the semantics (e.g., owns, uses, and other relationships) of a BusinessActor using a particular Service.A Service is a realization of a Product in terms of operational capabilities. (TMF SID)Since the Business Actor can be any party, it associates a Party, a Party Role AND a Service. Note that this entity should only be used for relationships that are NOT covered by anything else (like the "customer", which is already defined in SERVICE).
SERVICE CATEGORY	Lookup	Lookup for category of SERVICE (page 2-183). For example: • Customer facing service • Resource facing service • Composite service
SERVICE CHARACTERISTIC VALUE	Reference	Define a set of attributes, each of which can be assigned to a corresponding set of attributes in a ServiceCharacteristic object. The values of the attributes in the ServiceCharacteristicValue Entity describe the values of the attributes that a corresponding ServiceCharacteristic object can take on.
SERVICE CHARACTERISTIC VALUE PRODUCT CHARACTERISTIC VALUE ASSIGNMENT	Reference	This is how a list of SERVICE CHARACTERISTIC VALUE (page 2-186) (of a service in use) is turned into a specific list of PRODUCT CHARACTERISTIC VALUE (page 2-153) (Product or Product Subscription in Use).
SERVICE CHARACTERISTIC VALUE RELATIONSHIP	Reference	A aggregation, migration, substitution, dependency, or exclusivity relationship between/among SERVICE SPECIFICATION CHARACTERISTIC VALUE (page 2-192)s.
SERVICE CLASS	Lookup	The class of the services. For QoS reason, the call can be divided into different classes (Basically might be home line or business line, or others). The Service Class can also be divided by other aspect, line utilizing Circuit Line or IP packets, and so on.
SERVICE CLASS TYPE	Lookup	Lookup for the type or base to define the SERVICE CLASS (page 2-186).
SERVICE COVERAGE AREA	Reference	The geographic area covered by service provider with certain product combination. Service areas are defined so that service providers can determine the demographic / psychographic / population data the geography served by the network.
SERVICE COVERAGE AREA RELATIONSHIP	Reference	Relationships between 2 service (coverage) areas. This entity should typically contain relationships between adjacent cells (where take-over can take place) in a mobile network, or relationship between 2 switches (and their respective area). It should be filled only where meaningful.
SERVICE COVERAGE AREA TYPE	Lookup	Lookup for type code and description for SERVICE COVERAGE AREA (page 2-186).

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SERVICE COVERAGE GEO DETAIL	Reference	The detail about service coverage on lowest level. For example: • Areas covered by a specific BTS • Building covered by Broadband Copper line or Fiber line.
SERVICE DEPENDENCY	Reference	The Dependency among services. One service may depend on others to function, for example, GSM Roaming depends on HLR service to determine its subscription status, likewise, multiple ADSL services depends on the core IP network to transfer the information.
SERVICE DEVICE INTERFACE ASSIGNMENT	Reference	Captures the semantics involved in representing how a particular Resource Facing Service is implemented on a specific DEVICE INTERFACE (page 2-70).
SERVICE EQUIPMENT ASSIGNMENT	Reference	Assignments between NETWORK TOUCHPOINT (page 2-113), EQUIPMENT (page 2-74), and SERVICE (page 2-183) according to which SERVICE (page 2-183) was tied to which NETWORK TOUCHPOINT (page 2-113) through which EQUIPMENT INSTANCE (page 2-75).
SERVICE LEVEL AGREEMENT	Reference	A special type of agreement which keeps the agreement between a customer and the service provider specifying the service quality, including availability, bandwidth, and so on. The detailed terms of the service level agreement are specified in AGREEMENT TERM (page 2-35).
SERVICE LEVEL AGREEMENT ITEM	Reference	Detail line items for a SERVICE LEVEL AGREEMENT (page 2-187).
SERVICE LEVEL AGREEMENT RELATIONSHIP	Reference	Relationships between service level agreement (typically parent child or mutually exclusive).
SERVICE LEVEL AGREEMENT TYPE	Lookup	Lookup for type of all service levels. For example, the classification of service levels can be: Gold, Silver, Bronze. Each product may have different Service Level Agreement settings.
SERVICE LEVEL AGREEMENT VIOLATION	Base	The customer case of each violation to the SERVICE LEVEL AGREEMENT (page 2-187).
SERVICE LEVEL OBJECTIVE	Reference	Quality goal for a Service Level Specification defined in terms of parameters and metrics, thresholds, and tolerances associated with the parameters.
SERVICE LEVEL SPECIFICATION	Lookup	Specifies all types of SERVICE LEVEL AGREEMENT (page 2-187) available to the customer. A pre-defined or negotiated set of service level objectives, and consequences that occur, if the objectives are not met.
SERVICE LEVEL SPECIFICATION APPLICABILITY	Reference	The time of day or days during which a Service Level Specification, Service Level Objective, or Service Level Spec Consequence is relent or not.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SERVICE LEVEL SPECIFICATION CONSEQUENCE	Reference	An action that takes place when a SERVICE LEVEL OBJECTIVE (page 2-187) is not met.
SERVICE LEVEL SPECIFICATION PARAMETER	Reference	Specifies a variable whose value determines compliance with a Service Level Objective.
SERVICE LEVEL UNMET CONSEQUENCE TYPE	Lookup	Lookup for the type of consequences if the service level requirement is not met.
SERVICE LR DEPENDENCY	Reference	This is an association entity. The Service LR Dependency represents the semantics (for example, exists, uses, and other relationships) that exist when a LOGICAL RESOURCE (page 2-102) helps to supply or to support a particular Resource Facing Service.
SERVICE MANAGEMENT POLICY	Reference	Defines the particular policies that are used to define how different aspects of the Service are managed and maintained. (TMF SID)
SERVICE ORDER	Base	A type of Request that represents the products in a Customer Order decomposed into the services through which the products are realized.
SERVICE ORDER LINE ITEM	Base	The purpose for the SERVICE ORDER (page 2-188) expressed in terms of a SERVICE SPECIFICATION (page 2-191) or a Service.
SERVICE PACKAGE	Reference	A Service Package is derived from an associated SERVICE PACKAGE SPECIFICATION (page 2-189). The SERVICE PACKAGE SPECIFICATION (page 2-189) defines the invariant attributes, methods, relationships, and constraints for all Service Package instances that are derived from it. This entity enables each individual Service Package to add its own application-specific changeable characteristics and behavior. There is no specific aggregation used to relate a particular Service Package to the SERVICE PACKAGE SPECIFICATION (page 2-189) that it is derived from. This is because the SERVICE PACKAGE SPECIFICATION (page 2-189) and Service Package both inherit the Specifies Service aggregation, and at this (the business level) view, there are no new semantics that are required to represent this relationship. Finally, while the composite pattern could be applied to Service Package, there is no perceived need to do so. Multiple Service Packages will simply be aggregated by a Product Bundle, and appear as separate Product Components.
SERVICE PACKAGE BUNDLE DETAIL	Reference	Defines how a type of service bundle can support other types of SERVICE PACKAGE (page 2-188)s.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SERVICE PACKAGE SPECIFICATION	Reference	A Service Package Spec defines the concept of bundling a set of different CUSTOMER FACING SERVICE SPECIFICATION (page 2-64)s to meet the functionality specified by one or more Product Specifications. This entity enables the specification of the invariant characteristics and behavior of these CUSTOMER FACING SERVICE (page 2-64)s, so that multiple PRODUCT SPECIFICATION (page 2-158)s can be built from their associated Product Specification. Treating this set of CUSTOMER FACING SERVICE SPECIFICATION (page 2-64)s as a single object is important for building complex Services, such as a VPN. This entity enables a single Product Item, derived ultimately from a Product Specification, to be offered to the Customer, even though in reality the Product Item consists of a set of different CUSTOMER FACING SERVICE (page 2-64)s that must work to provide the functionality that the Customer needs.
SERVICE PACKAGE SPECIFICATION ATOMIC	Reference	A Service Package Spec Atomic object models different SERVICE PACKAGE SPECIFICATION (page 2-189)s as a set of different instances of individual, independent CUSTOMER FACING SERVICE SPECIFICATION (page 2-64)s. This is fundamentally different than the Service Package Spec Composite object, which models one SERVICE PACKAGE SPECIFICATION (page 2-189) as the combination of other existing SERVICE PACKAGE SPECIFICATION (page 2-189)s (as well as providing its own extensions). For example, Gold Package Spec is an individual packaging of services, and is therefore an instance of the Service Package Spec Atomic entity. If there was a service offering that combined the services defined by the Gold Package Spec with those defined by another Service Package Spec Atomic entity, such as the Platinum Package Spec, then that combination could be aggregated, forming an instance of the Service Package Spec Composite entity.
SERVICE PACKAGE SPECIFICATION COMPOSITE	Reference	This models different packages as the combination of other existing SERVICE PACKAGE (page 2-188)s (as well as providing its own extensions). This is fundamentally different than Service Package Atomic, which models different SERVICE PACKAGE (page 2-188)s as a set of different instances.
SERVICE PARTY MANAGEMENT HISTORY	Reference	Keeps track of the history of Service Management by a given PARTY (page 2-120).
SERVICE PARTY POLICY MANAGEMENT ASSIGNMENT	Reference	Association of a Service Policy Management and a Service Party Management.
SERVICE PERFORMANCE	Reference	A measure of the manner in which a SERVICE (page 2-183) is functioning.
SERVICE PERFORMANCE SPEC	Lookup	The invariant characteristics of a measure of the manner in which a SERVICE (page 2-183) is functioning.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SERVICE PR DEPENDENCY	Reference	This is an association entity. The Service PR Dependency represents the semantics (for example, exists, uses, and other relationships) that exist when a PHYSICAL RESOURCE (page 2-133) helps to supply or to support a particular RESOURCE FACING SERVICE (page 2-173).
SERVICE PROBLEM	Base	Problem associated with a service delivery (of any type, whatever the reason). This entity is physicalized and problem analysis should be done from this level.
SERVICE PROBLEM CHARACTERISTIC	Reference	Lists the general Characteristics available (or required) for SERVICE PROBLEM (page 2-190) to be better defined or described.
SERVICE PROBLEM CHARACTERISTIC TYPE	Lookup	Type of SERVICE PROBLEM CHARACTERISTIC (page 2-190)s, grouping the typical parameters that always come with SERVICE PROBLEM (page 2-190)s.
SERVICE PROBLEM CHARACTERISTIC VALUE	Reference	Lists the possible Values a SERVICE PROBLEM CHARACTERISTIC (page 2-190) may take.
SERVICE PROBLEM DAY DRVD	Derived	Summarized information at Day level of any SERVICE PROBLEM (page 2-190) occurring or still not solved for further analysis.
SERVICE PROBLEM RESOURCE ALARM ASSIGNMENT	Base	Association of SERVICE PROBLEM (page 2-190)s and RESOURCE ALARM (page 2-171) related to those service problems.
SERVICE PROBLEM SERVICE ASSIGNMENT	Base	Relationship between the services (a priori or effectively) affected by a service problem.
SERVICE PROBLEM SUBSCRIPTION ASSIGNMENT	Base	Tracks how many product subscriptions are affected by the service problem or network fault, as a measure of criticality.
SERVICE REQUEST	Base	Sub-type of Party Interaction Thread, dedicated to a service request raised from a customer, which may involves a customer field service support order, or changing customer contact information.
SERVICE REQUEST HISTORY	Base	History of a given service request. One stores here only older version of service request.
SERVICE REQUEST LINE ITEM	Base	List of tasks or actions associated with a Service Request.
SERVICE REQUEST LINE ITEM HISTORY	Base	History of a given service request line item. One stores here only older version of service request line item.
SERVICE RESOURCE ASSIGNMENT	Reference	Associates a resource or network element to a service as a way of describing how the service is supported.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SERVICE ROLE	Reference	This entity defines a SERVICE (page 2-183) in terms of a set of roles. The roles are then used to characterize the functionality of the Service, regardless of whether it is a Resource- or a customer-facing service. Service Roles represent the functionality of a Service, and as such are a mix of the invariant and changeable characteristics and behavior of a Service. Representing a SERVICE (page 2-183) in terms of Service Roles enables the functionality of the SERVICE (page 2-183) to be defined independently of Business Actor, PHYSICAL RESOURCE (page 2-133), LOGICAL RESOURCE (page 2-102), or other Services.
SERVICE SPECIFICATION	Reference	Specifies the service specification hierarchy. All SERVICE (page 2-183) are characterized as either being directly visible and usable by a CUSTOMER (page 2-62) or not. This gives rise to the two subclasses of SERVICE (page 2-183): CUSTOMER FACING SERVICE (page 2-64) and RESOURCE FACING SERVICE (page 2-173). However, each instance of a SERVICE (page 2-183) is made up of changeable as well as invariant attributes, methods, relationships and constraints. A SERVICE SPECIFICATION (page 2-191) defines the invariant characteristics of a SERVICE (page 2-183). It can be conceptually thought of as a template that different SERVICE (page 2-183) instances can be instantiated from. Each of these SERVICE (page 2-183) instances will have the same invariant characteristics. However, the other characteristics of the instantiated SERVICE (page 2-183) will be specific to each instance.
SERVICE SPECIFICATION ATOMIC	Reference	This entity defines SERVICE SPECIFICATION (page 2-191)s that do not have any subordinate SERVICE SPECIFICATION (page 2-191)s. In other words, a ServiceSpecAtomic is a standalone SERVICE SPECIFICATION (page 2-191), and does not require any supporting SERVICE SPECIFICATION (page 2-191)s to define the invariant characteristics of Services that it serves as a template for.
SERVICE SPECIFICATION CHARACTERISTIC	Reference	This entity represents the key features of this Service Specification. For example, bandwidth is characteristic of many different types of services; if bandwidth is important (for example, from the point-of-view of a Customer purchasing this Service) then bandwidth would be a Service Characteristic for that particular SERVICE (page 2-183). Note that in this example, bandwidth would have to be defined as an invariant feature that multiple Services use. Otherwise, it should be defined as a Service Characteristic.
SERVICE SPECIFICATION CHARACTERISTIC RELATIONSHIP	Reference	A aggregation, migration, substitution, dependency, or exclusivity relationship between or among SERVICE SPECIFICATION CHARACTERISTIC (page 2-191)s.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SERVICE SPECIFICATION CHARACTERISTIC RESOURCE SPECIFICATION CHARACTERISTIC ASSIGNMENT	Reference	Relationship between a Service Spec characteristic and its translation on the Resource Spec Characteristics. Entity to deal with the M:N relationship between those 2 entities.
SERVICE SPECIFICATION CHARACTERISTIC USE	Reference	A use of the SERVICE SPECIFICATION CHARACTERISTIC (page 2-191) by an SERVICE SPECIFICATION (page 2-191) to which additional properties (attributes) apply or override the properties of similar properties contained in SERVICE SPECIFICATION CHARACTERISTIC (page 2-191).
SERVICE SPECIFICATION CHARACTERISTIC VAL RESOURCE SPECIFICATION CHARACTERISTIC VAL ASSIGNMENT	Reference	Relationship between the value of a characteristic of a Service Specification with the value of a related Resource Specification Characteristic. Typically, it is a dependence relationship.
SERVICE SPECIFICATION CHARACTERISTIC VALUE	Reference	A SERVICE SPECIFICATION CHARACTERISTIC VALUE (page 2-192) defines a set of attributes, each of which can be assigned to a corresponding set of attributes in a SERVICE SPECIFICATION CHARACTERISTIC (page 2-191). The values of the attributes in the SERVICE SPECIFICATION CHARACTERISTIC VALUE (page 2-192) describe the values of the attributes that a corresponding SERVICE SPECIFICATION CHARACTERISTIC (page 2-191) can take on.
SERVICE SPECIFICATION CHARACTERISTIC VALUE ASSIGNMENT	Reference	A SERVICE SPECIFICATION CHARACTERISTIC VALUE (page 2-192) defines a set of attributes, each of which can be assigned to a corresponding set of attributes in a SERVICE SPECIFICATION CHARACTERISTIC (page 2-191). The values of the attributes in the SERVICE SPECIFICATION CHARACTERISTIC VALUE (page 2-192) describe the values of the attributes that a corresponding SERVICE SPECIFICATION CHARACTERISTIC (page 2-191) can take on.
SERVICE SPECIFICATION CHARACTERISTIC VALUE RELATIONSHIP	Reference	An aggregation, migration, substitution, dependency, or exclusivity relationship between or among SERVICE SPECIFICATION CHARACTERISTIC VALUE (page 2-192)s.
SERVICE SPECIFICATION CHARACTERISTIC VALUE USE	Reference	Describes a use of the SERVICE SPECIFICATION CHARACTERISTIC VALUE (page 2-192) by an ENTITY SPECIFICATION (page 2-74) to which additional properties (attributes) apply or override the properties of similar properties contained in SERVICE SPECIFICATION CHARACTERISTIC VALUE (page 2-192).

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SERVICE SPECIFICATION CHAR RESOURCE SPECIFICATION CHARACTERISTIC ASSIGNMENT	Reference	Relationship between a SERVICE SPECIFICATION CHARACTERISTIC (page 2-191) and its translation on the RESOURCE SPECIFICATION CHARACTERISTIC (page 2-176)s. Entity to deal with the M:N relationship between those two entities.
SERVICE SPECIFICATION COMPOSITE	Reference	This entity defines SERVICE SPECIFICATION (page 2-191)s that are formed by aggregating other SERVICE SPECIFICATION (page 2-191)s. The types of SERVICE SPECIFICATION (page 2-191)s that are aggregated may be ServiceSpecAtomic or SERVICE SPECIFICATION COMPOSITE (page 2-193)s. A SERVICE SPECIFICATION COMPOSITE (page 2-193) collectively defines all of the invariant characteristics of Services that it serves as a template for.
SERVICE SPECIFICATION PRODUCT SPECIFICATION RELATIONSHIP	Reference	Defines the relationship between Service Spec and Product, for example, to track which Product requires which Service Spec.
SERVICE SPECIFICATION RELATIONSHIP	Reference	Relationship between SERVICE SPECIFICATION (page 2-191)s (dependencies, exclusion, and so on).
SERVICE SPECIFICATION RESOURCE SPECIFICATION RELATIONSHIP	Reference	Defines the relationship between SERVICE SPECIFICATION (page 2-191) and Resource Spec. For example, to track which Resource Specifications are required for a certain type of SERVICE SPECIFICATION (page 2-191) to work.
SERVICE SPECIFICATION ROLE	Reference	This entity defines a SERVICE SPECIFICATION (page 2-191) in terms of a set of roles. The roles are then used to characterize the invariant functionality of the Service, regardless of whether it is a resource- or a customer-facing service. Service Specification Roles represent the invariant functionality of a Service. Representing a SERVICE (page 2-183) in terms of Service Specification Roles enables the functionality of the SERVICE (page 2-183) to be defined independently of Business Actor, network element, or other Services.
SERVICE SPECIFICATION TYPE	Lookup	Type of SERVICE SPECIFICATION (page 2-191), for grouping purposes.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SERVICE SPECIFICATION VERSION	Reference	This entity represents the ability to distinguish between different instances of SERVICE SPECIFICATION (page 2-191)s. It represents a particular form or variety of a SERVICE SPECIFICATION (page 2-191) that is different from others or from the original. The form represents differences in attributes, methods, relationships, and/or constraints that characterize this particular SERVICE SPECIFICATION (page 2-191), but which are not enough to warrant creating a new SERVICE SPECIFICATION (page 2-191).
SERVICE STATUS	Lookup	Lookup for all status types of a SERVICE (page 2-183). For example: • Active • Inactive
SERVICE STATUS CATEGORY	Lookup	A category that categorizes similar SERVICE STATUS (page 2-194).
SERVICE STATUS HISTORY	Base	A history of the Status of a SERVICE (page 2-183). Such as active, inactive, defaulted, terminated.
SERVICE STATUS REASON	Lookup	Lookup for reasons why a SERVICE (page 2-183) has a certain status.
SERVICE TYPE	Lookup	Lookup for types of SERVICE (page 2-183). For example, values should be from a subtype of: CUSTOMER FACING SERVICE RESOURCE FACING SERVICE COMPOSITE SERVICE
SERVICE USAGE TYPE	Lookup	A detailed description of a service usage event (for example, a purchase or a usage of a service).
SERVICE UTILIZATION DETAIL	Reference	Represents the semantics (for example, exists, uses, and other relationships) that exist when a PHYSICAL RESOURCE (page 2-133) is used to help supply or support a particular SERVICE (page 2-183).
SESSION	Base	Describes a session from a computing perspective rather than from an UDR EVENT (page 2-208) perspective (for example GPRS Session).
SESSION TYPE	Lookup	Lists the possible types of SESSION (page 2-194)s that will be dealt with for grouping purpose.
SET TOP BOX	Reference	Set-top box for Television service.
SET TOP BOX MODEL	Reference	Set-top box model specification.
SETTING ATTRIBUTE IMPORTANCE	Data Mining	Specifies settings of Attribute Importance algorithm.
SETTING CHURN DECISION TREE	Data Mining	Specifies settings of Decision Tree algorithm for customer churn analysis.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SETTING CHURN DECISION TREE COST	Data Mining	Specifies the cost of misclassification for customer churn analysis using Decision Tree algorithm.
SETTING CHURN SVM	Data Mining	Specifies settings of SVM algorithm for customer churn analysis.
SETTING CHURN SVM PRIORS	Data Mining	Specifies prior probabilities for customer churn analysis using SVM algorithm.
SETTING LIFE TIME VALUE SVM	Data Mining	Specifies settings of GLMR algorithm for customer life time value and life time survival analysis.
SETTING PROFILE KMEANS	Data Mining	Specifies settings of K-Means algorithm for customer profiling.
SETTING SENTIMENT SVM	Data Mining	Specifies settings of SVM algorithm for sentiment analysis.
SETTING USER ALL	Data Mining	Specifies storing parameter settings for mining.
SHAPER SERVICE	Reference	Regulates traffic flow to an average bit rate, taking into account any bursting capability that is desired. Normally, a shaper service includes buffering. Thus, any packets that cannot be transmitted are queued.
SHELF	Reference	A Shelf is a type of Equipment Holder that is designed to hold various types of Equipment. The Shelf has a logical identifier that is often relative to the Bay that contains the Shelf (that is, the unique identifier for a Shelf is often a concatenation of the network element identifier, the Bay identifier, and the Shelf identifier). The logical identifier of a Shelf is typically associated with the Device (that is, the Network Resource). Compare this to a RACK (page 2-169), whose logical identifier is not associated with the Device. Thus, the Shelf is explicitly a part of the logical model of a network. Often, a Shelf contains not just pluggable components (for example, CARD (page 2-46)s, Power Supplies, and so on) but also cabling (for example, both fiber and wire), with optional connections to external fuse, alarm, and other types of panels.
SIC ASSIGNMENT	Reference	Assigns one industry to another industry in Standard Industrial Classification (SIC).
SIC ASSIGNMENT REASON	Lookup	Lookup for reason codes and descriptions that describe why two industries are assigned in the Standard Industrial Classification (SIC).

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SIC CLASSIFICATION	Lookup	A classification group for Standard Industrial Classification (SIC). For example: A. Division A: Agriculture, Forestry, And Fishing: • Major Group 01: Agricultural Production Crops • Major Group 02: Agriculture Production Livestock and Animal Specialties • Major Group 07: Agricultural Services • Major Group 08: Forestry • Major Group 09: Fishing, Hunting, and Trapping
SIC DIVISION	Reference	The base level of SIC classification. For more information see SIC CLASSIFICATION (page 2-196).
SIC INDUSTRY GROUP	Lookup	The middle level of the industry classification hierarchy.
SIGNALING PROTOCOL	Reference	This entity represents different types of signaling protocols that can be managed. Signaling protocols are used to convey information along a specific path. Represents a convenient aggregation point for defining how signaling protocols are managed and used.
SIM CARD	Reference	A subscriber identity module (SIM) on a removable SIM card securely stores the service-subscriber key (IMSI) used to identify a subscriber on mobile telephony devices (such as a mobile phone). Also used for UIM (User Identity Module) in the CDMA (Code Division Multiple Access) network.
SIM CARD ACCESS METHOD ASSIGNMENT	Reference	A history of relationship between ACCESS METHOD (page 2-22) and SIM CARD (page 2-196). Many access methods can be assigned to one SIM CARD (page 2-196) at any given time.
SIM CARD ACCESS METHOD REASON	Lookup	Lookup for valid reason codes and descriptions to describe relationship between SIM CARD (page 2-196) and ACCESS METHOD (page 2-22).
SIM CARD ACTIVATION REASON	Lookup	Lookup for valid reason codes and descriptions describing why a SIM CARD (page 2-196) has been activated.
SIM CARD ACTIVATION TYPE	Lookup	Usage states that a SIM CARD (page 2-196) may be in. For example: • PP: Pre-Provisioned • BU: Barred from Usage
SIM CARD HANDSET ASSIGNMENT	Reference	A history of relationship between a HANDSET INSTANCE (page 2-87) and a SIM CARD (page 2-196). SIM Cards can be swapped between handsets.
SIM CARD PRODUCT SUBSCRIPTION ASSIGNMENT	Reference	A history of relationship between the SIM CARD (page 2-196) and a PRODUCT SUBSCRIPTION (page 2-161).
SIM CARD PRODUCT SUBSCRIPTION REASON	Lookup	A reason why a SIM CARD (page 2-196) is associated with a PRODUCT SUBSCRIPTION (page 2-161).

Table 2-6　(Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SIM CARD TYPE	Lookup	Lookup for the types of SIM CARD (page 2-196). For example: • 16k • 32k • 64k • 128k
SITE	Reference	Site is any geographical location of interest to the telecom operator.
SITE INTERFACE ROLE	Reference	This role defines a Customer Site - that is, an interface to a set of Customers. The objective of this role is to enable the definition of Policies such that all Customers in this Site can receive the same Services. For example, routing announcements, traffic marking, and so on.
SITE ROLE	Reference	The part played by a SITE (page 2-197) in a given context with any characteristics, such as expected pattern of behavior, attributes, and/or associations that it entails.
SITE TYPE	Lookup	Lookup of all possible types of sites of interest to the service provider.
SITE TYPE CATEGORY	Lookup	Lookups about the various categories associated with a type of Site. It is an additional grouping field.
SKILL TYPE	Lookup	Lookup of available skill types for an individual party.
SKU ITEM	Reference	Stock Keeping Unit or unit identification, typically the UPC, used to track store inventory and sales. Each SKU is associated with an item, variant, product line, bundle, service, fee, or attachment. • Aggregate SKU: Subtype of SKU that is an aggregation of one or more constituent SKU. The constituent items may be sold individually. • Group Select: An item, which is a group of items, only one of which is sold. The choice of which item is made by the customer at the POS. • Prepared: A sub-type that is manufactured (or prepared). • Service SKU: A type of SKU that provides a detailed identifier and description for a service offered for a sale to customer in the retail store. Service SKU also identifies and describes rental items and other tangible items that a customer uses for a contracted period, but not purchased. • Stock: A unit of merchandise that may be sold to a customer or used.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SKU TYPE	Lookup	Lookup indicating which subtype the SKU ITEM (page 2-197) is. For example: • Stock Item • Service Item • Prepared Item • Group Select Item • Aggregate Item
SLOT	Reference	This is a concrete entity that has two main purposes. One is to model the ability of a hosting board to accept a daughter card to add or complete the base functionality of the hosting board. The second is to represent the different expansion slots supported by a CHASSIS (page 2-48).
SLOT RELATIONSHIP	Reference	This entity represents the semantics of the Adjacent Slots association. The SLOT (page 2-198) Relationship includes two attributes that are used to provide general layout information describing the SLOT (page 2-198)s in the Equipment Holder. The first, Distance Between Slots, defines the distance in inches between two adjacent SLOT (page 2-198)s in the Physical Package. The second, Shared Slots, is a boolean attribute that describes the dependency between two SLOT (page 2-198)s that are located near each other. Sometimes, the two SLOT (page 2-198)s are so close that if one of these SLOT (page 2-198)s is populated by an adapter CARD (page 2-46), the other SLOT (page 2-198) must be left empty. If this attribute is set to TRUE, then the second SLOT (page 2-198) must be left unoccupied.
SMS EVENT	Base	Subtype of UDR EVENT (page 2-208), which collects all information of product usage of Short Message Service (SMS).
SMS RATING PLAN	Reference	Subtype of PRODUCT OFFERING PRICE (page 2-155), reserved for Short Message Service (SMS), and also Multimedia Messaging Service (MMS), service.
SMS SERVICE	Reference	Sub-type of SERVICE (page 2-183), containing the information relative to the SMS service.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SOC JOB	Reference	Entity holds the most detailed level of Standard Occupational Classification (SOC) job classification. For example: • 15-0000 Computer and Mathematical Occupations • 15-1000 Computer Specialists • 15-1010 Computer and Information Scientists, Research • 15-1011 Computer and Information Scientists, Research • 15-1020 Computer Programmers • 15-1021 Computer Programmers • 15-1030 Computer Software Engineers • 15-1031 Computer Software Engineers, Applications • 15-1032 Computer Software Engineers, Systems Software • 15-1040 Computer Support Specialists • 15-1041 Computer Support Specialists
SOC JOB CATEGORY	Reference	Lookups for the categories in the Standard Occupational Classification (SOC) in which each occupation in the SOC is placed. The hierarchy in SOC is typically: NN-MMM0. These job categories correspond to the 449 "broad occupations" or categories. For example: • 13-2010 Accountants and Auditors • 13-2020 Appraisers and Assessors of Real Estate • 13-2030 Budget Analysts • 13-2040 Credit Analysts • 13-2050 Financial Analysts and Advisors • 13-2060 Financial Examiners
SOC JOB GROUP	Reference	Lookups for the groups in the Standard Occupational Classification (SOC) in which each occupation in the SOC is placed. The hierarchy of SOC is typically: NN-MM00. For example: • 13-1000 Business Operations Specialists • 13-2000 Financial Specialists
SOC JOB MAJOR GROUP	Reference	Lookups from the (23) major groups in the Standard Occupational Classification (SOC) in which each occupation in the SOC is placed. The hierarchy of SOC is typically: NN-0000. For example: • 11-0000 Management Occupations • 13-0000 Business and Financial Operations Occupations • 15-0000 Computer and Mathematical Occupations • 17-0000 Architecture and Engineering Occupations • 19-0000 Life, Physical, and Social Science Occupations • 21-0000 Community and Social Services Occupations • 23-0000 Legal Occupations

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SOFTWARE	Reference	This entity represents software. Software represents the set of user visible functions and processes that are contained in a device. The Has Software Features association defines software that is associated with a LOGICAL DEVICE (page 2-100), such as programs and operating systems. Since this software can be associated with devices and/or device components, this association is defined between the roots of the two classes. Software may be nested within other software, thereby creating a containment relationship (which is part of the system view). Currently, the subclasses of this class reflect user-facing features. For example, features that are manageable, configurable, and executable by users and applications. Internationalization and Language functionality are supported by creating a Software Uses Language association to the Language classes.
SOFTWARE ATOMIC	Reference	This entity represents atomic units of software that are individually manageable and do not form composite, or nested, software units. From a finite state machine view, each Software Atomic element is not just individually manageable, but is also installable, executable, and runnable. In addition, each Software Atomic element can be a FRU. This is the super-class for creating concrete subclasses that define particular functionality. For example, a device driver, or software that implements MPLS as part of a larger routing software package.
SOFTWARE COMMAND	Reference	Software Commands describe the sets of features that are programmable by a particular PARTY ROLE (page 2-124). For example, a Developer, or Network Operator, and in rare cases, an End User. This should not be confused with Capabilities. Capabilities define what features and functions are available at a given moment for the RESOURCE (page 2-171). Thus, Software Commands represent the specific commands that are available in a device, whereas Capabilities represent higher-level generic functions available in a RESOURCE (page 2-171). For example, the ability to perform BGP routing is a Capability, whereas the actual commands used to implement BGP routing are Software Commands.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SOFTWARE COMPOSITE	Reference	This entity represents software units that are made up of other software units (that is, instances of this entity and the Software Atomic base entity). This provides the semantics of collecting a set of components, each of which is individually manageable, and being able to manage the set of objects as a whole. An example is an operating system - this is manageable as a unit, but consists of individually manageable components. This containment is modeled using the Contains Software Components composition. From a finite state machine view, each Software Composite element is manageable, installable, executable, and runnable. In addition, each Software Composite element can be a FRU. This is the super-class for creating concrete subclasses that define groups of functionality. For example, set of features that work to provide application-level functionality to the end-user.
SOFTWARE FEATURE SETS	Reference	Software Feature Sets describe the groups of Software Commands that distinguish a particular release of Software. The Software Commands contained in the Software Feature Sets are programmable by a particular PARTY ROLE (page 2-124) (for example, a Developer, or Network Operator, and in rare cases and End User). Often, Software Feature Sets are used by the manufacturer to define a custom or semi-custom build of software, or are provided as a set of options that are orderable by the Customer. This should not be confused with Capabilities. Capabilities define what features and functions are available at a given moment for the RESOURCE (page 2-171). Thus, Software Feature Sets represent groups of commands that are available in a device, whereas Capabilities represent higher-level generic functions available in a RESOURCE (page 2-171). For example, the ability to perform BGP routing is a Capability, whereas the actual commands used to implement BGP routing are Software Commands that reside in one or more Software Feature Sets. Hence, Software Feature Sets may or may not offer BGP as a programmable feature.
SOFTWARE OS RELATIONSHIP	Reference	This is an association class, and defines the semantics of the Software Interacts With OS association. This is a complex class, and consequently only a few simple attributes are shown in this viewpoint in order for the reader to get a flavor of the types of parameters defined in this entity.
SOURCE DESTINATION TYPE	Lookup	Lookup for the types of destination associated with CALL SOURCE DESTINATION table. eg for Voice calls: National Fixed, National Mobile, InternationalFixed, International Mobile,...Note that it could be also used to determine the Source type or the Destination type only, when CALL SOURCE DESTINATION contains those too.
SOURCE SYSTEM	Reference	System of record from which information was loaded.
SOURCE SYSTEM KEY MAPPING	Reference	Track Key of the PARTY (page 2-120), customer or employee, in the originating source system. This key can track information back to the source management system.

Table 2-6 (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SOURCE SYSTEM TYPE	Lookup	Lookup for type code and description used to describe SOURCE SYSTEM (page 2-201). For example: • Competitor Customer Listing • Third-Party Purchased Mailing List • CRM List • Billing System List
SPECIFICATION	Reference	This is an entity that defines the invariant characteristics, attributes, methods, and relationships, of a managed entity.
SPECIFICATION ROLE	Reference	This is the entity for all Role Specification subclasses.
SPECTRUM COVERAGE AREA	Reference	The geographic coverage area of a given wireless spectrum.
SPNM	Lookup	Lists the Special Numbers available to (or used by) customers.
SPNM OTHER PARTY NUMBER	Reference	Defines the relationship between a special number and a third Party Operator Numbers, with grouping attributes for reporting purpose.
STANDARD MARKER SERVICE	Reference	Defines the most common type of marker, which sets existing bits in specific fields of a packet or frame.
STATISTICAL ENTITY	Reference	Super entity to model statistics. Subtype of ROOT ENTITY (page 2-179).
STORE EFFICIENCY DAY DRVD	Derived	Daily aggregate of shop efficiency details including customer and transaction counts, wait times, and so on, by ORGANIZATION BUSINESS UNIT (page 2-117) and GEOGRAPHY REGION (page 2-84).
STORE EFFICIENCY MONTH AGGR	Aggregate	Monthly summary of shop efficiency details including customer and transaction counts, wait times, and so on, by ORGANIZATION BUSINESS UNIT (page 2-117) and GEOGRAPHY REGION (page 2-84).
STREET NAME	Reference	Names (and history) associated with GEOGRAPHY STREET (page 2-84)s for address location.
STREET SEGMENT	Reference	Defines various segments of a street when necessary. Street Segment is a subtype of MARKET AREA (page 2-106). Is linked to a GEOGRAPHY STREET (page 2-84).
STREET SEGMENT ADDRESS ASSIGNMENT	Reference	Association of ADDRESS LOCATION (page 2-30) to specific Segment of a given Street.
STRICT SCHEDULING SERVICE	Reference	This type of SCHEDULING SERVICE (page 2-181) assigns each Queue a priority, and then visits each Queue in priority order. However, as long as a Queue of a higher priority has traffic enqueued, Queues of lower priority are starved. Subtype of SCHEDULING SERVICE (page 2-181).

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SUB NETWORK	Reference	An abstraction provided by the Element Management System (EMS) to the Network Management System (NMS) that describes the potential for subnetwork connections. The Sub Network also provides a transparent end-to-end connection or a TRAIL (page 2-208), closed or half-open, through a Subnetwork according to the roles associated to its end points.
SUBSCRIBER ACTIVATION REASON	Lookup	Lookup for valid Subscriber activation code and reasons used to describe Subscriber Activation. For example: • Reactivate because of paying • Deactivate by non-paid
SUBSCRIPTION RESOURCE ROLE ASSIGNMENT	Reference	Defines the relationship between PRODUCT SUBSCRIPTION (page 2-161) and the role a RESOURCE (page 2-171) takes with respect to this subscription.
SUBSCRIPTION SERVICE ASSIGNMENT	Reference	The relationship between PRODUCT SUBSCRIPTION (page 2-161) and SERVICE (page 2-183). One subscription may be used to rate multiple services. For example, WCDMA 3G Data + Wifi, and vice versa. One service, for example a gsm mobile, may support multiple products (calling minutes, discounts, and so on).
SUBSCRIPTION SERVICE CLASS ASSIGNMENT	Reference	Defines the class of service for a PRODUCT SUBSCRIPTION (page 2-161).
SUBSCRIPTION STATISTIC MONTH AGGR	Aggregate	Monthly summary of Subscriber Churn by PRODUCT SPECIFICATION (page 2-158), PRODUCT OFFERING (page 2-154), CUSTOMER TYPE (page 2-68), GEOGRAPHY ENTITY (page 2-84), ORGANIZATION BUSINESS UNIT (page 2-117).
SUBSCRIPTION TERM VALUE	Base	Value assignments for Subscription Terms as pertains to a PRODUCT SUBSCRIPTION (page 2-161) and PRODUCT SPECIFICATION (page 2-158). For example: • Monetary amount • Period • Premium • Initial points The value can vary at different time periods. For example, the monthly fee might be 100 for first six months, and 80 for last six months. A penalty calculation can also be assigned based on the months left in an agreement.
SUBSIDY TYPE	Lookup	Lookup for type code and description of a Subsidy.
SUPPLEMENTARY SERVICE	Reference	Supplementary Services are Add-on or Value Add services that are normally available but have to be explicitly triggered by the customer in any way to work. CLIP, CLIR, Conference Call, and so on, are typical Supplementary Services that runs on top of a normal call and should be charged in a particular way.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SUPPLEMENTARY SERVICE USAGE DRVD	Derived	Daily summary of SUPPLEMENTARY SERVICE (page 2-203) usage. This table can be customized to include more services.
SUPPLEMENTARY SERVICE USAGE MONTH AGGR	Aggregate	Monthly aggregate of the SUPPLEMENTARY SERVICE (page 2-203) usage.
SURVEY	Reference	A survey is a subtype to the PROMOTION (page 2-163).
SWITCH	Reference	Network switches or exchanges. A switch may be a PSTN (wireline) digital or analog, or a GSM Mobile Station controller (wireless).
SWITCH CAPABILITY	Reference	Records the specific functional characteristics of each switch or exchange. The types of capabilities of interest are those that enable customer services; this entity enables the operator to identify if customers on a particular switch can utilize a certain service (for example, VPN).
SWITCH CAPABILITY TYPE	Lookup	Lookup for type codes and descriptions used to categorize SWITCH CAPABILITY (page 2-204).
SWITCH COMMAND	Reference	Command which is sent to the switch, telling it to take an action. For example, activate a port with specified parameters.
SWITCH ROUTING DEVICE ASSIGNMENT	Reference	Assigns a routing device to a switch in any type of network.
SWITCH TYPE	Lookup	Classification of Switch Type and Manufacturer.
SWITCHING PROTOCOL	Reference	This entity represents different types of switching protocols that can be managed. Switching protocols are those protocols that enable routing to consider layer two information, such as bandwidth and QoS. Traditional routing protocols are designed to evaluate each frame's layer three header only. Several methods are available for accomplishing the task of looking at layer two information and defining a next hop. Most now use the concept of a label, which is a means to define the next hop without evaluating all of the information of a traditional header.
SWITCHING ROLE	Reference	Abstracts the different routing capabilities necessary for a LOGICAL DEVICE (page 2-100) to have. This helps simplify the modeling of (especially) network devices, which have many different sets of capabilities. For example, most routers can do routing, forwarding, and firewalling of traffic. By modeling these capabilities as three roles, switch functionality is both abstracted and categorized, so that the differences between forwarding traffic done by a router and forwarding traffic done by a L3 switch can be differentiated.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
SWOT TYPE	Lookup	A Strength, Weakness, Opportunity, Threat (SWOT) that an enterprise has when compared to a COMPETITOR (page 2-52). SWOT analysis is a formal framework of identifying and framing organizational growth opportunities.
SYMBOLOGY	Lookup	List of Symbology available (for representation on a map).
TAP IN WIRELESS ROAMING EVENT	Base	UDR EVENT (page 2-208)s invoked by our customer on partners network. Those events should be attached to the account for billing purposes.
TAP OUT WIRELESS ROAMING EVENT	Base	UDR EVENT (page 2-208)s by partner customer on the operator network.
TARGET ACCESS METHOD	Reference	The ACCESS METHOD (page 2-22)s associated with a PROMOTION (page 2-163).
TARGET ACCOUNT	Reference	ACCOUNT (page 2-25)s targeted by a PROMOTION (page 2-163).
TARGET AGREEMENT	Reference	AGREEMENT (page 2-33)s targeted by a PROMOTION (page 2-163).
TARGET GEOGRAPHY AREA	Reference	GEOGRAPHY ENTITY (page 2-84)s targeted by a PROMOTION (page 2-163).
TARGET MARKET SEGMENT	Reference	The MARKET SEGMENT (page 2-106)s included in a specific CAMPAIGN (page 2-44).
TARGET TYPE	Lookup	Lookup for valid Type codes and descriptions as pertain to a PROMOTION (page 2-163). For example: • CUSTOMER (page 2-62) • ACCOUNT (page 2-25)s • ACCESS METHOD (page 2-22) • Geography area
TASK	Reference	The specific tasks inside a PROJECT (page 2-162).
TAX AUTHORITY	Reference	A government authority that levies sales taxes and on whose behalf the store collects these sales taxes. For Example: • National • State • Province • City • County • Other
TAX CATEGORY	Lookup	The tax categories which may be applied to invoices items.
TAX EXEMPT	Lookup	Lookup for valid tax exempt codes and descriptions as pertains to an ITEM SPECIFICATION (page 2-97).

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
TCH TYPE	Lookup	Lookup for the types of Traffic Channel. For example: • Voice Channel • Data Channel
TECHNOLOGY	Lookup	Technology names and descriptions that can define a RESOURCE (page 2-171). For example: • CDMA • GSM • ADSL • Ethernet
TECHNOLOGY TYPE	Lookup	Lookup for available type codes and descriptions that can classify or categorize a TECHNOLOGY (page 2-206). For example: • Wireless • Copper line • Optical Fiber
TEMPLATE SERVICE LEVEL SPEC	Reference	The template for SERVICE LEVEL AGREEMENT (page 2-187) spec.
TENDER	Reference	Tender includes all the forms of payment that are accepted by the organization in settling sales and other transactions.
TENDER CLASS	Lookup	A type of TENDER (page 2-206) with common characteristics.
TENDER CONTROL TRANSACTION	Base	A type of transaction that records the physical movement of tender from one TENDER (page 2-206) repository to another.
TERMINATION POINT	Reference	This entity is for terminates transport entities, such as trails and connections. This object class is a basic object class from which subclasses, such as Trail Termination Point and CONNECTION TERMINATION POINT (page 2-58), are derived.
TFC NETWORK	Reference	TBS
TIER CARD TYPE	Lookup	Type of Loyalty Tier Card.
TIME OF DAY PERIOD BAND	Reference	Time Band of call duration. For example: 1: 0-5 min 2: 5-30 min 3: 30-120 min 4: >120 min
TIME SLOT	Reference	Reference entity defining the time slot within a DAY (page 2-68) in relation to HOUR (page 2-88)s, HALF HOUR (page 2-87)s and QUARTER HOUR (page 2-168)s. This is used in all time derived and aggregation tables.
TIME STANDARD BY DAY	Reference	Relates the calendar day to a season and to a standard day. Specifies the relationship between a given day and all days of a given season up to that day.
TIME STANDARD BY WEEK	Reference	Relates the calendar week to a season and to a standard week. Specifies the relationship between a given week and all days of a given season up to that week.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
TIME TOTAL	Reference	Represents the top most level of Time. This is needed to enable Ad-Hoc Reporting involving the Time Dimension.
TIME ZONE	Lookup	Lookup for the Geographic time zone as related to the Greenwich Mean Time (GMT +0.00).
TMF KPI DRVD	Derived	Target entity to store the various TMF KPIs on a monthly level. Defines the TMF Business Metric Automation data exchange.
TOKEN BUCKET	Reference	Information related to the TOKEN BUCKET and the SERVICE (page 2-183) associated.
TOKEN RING INTERFACE	TBS	Subtype of MEDIA INTERFACE (page 2-107) defined as Token Ring Device Interface. (TMF SID).Physically, it shall be mapped to MEDIA INTERFACE (page 2-107).
TOS SERVICE	Reference	Defines semantics that specify how traffic is forwarded based on the value of the ToS byte of a packet. Subtype of QOS SERVICE (page 2-168).
TRACKING RECORD	Base	Tracking records allow the tracking of modifications on the Problem. The tracking records should not be embedded in the problem to allow retrieving the problem without the tracking records.
TRAFFIC CONDITIONING SERVICE	Reference	Defines an abstract base entity that is the parent for different types of traffic conditioning services defined in the DEN-ng Service model. TRAFFIC CONDITIONING SERVICE (page 2-207)s control how packets and flows are treated compared to other packets and flows in the system. Please see the DEN-ng Service model for more details.
TRAFFIC IDENTIFICATION SERVICE	Reference	Defines the TRAFFIC IDENTIFICATION SERVICE (page 2-207); an abstract base entity that is the parent for different types of traffic identification services defined in the DEN-ng Service model. TRAFFIC IDENTIFICATION SERVICE (page 2-207) are one example of a RESOURCE FACING SERVICE (page 2-173). TRAFFIC IDENTIFICATION SERVICE (page 2-207)s control how packets and flows are identified and distinguished from other packets and flows in the system. Without these services, traffic conditioning cannot work.Please see the DEN-ng Service model for more details.
TRAFFIC MATCH CRITERIA	Reference	Define selection criteria for the CLASSIFIER SERVICE (page 2-50) to use so that the CLASSIFIER SERVICE (page 2-50) can separate ingress traffic into sets of flows. This entity contains data, metadata, and links to POLICY RULE (page 2-145)s to govern the selection criteria.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
TRAIL	Reference	Trail is a class of managed objects in layer networks which is responsible for the integrity of transfer of characteristic information from one or more other layer networks. A Trail is composed of two Trail Termination Points and one or more Connections and associated CONNECTION TERMINATION POINT (page 2-58)s.
TRAIL TERMINATION POINT	Reference	This entity groups different types of Trail Termination Points. This entity enables a single composition (CTPsInTrail) to be run to this entity, which is then inherited by its subclasses. This is deemed better than building three relationships between the (currently) three types of Trail Termination Points and the CTP class. Note that each has the same containment relationship.
TRANSACTION CATEGORY	Lookup	A code to denote the type of transaction.
TRANSACTION TYPE	Lookup	Further classifications of TRANSACTION CATEGORY (page 2-208).
TRANSFER TYPE	Lookup	Code to indicate type of INVENTORY TRANFER. For example: • Normal • Book • Inter-company
TROUBLE TICKET	Base	Subtype of BUSINESS INTERACTION (page 2-40).
TROUBLE TICKET FIELD SUPPORT ASSIGNMENT	Base	Specifies relationships between customer field support and the potential trouble tickets open associated to this support.
TROUBLE TICKET ITEM	Base	Subtype of BUSINESS INTERACTION ITEM (page 2-41).
TRUNK GROUP	Lookup	Group of Trunks, for reporting or network management purpose.
TV CHANNEL	Reference	Type of PRODUCT (page 2-152) associating a Television Channel with a PTV USAGE EVENT (page 2-165).
UDR EVENT	Base	Abstracted event for all events that happened to the operator network because of customer usage; UDR EVENT (page 2-208)s are usually the basis for customer billing.
UDR EVENT ASSIGNMENT	Base	Defines the relationship between one UDR EVENT (page 2-208) and another UDR EVENT (page 2-208).
UDR EVENT CHARACTERISTIC	Reference	A detailed description of an attribute that defines a particular type of UDR EVENT (page 2-208), described by its name, category, type, presence and a set of allowed values. Subtype of FLEXIBLE CHARACTERISTIC (page 2-82).
UDR EVENT CHARACTERISTIC RELATIONSHIP	Reference	The relationship between network or UDR event characteristic, like aggregation, migration, substitution, dependency, or exclusivity.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
UDR EVENT CHARACTERISTIC TYPE	Lookup	A category representing a high-level aspect of the UDR EVENT (page 2-208) information described by the characteristic. Subtype of FLEXIBLE CHARACTERISTIC TYPE (page 2-83).
UDR EVENT CHARACTERISTIC VALUE	Reference	The characteristics and values a specific usage event is effectively using.
UDR EVENT CHARACTERISTIC VALUE USE	Reference	Association of a characteristic and the specific value a given Usage or UDR Event has taken (that is not present as explicit field by default in OCDM for this type of event).
UDR EVENT SPECIFICATION	Reference	Specifications associated with any Usage related Event (or UDR EVENT (page 2-208)).
UDR EVENT SPECIFICATION CHARACTERISTIC	Reference	Specifies an attribute that defines a particular type of UDR EVENT (page 2-208), described by its name, category, type, presence and a set of allowed values. Subtype of FLEXIBLE CHARACTERISTIC (page 2-82).
UDR EVENT SPECIFICATION CHARACTERISTIC RELATIONSHIP	Reference	Subtype of FLEXIBLE CHARACTERISTIC RELATIONSHIP (page 2-82).
UDR EVENT SPECIFICATION CHARACTERISTIC USE	Reference	The relationship between or among UDR EVENT SPECIFICATION CHARACTERISTIC VALUE (page 2-209), such as aggregation, migration, substitution, dependency, or exclusivity. Subtype of FLEXIBLE CHARACTERISTIC ASSIGNMENT (page 2-82).
UDR EVENT SPECIFICATION CHARACTERISTIC VALUE	Reference	Subtype of FLEXIBLE CHARACTERISTIC VALUE (page 2-83).
UDR EVENT SPECIFICATION CHARACTERISTIC VALUE RELATIONSHIP	Reference	The relationship between or among UDR EVENT SPECIFICATION CHARACTERISTIC USE (page 2-209)s, such as aggregation, migration, substitution, dependency, or exclusivity. Subtype of FLEXIBLE CHARACTERISTIC VALUE RELATIONSHIP (page 2-83).
UDR EVENT SPECIFICATION CHARACTERISTIC VALUE USE	Reference	A use of the Characteristic Value by a UDR EVENT (page 2-208) to which additional properties, attributes, apply or override the properties of similar properties contained in UDR EVENT CHARACTERISTIC VALUE (page 2-209). Subtype of FLEXIBLE CHARACTERISTIC VALUE ASSIGNMENT (page 2-83).
UDR EVENT SPECIFICATION RELATIONSHIP	Reference	Relationships,dependencies or exclusions, between various UDR EVENT SPECIFICATION (page 2-209).
UDR EVENT SPECIFICATION TYPE	Lookup	Determines whether a UDR EVENT SPECIFICATION (page 2-209) is of type composite or Atomic.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
UDR EVENT SPECIFICATION VERSION	Reference	Small variation of UDR EVENT SPECIFICATION (page 2-209) that does not require the creation of an independent UDR EVENT SPECIFICATION (page 2-209). Typically, it could correspond to the evolution of the standard (like TAP file, or GSMA standard CDR definition).
UDR EVENT STATUS	Lookup	Lookup for possible status of UDR EVENT (page 2-208)s. For example: • Mediated • Billed
UDR EVENT TYPE	Lookup	Lookup for available types of UDR EVENT (page 2-208)s.
UDR EVENT TYPE VERSION	Reference	A particular form or variety of a UDR EVENT TYPE (page 2-210) that is different from others or from the original. The form represents differences in properties that characterize a UDR EVENT TYPE (page 2-210), that are not enough to warrant creating a new UDR EVENT TYPE (page 2-210).
UMS ACCESS TYPE	Lookup	Lookup for valid type codes and descriptions for Unified Messaging Services (UMS). The UMS access type indicates the way customers are accessing their mailboxes. This is especially applicable to UMS users who can access their mailbox ether using the standard method, with a specified number or by using Internet mail.
UMS EVENT	Base	Subtype of UDR EVENT (page 2-208). In the UMS notification type dimension, Unified Messaging Service (UMS) is an advanced version of Voice Message Service (VMS). As it is possible to notify the subscriber using UMS by either SMS or by internet mail, similarly a subscriber can access a mailbox in different ways, including by calling a standard access number or through the internet. The information related to UMS access is to be analyzed by the type of access. UMS access type dimension will be used to fulfill this requirement.
UMS EVENT TYPE	Lookup	Lookup for the type of UMS events. For example: • E-mail • SMS • Fax • Voicemail • Video Messaging
UNIT ALLOWANCE	Base	Describes the free unit allowance (for PREPAID or other products) given to the subscribers every month. The allowance could be SMS, MMS, Minutes, VAS Events, KB/MB, or even an option on the fly where you can have 2 mn or 4 SMS or 1 MMS (in this relationship ratio), whatever comes first.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
UNIT OF MEASURE	Lookup	Lookup for possible measurement units valid for the data within the system. For example: • Inch • Kilowatt-hour • Days • Cubic centimeters
UNIT OF MEASURE TYPE	Lookup	Grouping of units of measure by types. Examples could be "Call Duration", "Data Volume", "Length", "Time Period", "Surface", "Object Volume"
UNSUCCESSFUL CALL REASON	Lookup	List of possible reasons for an unsuccessfull call. Please use typical network error code, and add explicit explanations to it for end users to allow them to group.
URBAN PROPERTY ADDRESS	Reference	The property address in the format of an urban area.
USAGE TYPE	Lookup	Specifies the type of usage of a specific service or UDR EVENT (page 2-208). In some billing systems, it may be an internal code that represents an attribute of a customer account, leveraged for rating a usage (for example, Friends and Family);
USER	Reference	Associative entity for EMPLOYEE (page 2-72), JOB ROLE (page 2-98), Business Unit; associates a unique ID for every job role that an employee performs at a particular business unit. An employee appears only one time in the EMPLOYEE (page 2-72) entity, but in USER (page 2-211) entity, the employee appears on time for each job role at each business unit.
VALUE ADDED SERVICE	Reference	Type of product consisting of supplementary or value added services such as Call Forward, Call barring, CLI, CLIR, UMS, or VMS.
VALUE CUSTOM	Reference	This entity provides two basic attributes to define custom value objects that can be used in an application-specific fashion. These two attributes are called valueModelAttribute and valueModelClass. The valueModelAttribute is a string attribute that defines the name of the attribute within the entity specified in the valueModelClass attribute that is to be evaluated or set as a POLICY VALUE (page 2-147). The valueModelClass is a string attribute that defines the entity name whose attribute is to be evaluated or set as a POLICY VALUE (page 2-147). This combination enables new custom subclasses of Value Custom to be defined that specify the entity and attribute that they are modeling. These new subclasses can be found by users of the current the model schema by searching for these two properties. That also enables the model users to immediately understand the purpose of new extensions.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
VALUE STANDARD	Reference	This is the abstract base entity for defining a set of standardized POLICY VALUE (page 2-147)s. This set of POLICY VALUE (page 2-147)s will be added to over time, and represents a set of common values that are useful in a variety of PBNM applications. The subclasses of Value Standard are a set of classes that define the semantics of commonly occurring variables that occur in PBNM applications.
VALUE TYPE	Lookup	Lookup for available type codes and descriptions pertaining to defining the derived value of a CUSTOMER (page 2-62) or PROSPECT (page 2-165).
VARIABLE CUSTOM	Reference	There are two subclasses of POLICY VARIABLE (page 2-147), called Variable Custom and Variable Standard. The Variable Custom entity defines a set of standardized policy variables for use in an application-specific manner. The term "custom" means that such variables are explicitly designed to work with attributes that are not in any of the model Variable Standard subclasses. Thus, the particular semantics, including any applicable constraints, are not known to the model. This entity provides two basic attributes to define custom variables to use in an application-specific fashion.
VARIABLE STANDARD	Reference	This entity defines a standard set of POLICY VARIABLE (page 2-147) objects that are common to most PBNM applications.
VAS SUBSCRIPTION	Reference	Type of Subscription that includes VALUE ADDED SERVICE (page 2-211).
VAS SUBSCRIPTION QUICK SUMMARY DRVD	Derived	Monthly Aggregation of VALUE ADDED SERVICE (page 2-211) Details by CUSTOMER (page 2-62) and ACCESS METHOD (page 2-22).
VAS SUBSCRIPTION QUICK SUMMARY MO AGGR	Aggregate	Monthly Summary of VALUE ADDED SERVICE (page 2-211) Details by CUSTOMER TYPE (page 2-68).
VAS USAGE DAY DRVD	Derived	Daily usage statistics for all value added services that are content based (and some others). This includes: M2M, P2P, and SMS, MMS, ringtone, music, video, email, Universal (Voice/Email) message, and others.
VAS USAGE MONTH AGGR	Aggregate	Monthly aggregation of VAS usage statistics, from VAS USAGE DAY DRVD (page 2-212).
VEHICLE	Reference	The vehicles owned and used by the operators to fulfill its business requirement.
VENDOR	Reference	Supplier or source of equipment or supplies.
VENDOR AGREEMENT	Reference	Time bound agreement with VENDOR (page 2-212).

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
VENDOR APPOINTMENT	Base	Single or recurring appointment times allocated for VENDOR (page 2-212) representative to visit the Provider or Retail Site.
VENDOR CLASS	Lookup	Lookup for the classification of Vendors. For example: • Primary • Associate • Direct Supply
VENDOR FACTOR COMPANY ASSIGNMENT	Reference	Defines the relationship between VENDOR (page 2-212) and FACTOR COMPANY (page 2-81).
VENDOR RATING	Reference	Score assigned to VENDOR (page 2-212) based on performance criteria.
VENDOR RATING TYPE	Lookup	Lookup for type codes and descriptions of VENDOR RATING (page 2-213) performance criteria.
VENDOR SITE	Reference	A Site or Location associated with a VENDOR (page 2-212) from which VENDOR (page 2-212) may do business with Provider. A Vendor site may be an Office, Warehouse, Dispatch Center, and so on.
VENDOR SITE COURIER ASSIGNMENT	Reference	Association of VENDOR SITE (page 2-213) with COURIER (page 2-61) code (from the goods transportation perspective).
VENDOR SITE TYPE	Lookup	Lookup for valid type codes and descriptions pertaining to VENDOR SITE (page 2-213). For example: • Call center • Branch Office • Warehouse
VERTEX	Reference	A node within a graph.(Abstract entity)
VIRTUAL NETWORK FUNCTION COMPONENT	Lookup	A Virtualised Network Function Component (VNFC) is an internal component of a VNF providing a defined sub-set of that VNF's functionality. Abstract table, whose data are physically stored in NETWORK FUNCTION. The network function type must be VNFC or its derivative.
VIRTUAL RESOURCE	Reference	A VirtualResource is the result of applying one or more Software Processes to a ManagedResource to create one or more new ManagedResources whose assets (e.g., memory) and services (e.g., networking) can be shared among multiple, possibly heterogeneous, consumers. Put another way, a VirtualResource is an abstraction that decouples the physical manifestation and delivery of a Resource from its logical operation. In particular, a VirtualResource could be used in conjunction with a virtualization process to create virtual compute, virtual network, and virtual storage. A virtualized CPU is an example of VirtualResource. A VirtualResource must be hosted by a PhysicalResource and can (but does not have to) be packaged as part of a Product.

Table 2-6   (Cont.) S to V Entity Descriptions

Entity Name	Type	Description
VIRTUAL TEAM	Reference	Type of Business Unit formed for a specific purpose. For example: • Sales Team A, B, C • Customer Support Team A, B, C • Project team • Strategic Account management team including sales and support
VISITOR	Reference	Defines any individual having an active session on the website of the Communication Service Provider (defined as Visitor). This visitor shall NOT be registered as customer (he/she does not login).
VISITOR TYPE	Lookup	Type of VISITOR (page 2-214) depending on their behavior on the site.
VOICE CALL DAY DRVD	Derived	Daily aggregate of Voice Call statistics by TIME SLOT (page 2-206), Business Unit, County, PRODUCT SPECIFICATION (page 2-158), CUSTOMER TYPE (page 2-68), Call Source, Call Destination, CALL DIRECTION (page 2-43), Call Success/Failure, Roaming Service.
VOICE CALL MONTH AGGR	Aggregate	Monthly Summary of Voice Call statistics by Business Unit, County, PRODUCT SPECIFICATION (page 2-158), CUSTOMER TYPE (page 2-68), CALL DIRECTION (page 2-43), Call Success/Failure.
VOICE MESSAGE SERVICE	Reference	Subtype of SERVICE (page 2-183).
VOIP CALL EVENT	Base	The subtype of UDR EVENT (page 2-208), specialized for Voice Over IP (VOIP) Calls.
VOLUME BAND	Lookup	Characterizes UDR EVENT (page 2-208)s by volume. The volume characteristic may be in units of bytes, minutes, packets, downloads. The entity is used as part of the rating of calls and other UDR EVENT (page 2-208)s.
VPN LOGICAL DEVICE ROLE	Reference	A VPNRole is the superclass for various types of VPN role classes. For example, MPLS VPNs will use the CPELogicalDeviceRole, PELogicalDeviceRole, and PLogicalDeviceRole subclasses of this entity to abstract functionality required for the CPE, PE, and P roles of an MPLS VPN. Other types of VPNs use other subclasses of the VPNRole class. The advantage of this class is that it enables different types of VPN roles to be specified by an MPLSVPNServiceSpecification.
VPN SERVICE	Reference	The VPN service currently used by the customers.

Table 2-7 W to Z Entity Descriptions

Entity Name	Type	Description
WAN PROTOCOL	Reference	WAN Protocols operate at the lowest three levels of the OSI model, that is, physical, data link, and network. Use WAN Protocols define communications over different types of wide-area media.
WEATHER CONDITION	Reference	Reference of the various "weather" conditions, in a very general sense, affecting a given day. There is a difference between internal "weather" (a flood in a store, an employee strike, and so on) and external "weather" (storm, flood, snow, and so on). This information is useful in relation to a network failure.
WEB INTERACTION NAVIGATION HISTORY	Base	The history of customer navigation path in web visit.
WEB PAGE	Reference	A web page on a service operator website. The Web page may present a product or handle a customer service request.
WEB PAGE CONTENT	Reference	Content of a WEB PAGE (page 2-215), links WEB PAGE (page 2-215) to its relevant entity, including product, script, and so on.
WEB PAGE RENDERING TYPE	Lookup	Lookup for type of WEB PAGE (page 2-215) rendering. For example: • Dynamic (ASP, PHP, JSP, and so on) • Static (html)
WEB PAGE TYPE	Lookup	Web page type groups the web pages according to their content and purpose. For example: • Service page • Advertisement • Tariff plan
WEBSITE	Reference	Defines all the Web Sites provided by or of interest to the Communications Service Providers.
WEBSITE USER	Reference	List the website users, who are visitors that have registered (logged in).
WEEK TODATE TRANSFORMATION	Reference	Cumulative time transformations at the week level.
WEEK TRANSFORMATION	Reference	Time transformations at the week level.
WEEKDAY	Reference	Calendar weekdays.
WEIGHTED FAIR QUEUING SERVICE	Reference	Defines a cross between priority queuing and fair queuing, seeking to garner the best from both algorithms. All queues are serviced so that none are starved, but some queues are serviced more than others. A portion of the bandwidth of a DEVICE INTERFACE (page 2-70) is allocated to each active flow. Subtype of FAIR QUEUING SERVICE (page 2-81).

Table 2-7   (Cont.) W to Z Entity Descriptions

Entity Name	Type	Description
`WEIGHTED ROUND ROBIN SCHEDULING SERVICE`	Reference	Extension of algorithm to the standard ROUND ROBIN SCHEDULING SERVICE (page 2-179) to allow to accommodate variable packet sizes. Subtype of ROUND ROBIN SCHEDULING SERVICE (page 2-179).
`WIRELESS CALL EVENT`	Base	Defines occurrence of wireless call.
`WIRELESS CONTENT DOWNLOADING EVENT`	Base	Type of UDR EVENT (page 2-208), to track wireless content downloading such as music, video clips, and so on.
`WIRELESS RATING PLAN`	Reference	Subtype of PRODUCT OFFERING PRICE (page 2-155), reserved for wireless voice and data services.
`WIRELESS RESOURCE`	Reference	Resource hierarchy specifically associated to the wireless network for analytical purpose. Defines all geographical and network related information about each (important) Wireless Resources.
`WIRELESS ROAMING EVENT`	Base	The wireless call event which roams across operators, including TAP IN and TAP OUT events. This entity is designed according to GSMA (Global System for Mobile communications) official document TD.57.
`WIRELESS ROAMING EVENT BATCH`	Base	The batch which includes roaming events as details. This batch normally appears in one TAP file.
`WIRELESS SERVICE`	Reference	The wireless services that the customer is using. For example: • GSM • WCDMA
`WIRELESS SPECTRUM`	Reference	The wireless spectrum used in service provider network.
`WORK QUEUE`	Base	Lists the various Work Queue, that is the various collection of tasks grouped as queue and maintain in an engineering system to be executed. It could be also used for batch jobs in a data center.
`__TODEL_PER EVENT SUBSCRIBER`	Base	Lists all the subscribers, by subscriber identifier type. Note: this entity is reserved for use by the Oracle Communications Policy and Charging Analytics solution.
`__TODEL_POLICY QUOTA USAGE DRVD`	Derived	Note: this entity is reserved for use by the Oracle Communications Policy and Charging Analytics solution.
`__TODEL_POLICY QUOTA USAGE MONTH DRVD`	Derived	Note: this entity is reserved for use by the Oracle Communications Policy and Charging Analytics solution.
`__TODEL_CIRCUIT RENTAL`	Base	Business activities of renting some circuits to other operators, in return for a monthly, or fixed, revenue.

3

Logical Data Model Dimensions

Describes the logical dimensions, and hierarchies in the data model.

3.1 Logical Data Model Dimensions

Lists the logical data model dimensions.

3.1.1 Access Method

Description: ACCESS METHOD (page 2-22)

Access Method Hierarchy

Standard Access Method Hierarchy
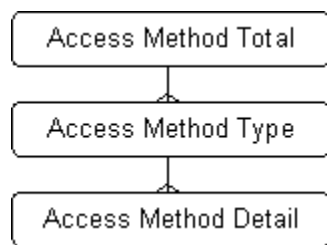
Access Method Levels

Table 3-1 (page 3-5) shows Access Method Total: All access method is the most aggregate level of the dimension.

Table 3-1   Access Method Total

Sr. Number	Attribute	Description
1.	ACCESS METHOD TOTAL	Code for All Access Method.

Table 3-2 (page 3-5) shows Access Method Type: This entity keeps all types of the Access Telephone Numbers, such as Wire line, Wireless.

Table 3-2   Access Method Type

Sr. Number	Attribute	Description	Sample Value
1	ACCESS METHOD TYPE CODE	A code, used to uniquely identify the access method type.	FLTN
2	ACCESS METHOD TYPE DESC	A textual description of the Access Method Type.	Fixed Line Telephone Numbers

Table 3-2   (Cont.) Access Method Type

Sr. Number	Attribute	Description	Sample Value
3	ACCESS METHOD TYPE NAME	The name assigned to the Access Method Type.	Fixed Line Telephone Numbers
4	LANGUAGE CODE	Unique identifier for Language	No sample values

Table 3-3 (page 3-6) shows Access Method Detail: Detail level of the dimension. Stores the Access Method Information.

Table 3-3   Access Method Detail

Sr. Number	Attribute	Description	Sample Value
1	ACCESS METHOD CODE	A sequence of numbers (like phone number) electronically registered to telecommunications equipment that gives the Customer access to services or products. Other access method like DSL account, Service ID might be character type.	867558305000
2	ACCESS METHOD DESC	Access method full description.	WRLS867558305000
3	ACCESS METHOD NAME	ACCESS METHOD NAME. ACCESS METHOD NAME	WRLS867558305000
4	ACCESS METHOD POOL CODE	Unique identifier for Access Method Pool	No sample values
5	ACCESS METHOD SEGMENT CODE	Unique identifier for Access Method Segment	No sample values
1	ACCESS METHOD TYPE CODE	A code, used to uniquely identify a access method type.	FLTN
2	ACCOUNT CODE	This is usually natural key of the account. Optional column, At certain time period, the access method may not be bound to an account.	10000101
3	CUSTOMER SELECT INDICATOR	Indicates whether the phone number (access method identifier) is selected by a customer.	No sample values
4	EFFECTIVE FROM DATE	EFFECTIVE FROM DATE, standard SCD2 column.	12/31/2005 12:00:00 AM

Table 3-3   (Cont.) Access Method Detail

Sr. Number	Attribute	Description	Sample Value
5	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column.	12/31/2005 12:00:00 AM
6	NETWORK CODE	Identifier of the network.	No sample values
7	SILENT NUMBER INDICATOR	An indicator that indicates whether a party has a silent number. A silent number could not be found on the White Pages. access method full description	No sample values
8	STATUS CODE	Current STATUS CODE, standard SCD2 column.	No sample values
9	SWITCH CODE	Unique identifier for Switch	No sample values

3.1.2 Account

Description: ACCOUNT (page 2-25)

Account Hierarchies

Standard ACCOUNT Hierarchy:
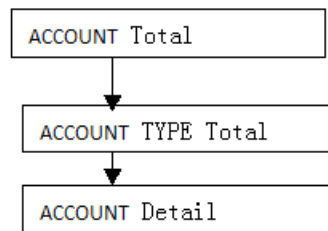
Account Levels

The following table shows ACCOUNT Total: All ACCOUNT is the most aggregate level of the dimension.

Table for ACCOUNT Total

Table 3-4   Account Total

Sr. Number	Attribute	Description
1.	ALL ACCOUNT CODE	Identification for the top level value

Detail table ACCOUNT TYPE

Table 3-5 Account Type

Sr. Number	Attribute
1	ACCOUNT TYPE NAME
2	ACCOUNT TYPE CODE
3	LANGUAGE CODE
4	ACCOUNT TYPE DESC

Detail table **ACCOUNT** Detail

Table 3-6 Account Detail

Sr. Number	Attribute	Sample Value	Description
1	ACCOUNT CODE	10000102	This is usually natural key of the account.
2	ACCOUNT NAME	No value	The name for the account.
3	ACCOUNT SEGMENT CODE	No value	Unique identifier for Account Segment
4	ACCOUNT TYPE CODE	PRPD	Unique identifier for Account Type
5	ACCOUNTING CYCLE CODE	No value	Unique identifier for Accounting Cycle
6	ADVERTISING STATUS	No value	Indicated if it need some advertising material for a particular invoice arrangement, and if customer explicitly requested NOT to send.
7	BILLING CYCLE CODE	MO	Unique identifier for Billing Cycle
8	BILLING PERIOD CODE	No value	Unique identifier for Billing period
9	CREATE DATE	4/4/2006 12:00:00 AM	The date when the account was created.
10	CREATE STAFF	No value	the employee number of who created the account.
11	CREDIT CATEGORY CODE	No value	Current Credit Category Code.

Table 3-6   (Cont.) Account Detail

Sr. Number	Attribute	Sample Value	Description
12	CREDIT RATING DATE	No value	CREDIT RATING DATE is when the credit category code is rated for the account.
13	CURRENCY CODE	USD	Unique identifier for Currency
14	CUSTOMER CODE	No value	Unique identifier for Customer
15	EFFECTIVE FROM DATE	12/31/2005 12:00:00 AM	EFFECTIVE FROM DATE, standard SCD2 column.
16	EFFECTIVE TO DATE	12/31/2005 12:00:00 AM	EFFECTIVE TO DATE, standard SCD2 column.
17	GROUP PLAN INDICATOR	No value	Indicates whether an account belongs to a group plan/solution.
18	LAST ACTIVATE DATE	No value	The last date when account was activated.
19	LAST REOPEN DATE	No value	Last time when account was reopen.
20	LAST SUSPEND DATE	No value	Last date when the account was suspended for certain reasons.
21	MULTIPLE CUSTOMER INDICATOR	No value	Indicates whether one bill has multiple customer.
22	ORGANIZATION BUSINESS UNIT CODE	No value	Unique identifier for Organization Business Unit
23	PAYMENT DAYS	No value	The number of days after customer billing before certain actions (like debt collection) would be taken.
24	STATUS CODE	No value	STATUS CODE, standard SCD2 column.
25	TERMINATION DATE	3/3/2008 12:00:00 AM	TERMINATION DATE.

3.1.3 Account Payment Method Status Type

Description:

Account Payment Method Status Type Hierarchy

Standard Account Payment Method Status Type Hierarchy:
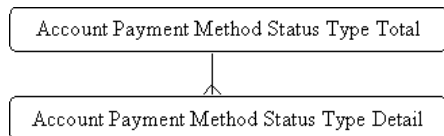
Account Payment Method Status Type Levels

Table 3-7 (page 3-10) shows Account Payment Method Status Type Total: All Account Payment Method Status Types are most aggregate level of the dimension.

Table 3-7   Account Payment Method Status Type Total

Sr. Number	Attribute	Description
1.	ACCOUNT PAYMENT METHOD STATUS TYPE TOTAL	Code for All Account Payment Method Status Type.

Table 3-8 (page 3-10) shows Account Payment Method Status Type Detail: All Account Payment Method Status Types are most aggregate level of the dimension.

Table 3-8   Account Payment Method Status Type Detail

Sr. Number	Attribute	Description	Sample Value
1	ACCOUNT PAYMENT METHOD STATUS TYPE CODE	Code for Direct Debit Status	CHECK
2	ACCOUNT PAYMENT METHOD STATUS TYPE DESC	Direct Debit Status Description	CHECK
3	ACCOUNT PAYMENT METHOD STATUS TYPE NAME	Direct Debit Status Short Description	Transaction By Check
4	LANGUAGE CODE	Unique identifier for Language	No Value

3.1.4 Account Refund Reason

Description: ACCOUNT REFUND REASON (page 2-28)

Account Refund Reason Hierarchies

Standard Account Refund Reason Hierarchy:
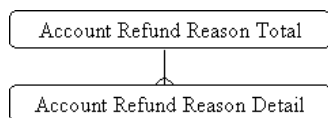
Account Refund Reason Levels

Table 3-9 (page 3-11) shows Account Refund Reason Total: All Account Refund Reasons are the most aggregate level of the dimension.

Table 3-9   Account Refund Reason Total

Sr. Number	Attribute	Description
1.	ACCOUNT REFUND REASON TOTAL	Code for All Account Refund Reason.

Table 3-10 (page 3-11) shows Account Refund Reason Detail: All Account Refund Reason Types are most aggregate level of the dimension.

Table 3-10   Account Refund Reason Detail

Sr. Number	Attribute	Description	Sample Value
1	ACCOUNT REFUND REASON CODE	A code, used to uniquely identify ACCOUNT REFUND REASON.	INVCADJ
2	ACCOUNT REFUND REASON DESC	A textual description of ACCOUNT REFUND REASON.	Invoice Adjustment
3	ACCOUNT REFUND REASON NAME	The name assigned to ACCOUNT REFUND REASON.	Invoice Adjustment
4	LANGUAGE CODE	Unique identifier for Language	No Value

3.1.5 Address Location

Description: ADDRESS LOCATION (page 2-30)

Address Location Hierarchies

Standard Address Location Hierarchy:
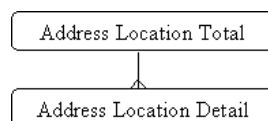
Address Location Levels

Table 3-11 (page 3-12) shows Address Location Total: All Address Location is most aggregate level of the dimension.

Table 3-11   Address Location Total

Sr. Number	Attribute	Description
1.	ADDRESS LOCATION TOTAL	Code for All Address Locations.

Table 3-12 (page 3-12) shows Address Location Detail: All Address Locations are most aggregate level of the dimension.

Table 3-12   Address Location Detail

Sr. Number	Attribute	Description
1	ADDRESS DESCRIPTION	Address description. Textual description of the address.
2	ADDRESS LATITUDE MEASURE	This is the Latitude value of the specified location
3	ADDRESS LINE 1	Address. Line one of detailed postal address
4	ADDRESS LINE 2	Address. Line two of detailed postal address
5	ADDRESS LINE 3	Address. Line three of detailed postal address
6	ADDRESS LINES PHONETIC	Phonetic or Kana representation of the Kanji address lines (used in Japan)
7	ADDRESS LOCATION CODE	unique identifier for the address.
8	ADDRESS LONGITUDE MEASURE	This is the longitude location of the specified address.
9	ADDRESS STYLE	Any specific style of the address. It might include the detail like All Capital words, case, font and so on.
10	ADDRESS TYPE CODE	Unique identifier for the address type.
11	REGION NAME	Name of the Reason
12	SUBREGION DESC	description of sub region
13	TAX AUTHORITY CODE	Unique identified for the tax authority
14	WORLD DESC	Description of world
15	WORLD NAME	Name of the world
16	ADDRESS LATITUDE MEASURE	This is the Latitude value of the specified location
17	POSTAL PLUS CODE	Four digit extension to the United States Postal ZIP code.
18	STREET CODE	Uniquely identifier of state
19	CITY DESC	Description of the city
20	FLAT ROOM CODE	Uniquely identifier of the flat room

Table 3-12   (Cont.) Address Location Detail

Sr. Number	Attribute	Description
21	GEOGRAPHY STATE CODE	State of the geography
22	POST OFFICE BOX	PO box if available.
23	STATE DESC	Description of the state
24	STATE NAME	Name of the state
26	BUILDING DESC	Description for Building
27	COUNTY DESC	Description for County
28	GEOGRAPHY COUNTRY CODE	Code for Geography Country
29	POSTCODE CODE	Code for Post Code
30	ADDRESS DESCRIPTION	Address description. Textual description of the address.
31	ADDRESS TYPE CODE	Unique identifier for the address type.
32	BUILDING NAME	Name for Building
33	COUNTY NAME	Name for County
34	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column.
35	FLAT ROOM DESC	Description for Flat Room
36	GEOGRAPHY COUNTY CODE	Code for Geography County
37	GEOGRAPHY ENTITY CODE	unique geography identifier. A unique identifier for the geography entities, could be a system generated unique key for Geography entity.
38	REGION DESC	Description for Region
39	WORLD CODE	Description for World
42	LONGITUDE	The angular distance between a point on any meridian and the prime meridian at Greenwich
43	PRIMARY ADDRESS TELEPHONE	Telephonic address
44	STATUS CODE	An indicator of the address current status. For instance, this address may be valid, invalid, temporary, and so on.
47	COUNTRY NAME	Name for Country
48	EFFECTIVE FROM DATE	EFFECTIVE FROM DATE, standard SCD2 column.
49	EMPLOYEE CODE	Code for Employee
50	FLOOR DESC	Description for Floor

Table 3-12   (Cont.) Address Location Detail

Sr. Number	Attribute	Description
51	SUBREGION NAME	Name for Subregion
52	ADDRESS LOCATION CODE	unique identifier for the address.
53	CITY NAME	Name for City
54	COUNTRY DESC	Description for Country
55	FLAT ROOM NAME	Name for Flat Room
56	GEOGRAPHY CITY CODE	Code for Geography City
57	GEOGRAPHY SUBREGION CODE	Code for Geography Subregion
58	STREET DESC	Description for Street
59	STREET NAME	Name for Street
60	TIME ZONE CODE	Unique Identifier for time zone.
No value	GEOGRAPHY LOCATION CODE	No value
No value	ELEVATION	No value
No value	ELEVATION UOM CODE	No value
No value	GEOGRAPHY REGION CODE	No value
No value	PRIMARY EMAIL ADDRESS	No value

3.1.6 Age Band

Description: AGE BAND (page 2-32)

Age Band Hierarchies

Standard Age Band Hierarchy
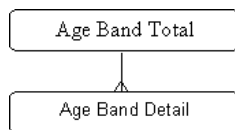
Age Band Levels

Table 3-13   Age Band Total

Sr. Number	Attribute	Description
1.	AGE BAND TOTAL	Code for All Age Bands.

Table 3-14   Age Band Detail

Sr. Number	Attribute	Description	Sample Value
1	AGE BAND CODE	Code for Age band.	AGBND1
2	AGE BAND DESC	Long Description for age band value.	Age Band 21-30
3	AGE BAND FROM	Lower limit of age value of the slab.	21
4	AGE BAND NAME	Description for age band value.	Age Band 21-30
5	AGE BAND TO	Upper limit of age value of the slab.	30
6	LANGUAGE CODE	Unique identifier for Language	No value

3.1.7 Age Group

Description: AGE GROUP (page 2-32)

AGE GROUP Hierarchies

Standard AGE GROUP Hierarchy:
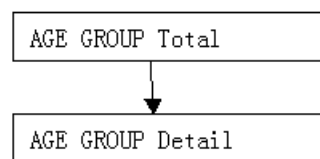
AGE GROUP Levels

The following table shows AGE GROUP Total: All AGE GROUP is the most aggregate level of the dimension.

Table 3-15 (page 3-15)shows AGE GROUP Total.

Table 3-15   Age Group Total

Sr. Number	Attribute	Description
1.	AGE GROUP TOTAL	Code for All AGE GROUP

Table 3-16 (page 3-16) shows AGE GROUP Detail: All AGE GROUP types is the most aggregate level of the dimension.

Table 3-16   AGE GROUP Detail

Sr. Number	Attribute
1	AGE GROUP TO
2	AGE GROUP NAME
3	AGE GROUP FROM
4	AGE GROUP CODE
5	LANGUAGE CODE
6	AGE GROUP DESCRIPTION

3.1.8 Age On Net Band

Description: AGE ON NET BAND (page 2-32)

Age on Net Band Hierarchies

Standard Age On Net Band Hierarchy:
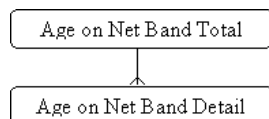
Age on Net Band Levels

Table 3-17 (page 3-16) shows Age on Net Band Total: All age on net bands are most aggregate level of the dimension.

Table 3-17   Age on Net Band Total

Sr. Number	Attribute	Description
1.	AGE ON NET BAND TOTAL	Code for All Age On Net Band.

Table 3-18 (page 3-16) shows Age On Net Band Detail: All Age on net bands are most aggregate level of the dimension.

Table 3-18   Age On Net Band Detail

Sr. Number	Attribute	Description	Sample Value
1	AGE ON NET BAND CODE	Code for age on Net band.	AGBND1

Table 3-18   (Cont.) Age On Net Band Detail

Sr. Number	Attribute	Description	Sample Value
2	AGE ON NET BAND DESC	Long Description for age on net band value.	Age on net Band 0-20
3	AGE ON NET BAND FROM	Lower limit of age on net band value of the slab.	21
4	AGE ON NET BAND NAME	Description for age on net band value.	Age on net Band 21-30
5	AGE ON NET BAND TO	Upper limit of age on net band value of the slab.	30
6	LANGUAGE CODE	Unique identifier for Language.	No value

3.1.9 ARPU Band

Description: ARPU BAND (page 2-36)

ARPU Band Hierarchies

Standard ARPU Band Hierarchy:
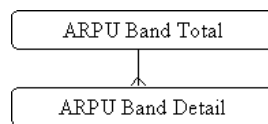
ARPU Band Levels

Table 3-19 (page 3-17) shows ARPU Band Total: All ARPU Bands are most aggregate level of the dimension.

Table 3-19   ARPU Band Total

Sr. Number	Attribute	Description
1.	ARPU BAND TOTAL	Code for All ARPU Band.

Table 3-20 (page 3-17) shows ARPU Band Detail: All ARPU Bands are most aggregate level of the dimension.

Table 3-20   ARPU Band Detail

Sr. Number	Attribute	Description
1	ARPU BAND CODE	Unique identifier for revenue band. For example: 0_1000, 1000_3000.
2	ARPU BAND DESC	Description revenue band.

Table 3-20   (Cont.) ARPU Band Detail

Sr. Number	Attribute	Description
3	ARPU BAND END VALUE	The end point of a band (the end point is included in the band).
4	ARPU BAND END VALUE LOCAL	The end point of a band.
5	ARPU BAND END VALUE REPORTING	The end point of a band.
6	ARPU BAND NAME	Name of revenue band.
7	ARPU BAND START VALUE	The start point of a band (the start value is included in the band).
8	ARPU BAND START VALUE LOCAL	The start point of a band.
9	ARPU BAND START VALUE REPORTING	The start point of a band.
10	LANGUAGE CODE	Unique identifier for Language

3.1.10 Agreement Change Initiator Type

Description: AGREEMENT CHANGE INITIATOR TYPE (page 2-33)

Agreement Change Initiator Type Hierarchies

Standard AGREEMENT CHANGE INITIATOR TYPE Hierarchy:
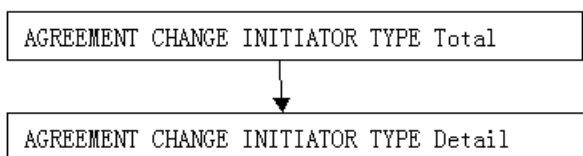
Agreement Change Initiator Type Levels

The following table shows AGREEMENT CHANGE INITIATOR TYPE Total: All AGREEMENT CHANGE INITIATOR TYPE is the most aggregate level of the dimension.

Table for AGREEMENT CHANGE INITIATOR TYPE Total

Table 3-21   AGREEMENT CHANGE INITIATOR TYPE Total

Sr. Number	Attribute	Description
1.	AGREEMENT CHANGE INITIATOR TYPE TOTAL	Code for AGREEMENT CHANGE INITIATOR TYPE.

Detail table shows AGREEMENT CHANGE INITIATOR TYPE Detail: All AGREEMENT CHANGE INITIATOR TYPE is the most aggregate level of the dimension.

Detail table AGREEMENT CHANGE INITIATOR TYPE Detail

Table 3-22   AGREEMENT CHANGE INITIATOR TYPE Detail

Sr. Number	Attribute	Description
1	AGREEMENT CHANGE INITIATOR TYPE CODE	CONTRACT CHANGE INITIATOR TYPE CODE
2	AGREEMENT CHANGE INITIATOR TYPE DESC	CONTRACT CHANGE INITIATOR TYPE DESC
3	AGREEMENT CHANGE INITIATOR TYPE NAME	CONTRACT CHANGE INITIATOR TYPE name
4	LANGUAGE CODE	Unique identifier for Language

3.1.11 Agreement Type

Description:

Agreement Type Hierarchies

Standard AGREEMENT TYPE Hierarchy:
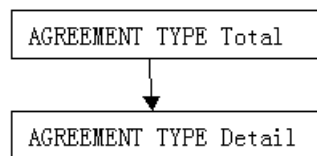
Agreement Type Levels

The following table shows AGREEMENT TYPE Total: All AGREEMENT TYPE is the most aggregate level of the dimension.

Table for AGREEMENT TYPE Total

Table 3-23   AGREEMENT TYPE Total

Sr. Number	Attribute	Description
1.	AGREEMENT TYPE TOTAL	Code for All AGREEMENT TYPE.

Detail table shows AGREEMENT TYPE Detail: All AGREEMENT TYPE types is the most aggregate level of the dimension.

Detail table AGREEMENT TYPE Detail

Table 3-24   AGREEMENT TYPE Detail

Sr. Number	Attribute	Description
1	AGREEMENT TYPE CODE	A code used to uniquely identify the category of Contracts. Examples: LC = lease contract, SC = service contract
2	AGREEMENT TYPE DESC	A textual description of the category of contracts.
3	AGREEMENT TYPE NAME	The name assigned to a Contract Type. such as lease contract, service contract
4	LANGUAGE CODE	Unique identifier for language

3.1.12 Bank Direct Debit Channel

Description: BANK DIRECT DEBIT CHANNEL (page 2-38)

Bank Direct Debit Channel Hierarchies

Standard Bank Direct Debt Channel Hierarchy:
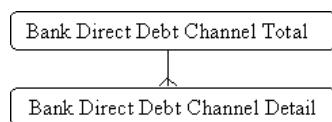
Bank Direct Debit Channel Levels

Table 3-25 (page 3-20) shows Bank Direct Debt Channel Total: All Bank Direct Debt Channel is most aggregate level of the dimension.

Table 3-25   Bank Direct Debt Channel Total

Sr. Number	Attribute	Description
1.	BANK DIRECT DEBT CHANNEL TOTAL	Code for All Bank Direct Debt Channel.

Table 3-26 (page 3-20) shows Bank Direct Debit Channel Detail: All Bank Direct Debt Channel is most aggregate level of the dimension.

Table 3-26   Bank Direct Debit Channel Detail

Sr. Number	Attribute	Description
1	BANK BRANCH CODE	Bank Branch id/code.
2	BANK DIRECT DEBIT CHANNEL CODE	Unique identifier for Bank Direct Debit Channel
3	PAYMENT CHANNEL CODE	No value

Table 3-26   (Cont.) Bank Direct Debit Channel Detail

Sr. Number	Attribute	Description
4	CHANNEL CODE	No value
5	CHANNEL TYPE CODE	No value
6	PARTY CODE	No value
7	PARTY TYPE CODE	No value
8	CHANNEL NAME	No value
9	CHANNEL DESC	No value
10	CAPACITY QUANTITY	No value
11	EFFECTIVE FROM DATE	No value
12	EFFECTIVE TO DATE	No value
13	STATUS CODE	No value

3.1.13 Ber Fer Type

Description: BER FER TYPE (page 2-38)

Ber Fer Type Hierarchies

Standard Ber Fer Type Hierarchy:
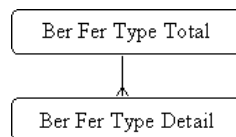
Ber Fer Type Levels

Table 3-27 (page 3-21) shows Ber Fer Type Total: All Ber Fer Types are most aggregate level of the dimension.

Table 3-27   Ber Fer Type Total

Sr. Number	Attribute	Description
1.	BER FER TYPE TOTAL	Code for All Ber Fer Type.

Table 3-28 (page 3-21) shows Ber Fer Type Detail: All Ber Fer Type are most aggregate level of the dimension.

Table 3-28   Ber Fer Type Detail

Sr. Number	Attribute	Description	Sample Value
1	BER FER TYPE CODE	Unique identifier for Ber Fer Type	BER

Table 3-28   (Cont.) Ber Fer Type Detail

Sr. Number	Attribute	Description	Sample Value
2	BER FER TYPE DESC	Description for Ber Fer Type	Bit Error Ratio
3	BER FER TYPE NAME	Name of Ber Fer Type	Bit Error Ratio
4	LANGUAGE CODE	Unique identifier for Language	No value

3.1.14 Billing Cycle

Description: BILLING CYCLE (page 2-38)

Billing Cycle Hierarchies

Standard BILLING CYCLE Hierarchy:
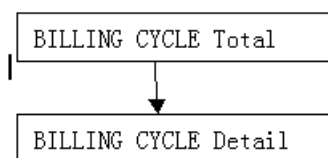
Billing Cycle Levels

The following table shows BILLING CYCLE Total: All BILLING CYCLE is the most aggregate level of the dimension.

Table for BILLING CYCLE Total

Table 3-29   BILLING CYCLE Total

Sr. Number	Attribute	Description
1.	BILLING CYCLE TOTAL	Code for All BILLING CYCLE.

Detail table shows BILLING CYCLE Detail: All BILLING CYCLE types is the most aggregate level of the dimension.

Detail table BILLING CYCLE Detail

Table 3-30   BILLING CYCLE Detail

Sr. Number	Attribute	Description
1	CHARGE DATE OFFSET	An offset of number of days from beginning of billing cycle after before which the charges from an account should appear.
2	CREDIT DATE OFFSET	An offset of number of days from beginning of billing cycle after before which the credit from account should appear.
3	BILLING DATE SHIFT	An offset of number of days from beginning of billing cycle to determine next billing.

Table 3-30   (Cont.) BILLING CYCLE Detail

Sr. Number	Attribute	Description
4	BILLING CYCLE CODE	Code.
5	STATUS CODE	Current STATUS CODE, standard SCD2 column
6	EFFECTIVE FROM DATE	EFFECTIVE FROM DATE, standard SCD2 column
7	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column
8	BILLING CYCLE DESC	Full description.
9	BILLING CYCLE UNIT AMOUNT	The numeric value for billing cycle period. For example, number of days, or months.
10	BILLING CYCLE PERIOD UOM	The unit of measure for billing cycle period amount
11	BILLING CYCLE NAME	title
12	MAILING DATE OFFSET	No value
13	LANGUAGE CODE	Unique identifier for language
14	PAYMENT DUE DATE OFFSET	No value

3.1.15 Billing Status Type

Description: BILLING STATUS TYPE (page 2-39)

Billing Status Type Hierarchies

Standard Billing Status Type Hierarchy:
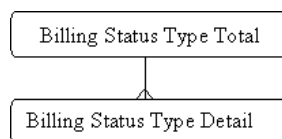
Billing Status Type Levels

Table 3-31 (page 3-24) shows Billing Status Type Total: All Billing Status Type are most aggregate level of the dimension.

Table 3-31   Billing Status Type Total

Sr. Number	Attribute	Description
1.	BILLING STATUS TYPE TOTAL	Code for All Billing Status Type.

Table 3-32 (page 3-24) shows Billing Status Type Detail: All Billing Status Type is most aggregate level of the dimension.

Table 3-32   Billing Status Type Detail

Sr. Number	Attribute	Description	Sample Value
1	BILLING STATUS CATEGORY CODE	BILLING STATUS CATEGORY CODE.	FAILED
2	BILLING STATUS TYPE CODE	BILLING STATUS TYPE code.	FAILDAT
3	BILLING STATUS TYPE DESC	BILLING STATUS TYPE description.	Status type of billing result: Incorrect_data_failed
4	BILLING STATUS TYPE NAME	BILLING STATUS TYPE NAME	Incorrect data failed
5	LANGUAGE CODE	Unique identifier for Language	No value

3.1.16 Business Time

Description: Calendar as defined and applied to a business unit. Corresponds business calendar entities (BUSINESS YEAR (page 2-42), BUSINESS HALF YEAR (page 2-40), BUSINESS QUARTER (page 2-42), BUSINESS MONTH (page 2-42), BUSINESS HALF MONTH (page 2-40), DAY (page 2-68).

Business Time Hierarchies

Standard Business Time Hierarchy:
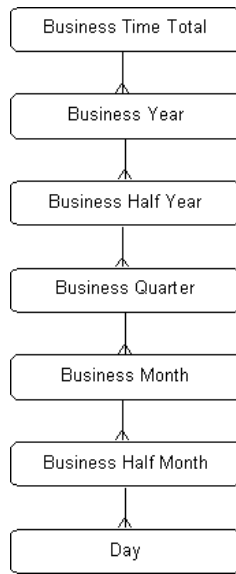
Business Time Level

Table 3-33 (page 3-25) shows Business Time Total: This is the most aggregate level of the Time dimension.

Table 3-33   Business Time Total

Sr. Number	Attribute	Description
1.	ALL BUSINESS TIME CODE	Identification for the top level value

Table 3-34 (page 3-25) shows Business Year: It captures information relating to a year in a Business Calendar.

Table 3-34   Business Year

Sr. Number	Attribute	Description	Sample Value
1	BUSINESS CALENDAR NAME	Textual name of the business Calendar	BUSINESS
2	BUSINESS YEAR CODE	Unique warehouse key of the Year, in the Calendar.	20050101
3	BUSINESS YEAR DESC	Calendar year description.	BY 2005
4	BUSINESS YEAR END DATE	Calendar year end date.	12/31/2005 12:00:00 AM
5	BUSINESS YEAR NUMBER	Calendar year number	No value
6	BUSINESS YEAR START DATE	Calendar year start date	12/31/2005 12:00:00 AM

Table 3-34   (Cont.) Business Year

Sr. Number	Attribute	Description	Sample Value
7	BUSINESS YEAR TIMESPAN	The length, in terms of days, of this year in the Calendar. For example: 365 days	365
8	TOTAL CODE	No value	No value

Table 3-35 (page 3-26) shows Business Half Year: It captures information relating to half year in a Business Calendar.

Table 3-35   Business Half Year

Sr. Number	Attribute	Description	Sample Value
1	BUSINESS HALF YEAR CODE	Unique warehouse key of the half year, in the Calendar.	20050101
2	BUSINESS HALF YEAR DESC	Calendar half year description.	BY 2005 HY1
3	BUSINESS HALF YEAR END DATE	Calendar half year end date.	12/31/2005 12:00:00 AM
4	BUSINESS HALF YEAR NUMBER	A numeric representation of half year number in the Calendar. It contains values 1 or 2.	1
5	BUSINESS HALF YEAR START DATE	Calendar half year start date.	12/31/2005 0:00
6	BUSINESS HALF YEAR TIMESPAN	The length, in terms of days, of this half year in the Calendar. For example: 178 days	181
7	BUSINESS YEAR CODE	Unique key of the year, in which this half year occurred in the Calendar.	20050101
8	BUSINESS YEAR START DAY CODE	Code for calendar year start day	No value

Table 3-36 (page 3-26) shows Business Quarter: It captures information relating to half year in a Business Calender.

Table 3-36   Business Quarter

Sr. Number	Attribute	Description	Sample Value
1	BUSINESS HALF YEAR CODE	Unique key of the half year	20050101
2	BUSINESS HALF YEAR START DAY CODE	Calendar year start date	No value

Table 3-36   (Cont.) Business Quarter

Sr. Number	Attribute	Description	Sample Value
3	BUSINESS QUARTER CODE	Unique key of business quarter	20050101
4	BUSINESS QUARTER DESC	Description for business quarter	BY 2005 Q1
5	BUSINESS QUARTER END DATE	Calendar year end date	12/31/2005 0:00
6	BUSINESS QUARTER NUMBER	Number for business quarter	1
7	BUSINESS QUARTER START DATE	Calendar year start date	12/31/2005 0:00
8	BUSINESS QUARTER TIMESPAN	The length, in terms of days, of this quarter	90
9	BUSINESS YEAR CODE	Unique key of the year, in which this half year occurred in the Calendar.	No value
10	BUSINESS YEAR START DAY CODE	Code for year start date	No value

Table 3-37 (page 3-27) shows Business Month: It captures information relating to a month in a Business Calendar.

Table 3-37   Business Month

Sr. Number	Attribute	Description	Sample Value
1	BUSINESS HALF YEAR CODE	Unique warehouse key for half year	20050101
2	BUSINESS HALF YEAR START DAY CODE	Unique warehouse key for year start day	20050101
3	BUSINESS MONTH CODE	Unique warehouse key of the month, in the Calendar.	20050101
4	BUSINESS MONTH DESC	Calendar month description.	BY 2005 M1
5	BUSINESS MONTH END DATE	Calendar month end date	12/31/2005 0:00
6	BUSINESS MONTH NUMBER	A numeric representation of the month number in the Calendar. It ranges from 1 to 12	1
7	BUSINESS MONTH START DATE	Calendar month start date	12/31/2005 0:00
8	BUSINESS MONTH TIMESPAN	The length, in terms of days, of this month in the Calendar. For example: 30 days	28

Table 3-37   (Cont.) Business Month

Sr. Number	Attribute	Description	Sample Value
9	BUSINESS QUARTER CODE	Unique key of the quarter, in which this month occurred in the Calendar.	20050101
10	BUSINESS QUARTER START DAY CODE	Unique warehouse key for quarter start day	No value
11	BUSINESS YEAR CODE	Unique warehouse key for year	20050101
12	BUSINESS YEAR START DAY CODE	Unique warehouse key year start day	No value

Table 3-38 (page 3-28) shows Business Half Month: It captures information relating to a Fortnight in a Business Calendar.

Table 3-38   Business Half Month

Sr. Number	Attribute	Description	Sample Value
1	BUSINESS HALF MONTH CODE	Unique warehouse key of the Fortnight, in the Calendar.	20050101
2	BUSINESS HALF MONTH DESC	Calendar half month description.	BY 2005 M1 HM1
3	BUSINESS HALF MONTH END DATE	Calendar half month end date.	12/31/2005 12:00:00 AM
4	BUSINESS HALF MONTH NUMBER	A numeric representation of the fortnight number in the Calendar. It ranges from 1 to 24	1
5	BUSINESS HALF MONTH START DATE	Calendar half month start date	12/31/2005 12:00:00 AM
6	BUSINESS HALF MONTH TIMESPAN	The length, in terms of days, of this fortnight in the Calendar. For example: 15 days	15
7	BUSINESS HALF YEAR CODE	Unique warehouse key for half year	20050101
8	BUSINESS HALF YEAR START DAY CODE	Unique warehouse key for half year start day	20050101
9	BUSINESS MONTH CODE	Unique key of the month, in which this fortnight occurred in the Calendar.	20050101
10	BUSINESS MONTH START DAY CODE	Unique warehouse key for month start day	No value
11	BUSINESS QUARTER CODE	Unique warehouse key for quarter	20050101

Table 3-38   (Cont.) Business Half Month

Sr. Number	Attribute	Description	Sample Value
12	BUSINESS QUARTER START DAY CODE	Unique warehouse key for quarter start day	No value
13	BUSINESS YEAR CODE	Unique warehouse key for year	20050101
14	BUSINESS YEAR START DAY CODE	Unique warehouse key for year start day	No value

Table 3-39 (page 3-29) shows Day: It captures information relating to a Day.

Table 3-39   Day

Sr. Number	Attribute	Description	Sample Value
1	BUSINESS CURRENT IND	Business Current indicator 'Y' or 'N'	No value
2	BUSINESS DATE	Business date.	No value
3	BUSINESS DATE DESC	Business Date description.	No value
4	BUSINESS DAY CODE	Code for Calendar Day	20050101
5	BUSINESS DAY OF YEAR	Business day of year	No value
6	BUSINESS DAY TIME SPAN	The length, in terms of days, of this fortnight in the Calendar.	No value
7	BUSINESS END DATE	Business end date.	12/31/2005 12:00:00 AM
8	BUSINESS HALF MONTH CODE	Unique warehouse key for half month	20050101
9	BUSINESS HALF MONTH DESCRIPTION	Calendar half month description.	No value
10	BUSINESS HALF MONTH END DATE	Calendar half month end date.	12/31/2005 12:00:00 AM
11	BUSINESS HALF MONTH NUMBER	A numeric representation of the fortnight number in the Calendar. It ranges from 1 to 24.	1
12	BUSINESS HALF MONTH START DATE	Calendar half month start date.	12/31/2005 12:00:00 AM
13	BUSINESS HALF MONTH START DAY CODE	Unique ware house key for half month start day.	20050101
14	BUSINESS HALF MONTH TIMESPAN	The length, in terms of days, of this fortnight in the Calendar. For example: 15 days	15

Table 3-39   (Cont.) Day

Sr. Number	Attribute	Description	Sample Value
15	BUSINESS HALF YEAR CODE	Unique warehouse key for half year	20050101
16	BUSINESS HALF YEAR DESC	Business half year description.	No value
17	BUSINESS HALF YEAR END DATE	Business half year end date.	12/31/2005 12:00:00 AM
18	BUSINESS HALF YEAR NUMBER	Business half year number	No value
19	BUSINESS HALF YEAR START DATE	Business half year start date	12/31/2005 12:00:00 AM
20	BUSINESS HALF YEAR START DAY CODE	Unique warehouse key for half year start day	20050101
21	BUSINESS HALF YEAR TIMESPAN	The length, in terms of days, of this half year in the Calendar. For example: 178 days	181
22	BUSINESS MONTH CODE	Unique key of the month, in which this fortnight occurred in the Calendar	20050101
23	BUSINESS MONTH DESC	Calendar month description	BY 2005 M1
24	BUSINESS MONTH END DATE	Calendar month end date.	12/31/2005 12:00:00 AM
25	BUSINESS MONTH NUMBER	A numeric representation of the month number in the Calendar. It ranges from 1 to 12.	1
26	BUSINESS MONTH START DATE	Calendar month start date.	12/31/2005 12:00:00 AM
27	BUSINESS MONTH START DAY CODE	Unique warehouse key for month start day	20050101
28	BUSINESS MONTH TIME SPAN	The length, in terms of days, of this month in the Calendar. For example: 30 days	28
29	BUSINESS QUARTER CODE	Unique warehouse key for quarter	20050101
30	BUSINESS QUARTER DESC	Calendar quarter description.	BY 2005 Q1
31	BUSINESS QUARTER END DATE	Business quarter end date.	12/31/2005 12:00:00 AM
32	BUSINESS QUARTER NUMBER	Number for business quarter	No value
33	BUSINESS QUARTER START DATE	Business quarter start date	12/31/2005 12:00:00 AM

Table 3-39   (Cont.) Day

Sr. Number	Attribute	Description	Sample Value
34	BUSINESS QUARTER START DAY CODE	Unique warehouse key for quarter start day	20050101
35	BUSINESS QUARTER TIME SPAN	The length, in terms of days, of this year in the Calendar.	No value
36	BUSINESS START DATE	Business start date.	12/31/2005 12:00:00 AM
37	BUSINESS WEEK CODE	Unique identifier for business week	20050101
38	BUSINESS WEEK DAY	Business week day.	No value
39	BUSINESS WEEK DAY CODE	Unique identifier for business week day.	20050101
40	BUSINESS WEEK DAY DESC	Business week day description	No value
41	BUSINESS WEEK DESC	Business week description.	No value
42	BUSINESS WEEK END DATE	Business week end date.	12/31/2005 12:00:00 AM
43	BUSINESS WEEK NUMBER	Number for business week	No value
44	BUSINESS WEEK START DATE	Business week start date.	12/31/2005 12:00:00 AM
45	BUSINESS WEEK START DAY CODE	Unique identifier for business week start day	20050101
46	BUSINESS WEEK TIME SPAN	The length, in terms of days, of this year in the Calendar.	No value
47	BUSINESS WEEKEND IND	Weekend indicator 'Y' or 'N'	No value
48	BUSINESS WORKING DAY IND	Working day indicator 'Y' or "N'	No value
49	BUSINESS YEAR CODE	Unique warehouse key for year	20050101
50	BUSINESS YEAR DESC	Calendar year description	No value
51	BUSINESS YEAR END DATE	Calendar year end date.	12/31/2005 12:00:00 AM
52	BUSINESS YEAR NUMBER	Calendar year number.	No value
53	BUSINESS YEAR START DATE	Calendar year start date.	12/31/2005 12:00:00 AM
54	BUSINESS YEAR START DAY CODE	Unique warehouse key for year start day	20050101
55	BUSINESS YEAR TIMESPAN	The length, in terms of days, of this year in the Calendar. For example: 365 days	365

3.1.17 Calendar Time

Description: Information related to the calendar, including: CALENDAR YEAR (page 2-42), CALENDAR HALF YEAR (page 2-42), CALENDAR QUARTER (page 2-42), CALENDAR MONTH (page 2-42), CALENDAR HALF MONTH (page 2-42), DAY (page 2-68).

Calendar Time Hierarchy

Standard Calendar Time Hierarchy:
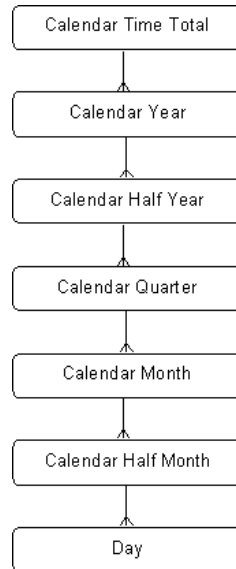
Calendar Time Level

Table 3-40 (page 3-32) shows Calendar Time Total: This is the most aggregate level of the Time dimension.

Table 3-40   Calendar Time Total

Sr. Number	Attribute	Description
1.	ALL CALENDAR TIME CODE	Identification for the top level value

Table 3-41 (page 3-32) shows Calendar Year: It captures information relating to a year in a Business Calender.

Table 3-41   Calendar Year

Sr. Number	Attribute	Description	Sample Value
1	CALENDAR NAME	Textual name of the business Calendar	No value
2	CALENDAR YEAR CODE	Unique warehouse key of the Year, in the Calendar.	No value
3	CALENDAR YEAR DESC	Calendar year description.	No value

Table 3-41   (Cont.) Calendar Year

Sr. Number	Attribute	Description	Sample Value
4	CALENDAR YEAR END DATE	Calendar year end date.	12/31/2005 12:00:00 AM
5	CALENDAR YEAR NUMBER	Calendar year number.	No value
6	CALENDAR YEAR START DATE	Calendar year start date.	12/31/2005 0:00
7	CALENDAR YEAR TIMESPAN	The length, in terms of days, of this year in the Calendar. For example: 365 days	No value

Table 3-42 (page 3-33) shows Calendar Half Year: It captures information relating to half year in a Business Calender.

Table 3-42   Calendar Half Year

Sr. Number	Attribute	Description	Sample Value
1	CALENDAR HALF YEAR CODE	Unique warehouse key of the half year, in the Calendar.	No value
2	CALENDAR HALF YEAR DESC	Calendar half year description.	No value
3	CALENDAR HALF YEAR END DATE	Calendar half year end date.	12/31/2005 12:00:00 AM
4	CALENDAR HALF YEAR NUMBER	A numeric representation of half year number in the Calendar. It contains values 1 or 2.	No value
5	CALENDAR HALF YEAR START DATE	Calendar half year start date.	12/31/2005 0:00
6	CALENDAR HALF YEAR TIMESPAN	The length, in terms of days, of this half year in the Calendar. For example: 178 days	No value
7	CALENDAR YEAR CODE	Unique key of the year, in which this half year occurred in the Calendar.	No value
8	CALENDAR YEAR START DAY CODE	Code for calendar year start day	No value

Table 3-43 (page 3-34) shows Calendar Quarter: It captures information relating to half year in a Business Calendar.

Table 3-43   Calendar Quarter

Sr. Number	Attribute	Description	Sample Value
1	CALENDAR HALF YEAR CODE	Unique key of the half year	20050101
2	CALENDAR HALF YEAR START DAY CODE	Calendar year start date	20050101
3	CALENDAR QUARTER CODE	Unique key of Calendar quarter	20050101
4	CALENDAR QUARTER DESC	Description for Calendar quarter	CY 2005 Q1
5	CALENDAR QUARTER END DATE	Calendar year end date	12/31/2005 0:00
6	CALENDAR QUARTER NUMBER	Number for Calendar quarter	
7	CALENDAR QUARTER START DATE	Calendar year start date	12/31/2005 0:00
8	CALENDAR QUARTER TIMESPAN	The length, in terms of days, of this quarter	
9	CALENDAR YEAR CODE	Unique key of the year, in which this half year occurred in the Calendar.	20050101
10	CALENDAR YEAR START DAY CODE	Code for year start date	20050101

(page 3-34) shows Calendar Month: It captures information relating to a month in a Calendar.

Table 3-44   Calendar Month

Sr. Number	Attribute	Description	Sample Value
1	CALENDAR HALF YEAR CODE	Unique warehouse key for half year	20050101
2	CALENDAR HALF YEAR START DAY CODE	Unique warehouse key for year start day	No value
3	CALENDAR MONTH CODE	Unique warehouse key of the month, in the Calendar.	20050101
4	CALENDAR MONTH DESC	Calendar month description.	No value
5	CALENDAR MONTH END DATE	Calendar month end date.	12/31/2005 12:00:00 AM

Table 3-44   (Cont.) Calendar Month

Sr. Number	Attribute	Description	Sample Value
6	CALENDAR MONTH NUMBER	A numeric representation of the month number in the Calendar. It ranges from 1 to 12.	No value
7	CALENDAR MONTH START DATE	Calendar month start date.	12/31/2005 0:00
8	CALENDAR MONTH TIMESPAN	The length, in terms of days, of this month in the Calendar. For example: 30 days	No value
9	CALENDAR QUARTER CODE	Unique key of the quarter, in which this month occurred in the Calendar.	20050101
10	CALENDAR QUARTER START DAY CODE	Unique warehouse key for quarter start day	No value
11	CALENDAR YEAR CODE	Unique warehouse key for year	20050101
12	CALENDAR YEAR START DAY CODE	Unique warehouse key year start day	No value

Table 3-45 (page 3-35) shows Calendar Half Month: It captures information relating to a Fortnight in a Business Calendar.

Table 3-45   Calendar Half Month

Sr. Number	Attribute	Description	Sample Value
1	CALENDAR HALF MONTH CODE	Unique warehouse key of the Fortnight, in the Calendar.	20050101
2	CALENDAR HALF MONTH DESC	Calendar half month description.	No value
3	CALENDAR HALF MONTH END DATE	Calendar half month end date.	12/31/2005 12:00:00 AM
4	CALENDAR HALF MONTH NUMBER	A numeric representation of the fortnight number in the Calendar. It ranges from 1 to 24.	No value
5	CALENDAR HALF MONTH START DATE	Calendar half month start date	No value
6	CALENDAR HALF MONTH TIMESPAN	The length, in terms of days, of this fortnight in the Calendar. For example: 15 days	No value
7	CALENDAR HALF YEAR CODE	Unique warehouse key for half year.	No value

Table 3-45   (Cont.) Calendar Half Month

Sr. Number	Attribute	Description	Sample Value
8	CALENDAR HALF YEAR START DAY CODE	Unique warehouse key for half year start day	No value
9	CALENDAR MONTH CODE	Unique key of the month, in which this fortnight occurred in the Calendar.	20050101
10	CALENDAR MONTH START DAY CODE	Unique warehouse key for month start day	No value
11	CALENDAR QUARTER CODE	Unique warehouse key for quarter	20050101
12	CALENDAR QUARTER START DAY CODE	Unique warehouse key for quarter start day	No value
13	CALENDAR YEAR CODE	Unique warehouse key for year	20050101
14	CALENDAR YEAR START DAY CODE	Unique warehouse key for year start day	No value

Table 3-46 (page 3-36) shows Day: It captures information relating to a day.

Table 3-46   Day

Sr. Number	Attribute	Description	Sample Value
1	CALENDAR CURRENT IND	Calendar current indicator 'Y' or 'N'	No value
2	CALENDAR DATE	Calendar date.	No value
3	CALENDAR DATE DESC	Calendar date description.	No value
4	CALENDAR DAY OF YEAR	Calendar day of year.	No value
5	CALENDAR DAY TIMESPAN	The length, in terms of days.	No value
6	CALENDAR END DATE	Calendar end date	12/31/2005 0:00
7	CALENDAR HALF MONTH CODE	Calendar Half Month Code	20050101
8	CALENDAR HALF MONTH DESC	Calendar half month description.	No value
9	CALENDAR HALF MONTH END DATE	Calendar half month end date	12/31/2005 0:00
10	CALENDAR HALF MONTH NUMBER	A numeric representation of the month number in the Calendar. It ranges from 1 to 12.	No value
11	CALENDAR HALF MONTH START DATE	Calendar half month start date.	12/31/2005 0:00

Table 3-46   (Cont.) Day

Sr. Number	Attribute	Description	Sample Value
12	CALENDAR HALF MONTH START DAY CODE	The unique identifier for a calendar half month start day.	No value
13	CALENDAR HALF MONTH TIMESPAN	The length, in terms of days, of this fortnight in the Calendar. For example: 15 days	No value
14	CALENDAR HALF YEAR CODE	The unique identifier for a calendar half year.	20050101
15	CALENDAR HALF YEAR DESC	Calendar half year description.	No value
16	CALENDAR HALF YEAR END DATE	Calendar half year description,	12/31/2005 0:00
17	CALENDAR HALF YEAR NUMBER	A numeric representation of half year number in the Calendar. It contains values 1 or 2.	No value
18	CALENDAR HALF YEAR START DATE	Calendar half year start date.	12/31/2005 0:00
19	CALENDAR HALF YEAR START DAY CODE	The unique identifier for a calendar half year start day.	20050101
20	CALENDAR HALF YEAR TIME SPAN	The length, in terms of days, of this half year in the Calendar. For example: 178 days	No value
21	CALENDAR HOLIDAY IND	It indicates holiday indicator 'Y' or 'N'	No value
22	CALENDAR MONTH CODE	The unique identifier for a calendar month.	20050101
23	CALENDAR MONTH DESC	Calendar month description.	No value
24	CALENDAR MONTH END DATE	Calendar month end date.	12/31/2005 0:00
25	CALENDAR MONTH NUMBER	A numeric representation of the month number in the Calendar. It ranges from 1 to 12.	No value
26	CALENDAR MONTH START DATE	Calendar month start date.	12/31/2005 0:00
27	CALENDAR MONTH START DAY CODE	The unique identifier for a calendar month start day	20050101
28	CALENDAR MONTH TIME SPAN	The length, in terms of days, of this month in the Calendar. For example: 30 days	No value
29	CALENDAR QUARTER CODE	The unique identifier for calendar quarter.	20050101
30	CALENDAR QUARTER DESC	Calendar quarter description.	No value

Table 3-46   (Cont.) Day

Sr. Number	Attribute	Description	Sample Value
31	CALENDAR QUARTER END DATE	Calendar quarter end date.	12/31/2005 0:00
32	CALENDAR QUARTER NUMBER	Number for Calendar quarter	No value
33	CALENDAR QUARTER START DATE	Calendar quarter start date.	12/31/2005 0:00
34	CALENDAR QUARTER START DAY CODE	The unique identifier for a calendar quarter start day.	20050101
35	CALENDAR QUARTER TIMESPAN	The length, in terms of days, of this quarter	No value
36	CALENDAR START DATE	Calendar Start Date	12/31/2005 0:00
37	CALENDAR WEEK CODE	The unique identifier for calendar week.	20050101
38	CALENDAR WEEK DAY	Calendar week day	No value
39	CALENDAR WEEK DAY CODE	The unique identifier for a calendar week day.	20050101
40	CALENDAR WEEK DAY DESCRIPTION	Calendar week day description.	No value
41	CALENDAR WEEK DESC	Calendar week description.	No value
42	CALENDAR WEEK END DATE	Calendar week end date.	12/31/2005 0:00
43	CALENDAR WEEK NUMBER	A numeric representation of the week number in the Calendar.	No value
44	CALENDAR WEEK START DATE	Calendar week start date	12/31/2005 0:00
45	CALENDAR WEEK TIMESPAN	The length, in terms of days, of this week	No value
46	CALENDAR WEEKEND IND	It indicates calendar weekend indicator 'Y' or 'N'	No value
47	CALENDAR WORKING DAY IND	It indicates the calendar working day indicator 'Y' or 'N'	No value
48	CALENDAR YEAR CODE	The unique identifier for a calendar year.	20050101
49	CALENDAR YEAR DESC	Calendar week description.	No value
50	CALENDAR YEAR END DATE	Calendar year end date.	12/31/2005 0:00
51	CALENDAR YEAR NUMBER	A numeric representation of the year number in the Calendar.	No value
52	CALENDAR YEAR START DATE	Calendar year start date.	12/31/2005 0:00

Table 3-46   (Cont.) Day

Sr. Number	Attribute	Description	Sample Value
53	CALENDAR YEAR START DAY CODE	The unique identifier for a calendar year starts date.	No value
54	CALENDAR YEAR TIME SPAN	The length, in terms of days, of this year in the Calendar. For example: 365 days	No value
55	CALENDAR WEEK START DAY CODE	The unique identifier for a calendar week starts date.	20050101
56	DAY CODE	The unique identifier for a calendar date	No value

3.1.18 Call Category

Description:

Call Category Hierarchies

Standard Call Category Hierarchy:
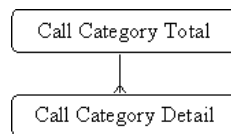
Call Category Levels

Table 3-47 (page 3-39) shows Call Category Total: All Call Category are most aggregate level of the dimension.

Table 3-47   Call Category Total

Sr. Number	Attribute	Description
1.	CALL CATEGORY TOTAL	Code for All Call Categories.

Table 3-48 (page 3-39) shows Call Category Detail: All Call Category is most aggregate level of the dimension.

Table 3-48   Call Category Detail

Sr. Number	Attribute	Description	Sample Value
1	CALL CATEGORY CODE	Code for Call Category.	DATA

Table 3-48 (Cont.) Call Category Detail

Sr. Number	Attribute	Description	Sample Value
2	CALL CATEGORY DESC	Description of the Call Category.	Data Call
3	CALL CATEGORY NAME	Short description of the Call Category.	Data Call

3.1.19 Call Center Agent

Description: CALL CENTER AGENT (page 2-42)

Call Center Agent Hierarchy

Standard Call Center Agent Hierarchy:
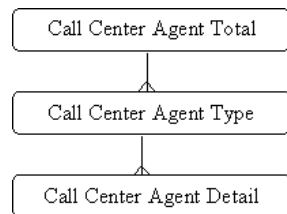
Call Center Agent Levels

Table 3-49 (page 3-40) shows Call Center Agent Total: All call center agent are most aggregate level of the dimension.

Table 3-49 Call Center Agent Total

Sr. Number	Attribute	Description
1.	CALL CENTER AGENT TOTAL	Code for All Call Center Agent Subscribers.

Table 3-50 (page 3-40) shows Call Center Agent Type: The type of Call Center Agent. Examples includes: Employee, IVR.

Table 3-50 Call Center Agent Type

Sr. Number	Attribute	Description
1	CALL CENTER AGENT TYPE DESC	Description of the Agent type.
2	CALL CENTER AGENT TYPE NAME	Name of Agent type.
3	LANGUAGE CODE	Uniquely identifier of language
4	CALL CENTER AGENT TYPE CODE	No value

Table 3-51 (page 3-41)shows Call Center Agent Detail: Detail level of the dimension. Stores the Call Center Agent Information.

Table 3-51   Call Center Agent Detail

Sr. Number	Attribute	Description
1	CALL CENTER AGENT CODE	All the possible agents with whom the customer can make a contact like IVR, Human Agent, Corporate agent, CRC, and so on.
2	CALL CENTER AGENT DESC	Description of the Agent.
3	CALL CENTER AGENT NAME	Name of Agent.
4	CALL CENTER AGENT TYPE CODE	Foreign key, to indicate which type this agent is, for example: Auto, Human.
5	CALL CENTER CODE	Uniquely identifier of call center
6	No value	No value
7	BILLING ADDRESS EFFECTIVE DATE	Date on which the billing address referenced in the billing_address_id column became active. This facilitates queries such as find customers who changed address in the last 3 months.""
8	BUSINESS DIVISION EXECUTIVE NAME	BUSINESS DIVISION EXECUTIVE LAST NAME is the last name of the business division executive to whom the employee reports to. Like LOB Owner.
9	BUSINESS PHONE NUMBER	Phone number used for business purpose
10	CELL PHONE NO	Redundancy to 'party contact information'
11	CHILDREN COUNT	Number of children
12	CONTACT ADDRESS EFFECTIVE DATE	Date on which the contact address referenced in the billing_address_id column became active. This facilitates queries such as find customers who changed address in the last 3 months.""
13	COST CENTER NUMBER	The cost center to which the bank employee expenses are charged.
14	DATE OF BIRTH	Date of Birth of the individual.
15	DATE OF DEATH	Date of natural person death.
16	DEATH CERTIFICATE CODE	The certification document number for customer's death.
17	DEPENDENTS COUNT	Number of dependents
18	DRIVER LICENSE NUMBER	Driver License Number in most countries.
19	DWELLING SIZE	Size of dwelling
20	DWELLING TENURE	Tenure of dwelling

Table 3-51   (Cont.) Call Center Agent Detail

Sr. Number	Attribute	Description
21	ECONOMICALLY ACTIVE IND	customer is economically active (is not a minor or pensioner and so on.)
22	EDUCATION CODE	The customer highest level of education.
23	EMAIL	Redundancy to 'party contact information'
24	EMPLOYEE CODE	A code for any person or business that is of interest to the Communications Service Provider.
25	EMPLOYEE DESIGNATION CODE	Unique warehouse key, representing the designation
26	EMPLOYEE DISCOUNT GROUP CODE	Unique identifier for Employee Discount Group
27	EMPLOYEE KEY	Key value for each employee
28	EMPLOYEE NUMBER	Internal number for the employee.
29	EMPLOYEE TYPE CODE	Unique identifier for Employee Type
30	EMPLOYEE TYPE DESC	Description of the Employee Type
31	EMPLOYEE TYPE NAME	Unique identifier for the Employee Type
32	EMPLOYER TAX NUMBER	The tax code of Employer.
33	EMPLOYMENT BEGIN DATE	Start date for the employment.
34	EMPLOYMENT END DATE	If the employee quit, holds the information of past employment.
35	EMPLOYMENT EXEMPT IND	An employee is exempt from the overtime policies due to the nature of the work, as compared to (Non-Exempt). Education requirements of the position and salary range. These employees are paid an annual salary and are not customarily eligible for overtime pay.
36	EMPLOYMENT STATUS	EMPLOYEE STATUS is the abbreviated identifier for the employment status. Employee
37	END OF JOB CONTRACT	End date of the customer's job contract (for contracts concluded for definite terms).
38	ETHNIC BACKGROUND	Customer Attribute of an employee
39	ETHNICITY	Classifies the individual for minority reporting purposes.
40	FAMILY NAME IN MAIDEN	Given name in maiden
41	FIRST NAME	First name of a party individual

Table 3-51   (Cont.) Call Center Agent Detail

Sr. Number	Attribute	Description
42	FORM OF EMPLOYMENT	The customer's form of employment (private entrepreneur, employee, civil servant and so on.)
43	GENDER CODE	For PARTYs that are people, this is their GENDER. For PARTYs that are organizations, this is indicates whether the organization is foreign or domestically owned.
44	GIVEN NAME IN MAIDEN	Given name in maiden
45	HOME TELEPHONE NO	Redundance to 'party contact information'
46	HOUSEHOLD KEY	The code of household which the party belongs to.
47	INCOME	Income of a party individual
48	INCOME LCL	Income of a party individual
49	INCOME RPT	Income of a party individual
50	JOB CONTRACT TYPE	Type of the customer's job contract
51	JOB KEY	Code for job of subscriber.
52	JOB POSITION	job Position.
53	LANGUAGE CODE	Unique identifier for Language
54	LAST NAME	Last name of a party individual
55	LAST PERFORMANCE RATING	This describes the annual rating assigned to the employee.
56	LAST PERFORMANCE RATING DATE	When the last rating is done.
57	LEGAL TITLE TO HOUSING	The customer's legal title to home (rents, owns and so on.)
58	LIVING AT CURRENT ADDRESS SINCE	Date since the customer has lived at the present address.
59	MANAGER CODE	manager's employee code.
60	MARITAL STATUS	CSALADI ALLAPOT. Marital status
61	MARTIAL STATUS CODE	
62	MIDDLE NAME	Middle name of a party individual
63	MOTHER FIRST NAME	Mother's first name
64	MOTHER LAST NAME	Mother's last name
65	NAME OF WORKPLACE	Name of workplace

Table 3-51   (Cont.) Call Center Agent Detail

Sr. Number	Attribute	Description
66	NAME PREFIX	Name prefix For example: Mr, Mrs, Ms, Dr,
67	NAME SUFFIX	Name suffix. For example: PhD, MD, JD, MA
68	NATIONALITY CODE	Code for Nationality of subscriber
69	NUMBER OF EARNERS IN HOUSEHOLD	Number of wage earners in the household.
70	NUMBER OF PERSONS LIVING IN HOUSEHOLD	Number of persons sharing the customer's household.
72	OFFICE TELEPHONE NO	Redundancy to 'party contact information'
73	ORGANIZATION BUSINESS UNIT KEY	No value
74	PERSONAL ID NUMBER	No value
75	PLACE OF BIRTH	Where the person was born.
76	PREVIOUS EMPLOYER TAX NUMBER	Tax number of previous employer.
77	PREVIOUS EMPLOYMENT END DATE	End date of previous job.
78	PREVIOUS EMPLOYMENT START DATE	Start date of previous job.
79	SOC JOB KEY	No value
80	SOCIAL SECURITY NUMBER	Null if a country does not have this number.
81	SOURCE OF INCOME	Source of income (can typify, may be several)
82	START OF EMPLOYMENT	Start of employment
83	TAX NUMBER	Tax number
84	ACTIVE IND	Activate Indicator
85	ADDRESS	Address
86	BARING REASON CODE	Unique identifier for Baring Reason
87	BUSINESS LEGAL STATUS CODE	A unique identifier for a legal classification of a non-residential Customer.
88	CITY	City of the party. Redundance to party location history.
89	COUNTRY	Country of the party. Redundance to party location history.
90	CUSTOMER IND	Indicator for Customer
91	EFFECTIVE FROM DATE	EFFECTIVE FROM DATE, standard SCD2 column.

Table 3-51   (Cont.) Call Center Agent Detail

Sr. Number	Attribute	Description
92	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column.
93	EMPLOYEE NAME	Name of the employee
94	PARTY DESC	Description for the Party
95	PARTY KEY	Key value for Party
96	PARTY NAME	Name of the Party
97	PARTY TYPE CODE	Unique identifier for Party Type
98	POST CODE	Unique identifier for Post
99	SOURCE SYSTEM KEY	Key value for Source System
100	STATE	State Name
101	STATUS CODE	Current Status

3.1.20 Call Center Case Title

Description: CALL CENTER CASE TITLE (page 2-43)

Call Center Case Title Hierarchies

Standard Call Center Case Title Hierarchy:
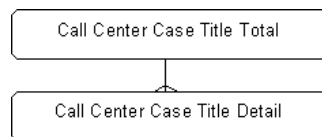
Call Center Case Levels

Table 3-52 (page 3-45) shows Call Center Case Title Total: All call center case title are most aggregate level of the dimension.

Table 3-52   Call Center Case Title Total

Sr. Number	Attribute	Description
1.	CALL CENTER CASE TITLE TOTAL	Total of all call center case titles.

Table 3-53 (page 3-45) shows Call Center Case Title Detail: Detail level of the dimension. Stores the Call Center Case Title Information.

Table 3-53   Call Center Case Title Detail

Sr. Number	Attribute	Description
1	CALL CENTER CASE SUB TYPE CODE	Code or Id for Call Center Case Sub Type.

Table 3-53   (Cont.) Call Center Case Title Detail

Sr. Number	Attribute	Description
2	CALL CENTER CASE TITLE CODE	Code or Id for Call Center Case Title.
3	CALL CENTER CASE TITLE DESC	Description of the Call Center Case Title.
4	CALL CENTER CASE TITLE NAME	Name of Call Center Case Title.
5	LANGUAGE CODE	Uniquely identifier of language

3.1.21 Call Center

Description: CALL CENTER (page 2-42)

Call Center Hierarchies

Standard Call Center Hierarchy:
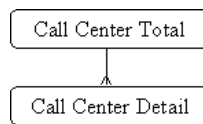
Call Center Levels

Table 3-54 (page 3-46) shows Call Center Total: All call centers is most aggregate level of the dimension.

Table 3-54   Call Center Total

Sr. Number	Attribute	Description
1.	CALL CENTER TOTAL	Code for All Call Centers.

Table 3-55 (page 3-46) shows Call Center: Detail level of the dimension. Stores the Call Center Information.

Table 3-55   Call Center Detail

Sr. Number	Attribute	Description
1	CALL CENTER CODE	CODE-1
2	NUMBER OF EMPLOYEES	NUMBER OF EMPLOYEES.
3	NUMBER OF LINES	How many telephone lines (trunk) are offered.
4	PRIMARY LANGUAGE	The language/Dialects the call center can support.
5	ACCOUNT CLERK CODE	This field is client specific. The definition and use of this field is customizable for each client.

Table 3-55   (Cont.) Call Center Detail

Sr. Number	Attribute	Description
6	ADDRESS LINE 1	Address. Line one of detailed postal address
7	ADDRESS LINE 2	Address. Line two of detailed postal address
8	ADDRESS LINE 3	Address. Line three of detailed postal address
9	ADDRESS LOCATION CODE	Unique identifier for the address. unique identifier for the address location
10	ADDRESS TYPE CODE	Unique identifier of the address type.
11	ADDRESS USAGE	Describes how the address is used
12	ANNUAL REVENUE	Revenue of the company.
13	ANNUAL REVENUE LOCAL	Revenue of the company.
14	ANNUAL REVENUE REPORTING	Revenue of the company.
15	ANNUAL SALES	Sales for Annual
16	ANNUAL SALES LOCAL	Local Sales for Annual
17	ANNUAL SALES REPORTING	Reporting Sales for Annual
18	BANKRUPTCY END DATE	The end date of bankruptcy. If current date is behind start and end date is null, then the company is undergoing the bankruptcy process.
19	BANKRUPTCY START DATE	start date of bankruptcy.
20	BUSINESS ENTITY CODE	Unique Identifier for Business Entity
21	BUSINESS UNIT CONCEPT	Possible values include, Convenience, General Merchandise, Category dominant anchors with few small tenants, Fashion, Higher-end (Upscale), Fashion oriented, Manufacturer's Outlet, Leisure, Tourist oriented and Discount.
22	BUSINESS UNIT TYPE CODE	Unique identifier of the business unit type
23	CHAIRMAN CODE	Connect to Another Person Party who is responsible for this Organization.
24	CHANNEL TYPE CODE	Unique identifier of the channel type

Table 3-55 (Cont.) Call Center Detail

Sr. Number	Attribute	Description
25	COMPANY REGISTRY NUMBER	Will be same as Party. National_Identifier. Natural Key for Organization.
26	CONSTRUCTION STATUS	Identifies the status of the site such as 'Under Construction', 'New', and so on.
27	CONTACT CODE	ID of the contact person for the organization.
28	CONTACT NAME	Contact Employee for organization.
29	CONTACT NUMBER	This is the number for the method specified to contact this site. There can be multiple contact numbers of each type for each site.
30	CONTACT TYPE CODE	This is the general method to use to contact a site, that is, Phone, Fax, Telex, and so on.
31	COURT CODE	Code of the law of court.
32	DOMESTIC INDICATOR	For PARTYs that are organizations, this indicates whether the organization is foreign or domestically owned.
33	DUNS NUMBER	DUNS NUMBER is an identifier for organization.
34	EMPLOYEE COUNT	Total number of employee in the company or organization.
35	EQUITY AMOUNT	The equity value of the company/ org.
36	EQUITY AMOUNT LOCAL	The equity value of the company/ org.
37	EQUITY AMOUNT REPORTING	The equity value of the company/ org.
38	EXTERNAL NAME	Name/Number assigned to site for electronic communication. For example: EDI transactions.
39	FINAL SETTLEMENT END DATE	End date of final settlement.
40	FINAL SETTLEMENT START DATE	Start date of final settlement
41	JUDICIAL DISTRAINT CODE	Case identifier of the judicial distraint
42	JUDICIAL DISTRAINT DATE	Date of the judicial distraint

Table 3-55   (Cont.) Call Center Detail

Sr. Number	Attribute	Description
43	LIQUIDATION END DATE	The date when the company/org was liquidated. If is null and start_date is not null, the company is undergoing the liquidation.
44	LIQUIDATION START DATE	Start date of liquidation
45	LOCATION TYPE CODE	Unique identifier for location type
46	LONG DESCRIPTION	The 10 character abbreviation of the store name
47	MANAGER CODE	ID of the manager for the organization.
48	MANAGER EMPLOYEE NUMBER	Unique key denoting the employee number of the employee's manager.
49	MANAGER NAME	Name of manager for the whole company.
50	ORGANIZATION BANNER CODE	
51	ORGANIZATION BUSINESS UNIT CODE	Unique identifier for Business Unit. To identify whether the site is a store, distribution center or warehouse.
52	ORGANIZATION BUSINESS UNIT TYPE CODE	Unique identifier for Organization business unit type
53	ORGANIZATION CODE	The unique identifier of the organization
54	ORGANIZATION DISTRICT CODE	District code of ORGANIZATION DISTRICT
55	ORGANIZATION DIVISION CODE	Division code of a ORGANIZATION
56	ORGANIZATION NAME	Name of the organization
57	ORGANIZATIONAL DEMOGRAPHY VALUE CODE	Unique identifier for organization demographic value
58	PAYMENT ACCOUNT CLOSE DATE	Closing date of the account for payments.
59	PAYMENT ACCOUNT NUMBER	Account number for payments.
60	PAYMENT ACCOUNT OPEN DATE	Opening date of the account for payments.
61	POSTAL PLUS CODE	Four digit extension to the United States Postal ZIP code.

Table 3-55   (Cont.) Call Center Detail

Sr. Number	Attribute	Description
62	POSTCODE	Postal codes of interest to the Retail Organization
63	PRIMARY ADDRESS TELEPHONE	Default Address Telephone Number
64	PRIMARY BUSINESS UNIT CALENDAR CODE	Primary Business Unit Calendar Code
65	PRIMARY CURRENCY ISO CODE	The unique ISO standard identifier of the CURRENCY
66	PRIMARY EMAIL ADDRESS	Default Email Address
67	PRIMARY MARKET AREA CODE	Market area code under which the business unit falls
68	PRIMARY TRADE AREA CODE	Primary Trade area code, under which the business unit falls
69	SEAL IMAGE	The image of the Organization's Seal, or the Artificial Person's Signature.
70	SECONDARY DESCRIPTION	The secondary description or name of the store or warehouse.
72	SHOPPING CENTER TYPE	Shopping center is group of retail and other commercial establishments that is planned, developed, owned, and managed as a single property.=- Strip Center (Neighborhood, Community)- Mall (Power, Super Regional, Regional, Fashion/Specialty, Lifestyle, Outlet, Theme/Festival)
73	SHORT DESCRIPTION	The 3 character abbreviation of the store name.
74	STOCK EXCHANGE NAME	Abbreviation of listed companies as used on the stock exchange.
75	TAX EXEMPT STATUS	Indicates if the org. is tax exempt.
76	TERMINATION DATE	Termination date of the company in case of company was founded with termination date.
77	TIME ZONE	It denotes which TimeZone the Site is in.
78	TOTAL LINEAR DISTANCE	The total linear selling space of the location.

Table 3-55   (Cont.) Call Center Detail

Sr. Number	Attribute	Description
79	VALIDATION END DATE	Effective date of the deletion of the company's record from the company register.
70	SECONDARY DESCRIPTION	The secondary description or name of the store or warehouse.
80	VALIDATION START DATE	Date of the registration of the company' record deletion from the company register.
81	VAT INCLUDE INDICATOR	Indicates whether the Value Added Tax will be included in the retail prices for the store. Valid values are 'Y' or 'N'
82	VAT REGION	The number of the Value Added Tax region in which this store or warehouse is contained.
83	PARTY CODE	No value
84	PARTY TYPE CODE	No value
85	BUSINESS LEGAL STATUS CODE	No value
86	SOURCE SYSTEM CODE	No value
87	BARING REASON CODE	No value
88	STATUS CODE	No value
89	CITY	No value
90	STATE	No value
91	COUNTRY	No value
92	PARTY NAME	No value
93	PARTY DESC	No value
94	ADDRESS	No value
95	ACTIVE INDICATOR	No value
96	CUSTOMER INDICATOR	No value
97	EFFECTIVE FROM DATE	No value
98	EFFECTIVE TO DATE	No value

3.1.22 Call Direction

Description: CALL DIRECTION (page 2-43)

Call Direction Hierarchies

Standard Call Direction Hierarchy:
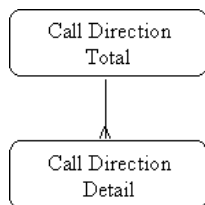
Call Direction Levels

Table 3-56 (page 3-52) shows Call Direction Total: All Call Directions are most aggregate level of the dimension.

Table 3-56   Call Direction Total

Sr. Number	Attribute	Description
1.	ALL CALL DIRECTION CODE	Code for Call Directions.

Table 3-57 (page 3-52) shows Call Direction Detail: Detail level of the dimension. Stores the Call Direction Information.

Table 3-57   Call Direction Detail

Sr. Number	Attribute	Description	Sample Value
1	CALL DIRECTION CODE	Code for call direction.	IN
2	CALL DIRECTION DESC	Description of call direction.	To indicate incoming call
3	CALL DIRECTION NAME	Name of the call direction.	IN
4	LANGUAGE CODE	Unique identifier for Language	No value

3.1.23 Call Other Type

Description: CALL OTHER TYPE (page 2-43)

Call Other Type Hierarchies

Standard Call Other Type Hierarchy:
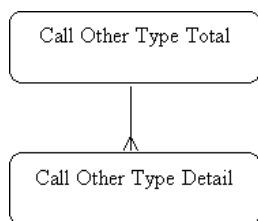
Call Other Type Levels

Table 3-58 (page 3-53) shows Call Other Type Total: All Call Other Types are most aggregate level of the dimension.

Table 3-58   Call Other Type Total

Sr. Number	Attribute	Description
1.	ALL CALL OTHER TYPE CODE	Code for Call Other Types.

Table 3-59 (page 3-53) shows Call Other Type Detail: Detail level of the dimension. Stores the Call other Type Information.

Table 3-59   Call Other Type Detail

Sr. Number	Attribute	Description	Sample Value
1	CALL OTHER TYPE CODE	A code used to uniquely identify a category of Special Services that a Call may utilize. Examples include: 1 - Directory Assistance 2 - 800 3 - 900 4 - 911 5 - Customer Service 6 - Voice Mail.	CUSTSRVC
2	CALL OTHER TYPE DESC	A textual description of a Call Special Service Type.	Customer Service
3	CALL OTHER TYPE NAME	The name assigned to a Call Special Service Type. Examples include: Directory Assistance 800 900 911 Customer Service Voice Mail.	Customer Service
4	LANGUAGE CODE	Unique identifier for Language	No value

3.1.24 Call Routing Type

Description: CALL ROUTING TYPE (page 2-43)

Call Routing Type Hierarchies

Standard Call Routing Type Hierarchy:
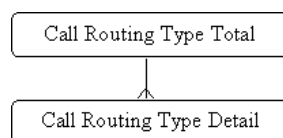
Call Routing Type Levels

Table 3-60 (page 3-54) shows Call Routing Type Total: All Call Routing Type are most aggregate level of the dimension.

Table 3-60   Call Routing Type Total

Sr. Number	Attribute	Description
1.	ALL CALL ROUTING CODE	Code for All Call Routing Subscribers.

Table shows Call Routing Type Detail: Detail level of the dimension. Stores the Call Routing Type Information.

Table 3-61   Call Routing Type Detail

Sr. Number	Attribute	Description	Sample Value
1	CALL ROUTING TYPE CODE	The code for the type can use number or character.	ATA
2	CALL ROUTING TYPE DESC	Full Description.	Call was routed from Air To Air
3	CALL ROUTING TYPE NAME	The short name for the type.	Air To Air
4	LANGUAGE CODE	Unique identifier of language	No Value

3.1.25 Call Service Type

Description: CALL SERVICE TYPE (page 2-43)

Call Service Type Hierarchies

Standard Service Type Hierarchy:
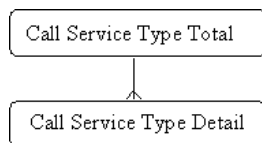
Call Service Type Levels

Table 3-62 (page 3-54) shows Call Service Type Total: All Call Service Type are most aggregate level of the dimension.

Table 3-62   Call Service Type Total

Sr. Number	Attribute	Description
1.	CALL SERVICE TYPE TOTAL CODE	Code for All Call Service Type.

Table 3-63 (page 3-55) shows Call Service Type Detail: Detail level of the dimension. Stores the Call Service Type Information.

Table 3-63   Call Service Type Detail

Sr. Number	Attribute	Description	Sample Value
1	CALL SERVICE TYPE CODE	The code.	1
2	CALL SERVICE TYPE DESC	The full description.	Fire
3	CALL SERVICE TYPE NAME	The title.	Fire
4	LANGUAGE CODE	Unique identifier for language	No value

3.1.26 Call Source Destination

Description: CALL SOURCE DESTINATION (page 2-44)

Call Source Destination Hierarchies

Standard Call Source Destination Hierarchy:
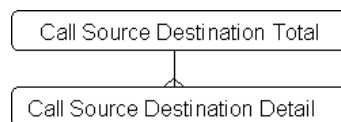
Call Source Destination Levels

Table 3-64 (page 3-55) shows Call Source Destination Total: All Call Source Destination are most aggregate level of the dimension.

Table 3-64   Call Source Destination Total

Sr. Number	Attribute	Description
1.	CALL SOURCE DESTINATION TOTAL	Code for All Call Source Destination

Table 3-65 (page 3-55) shows Call Source Destination Detail: Detail level of the dimension. Stores the Call Source Destination Information.

Table 3-65   Call Source Destination Detail

Sr. Number	Attribute	Description	Sample Value
1	CALL SOURCE DESTINATION CODE	Code for call destination.	8675583965191
2	CALL SOURCE DESTINATION DESC	Description of call destination.	8675583965191
3	CALL SOURCE DESTINATION NAME	Name of the destination.	8675583965191
4	DESTINATION TYPE CODE	Unique identifier of destination type.	No value
5	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date	12/31/2005 12:00:00 AM

Table 3-65   (Cont.) Call Source Destination Detail

Sr. Number	Attribute	Description	Sample Value
6	EFFECTIVE TO DATE	Date the party left the program. Will be null if the party is currently a member of the program.	No value
7	NETWORK TYPE CODE	Unique identifier of destination network type.	No value
8	NUMBER AREA CODE	Area code. For example: 713-Houston	No value
9	NUMBER NETWORK TYPE CODE	Unique identifier of destination network type.	No value
10	STATUS CODE	Current status of the assignment.	No value

3.1.27 Call Success Fail Type

Description: CALL SUCCESS FAILURE TYPE (page 2-44)

Call Successful Fail Hierarchies

Standard Call Success Fail Hierarchy:
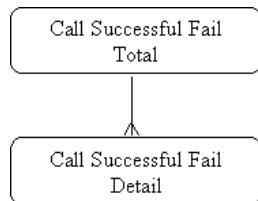
Call Success Fail Type Levels

Table 3-66 (page 3-56) shows Call Successful Fail Total: All Call Successful/failed is most aggregate level of the dimension.

Table 3-66   Call Successful Fail Total

Sr. Number	Attribute	Description
1.	ALL SUCCESSFUL/ FAILED CODE	Code for All Call Successful/failed.

Table 3-67 (page 3-57) shows Call Successful Fail Detail: Detail level of the dimension. Stores the Successful/failed Detail Information.

Table 3-67   Call Successful Fail Detail

Sr. Number	Attribute	Description	Sample Value
1	CALL SUCCESS FAILURE TYPE CODE	Call Success failure id.	FAIL
2	CALL SUCCESS FAILURE TYPE DESC	Call Success failure description.	Fail
3	CALL SUCCESS FAILURE TYPE NAME	Call Success failure short description.	Fail
4	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension.	No value

3.1.28 Call Type

Description: CALL TYPE (page 2-44)

Call Type Hierarchies

Standard Call Type Hierarchy:
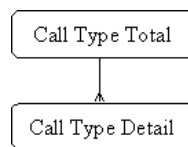
Call Type Levels

Table 3-68 (page 3-57) shows Call Type Total: All Call Type are most aggregate level of the dimension.

Table 3-68   Call Type Total

Sr. Number	Attribute	Description
1.	ALL CALL TYPE CODE	Code for All Call Type Subscribers.

Table 3-69 (page 3-57) shows Call Type Detail: Detail level of the dimension. Stores the Call Type Information.

Table 3-69   Call Type Detail

Sr. Number	Attribute	Description	Sample Value
1	CALL CATEGORY CODE	The code for the call category.	VOI
2	CALL TYPE CODE	The code for the call type.	INTL
3	CALL TYPE DESC	The Full Description.	International
4	CALL TYPE NAME	The title.	International

Table 3-69   (Cont.) Call Type Detail

Sr. Number	Attribute	Description	Sample Value
5	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension.	No value

3.1.29 Campaign

Description: CAMPAIGN (page 2-44)

Campaign Hierarchies

Standard CAMPAIGN Hierarchy:
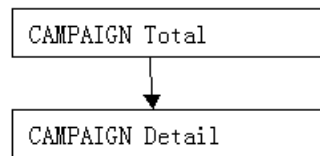
Campaign Levels

The following table shows CAMPAIGN Total: All CAMPAIGN is the most aggregate level of the dimension.

Table for CAMPAIGN Total

Table 3-70   CAMPAIGN Total

Sr. Number	Attribute	Description
1.	CAMPAIGN TOTAL	Code for All CAMPAIGN.

Detail table shows CAMPAIGN Detail: All CAMPAIGN types is the most aggregate level of the dimension.

Detail table CAMPAIGN Detail

Table 3-71   CAMPAIGN Detail

Sr. Number	Attribute	Description
1	CAMPAIGN DESC	A textual description of the Campaign.
2	PRIORITY	Campaign priority
3	PLANNED RESPONSE	Expected or planned response for the campaign.
4	GLOBAL IND	Flag to indicate if the campaign is run globally.
5	PARTNER NUMBER	Identification number for partner.
6	COST CODE	Identify the cost to the Carrier.

Table 3-71   (Cont.) CAMPAIGN Detail

Sr. Number	Attribute	Description
7	PARTNER IND	Indicates if the campaign has partners
8	PLANNED COST	Planned or budgeted total cost for the campaign.
9	PLANNED COST LOCAL	Planned or budgeted total cost for the campaign.
10	PLANNED COST REPORTING	Planned or budgeted total cost for the campaign.
11	FUND SOURCE CODE	Possible values would include, Vendor Sponsored, Charity, and so on.
12	EFFECTIVE TO DATE	The end date of a Campaign
13	COST AMOUNT REPORTING	The monetary cost of a Campaign.
14	COST AMOUNT LOCAL	The monetary cost of a Campaign.
15	COST AMOUNT	The monetary cost of a Campaign.
16	CAMPAIGN PURPOSE	The purpose of the campaign being conducted, in most of scenarios this field would be empty since this would be addressed in the Theme and Promotion Theme. But in the cases this campaign is being executed as a continuation of a previous campaign due to demand this field would contain the reason for that.
17	EFFECTIVE FROM DATE	The start date of a Campaign
18	CAMPAIGN TYPE CODE	No value
19	CAMPAIGN CODE	No value
20	CAMPAIGN NAME	No value
21	CAMPAIGN PURPOSE TYPE CODE	No value
22	CAMPAIGN STATUS CODE	No value

3.1.30 Campaign Channel

Description: CAMPAIGN CHANNEL (page 2-44)

Campaign Channel Hierarchies

Standard Campaign Channel Hierarchy:
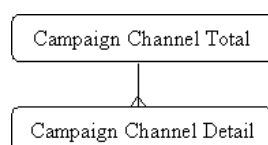
Campaign Channel Levels

Table 3-72 (page 3-60) shows Campaign Channel Total: All Campaign Channels are most aggregate level of the dimension.

Table 3-72   Campaign Channel Total

Sr. Number	Attribute	Description
1.	ALL CAMPAIGN CHANNEL CODE	Code for All Campaign Channel.

Table 3-73 (page 3-60) shows Campaign Channel Detail: Detail level of the dimension. Stores the Campaign Channel Information.

Table 3-73   Campaign Channel Detail

Sr. Number	Attribute	Description	Sample Value
1	CAMPAIGN CHANNEL CODE	A unique identifier for a campaign channel.	MAGAZINE
2	CAMPAIGN CHANNEL DESC	The name assigned to a campaign channel.	No value
3	CAMPAIGN CHANNEL NAME	A textual description of an campaign channel.	No value
4	CAMPAIGN CHANNEL TYPE CODE	A code used to uniquely identify a campaign channel type.	MGZN
5	CAPACITY QUANTITY	The number of transaction that a Channel can handle, at a point of time.	No value
6	CHANNEL CODE	The unique identifier for each Channel. A Channel identifies each possible link where interaction between the Communications Service Provider and the Customer occurs.	No value
7	CHANNEL DESC	Descriptions of the channels	No value
8	CHANNEL NAME	The name assigned to a channel.	No value
9	CHANNEL TYPE CODE	A code used to uniquely identify a major grouping of Channels. Examples: M - MailT - Telephone TV - Television.	LYLTCHNL
10	EFFECTIVE FROM DATE	The first date of the period when this Channel was valid.	12/31/2005 12:00:00 AM
11	EFFECTIVE TO DATE	The end date of the period when this Channel was valid.	12/31/2005 12:00:00 AM

Table 3-73   (Cont.) Campaign Channel Detail

Sr. Number	Attribute	Description	Sample Value
12	PARTY CODE	A code for any person or business that is of interest to the Communications Service Provider.	No value
13	PARTY TYPE CODE	Type of party	RPRSTTV
14	STATUS CODE	Current status.	No value

3.1.31 Campaign Media

Description: CAMPAIGN MEDIA (page 2-45)

Campaign Media Hierarchies

Standard CAMPAIGN MEDIA Hierarchy:
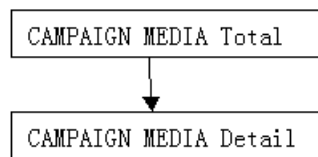
Campaign Media Levels

The following table shows CAMPAIGN MEDIA Total: All CAMPAIGN MEDIA is the most aggregate level of the dimension.

Table for CAMPAIGN MEDIA Total

Table 3-74   CAMPAIGN MEDIA Total

Sr. Number	Attribute	Description
1.	CAMPAIGN MEDIA TOTAL	Code for All CAMPAIGN MEDIA.

Detail table shows CAMPAIGN MEDIA Detail: All CAMPAIGN MEDIA types is the most aggregate level of the dimension.

Detail table CAMPAIGN MEDIA Detail

Table 3-75   CAMPAIGN MEDIA Detail

Sr. Number	Attribute
1	EVENT NUMBER
2	EFFECT FROM DATE
3	EFFECT TO DATE

Table 3-75   (Cont.) CAMPAIGN MEDIA Detail

Sr. Number	Attribute
4	STATUS CODE
5	CURRENT INDICATOR
6	LONG DSCR
7	LOAD DATE
8	LAST UPDATE DATE
9	LAST UPDATE BY
10	MEDIA TYPE CODE
11	MEDIA CODE
12	VEHICLE
13	ACT STRT DATE
14	W ID
15	CAMPAIGN CODE
16	COMMUNICATION TYPE CODE
17	CAMPAIGN MEDIA CODE
18	SHORT DSCR
19	CAMPAIGN MEDIA CODE _1

3.1.32 Cell Outage Reason

Description: CELL OUTAGE REASON (page 2-47)

Cell Outage Reason Hierarchies

Standard Cell Outage Reason Hierarchy:
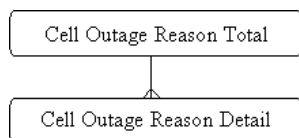
Cell Outage Levels

Table 3-76 (page 3-63) shows Cell Outage Reason Total: All Cell Outage Reason is most aggregate level of the dimension.

Table 3-76   Cell Outage Reason Total

Sr. Number	Attribute	Description
1.	ALL CELL OUTAGE REASON CODE	Code for All Cell Outage Reason.

Table 3-77 (page 3-63) shows Cell Outage Reason Detail: Detail level of the dimension. Stores the Cell Outage Reason Information.

Table 3-77   Cell Outage Reason Detail

Sr. Number	Attribute	Description	Sample Value
1	CELL OUTAGE REASON CODE	Cause for cell outage.	FAIL
2	CELL OUTAGE REASON DESC	Description of CELL OUTAGE REASON	Fail
3	CELL OUTAGE REASON NAME	Name of the CELL OUTAGE REASON	Fail
4	LANGUAGE CODE	Language ID Unique identifier for language	No value

3.1.33 Cell Site

Description: CELL SITE (page 2-47)

Cell Site Hierarchies

Standard CELL SITE Hierarchy:
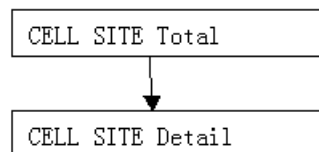
Cell Site Levels

The following table shows CELL SITE Total: All CELL SITE is the most aggregate level of the dimension.

Table for CELL SITE Total

Table 3-78   CONTENT Detail

Sr. Number	Attribute	Description
1.	CELL SITE TOTAL	Code for All CELL SITE.

Detail table shows CELL SITE Detail: All CELL SITE types is the most aggregate level of the dimension.

Detail table CELL SITE Detail

Sr. Number	Attribute	Description
1	CELL SITE TYPE CODE	Code.
2	LOCATION AREA CODE	ID of the location area of the mobile equipment.
3	CELL SITE CODE	The serial number for the cell site.
4	CELL SITE TYPE CODE2	No value
5	CELL SITE NAME	No value
6	CELL SITE DESC	No value

3.1.34 Change Proposed By Type

Description: CHANGE PROPOSED BY TYPE (page 2-48)

Change Proposed By Type

Standard CHANGE PROPOSED BY TYPE Hierarchy:
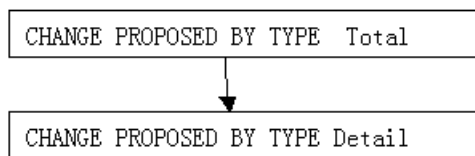
Change Proposed By Type

The following table shows CHANGE PROPOSED BY TYPE Total: All CHANGE PROPOSED BY TYPE is the most aggregate level of the dimension.

Table for CHANGE PROPOSED BY TYPE Total

Table 3-79   CHANGE PROPOSED BY TYPE Total

Sr. Num ber	Attribute	Description
1.	CHANGE PROPOSED BY TYPE TOTAL	Code for All CHANGE PROPOSED BY TYPE.

Detail table shows CHANGE PROPOSED BY TYPE Detail: All CHANGE PROPOSED BY TYPE types is the most aggregate level of the dimension.

Table 3-80   CHANGE PROPOSED BY TYPE Detail

Sr. Number	Attribute
1	CHANGE PROPOSED BY TYPE CODE
2	CHANGE PROPOSED BY TYPE DESC
3	CHANGE PROPOSED BY TYPE NAME
4	LANGUAGE CODE

3.1.35 Channel

Description: CHANGE (page 2-48)

Channel Hierarchies

Standard Channel Hierarchy:
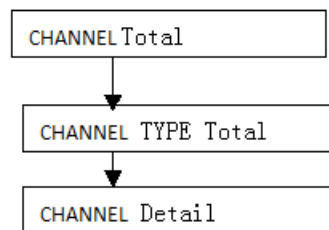
Channel Levels

The following table shows CHANNEL Total: All CHANNEL is the most aggregate level of the dimension.

Table for CHANNEL Total

Table 3-81   CHANNEL Total

Sr. Number	Attribute	Description
1.	ALL CHANNEL CODE	Identification for the top level value

Table shows CHANNEL TYPE

Table 3-82   CHANNEL TYPE

Sr. Number	Attribute	Description
1	CHANNEL TYPE NAME	A code used to uniquely identify a major grouping of Channels, such as Mail, Telephone, Television.
2	CHANNEL TYPE CODE	A code used to uniquely identify a major grouping of Channels. Examples:M - MailT - Telephone TV - Television

Table 3-82   (Cont.) CHANNEL TYPE

Sr. Number	Attribute	Description
3	CHANNEL TYPE DESC	A textual description of a Channel Type.
4	LANGUAGE CODE	No value

Detail table **CHANNEL** Detail

Table 3-83   CHANNEL Detail

Sr. Number	Attribute	Description
1	PARTY CODE1	A code for any person or business that is of interest to the Communications Service Provider.
2	STATUS CODE	Current status
3	EFFECTIVE TO DATE	The end date of the period when this Channel was valid
4	EFFECTIVE FROM DATE	The first date of the period when this Channel was valid
5	CHANNEL NAME	The name assigned to a channel.
6	CAPACITY QUANTITY	The number of transaction that a Channel can handle, at a point of time.
7	CHANNEL CODE	The unique identifier for each Channel. A Channel identifies each possible link where interaction between the Communications Service Provider and the Customer occurs.
8	PARTY TYPE CODE	No value
9	CHANNEL TYPE CODE2	No value
10	CHANNEL DESC	No value

3.1.36 Collection Agency

Description:

Collection Agency Hierarchies

Standard Collection Agency Hierarchy:
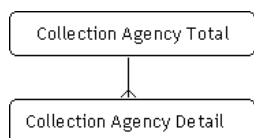
Table 3-84 (page 3-67) shows Collection Agency Total: This is the most aggregate level of the Debt Aging Band dimension.

Table 3-84   Collection Agency Total

Sr. Number	Attribute	Description
1.	ALL COLLECTION AGENCY TOTAL CODE	Identification for the top level value

Table 3-85 (page 3-67) shows Collection Agency Detail: Description level of the dimension. It stores the Collection Agency details.

Table 3-85   Collection Agency Detail

Sr. Number	Attribute	Description
1	ANNUAL REVENUE	Revenue of the company.
2	ANNUAL REVENUE LOCAL	Revenue of the company.
3	ANNUAL REVENUE REPORTING	Revenue of the company.
4	ANNUAL SALES	Sales for annual
5	ANNUAL SALES LOCAL	Local sales for annual
6	ANNUAL SALES REPORTING	Reporting sales for annual
7	BANKRUPTCY END DATE	The end date of bankruptcy. If current date is behind start and end date is null, then the company is undergoing the bankruptcy process.
8	BANKRUPTCY START DATE	Start date of bankruptcy.
9	CAMPAIGN PARTNER CODE	CAMPAIGN PARTNER CODE is the code to track campaign partner.
10	CAMPAIGN PARTNER INDICATOR	to indicator this is a campaign partner. The campaign partner can be an external organization or even another Telecommunications operator. The service provider can partner with another service provider if their business is complementary, like 1 wireless operator and 1 local fixed line company. Most of content provider can also partner with the telco for promotion.
11	CHAIRMAN CODE	Connect to Another Person Party who is responsible for this Organization.
12	COLLECTION AGENCY CODE	A code for any person or business that is of interest to the Communications Service Provider.
13	COMPANY REGISTRY NUMBER	Will be same as Party. National_Identifier. Natural Key for Organization.
14	CONTACT CODE	ID of the contact person for the organization.

Table 3-85   (Cont.) Collection Agency Detail

Sr. Number	Attribute	Description
15	CONTACT NAME	Contact Employee for organization.
16	COURT CODE	Code of the law of court.
17	DOMESTIC INDICATOR	For PARTYs that are organizations, this indicates whether the organization is foreign or domestically owned.
18	DUNS NUMBER	DUNS NUMBER is an identifier for organization.
19	EMPLOYEE COUNT	Total number of employee in the company or organization.
20	EQUITY AMOUNT	The equity value of the company/org.
21	EQUITY AMOUNT LOCAL	The equity value of the company/org.
22	EQUITY AMOUNT REPORTING	The equity value of the company/org.
23	EXTERNAL ORGANIZATION TYPE CODE	Uniquely identifier of EXTERNAL ORGANIZATION TYPE
24	FINAL SETTLEMENT END DATE	End date of final settlement.
25	FINAL SETTLEMENT START DATE	Start date of final settlement
26	JUDICIAL DISTRAINT CODE	Case identifier of the judicial distraint
27	JUDICIAL DISTRAINT DATE	Date of the judicial distraint.
28	LIQUIDATION END DATE	The date when the company/org was liquidated. If is null and start_date is not null, the company is undergoing the liquidation.
29	LIQUIDATION START DATE	Start date of liquidation.
30	MANAGER CODE	ID of the manager for the organization.
31	MANAGER NAME	Name of manager for the whole company.
32	OTHER INDIVIDUAL CODE	Uniquely identifier of OTHER INDIVIDUAL
33	PARTY ORGANIZATION TYPE CODE	Type code of organization party.
34	PAYMENT ACCOUNT CLOSE DATE	Closing date of the account for payments.
35	PAYMENT ACCOUNT NUMBER	Account number for payments.
36	PAYMENT ACCOUNT OPEN DATE	Opening date of the account for payments.

Table 3-85   (Cont.) Collection Agency Detail

Sr. Number	Attribute	Description
37	SEAL IMAGE	The image of the Organization's Seal, or the Artificial Person's Signature.
38	STOCK EXCHANGE NAME	Abbreviation of listed companies as used on the stock exchange.
39	TAX EXEMPT STATUS	Indicates if the org. is tax exempt.
40	TERMINATION DATE	Termination date of the company in case of company was founded with termination date.
41	VALIDATION END DATE	Effective date of the deletion of the company's record from the company register.
42	VALIDATION START DATE	Date of the registration of the company' record deletion from the company register
43	ACTIVE INDICATOR	Indicates if the party is currently active - which means the party has a current relationship with the carrier.
44	ADDRESS	Address of the party. Redundant to party location history.
45	BARING REASON CODE	Reasons for barring. For example, 1-Credit Limit, 2-Barring period.
46	BUSINESS LEGAL STATUS CODE	A unique identifier for a legal classification of a non-residential Customer.
47	CITY	City of the party. Redundant to party location history.
48	COUNTRY	Country of the party. Redundant to party location history.
49	CUSTOMER INDICATOR	Indicates if the party is a customer. Note: the party may have multiple relationships simultaneously - this flag identifies those parties which has a current account with the Telecommunications operator.
50	EFFECTIVE FROM DATE	EFFECTIVE FROM DATE, standard SCD2 column
51	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column
52	PARTY CODE	A code for any person or business that is of interest to the Communications Service Provider
53	PARTY DESC	Description of the party. applicable to both individual and organization. Normally it refer to the full name.
54	PARTY NAME	Name of the party. applicable to both individual and organization. Normally it refer to the full name.
55	PARTY TYPE CODE	type code. type code
56	POST CODE	Postcode of the party. Redundant to party location history.
57	SOURCE SYSTEM CODE	SOURCE SYSTEM ID, from which source ERP system this recorded was extracted.
58	STATE	State of the party. Redundant to party location history.

Table 3-85   (Cont.) Collection Agency Detail

Sr. Number	Attribute	Description
59	STATUS CODE	Current status of party.

3.1.37 Commission Type

Description: COMMISSION TYPE (page 2-51)

Commission Type Hierarchies

Standard Commission Type Hierarchy:
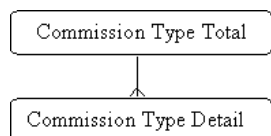
Commission Type Levels

Table 3-86 (page 3-70) shows Commission Type Total: All Commission Type are most aggregate level of the dimension.

Table 3-86   Commission Type Total

Sr. Number	Attribute	Description
1.	ALL COMMISSION TYPE CODE	Code for All Commission Type.

Table 3-87 (page 3-70) shows Commission Type Details: Detail level of the dimension. Stores the Commission Type Information.

Table 3-87   Commission Type Detail

Sr. Number	Attribute	Description	Sample Value
1	COMMISSION TYPE CODE	COMMISSION TYPE CODE.	FLAT
2	COMMISSION TYPE DESC	COMMISSION TYPE DESC.	Flat Rate
3	COMMISSION TYPE NAME	Redemption Type Short Name.	Flat Rate
4	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension.	No value

3.1.38 Competitor

Description: COMPETITOR (page 2-52)

Competitor Hierarchies

Standard Competitor Hierarchy:
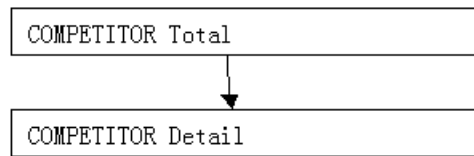
Competitor Levels

The following table shows COMPETITOR Total: All COMPETITOR is the most aggregate level of the dimension.

Table for COMPETITOR Total

Table 3-88   COMPETITOR Total

Sr. Number	Attribute	Description
1.	COMPETITOR TOTAL	Code for All COMPETITOR.

Detail table shows COMPETITOR Detail: All COMPETITOR types is the most aggregate level of the dimension.

Table 3-89   COMPETITOR Detail

Sr. Number	Attribute	Description
1	ACTIVE INDICATOR	Indicates if the party is currently active - which means the party has a current relationship with the carrier.
2	BARING REASON CODE	Reasons for barring,eg,1-Credit Limit, 2-Barring period
3	ADDRESS	Address of the party.
4	CITY	City of the party.
5	COUNTRY	Country of the party.
6	CUSTOMER INDICATOR	Indicates if the party is a customer. Note: the party may have multiple relationships simultaneously - this flag identifies those parties which has a current account with the Telco.
7	EFFECTIVE FROM DATE	EFFECTIVE FROM DATE, standard SCD2 column
8	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column

Table 3-89   (Cont.) COMPETITOR Detail

Sr. Number	Attribute	Description
9	PARTY DESC	Description of the party. applicable to both individual and organization. Normally it refer to the full name.
10	PARTY CODE	A code for any person or business that is of interest to the Communications Service Provider.
11	POST CODE	Postcode of the party.
12	PARTY NAME	Name of the party. applicable to both individual and organization. Normally it refer to the full name.
13	SOURCE SYSTEM CODE	SOURCE SYSTEM ID, from which source ERP system this recorded was extracted
14	STATUS CODE	current status of party.
15	STATE	State of the party.
16	BANKRUPTCY START DATE	start date of bankruptcy., for either organizational or individual customer.
17	BANKRUPTCY END DATE	The end date of bankruptcy. If current date is behind start and end date is null, then the company/individual is undergoing the bankruptcy process.
18	CHANNEL CODE	No value
19	PARTY TYPE CODE2	No value
20	BUSINESS LEGAL STATUS CODE2	No value
21	LANGUAGE DIALECT CODE	No value
22	DATE CREATED	The date when this competitor information is created.

3.1.39 Contact List

Description: CONTACT LIST (page 2-59)

Contact List Hierarchies

Standard CONTACT LIST Hierarchy:

```
┌─────────────────────────────┐
│ CONTACT LIST Total          │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│ CONTACT LIST Detail         │
└─────────────────────────────┘
```
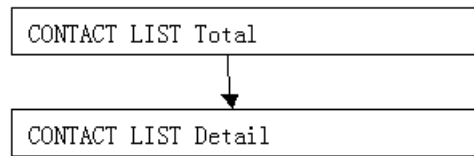
Contact List Levels

The following table shows CONTACT LIST Total: All CONTACT LIST is the most aggregate level of the dimension.

Table for CONTACT LIST Total

Table 3-90   CONTACT LIST Total

Sr. Number	Attribute	Description
1.	CONTACT LIST TOTAL	Code for All CONTACT LIST.

Detail table shows CONTACT LIST Detail: All CONTACT LIST types is the most aggregate level of the dimension.

Table 3-91   CONTACT LIST Detail

Sr. Number	Attribute	Description
1	CONTACT LIST CODE	A unique identifier for a contact list.
2	STATUS CODE	Current STATUS CODE, standard SCD2 column
3	EFFECTIVE FROM DATE	EFFECTIVE FROM DATE, standard SCD2 column
4	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column
5	EXISTING CUSTOMER INDICATOR	Indicate if the contact list if based on existing customers.
6	UNKNOWN TARGET INDICATOR	Indicator for whether the Prospects on the Contact List are known to the Communications Service Provider
7	CREATION DATE	The date on which a Contact List was created.
8	CHANGED BY	the employee code who changed contact list
9	CONTACT LIST RECURRENCE TYPE CODE2	No value
10	SOURCE SYSTEM CODE1	No value
11	CONTACT LIST CHANGE REASON CODE2	No value

Table 3-91   (Cont.) CONTACT LIST Detail

Sr. Num ber	Attribute	Description
12	COST CODE	No value

3.1.40 Content

Description: CONTENT (page 2-59)

Content Hierarchies

Standard CONTENT Hierarchy:
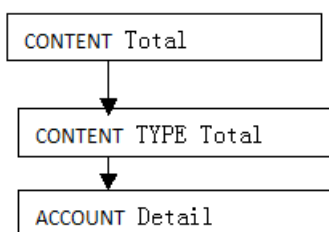
Content Levels

The following table shows CONTENT Total: All CONTENT is the most aggregate level of the dimension.

Table for CONTENT Total

Table 3-92   CONTENT Total

Sr. Num ber	Attribute	Description
1.	ALL CONTENT CODE	Identification for the top level value

Table for CONTENT TYPE

Sr. Num ber	Attribute
1	CONTENT TYPE NAME
2	CONTENT TYPE CODE
3	LANGUAGE CODE
4	CONTENT TYPE DESC

Detail table CONTENT Detail

Table 3-93   CONTENT Detail

Sr. Number	Attribute	Description
1	VALUE ADDED SERVICE CODE1	Code or Id for VAS
2	POPULARITY RATING	How popular the content is, this can be rank by downloading.
3	COPYRIGHT INDICATOR	Indicate if the provider has the copyright.
4	MEDIA TYPE CODE	The type of media object, for example text, a picture, an audio message or a script.
5	CONTENT TYPE CODE2	No value
6	CONTENT PROVIDER CODE1	No value
7	CONTENT CODE	No value

3.1.41 Content Type

Description: CONTENT TYPE (page 2-60)

Content Type Hierarchies

Standard Content Type Hierarchy:
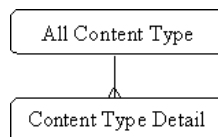
Content Type Levels

Table 3-94 (page 3-75) shows All Content Type: All Content Types are most aggregate level of the dimension.

Table 3-94   All Content Type

Sr. Number	Attribute	Description
1.	ALL CONTENT TYPE CODE	Code for All Content Type.

Table 3-95 (page 3-76) shows Content Type Details: Detail level of the dimension. Stores the Content Types Information.

Table 3-95 Content Type Detail

Sr. Number	Attribute	Description	Sample Value
1	CONTENT TYPE CODE	Type of the content: For example: constellation, jokes, and so on.	CONST
2	CONTENT TYPE DESC	Descriptions of content type	Constellation
3	CONTENT TYPE NAME	Name of the content type.	Constellation
4	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension.	No value

3.1.42 Contract Change Initiator Type

Description: AGREEMENT CHANGE INITIATOR TYPE (page 2-33)

Contract Change Initiator Type Hierarchies

Standard Contract Change Initiator Type Hierarchy:
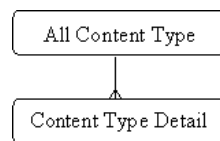
Contract Change Initiator Type Levels

Table 3-96 (page 3-76) shows Contract Change Initiator Type Total: All Contract Change Initiator type is most aggregate level of the dimension.

Table 3-96 Contract Change InitiatorType Total

Sr. Number	Attribute	Description
1.	ALL CONTENT TYPE CODE	Code for All Content Type.

Table 3-97 (page 3-76) shows Contract Change Initiator Type Detail: Detail level of the dimension. Stores the Content Type Information.

Table 3-97 Contract Change Initiator Type Detail

Sr. Number	Attribute	Description	Sample Value
1	CONTRACT CHANGE INITIATOR TYPE CODE	CONTRACT CHANGE INITIATOR TYPE CODE.	CUST
2	CONTRACT CHANGE INITIATOR TYPE DESC	CONTRACT CHANGE INITIATOR TYPE DESC.	Cust
3	CONTRACT CHANGE INITIATOR TYPE NAME	CONTRACT CHANGE INITIATOR TYPE name.	Cust

Table 3-97   (Cont.) Contract Change Initiator Type Detail

Sr. Number	Attribute	Description	Sample Value
4	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension.	No value

3.1.43 Contract Assignment Reason

Description: AGREEMENT ASSIGNMENT REASON (page 2-33)

Contract Assignment Reason Hierarchies

Standard Contract Assignment Reason Hierarchies:
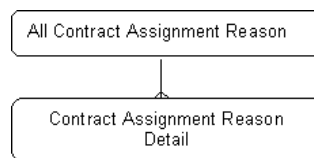
Contract Assignment Reason Level

Table 3-98 (page 3-77) shows Contract Assignment Reason Total: It's not actually hierarchy. It is the top level to aggregate.

Table 3-98   Contract Assignment Reason Total

Sr. Number	Attribute	Description
1	CONTRACT ASSIGNMENT REASON ID	Code of reason

Table 3-99 (page 3-77) shows Contract Assignment Reason Detail: Detail level of the Contract Assignment Reason.

Table 3-99   Contract Assignment Reason Detail

Sr. Number	Attribute	Description	Sample Value
1	CONTRACT ASSIGNMENT REASON CODE	Code of reason	CMPLN
2	CONTRACT ASSIGNMENT REASON DESC	Description of reason	Complain
3	CONTRACT ASSIGNMENT REASON NAME	Name of reason	Complain
4	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension.	No value

3.1.44 Cost Center

Description: COST CENTER (page 2-60)

Cost Center Hierarchies

Standard COST CENTER Hierarchy:
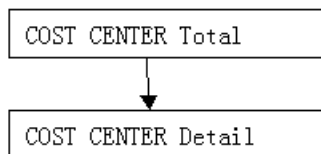
Cost Center Levels

The following table shows COST CENTER Total: All COST CENTER is the most aggregate level of the dimension.

Table for COST CENTER Total

Table 3-100   COST CENTER Total

Sr. Number	Attribute	Description
1.	COST CENTER TOTAL	Code for All COST CENTER.

Detail table shows COST CENTER Detail: All COST CENTER types is the most aggregate level of the dimension.

Detail table COST CENTER Detail

Table 3-101   COST CENTER Detail

Sr. Number	Attribute	Description
1	APPROVER CODE	Approvers employee code incharge of the cost center
2	ORGANIZATION BUSINESS UNIT CODE1	Business Unit Code
3	COST CENTER DESC	No value
4	COST CENTER NAME	No value
5	COST CENTER CODE1	No value
6	COST CENTER CODE	No value

3.1.45 Credit Category

Description: CREDIT CATEGORY (page 2-62)

Credit Category Hierarchies

Standard Credit Category Hierarchies:
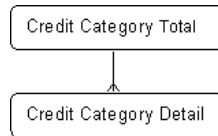
Credit Category Levels

Table 3-102 (page 3-79) shows Credit Category Total: Top most level used in the Credit Category dimension for aggregating data for all Credit categories. Attribute at this level is just the id for the level value.

Table 3-102   Credit Category Total

Sr. Number	Attribute	Description
1	CREDIT CATEGORY TOTAL ID	Id of the contract Credit Category Total

Table 3-103 (page 3-79) shows Credit Category Detail: The detail or lowest level of the dimension, which actually contains the category values. The attributes for this level are id, descriptions for the level values.

Table 3-103   Credit Category Detail

Sr. Number	Attribute	Description	Sample Value
1	CREDIT CATEGORY CODE	Code for Credit Category.	BAD
2	CREDIT CATEGORY DESC	Description for credit category.	Bad Customer
3	CREDIT CATEGORY NAME	Name for Credit Category.	Bad Customer
4	EFFECTIVE FROM DATE	EFFECTIVE FROM DATE, standard SCD2 column.	12/31/2005 12:00:00 AM
5	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column.	12/31/2005 12:00:00 AM
6	STATUS CODE	Current STATUS CODE, standard SCD2 column.	No value

3.1.46 Currency

Description: CURRENCY (page 2-62)

Currency Hierarchies

Standard CURRENCY Hierarchy:
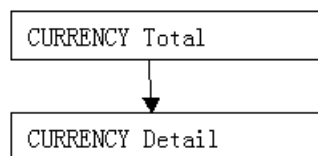
Currency Levels

The following table shows CURRENCY Total: All CURRENCY is the most aggregate level of the dimension.

Table for CURRENCY Total

Table 3-104   CURRENCY Total

Sr. Number	Attribute	Description
1.	CURRENCY TOTAL	Code for All CURRENCY.

Detail table shows CURRENCY Detail: All CURRENCY types is the most aggregate level of the dimension.

Detail table CURRENCY Detail

Table 3-105   CURRENCY Detail

Sr. Number	Attribute	Description
1	ISO NUMERIC COUNTRY CODE	A numeric code representing the country associated with this currency.
2	ISO CURRENCY CODE	A unique identifier representing a row in the Currency table.
3	ORGANIZATION BUSINESS UNIT CODE	Business Unit Code
4	CURRENCY SYMBOL	Symbol of Currency like $ for USD
5	CURRENCY NAME	The abbreviated name of the currency.
6	CURRENCY DESC	The full name of the currency. For example, United States Dollar.
7	COUNTRY NAME	The name of the country associated with this currency.
8	ISO ALPHA CURRENCY CODE	The three-character code for this currency as provided by the International Standards Organization (ISO) in publication 4217. Examples: US Dollars = USD, Hong Kong Dollars = HKD, and so on.
9	CURRENCY UNIT	The unit for which exchange rates are specified.
10	VENDOR CODE	No value
11	LANGUAGE CODE	No value
12	CURRENCY CODE	No value

3.1.47 Customer

Description: CUSTOMER (page 2-62)

Customer Hierarchies

Standard CUSTOMER Hierarchy:
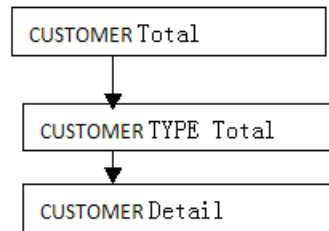
Customer Levels

The following table shows CUSTOMER Total: All CUSTOMER is the most aggregate level of the dimension.

Table for CUSTOMER Total

Table 3-106   CUSTOMER Total

Sr. Number	Attribute	Description
1.	ALL CUSTOMER CODE	Identification for the top level value

Table for CUSTOMER TYPE

Table 3-107   CUSTOMER TYPE

Sr. Number	Attribute	Description
1	CUSTOMER TYPE CODE	Customer product type id
2	CUSTOMER TYPE DESC	Description for customer product Type
3	LANGUAGE CODE	No value
4	CUSTOMER TYPE NAME	No value

Detail table **CUSTOMER** Detail

Table 3-108   CUSTOMER Detail

Sr. Number	Attribute	Description
1	PAYMENT ACCOUNT NUMBER	Account number for payments. Deprecated: This one is only used for backward compatibility.
2	ADDRESS LOCATION CODE1	Address Location Code

Table 3-108   (Cont.) CUSTOMER Detail

Sr. Number	Attribute	Description
3	PAYMENT ACCOUNT CLOSE DATE	Closing date of the first account with valid payment information. Deprecated: This one is only used for backward compatibility.
4	CUSTOMER CODE	CUSTOMER CODE
5	CUSTOMER TYPE CODE2	Customer product type id
6	BILLING ADDRESS EFFECTIVE DATE	Date on which the billing address referenced in the billing_address_id column became active. This facilitates queries such as find customers who changed address in the last 3 months"."
7	CONTACT ADDRESS EFFECTIVE DATE	Date on which the contact address referenced in the billing_address_id column became active. This facilitates queries such as find customers who changed address in the last 3 months"."
8	PRIMARY LINE NUMBER	Default fixed line number.
9	PRIMARY MSISDN NUMBER	Default subscriber number, mostly, it's telephone number to the SIM card.
10	CHURN DATE	No value
11	CUSTOMER PAYMENT RESPONSIBLE INDICATOR	Indicate if this customer is responsible for payment of an customer organization or household.
12	MAIL ALLOWED INDICATOR	No value
13	CUSTOMER IMPORTANCE RANK	Integer that gives the Relative Importance of this customer with respect to others.
14	PARTY ROLE CODE	
15	PRIMARY STATUS REASON NAME	Name of the Primary Status Reason
16	NUMBER OF LINES	Number of phone lines belonging to this customer.

Table 3-108   (Cont.) CUSTOMER Detail

Sr. Number	Attribute	Description
17	PAYMENT ACCOUNT OPEN DATE	Opening date of the first account with valid payment information. Deprecated: This one is only used for backward compatibility.
18	REFERRAL CUSTOMER CODE	REFERAL CUSTOMER code is another customer from whom the customer was introduced to service provider.
19	SOCIAL SECURITY NUMBER	SOCIAL SECURITY NUMBER for individual customer.
20	TAX NUMBER	Tax number of the party, for both individual and organizational.
21	BILLING ADDRESS LOCATION CODE	The address where the billing is sent to.
22	DATE OF BIRTH	The birthday of the customer, for individual customers
23	VALIDATION END DATE	The business license validation period end date
24	VALIDATION START DATE	The business license validation period start date
25	CAMPAIGN PARTNER CODE	The campaign partner code if this customer at the same time is also a campaign partner.
26	CELL PHONE NO	the cell phone number, and more contact information can be found in _party contact information_
27	PRIMARY STATUS CODE	The current primary line or account status.
28	PRIMARY STATUS NAME	The current primary line or account status.
29	DUNS NUMBER	The Data Universal Numbering System code, as from D&B.
30	CREATE DATE	No value
31	LIQUIDATION END DATE	The end date of liquidation process

Table 3-108   (Cont.) CUSTOMER Detail

Sr. Number	Attribute	Description
32	FINAL SETTLEMENT END DATE	The end date of the period when this customer lives in the last known area.
33	SEAL IMAGE	The image of the Organization's Seal, or the Artificial Person's Signature.
34	INITIATIVE NUMBER	The initiative code as defined in INITIATIVE entity. For example, when a person register himself on the operator_s website, he becomes an initiative. Later on, once he place the order, he becomes the customer. In the customer table, imitative number tracks which initiative this customer used to be.
35	TERMINATION DATE	The natural termination date of organizational and individual customer.
36	OTHER INDIVIDUAL CODE	No value
37	PRIMARY OCCASION NAME	the primary special date of the customer, for example, the marriage anniversary.
38	LIQUIDATION START DATE	The start date of liquidation process
39	FINAL SETTLEMENT START DATE	The start date of the period when this customer lives in the last known area.
40	EMPLOYER TAX NUMBER	The tax number of the employer from tax authority.
41	OFFICE TEL NO	This is the office number, and more contact information can be found in _party contact information_
42	ESTABLISHMENT DATE	time of establish for organizational customer.
43	DOMESTIC INDICATOR	To indicate this is a domestic company (compared with over seas, or those from other country).
44	CAMPAIGN PARTNER INDICATOR	To indicate this is an Campaign Partner.

Table 3-108   (Cont.) CUSTOMER Detail

Sr. Number	Attribute	Description
45	PUBLIC INDICATOR	To indicate this is public listed company (listed and traded in stock exchange market).
46	CUSTOMER REVENUE BAND CODE	Unique identifier for revenue band. For example: 0_1000, 1000_3000
47	PRIMARY STATUS REASON CODE	Unique identifier for the primary Status Reason
48	CUSTOMER SOURCE CODE1	Unique identifier of customer source.
49	THIRD PARTY MARKETING ALLOWED INDICATOR	Whether or not to allow third party to do marketing to the customer.
50	CHAIRMAN CODE	No value
51	CONTACT CODE	No value
52	CONTACT NAME	No value
53	NATIONALITY CODE	No value
54	MARITAL STATUS CODE	No value
55	MIDDLE NAME	No value
56	LIVING AT CURRENT ADDRESS SINCE	No value
57	LANGUAGE CODE2	No value
58	LAST NAME	No value
59	LEGAL TITLE TO HOUSING	No value
60	JOB CODE	No value
61	JOB CONTRACT TYPE	No value
62	JOB POSITION	No value
63	PARTY ORGANIZATION TYPE CODE	No value
64	CUSTOMER SCORE CODE1	No value
65	CUSTOMER SEGMENT CODE1	No value
66	DEATH CERTIFICATE CODE	No value

Table 3-108   (Cont.) CUSTOMER Detail

Sr. Number	Attribute	Description
67	DRIVER LICENSE NUMBER	No value
68	DWELLING SIZE	No value
69	DWELLING STATUS	No value
70	DWELLING TENURE	No value
71	DWELLING TYPE	No value
72	ECONOMICALLY ACTIVE INDICATOR	No value
73	EDUCATION CODE	No value
74	FAMILY NAME IN MAIDEN	No value
75	FIRST NAME	No value
76	ANNUAL REVENUE	No value
77	ANNUAL REVENUE LOCAL	No value
78	ANNUAL REVENUE REPORTING	No value
79	ANNUAL SALES	No value
80	ANNUAL SALES LOCAL	No value
81	ARPU BAND CODE2	No value
82	ANNUAL SALES REPORTING	No value
83	COMPANY REGISTRY NUMBER	No value
84	NUMBER OF CHILDREN	No value
85	NUMBER OF DEPENDENTS	No value
86	PREV EMPLOYER TAX NUMBER	No value
87	PREV EMPLOYMENT END DATE	No value
88	PREV EMPLOYMENT START DATE	No value
89	PERSONAL IDENTIFICATION NUMBER	No value
90	PLACE OF BIRTH	No value

Table 3-108   (Cont.) CUSTOMER Detail

Sr. Number	Attribute	Description
91	RELIGIOUS AFFILIATION CODE	No value
92	PROSPECT CODE	No value
93	STOCK EXCHANGE NAME	No value
94	TAX EXEMPT STATUS	No value
95	SALES VOLUME CODE	No value
96	START OF EMPLOYMENT	No value
97	SOC JOB CODE	No value
98	SOURCE OF INCOME	No value
99	EQUITY AMOUNT	No value
100	EQUITY AMOUNT LOCAL	No value
101	EQUITY AMOUNT REPORTING	No value
102	EMPLOYEE COUNT	No value
103	ETHNIC BACKGROUND	No value
104	ETHNICITY	No value
105	END OF JOB CONTRACT	No value
106	EXTERNAL ORGANIZATION TYPE CODE2	No value
107	GENDER CODE	No value
108	GIVEN NAME IN MAIDEN	No value
109	HOUSEHOLD CODE	No value
110	FORM OF EMPLOYMENT	No value
111	NAME	No value
112	NAME OF WORKPLACE	No value
113	NAME PREFIX	No value
114	NAME SUFFIX	No value
115	MANAGER CODE	No value
116	MANAGER NAME	No value

3.1.48 Customer Cluster

Description: CUSTOMER CLUSTER (page 2-63)

Customer Cluster Hierarchies

Standard CUSTOMER CLUSTER Hierarchy:
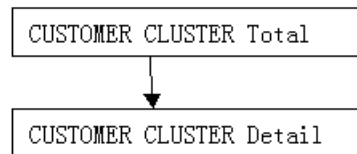
Customer Cluster Levels

The following table shows CUSTOMER CLUSTER Total: All CUSTOMER CLUSTER is the most aggregate level of the dimension.

Table for CUSTOMER CLUSTER Total

Table 3-109   CUSTOMER CLUSTER Total

Sr. Number	Attribute	Description
1.	CUSTOMER CLUSTER TOTAL	Code for All CUSTOMER CLUSTER.

Detail table shows CUSTOMER CLUSTER Detail: All CUSTOMER CLUSTER types is the most aggregate level of the dimension.

Detail table CUSTOMER CLUSTER Detail

Table 3-110   CUSTOMER CLUSTER Detail

Sr. Number	Attribute
1	LAST UPDATE BY
2	STATUS CODE
3	PRINT CUSTOMER CLUSTER CODE
4	ORGANIZATION TYPE CODE
5	ORGANIZATION CODE
6	W ID
7	LAST UPDATE DATE
8	LOAD DATE
9	CURRENT INDICATOR
10	CUSTOMER CLUSTER CODE
11	CUSTOMER CLUSTER DSCR

Table 3-110   (Cont.) CUSTOMER CLUSTER Detail

Sr. Number	Attribute
12	CUSTOMER CLUSTER KEY
13	CUSTOMER CLUSTER TYPE CODE
14	EFFECT TO DATE
15	EFFECT FROM DATE

3.1.49 Customer Revenue Band

Description: CUSTOMER REVENUE BAND (page 2-67)

Customer Revenue Band Hierarchies

Standard Customer Revenue Band Hierarchies:
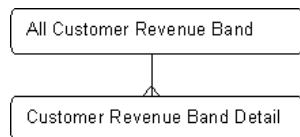
Customer Revenue Band Levels

Table 3-111 (page 3-89) shows Customer Revenue Band Total: This is not really a hierarchical dimension but to provide the summary or aggregate value Customer Revenue.

Table 3-111   Customer Revenue Band Total

Sr. Number	Attribute	Description
1	CUSTOMER REVENUE BAND TOTAL ID	Id of Customer Revenue Band Total

Table 3-112 (page 3-89) shows Customer Revenue Band Detail: This level represents the detail level information of Customer Revenue Band.

Table 3-112   Customer Revenue Band Detail

Sr. Number	Attribute	Description	Sample Value
1	CUSTOMER REVENUE BAND CODE	Unique identifier for revenue band. For example: 0_1000, 1000_3000.	BAND100
2	CUSTOMER REVENUE BAND DESC	Description revenue band.	Customer Revenue Band 100
3	CUSTOMER REVENUE BAND END VALUE	The end point of a band.	$100.00

Table 3-112   (Cont.) Customer Revenue Band Detail

Sr. Number	Attribute	Description	Sample Value
4	CUSTOMER REVENUE BAND NAME	Name of revenue band.	Customer Revenue Band 100
5	CUSTOMER REVENUE BAND START VALUE	The start point of a band.	$0.00
6	CUSTOMER REVENUE TYPE CODE	For recharging, rent fee, one time equipment purchase,-.	RCG
7	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension.	No value

3.1.50 Customer Segment

Description: CUSTOMER SEGMENT (page 2-67)

Customer Segment Hierarchies

Standard Customer Segment Hierarchies:
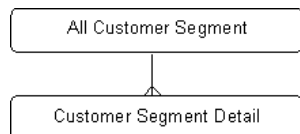
Customer Segment Levels

Table 3-113 (page 3-90) shows Customer Segment Total: This is not really a hierarchical dimension but to provide the summary or aggregate value Customer Segment.

Table 3-113   Customer Segment Total

Sr. Number	Attribute	Description
1	CUSTOMER SEGMENT TOTAL ID	Id of Customer Segment Total

Table 3-114 (page 3-90) shows Customer Segment Detail: This level represents the detail level information of Customer Segment.

Table 3-114   Customer Segment Detail

Sr. Number	Attribute	Description
1	CUSTOMER SEGMENT CODE	A code used to uniquely identify a grouping of Parties or Accounts for marketing and management issues.
2	CUSTOMER SEGMENT DESC	A textual description for a Segment.

Table 3-114   (Cont.) Customer Segment Detail

Sr. Number	Attribute	Description
3	CUSTOMER SEGMENT NAME	The name assigned to a Segment.
4	CUSTOMER SEGMENTATION MODEL CODE	Unique identifier for Customer Segmentation Model
5	EFFECTIVE FROM DATE	EFFECTIVE FROM DATE, standard SCD2 column.
6	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column.
7	IS LEAF INDICATOR	Is leaf is to indicate if the cluster is leaf of the cluster tree.
8	SEGMENT CRITERIA CODE	SEGMENT CRITERIA CODE.
9	SEGMENT DISPERSION	The dispersion of the training data in this segment.
10	STATUS CODE	Current STATUS CODE, standard SCD2 column.
11	SUPPORTING RECORD COUNT	How many customers are included in segment during training, therefore support the cluster.
12	TREE LEVEL	TREE LEVEL in the cluster tree.

3.1.51 Dealer

Description: DEALER (page 2-69)

Dealer Hierarchies

Standard Dealer Hierarchies:
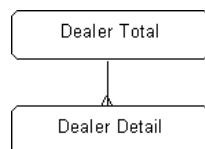
Dealer Levels

Table 3-115 (page 3-91) shows Dealer Total: This is not really a hierarchical dimension but to provide the summary or aggregate value of Dealer.

Table 3-115   Dealer Total

Sr. Number	Attribute	Description
1	DEALER TOTAL ID	Id of dealer

Table 3-116 (page 3-92) shows Dealer Detail: This level represents the detail level information of Customer Revenue Band.

Table 3-116   Dealer Detail

Sr. Number	Attribute	Description
1	ADDRESS LOCATION CODE	Unique identifier for Address Location
2	ANNUAL REVENUE	Revenue of the company.
3	ANNUAL REVENUE LOCAL	Revenue of the company.
4	ANNUAL REVENUE REPORTING	Revenue of the company.
5	ANNUAL SALES	Annual sales of Dealer
6	ANNUAL SALES LOCAL	Annual sales of Dealer local
7	ANNUAL SALES REPORTING	Annual sales of Dealer reporting
8	AREA CODE	Code for the Area.
9	BANKRUPTCY END DATE	The end date of bankruptcy. If current date is behind start and end date is null, then the company is undergoing the bankruptcy process.
10	BANKRUPTCY START DATE	start date of bankruptcy.
11	CAMPAIGN PARTNER CODE	CAMPAIGN PARTNER CODE is the code to track campaign partner.
12	CAMPAIGN PARTNER INDICATOR	To indicator this is a campaign partner. The campaign partner can be an external organization or even another telco operator. The service provider can partner with another service provider if their business are complementary, like 1 wireless operator and 1 local fixed line company. Most of content provider can also partner with the telco for promotion.
13	CHAIRMAN CODE	Connect to Another Person Party who is responsible for this Organization.
14	COMPANY REGISTRY NUMBER	Will be same as Party. National_Identifier. Natural Key for Organization.
15	CONTACT CODE	ID of the contact person for the organization.
16	CONTACT NAME	Contact Employee for organization.
17	CONTRACT DATE	The date when the contract was created.

Table 3-116   (Cont.) Dealer Detail

Sr. Number	Attribute	Description
18	CONTRACT VALID TILL	Validation details
19	COURT CODE	Code of the law of court.
20	DEALER CODE	Uniquely identifier of dealer
21	DEALER NAME	Name of the dealer
22	DISCOUNT ELIGIBLE INDICATOR	Flag represents eligible for discount or not
23	DISCOUNT GROUP CODE	DISCOUNT GROUP CODE.
24	DOMESTIC INDICATOR	For PARTYs that are organizations, this indicates whether the organization is foreign or domestically owned.
25	DUNS NUMBER	DUNS NUMBER is an identifier for organization.
26	EMAIL ADDRESS	Electronic Address of dealer
27	EMPLOYEE COUNT	Total number of employee in the company or organization.
28	EQUITY AMOUNT	The equity value of the company/org.
29	EQUITY AMOUNT LOCAL	The equity value of the company/org.
30	EQUITY AMOUNT REPORTING	The equity value of the company/org.
31	FINAL SETTLEMENT END DATE	End date of final settlement.
32	FINAL SETTLEMENT START DATE	Start date of final settlement.
33	JUDICIAL DISTRAINT CODE	Case identifier of the judicial distraint
34	JUDICIAL DISTRAINT DATE	Date of the judicial distraint
35	LIQUIDATION END DATE	The date when the company/org was liquidated. If is null and start_date is not null, the company is undergoing the liquidation.
36	LIQUIDATION START DATE	Start date of liquidation.
37	MANAGER CODE	ID of the manager for the organization
38	MANAGER NAME	Name of manager for the whole company

Table 3-116 (Cont.) Dealer Detail

Sr. Number	Attribute	Description
39	OTHER INDIVIDUAL CODE	Unique identifier for Individual
40	PAYMENT ACCOUNT CLOSE DATE	Closing date of the account for payments.
41	PAYMENT ACCOUNT NUMBER	Account number for payments.
42	PAYMENT ACCOUNT OPEN DATE	Opening date of the account for payments.
43	SALES CHANNEL CODE	The unique identifier for each Channel. A Channel identifies each possible link where interaction between the Communications Service Provider and the Customer occurs.
44	SEAL IMAGE	The image of the Organization's Seal, or the Artificial Person's Signature.
45	STOCK EXCHANGE NAME	Abbreviation of listed companies as used on the stock exchange.
46	TAX EXEMPT STATUS	Indicates if the org. is tax exempt.
47	TERMINATION DATE	Termination date of the company in case of company was founded with termination date.
48	VALIDATION END DATE	Effective date of the deletion of the company's record from the company register.
49	VALIDATION START DATE	Date of the registration of the company' record deletion from the company register
50	ACTIVE INDICATOR	Indicates if the party is currently active - which means the party has a current relationship with the carrier.
51	ADDRESS	Address of the party. Redundant to party location history.
52	BARING REASON CODE	Reasons for barring. For example: 1-Credit Limit 2-Barring period
53	BUSINESS LEGAL STATUS CODE	A unique identifier for a legal classification of a non-residential Customer.
54	CITY	City of the party. Redundant to party location history.

Table 3-116   (Cont.) Dealer Detail

| Sr. Number	Attribute	Description
55	COUNTRY	Country of the party. Redundant to party location history.
56	CUSTOMER INDICATOR	Indicates if the party is a customer. Note: the party may have multiple relationships simultaneously - this flag identifies those parties which has a current account with the Telecommunications operator.
57	EFFECTIVE FROM DATE	EFFECTIVE FROM DATE, standard SCD2 column
58	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column
59	PARTY CODE	A code for any person or business that is of interest to the Communications Service Provider.
60	PARTY DESC	Description of the party. applicable to both individual and organization. Normally it refer to the full name.
61	PARTY NAME	Name of the party. Applicable to both individual and organization. Normally it refers to the full name.
62	PARTY TYPE CODE	type code.
63	POST CODE	Postcode of the party. Redundant to party location history.
64	SOURCE SYSTEM CODE	SOURCE SYSTEM ID, from which source ERP system this recorded was extracted.
65	STATE	State of the party. Redundant to party location history.
66	STATUS CODE	Current status of party.

3.1.52 Debt Aging Band

Description: DEBT AGING BAND (page 2-69)

Debt Aging Band Hierarchies

Standard Debt Aging Band Hierarchy:
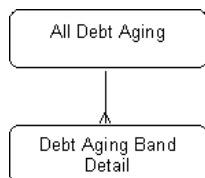
Debt Aging Band Levels

Table 3-117 (page 3-96) shows Debt Aging Band Total: Most aggregate level for the Debt Aging Band dimension to see the aggregated value of all the Debt Aging Band.

Table 3-117   Debt Aging Band Total

Sr. Number	Attribute	Description
1.	DEBT AGING BAND ID	Code for Debt Aging Band

Table 3-118 (page 3-96) shows Debt Aging Band Detail: There are customers who have not paid or partially paid one or more bills. This is called as aging for the bill payment. Based on the age of unpaid or partial paid bill those amounts are put into different buckets for each customer.

Table 3-118   Debt Aging Band Detail

Sr. Number	Attribute	Description	Sample Value
1	DEBT AGING BAND CODE	Code for Aging Slab.	DAB1
2	DEBT AGING BAND DESC	Description for aging Slab.	Debt Aging Band Between 0 And 4
3	DEBT AGING BAND FROM	No value	No value
4	DEBT AGING BAND NAME	Name for aging Slab.	Band(0-4)
5	DEBT AGING BAND TO	0	No value
6	LANGUAGE CODE	Unique identifier for Language	4

3.1.53 Direct Debit Status Reason

Description: DIRECT DEBIT STATUS REASON (page 2-70)

Direct Debit Status Reason Hierarchies

Standard Direct Debt Status Reason Hierarchy:
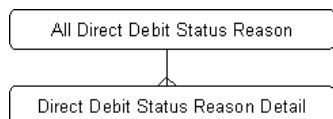
Direct Debit Status Reason Levels

Table 3-119 (page 3-97) shows Direct Debit Status Reason Total: Most aggregate level for the Direct Debit Status Reason dimension to see the aggregated value of all the Direct Debit Status Reason.

Table 3-119   Direct Debit Status Reason Total

Sr. Number	Attribute	Description
1	DIRECT DEBT STATUS REASON ID	Code for Direct Debit Status Reason

Table 3-120 (page 3-97) shows Direct Debit Status Reason Detail: All Address Locations are most aggregate level of the dimension.

Table 3-120   Direct Debit Status Reason Detail

Sr. Number	Attribute	Description	Sample Value
1	DIRECT DEBT STATUS REASON CODE	Unique code for Direct Debt Status Reason	ACTV
2	DIRECT DEBT STATUS REASON DESC	Description of Direct Debt Status Reason	Active
3	DIRECT DEBT STATUS REASON NAME	Name for Direct Debt Status Reason	Active
4	LANGUAGE CODE	Unique identifier for Language	No value

3.1.54 Divert Retrieve Type

Description:

Divert Retrieve type Hierarchies

Standard Divert Retrieve Type Hierarchy:
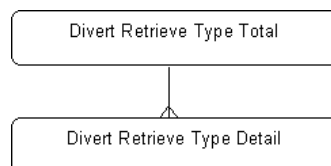
Divert Retrieve Type Levels

Table 3-121 (page 3-98) shows Divert Retrieve Type Total: Most aggregate level for the Divert Retrieve Type Total dimension to see the aggregated value of all the Divert Retrieve Type Total.

Table 3-121   Divert Retrieve Type Total

Sr. Number	Attribute	Description
1.	DIVERT RETRIEVE TYPE TOTAL ID	Code for Divert Retrieve Type Total

Table 3-122 (page 3-98) shows Divert Retrieve Type Detail: Call divert retrieve type indicates if the call is a diverted call or a retrieved call and then it can further drill down to define call as diverted to/retrieved from fax, ums or vms.

Subscriber's calls are diverted to the voice mail or UMS mail box according to subscriber instructions or settings. For example, calls can be diverted when subscriber is busy on other call, subscriber has switched off this handset or subscriber is not reachable for the moment.

Subscriber can later retrieve all his calls that are stored on the mailbox by accessing his mailbox through specified numbers or using Internet in case of UMS.

All this traffic generated by diverted calls as well as retrieved calls is to be analyzed based on the type of call such as diverted or retrieved, type of access to retrieve a call and so on.

Call Divert retrieve dimension helps in achieving this by organizing calls as diverted - retrieved calls.

Table 3-122   Divert Retrieve Type Detail

Sr. Number	Attribute	Description	Sample Value
1	DIVERT RETRIEVE SUB TYPE CODE	Call divert/retrieve subtype ID	No value
2	DIVERT RETRIEVE SUB TYPE DESC	Call divert/retrieve subtype description	No value
3	DIVERT RETRIEVE SUB TYPE NAME	Call divert/retrieve subtype short description	No value
4	DIVERT RETRIEVE TYPE CODE	Code for Divert Retrieve Type	DVRT
5	DIVERT RETRIEVE TYPE DESC	Divert retrieve Type description	Call Are Diverted To The Mailbox
6	DIVERT RETRIEVE TYPE NAME	Name of Divert retrieve Type	Diverted Calls
7	LANGUAGE CODE	Unique identifier for Language	No value

3.1.55 Employee

Description: EMPLOYEE (page 2-72)

Employee Hierarchies

Standard Employee Hierarchy:
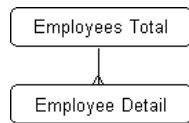
Employee Levels

Table 3-123 (page 3-99) shows Employee Total: Most aggregate level for the Employee Total dimension to see the aggregated value of all the Employee Total

Table 3-123 Employee Total

Sr. Number	Attribute	Description
1.	EMPLOYEE TOTAL ID	Code for employee total identifier.

Table 3-124 (page 3-99) shows Employee Details: Employee of Carrier. Sub entity of Party individual.

Table 3-124 Employee Detail

Sr. Number	Attribute	Description
1	BILLING ADDRESS EFFECTIVE DATE	Date on which the billing address referenced in the billing_address_id column became active. This facilitates queries such as find customers who changed address in the last 3 months.""
2	BUSINESS DIVISION EXECUTIVE NAME	BUSINESS DIVISION EXECUTIVE LAST NAME is the last name of the business division executive to whom the employee reports to. Like LOB Owner.
3	BUSINESS PHONE NUMBER	Phone number used for business purpose
4	CELL PHONE NO	Redundancy to 'party contact information'
5	CHILDREN COUNT	Number of children
6	CONTACT ADDRESS EFFECTIVE DATE	Date on which the contact address referenced in the billing_address_id column became active. This facilitates queries such as find customers who changed address in the last 3 months.""
7	COST CENTER NUMBER	The cost center to which the bank employee expenses are charged.
8	DATE OF BIRTH	Date of Birth of the individual.
9	DATE OF DEATH	Date of natural person death.
10	DEATH CERTIFICATE CODE	The certification document number for customer's death.
11	DEPENDENTS COUNT	Number of dependents
12	DRIVER LICENSE NUMBER	Driver License Number in most countries.

Table 3-124   (Cont.) Employee Detail

Sr. Number	Attribute	Description
13	DWELLING SIZE	Size of dwelling
14	DWELLING TENURE	Tenure of dwelling
15	ECONOMICALLY ACTIVE IND	customer is economically active (is not a minor or pensioner and so on.)
16	EDUCATION CODE	The customer highest level of education.
17	EMAIL	Redundancy to 'party contact information'
18	EMPLOYEE CODE	A code for any person or business that is of interest to the Communications Service Provider.
19	EMPLOYEE DESIGNATION CODE	Unique warehouse key, representing the designation
20	EMPLOYEE DISCOUNT GROUP CODE	Unique identifier for Employee Discount Group
21	EMPLOYEE KEY	Key value for each employee
22	EMPLOYEE NUMBER	Internal number for the employee.
23	EMPLOYEE TYPE CODE	Unique identifier for Employee Type
24	EMPLOYEE TYPE DESC	Description of the Employee Type
25	EMPLOYEE TYPE NAME	Unique identifier for the Employee Type
26	EMPLOYER TAX NUMBER	The tax code of Employer.
27	EMPLOYMENT BEGIN DATE	Start date for the employment.
28	EMPLOYMENT END DATE	If the employee quit, holds the information of past employment.
29	EMPLOYMENT EXEMPT IND	An employee exempt from the overtime policies due to the nature of the work, as compared to (Non-Exempt). Education requirements of the position and salary range. These employees are paid an annual salary and are not customarily eligible for overtime pay.
30	EMPLOYMENT STATUS	EMPLOYEE STATUS is the abbreviated identifier for the employment status. Employee
31	END OF JOB CONTRACT	End date of the customer's job contract (for contracts concluded for definite terms).
32	ETHNIC BACKGROUND	Customer Attribute of an employee
33	ETHNICITY	Classifies the individual for minority reporting purposes.

Table 3-124   (Cont.) Employee Detail

Sr. Number	Attribute	Description
34	FAMILY NAME IN MAIDEN	Given name in maiden
35	FIRST NAME	First name of a party individual
36	FORM OF EMPLOYMENT	The customer's form of employment (private entrepreneur, employee, civil servant and so on.)
37	GENDER CODE	For PARTYs that are people, this is their GENDER. For PARTYs that are organizations, this is indicates whether the organization is foreign or domestically owned.
38	GIVEN NAME IN MAIDEN	Given name in maiden
39	HOME TELEPHONE NO	Redundant to 'party contact information'
40	HOUSEHOLD KEY	The code of household which the party belongs to.
41	INCOME	Income of a party individual
42	INCOME LCL	Income of a party individual
43	INCOME RPT	Income of a party individual
44	JOB CONTRACT TYPE	Type of the customer's job contract
45	JOB KEY	Code for job of subscriber.
46	JOB POSITION	job Position.
47	LANGUAGE CODE	Unique identifier for Language
48	LAST NAME	Last name of a party individual
49	LAST PERFORMANCE RATING	This describes the annual rating assigned to the employee.
50	LAST PERFORMANCE RATING DATE	When the last rating is done.
51	LEGAL TITLE TO HOUSING	The customer's legal title to home (rents, owns and so on.)
52	LIVING AT CURRENT ADDRESS SINCE	Date since the customer has lived at the present address.
53	MANAGER CODE	manager's employee code.
54	MARITAL STATUS	CSALADI ALLAPOT. Marital status
55	MARTIAL STATUS CODE	
56	MIDDLE NAME	Middle name of a party individual
57	MOTHER FIRST NAME	Mother's first name

Table 3-124   (Cont.) Employee Detail

Sr. Number	Attribute	Description
58	MOTHER LAST NAME	Mother's last name
59	NAME OF WORKPLACE	Name of workplace
60	NAME PREFIX	Name prefix For example: Mr, Mrs, Ms, Dr,
61	NAME SUFFIX	Name suffix. For example: PhD, MD, JD, MA
62	NATIONALITY CODE	Code for Nationality of subscriber
63	NUMBER OF EARNERS IN HOUSEHOLD	Number of wage earners in the household.
64	NUMBER OF PERSONS LIVING IN HOUSEHOLD	Number of persons sharing the customer's household.
65	OFFICE TELEPHONE NO	Redundancy to 'party contact information'
66	ORGANIZATION BUSINESS UNIT KEY	
67	PERSONAL ID NUMBER	In China, this is the same as party.national_identifier.
68	PLACE OF BIRTH	Where the person was born.
69	PREVIOUS EMPLOYER TAX NUMBER	Tax number of previous employer.
70	PREVIOUS EMPLOYMENT END DATE	End date of previous job.
71	PREVIOUS EMPLOYMENT START DATE	Start date of previous job.
72	SOC JOB KEY	
73	SOCIAL SECURITY NUMBER	Null if a country does not have.
74	SOURCE OF INCOME	Source of income (can typify, may be several)
75	START OF EMPLOYMENT	Start of employment
76	TAX NUMBER	Tax number
77	ACTIVE IND	Activate Indicator
78	ADDRESS	Address
79	BARING REASON CODE	Unique identifier for Baring Reason
80	BUSINESS LEGAL STATUS CODE	A unique identifier for a legal classification of a non-residential Customer.
81	CITY	City of the party. Redundant to party location history.
82	COUNTRY	Country of the party. Redundant to party location history.
83	CUSTOMER IND	Indicator for Customer

Table 3-124   (Cont.) Employee Detail

Sr. Number	Attribute	Description
84	EFFECTIVE FROM DATE	EFFECTIVE FROM DATE, standard SCD2 column.
85	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column.
86	EMPLOYEE NAME	Name of the employee
87	PARTY DESC	Description for the Party
88	PARTY KEY	Key value for Party
89	PARTY NAME	Name of the Party
90	PARTY TYPE CODE	Unique identifier for Party Type
91	POST CODE	Unique identifier for Post
92	SOURCE SYSTEM KEY	Key value for Source System
93	STATE	State Name
94	STATUS CODE	Current Status

3.1.56 Environment Type

Description: ENVIRONMENT TYPE (page 2-74)

Environment Type Hierarchies

Standard ENVIRONMENT TYPE Hierarchy:
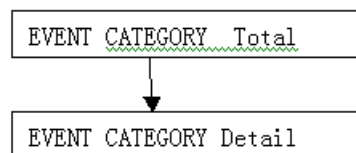
Environment Type Levels

The following table shows ENVIRONMENT TYPE Total: All ENVIRONMENT TYPE is the most aggregate level of the dimension.

Table for ENVIRONMENT TYPE Total

Table 3-125   ENVIRONMENT TYPE Total

Sr. Number	Attribute
1	ENVIRONMENT TYPE CODE
2	LANGUAGE CODE
3	ENVIRONMENT TYPE NAME

Table 3-125 (Cont.) ENVIRONMENT TYPE Total

Sr. Number	Attribute
4	ENVIRONMENT TYPE DESCRIPTION

3.1.57 Event Category

Description: EVENT CATEGORY

Event Category Hierarchies

Standard EVENT CATEGORY Hierarchy:
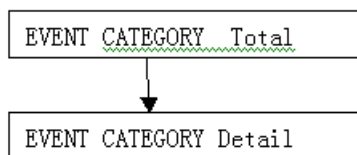
Event Category Levels

The following table shows EVENT CATEGORY Total: All EVENT CATEGORY is the most aggregate level of the dimension.

Table for EVENT CATEGORY Total

Table 3-126 EVENT CATEGORY Total

Sr. Number	Attribute	Description
1.	EVENT CATEGORY TOTAL	Code for All EVENT CATEGORY.

Detail table shows EVENT CATEGORY Detail: All EVENT CATEGORY types is the most aggregate level of the dimension.

Detail table EVENT CATEGORY Detail

Table 3-127 EVENT CATEGORY Detail

Sr. Number	Attribute	Description
1	EVENT CATEGORY DESC	A textual description for event class.
2	EVENT CATEGORY CODE	An unique identifier for event class. Examples: A-advertising
3	EVENT CATEGORY NAME	The name assigned to event class. Examples: Advertising, Promotion

3.1.58 Event Result

Description: EVENT RESULT (page 2-79)

Event Result Hierarchies

Standard Event Result Hierarchy:
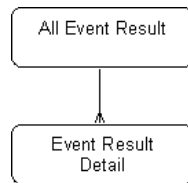
Event Result Levels

Table 3-128 (page 3-105) shows Event Result Total: Most aggregate level for the Event Result dimension to see the aggregated value of all the Event Result.

Table 3-128   Event Result Total

Sr. Number	Attribute	Description
1.	ALL EVENT RESULT ID	Code for Event Result

Table 3-129 (page 3-105) shows Event Result Detail: Keep the result of an event. For example,

- S: Successful

- F: failed

Table 3-129   Event Result Detail

Sr. Number	Attribute	Description	Sample Value
2	EVENT RESULT CODE	The unique identifier of an event result.	FAIL
3	EVENT RESULT DESC	The description of an event result.	Failed
4	EVENT RESULT NAME	The name of an event result.	Failed
5	LANGUAGE CODE	Unique identifier for Language	No value

3.1.59 Event Type

Description: EVENT TYPE (page 2-80)

Event Type Hierarchies

Standard Event Type Hierarchies:
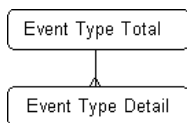
Event Type Levels

Table 3-130 (page 3-106) shows Event Type Total: Most aggregate level for the Event Type to see the aggregated sales of all the Event Type of all types.

Table 3-130   Event Type Total

Sr. Number	Attribute	Description
1.	ALL EVENT TYPE TOTAL ID	Code for All Event Type

Table 3-131 (page 3-106) shows Event Type Detail: This entity keeps all types of events under each category.

Table 3-131   Event Type Detail

Sr. Number	Attribute	Description	Sample Value
1	EVENT CATEGORY CODE	An unique identifier for event class. Examples: A-advertising.	ACCSMTHD
2	EVENT TYPE CODE	A Code used to uniquely identify the type of Event. Examples: M - Marketing, F - Finance.	ACTV
3	EVENT TYPE DESC	A textual description for an Event Type.	Activate
4	EVENT TYPE NAME	The name of type. Examples: Marketing, Finance.	Activate
5	LANGUAGE CODE	Unique identifier for Language	No value

3.1.60 External Operator

Description: EXTERNAL OPERATOR (page 2-81)

External Operator Hierarchies

Standard EXTERNAL OPERATOR Hierarchy:
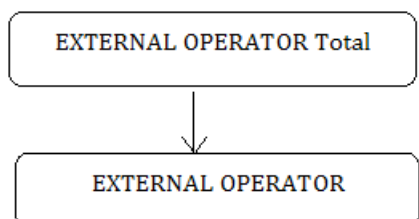
External Operator Levels

The following table shows EXTERNAL OPERATOR Total: All EXTERNAL OPERATOR is most aggregate level of the dimension.

Table for EXTERNAL OPERATOR Total

Table 3-132   EXTERNAL OPERATOR Total

Sr. Number	Attribute	Description
1	EXTERNAL OPERATOR Total	Code for All EXTERNAL OPERATOR Total.

Detail table shows EXTERNAL OPERATOR Detail: It captures information relating to External Operator.

Detail table EXTERNAL OPERATOR Detail

Table 3-133   EXTERNAL OPERATOR Detail

Sr. Number	Attribute	Description
1	STOCK EXCHANGE NAME	Abbreviation of listed companies as used on the stock exchange.
2	PAYMENT ACCOUNT NUMBER	Account number for payments.
3	CAMPAIGN PARTNER CODE	CAMPAIGN PARTNER CODE is the code to track campaign partner.
4	JUDICIAL DISTRAINT CODE	Case identifier of the judicial distraint.
5	PAYMENT ACCOUNT CLOSE DATE	Closing date of the account for payments.
6	COURT CODE	Code of the law of court.
7	CHAIRMAN CODE	Connect to Another Person Party who is responsible for this Organization.
8	CONTACT NAME	Contact Employee for organization.
9	JUDICIAL DISTRAINT DATE	Date of the judicial distraint.
10	VALIDATION START DATE	Date of the registration of the company' record deletion from the company register.
11	DUNS NUMBER	DUNS NUMBER is an identifier for organization
12	VALIDATION END DATE	Effective date of the deletion of the company's record from the company register.
13	FINAL SETTLEMENT END DATE	End date of final settlement.

Table 3-133   (Cont.) EXTERNAL OPERATOR Detail

Sr. Number	Attribute	Description
14	DOMESTIC INDICATOR	For PARTYs that are organizations, this indicates whether the organization is foreign or domestically owned.
15	OPERATOR DESC	Further information with operating country and other details.
16	CONTACT CODE	ID of the contact person for the organization.
17	MANAGER CODE	ID of the manager for the organization.
18	IMSI Code	IMSI code of the operator
19	TAX EXEMPT STATUS	Indicates if the org. is tax exempt.
20	IP ADDRESS	IP address
21	MANAGER NAME	Name of manager for the whole company.
22	PAYMENT ACCOUNT OPEN DATE	Opening date of the account for payments.
23	ANNUAL REVENUE REPORTING	Revenue of the company
24	ANNUAL REVENUE	Revenue of the company
25	ANNUAL REVENUE LOCAL	Revenue of the company
26	BANKRUPTCY START DATE	start date of bankruptcy.
27	FINAL SETTLEMENT START DATE	Start date of final settlement.
28	LIQUIDATION START DATE	Start date of liquidation.
29	TERMINATION DATE	Termination date of the company in case of company was founded with termination date.
30	CAMPAIGN PARTNER INDICATOR	The campaign partner can be an external organization or even another telco operator. The service provider can partner with another service provider if their business are complementary, like 1 wireless operator and 1 local fixed line company. Most of content provider can also partner with the telco for promotion.
31	COUNTRY	The country where the operator serves

Table 3-133   (Cont.) EXTERNAL OPERATOR Detail

Sr. Number	Attribute	Description
32	LIQUIDATION END DATE	The date when the company/org was liquidated. If is null and start_date is not null, the company is undergoing the liquidation.
33	BANKRUPTCY END DATE	The end date of bankruptcy. If current date is behind start and end date is null, then the company is undergoing the bankruptcy process.
34	EQUITY AMOUNT	The equity value of the company/org.
35	EQUITY AMOUNT LOCAL	The equity value of the company/org.
36	EQUITY AMOUNT REPORTING	The equity value of the company/org.
37	OPERATOR NAME	The full name of the operator, like China Mobile for CMCC, ...
38	SEAL IMAGE	The image of the Organization's Seal, or the Artificial Person's Signature.
39	EMPLOYEE COUNT	Total number of employee in the company or organization.
40	COUNTRY CODE	Unique identifier for country,eg. USA, UK, CN, JP
41	EXTERNAL OPERATOR CODE	Unique identifier for operator. For example: Airtel, CMCC, NTT
42	COMPANY REGISTRY NUMBER	Will be same as Party. National_Identifier. Natural Key for Organization.
43	COUNTRY DESC	No value
44	COUNTRY NAME	No value
45	EXTERNAL ORGANIZATION TYPE CODE2	No value
46	PARTY ORGANIZATION TYPE CODE	No value
47	OTHER INDIVIDUAL CODE1	No value
48	OPERATOR GROUP CODE1	No value
49	OPERATOR TYPE CODE2	No value
50	PLMN CODE	No value
51	TAP 1 ID	No value

Table 3-133   (Cont.) EXTERNAL OPERATOR Detail

Sr. Number	Attribute	Description
52	TAP 2 ID	No value
53	ANNUAL SALES REPORTING	No value
54	ANNUAL SALES LOCAL	No value
55	ANNUAL SALES	No value

3.1.61 Fraud Profile Class

Description: FRAUD PROFILE CLASS (page 2-83)

Fraud Profile Class Hierarchies

Standard Fraud Profile Class Hierarchy:
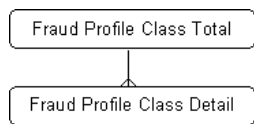
Fraud Profile Class Levels

Table 3-134 (page 3-110) shows Fraud Profile Class Total: Most aggregate level for the Fraud Profile Class dimension to see the aggregated value of all the Fraud Profile Class.

Table 3-134   Fraud Profile Class Total

Sr. Number	Attribute	Description
1.	ALL FRAUD PROFILE CLASS ID	Code for All Fraud Profile Class

Table 3-135 (page 3-110) shows Fraud Profile Class Detail: The fraud profile class is generalized after certain analysis process over the past network event. New network event therefore can be tagged through the same model to detect if there are suspicious activities.

Table 3-135   Fraud Profile Class Detail

Sr. Number	Attribute	Description
1.	FRAUD PROFILE CLASS CODE	Code of The Fraud Profile Class
2.	FRAUD PROFILE CLASS NAME	Name of The Fraud Profile Class
3.	FRAUD PROFILE CLASS DESCRIPTION	Description of The Fraud Profile Class
4.	LANGUAGE CODE	No value

3.1.62 Geography

Description: GEOGRAPHY ENTITY (page 2-84)

Geography Hierarchies

Standard Geography Hierarchy:
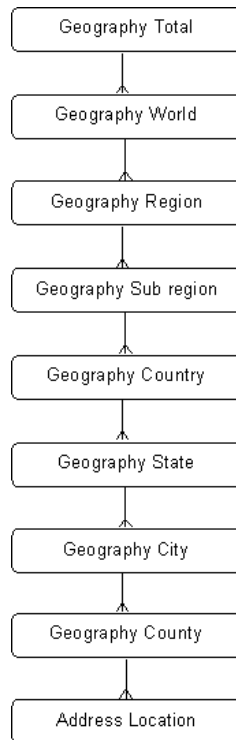
Geography Levels

Table 3-136 (page 3-111) shows Geography World: World level in GEOGRAPHY hierarchy.

Table 3-136   Geography World

Sr. Number	Attribute	Description	Sample Value
1	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column	No value
2	GEOGRAPHY WORLD CODE	Identifier of world.	No value
3	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date	12/31/2005 12:00:00 AM
4	GEOGRAPHY WORLD NAME	Name of the geography world.	No value

Table 3-137 (page 3-112) shows Geography Region: Region level in GEOGRAPHY hierarchy.

Table 3-137 **Geography Region**

Sr. Number	Attribute	Description	Sample Value
1	GEOGRAPHY REGION CODE	unique identifier of geography region	No value
2	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column	12/31/2005 12:00:00 AM
3	GEOGRAPHY WORLD CODE	Identifier of world.	No value
4	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date	12/31/2005 12:00:00 AM
5	GEOGRAPHY REGION NAME	Name of the geography region	No value

Table 3-138 (page 3-112) shows Geography Sub Region: Sub Region level in GEOGRAPHY hierarchy.

Table 3-138 **Geography Sub Region**

Sr. Number	Attribute	Description	Sample Value
1	GEOGRAPHY REGION CODE	unique identifier of geography region	No value
2	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column	12/31/2005 12:00:00 AM
3	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date	12/31/2005 12:00:00 AM
4	GEOGRAPHY SUB REGION NAME	name of the sub region	No value
5	GEOGRAPHY SUB REGION CODE	Unique identifier of geography sub region	No value

Table 3-139 (page 3-112) shows Geography Country: Country level in GEOGRAPHY hierarchy.

Table 3-139 **Geography Country**

Sr. Number	Attribute	Description	Sample Value
1	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column	12/31/2005 12:00:00 AM
2	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date	12/31/2005 12:00:00 AM
3	GEOGRAPHY COUNTRY CODE	Unique identifier of the country.	No value

Table 3-139   (Cont.) Geography Country

Sr. Number	Attribute	Description	Sample Value
4	GEOGRAPHY SUB REGION CODE	Unique identifier of geography sub region	No value
5	GEOGRAPHY COUNTRY NAME	Name of the country	No value

Table 3-140 (page 3-113) shows Geography State: State level in GEOGRAPHY hierarchy.

Table 3-140   Geography State

Sr. Number	Attribute	Description	Sample Value
1	GEOGRAPHY STATE NAME	Name of state	No value
2	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column	12/31/2005 12:00:00 AM
3	GEOGRAPHY STATE CODE	Unique identifier of geography state	No value
4	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date	12/31/2005 12:00:00 AM
5	GEOGRAPHY COUNTRY CODE	Unique identifier of the country.	No value

Table 3-141 (page 3-113) shows Geography City: CITY level in GEOGRAPHY hierarchy.

Table 3-141   Geography City

Sr. Number	Attribute	Description	Sample Value
1	GEOGRAPHY CITY NAME	Name of the city	No value
2	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column	12/31/2005 12:00:00 AM
3	GEOGRAPHY STATE CODE	Unique identifier of state	No value
4	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date	12/31/2005 12:00:00 AM
5	GEOGRAPHY CITY CODE	Unique identifier of city	No value
6	GEOGRAPHY CITY DESC	CITY DESC.	No value

Table 3-142 (page 3-114) shows Geography County: County level in GEOGRAPHY hierarchy.

Table 3-142 Geography County

Sr. Number	Attribute	Description	Sample Value
1	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column	No value
2	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date	12/31/2005 12:00:00 AM
3	GEOGRAPHY COUNTY CODE	Unique identifier of county	No value
4	GEOGRAPHY COUNTY NAME	Name of the county	No value
5	GEOGRAPHY CITY CODE	Unique identifier of city	No value

Table 3-143 (page 3-114) shows Address Location: Keep all address. It has levels as country, state, city, address and so on.

Table 3-143 Address Location

Sr. Number	Attribute	Description
1	ADDRESS STYLE	Any specific style of the address. It might include the detail like All Capital words, case, font and so on.
2	BUILDING CODE	Unique identifier of building
3	ELEVATION	Elevation of the Geographic Location
4	ELEVATION UOM CODE	Unique identifier of ELEVATION UOM
5	FLOOR CODE	Unique identifier of floor
6	FLOOR NAME	Name of the floor
7	GEOGRAPHY LOCATION CODE	Applicable unique geography ID.
8	GEOGRAPHY REGION CODE	Unique identifier of GEOGRAPHY REGION
9	LATITUDE	LATITUDE description
10	PRIMARY EMAIL ADDRESS	Email address
11	REGION NAME	Name of the Reason
12	SUBREGION DESC	description of sub region
13	TAX AUTHORITY CODE	Unique identified for the tax authority

Table 3-143   (Cont.) Address Location

Sr. Number	Attribute	Description
14	WORLD DESC	Description of world
15	WORLD NAME	Name of the world
16	ADDRESS LATITUDE MEASURE	This is the Latitude value of the specified location
17	POSTAL PLUS CODE	Four digit extension to the United States Postal ZIP code.
18	STREET CODE	Uniquelidentifier of state
19	CITY DESC	Description of the city
20	FLAT ROOM CODE	Unique identifier of the flat room
21	GEOGRAPHY STATE CODE	State of the geography
22	POST OFFICE BOX	PO box if available.
23	STATE DESC	Description of the state
24	STATE NAME	Name of the state
25	ADDRESS LONGITUDE MEASURE	This is the longitude location of the specified address.
26	BUILDING DESC	Description for Building
27	COUNTY DESC	Description for County
28	GEOGRAPHY COUNTRY CODE	Code for Geography Country
29	POSTCODE CODE	Code for Post Code
30	ADDRESS DESCRIPTION	Address description. Textual description of the address.
31	ADDRESS TYPE CODE	Unique identifier for the address type.
32	BUILDING NAME	Name for Building
33	COUNTY NAME	Name for County
34	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column.
35	FLAT ROOM DESC	Description for Flat Room
36	GEOGRAPHY COUNTY CODE	Code for Geography County
37	GEOGRAPHY ENTITY CODE	unique geography identifier. A unique identifier for the geography entities, could be a system generated unique key for geography entity

Table 3-143   (Cont.) Address Location

Sr. Number	Attribute	Description
38	REGION DESC	Description for Region
39	WORLD CODE	Description for World
40	ADDRESS LINE 2	Address. Line 2 of the detailed postal address
41	ADDRESS LINE 3	Address. Line 3 of the detailed postal address
42	LONGITUDE	The angular distance between a point on any meridian and the prime meridian at Greenwich
43	PRIMARY ADDRESS TELEPHONE	Telephonic address
44	STATUS CODE	An indicator of the address current status. For instance, this address may be valid, invalid, temporary, and so on.
45	ADDRESS LINE 1	Address. Line one of detail postal address
46	ADDRESS LINES PHONETIC	Phonetic or Kana representation of the Kanji address lines (used in Japan).
47	COUNTRY NAME	Name for Country
48	EFFECTIVE FROM DATE	EFFECTIVE FROM DATE, standard SCD2 column.
49	EMPLOYEE CODE	Code for Employee
50	FLOOR DESC	Description for Floor
51	SUBREGION NAME	Name for Subregion
52	ADDRESS LOCATION CODE	unique identifier for the address.
53	CITY NAME	Name for City
54	COUNTRY DESC	Description for Country
55	FLAT ROOM NAME	Name for Flat Room
56	GEOGRAPHY CITY CODE	Code for Geography City
57	GEOGRAPHY SUBREGION CODE	Code for Geography Subregion
58	STREET DESC	Description for Street
59	STREET NAME	Name for Street
60	TIME ZONE CODE	Unique Identifier for time zone.

3.1.63 Give Away Type

Description: GIVE AWAY TYPE (page 2-84)

Give Away Type Hierarchies

Standard Give Away Hierarchy:
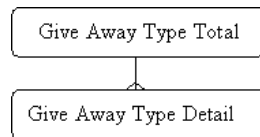
Give Away Type Levels

Table 3-144 (page 3-117) shows All Give Away Type: All Give Away are most aggregate level of the dimension.

Table 3-144   All Give Away Type

Sr. Number	Attribute	Description
1.	ALL GIVE AWAY TYPE CODE	Code for All Give Away Type.

Table 3-145 (page 3-117) shows Give Away Type Detail: Detail level of the dimension. Stores the Give Away Type Detail Information.

Table 3-145   Give Away Type Detail

Sr. Number	Attribute	Description
1.	GIVE AWAY TYPE CODE	Code for Give Away type
2.	GIVE AWAY TYPE DESC	Description of the Give Away Type
3.	GIVE AWAY TYPE NAME	Name of the Give Away type
4.	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension.

3.1.64 GPRS Services

Description: GPRS SERVICE (page 2-87)

GRPS Service Hierarchies

Standard GRPS Service Hierarchy:
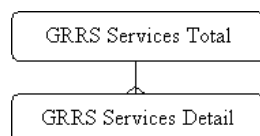
GPRS Service Levels

Table 3-146 (page 3-118) shows GRRS Services Total: All GPRS Service are most aggregate level of the dimension.

Table 3-146   GRRS Services Total

Sr. Number	Attribute	Description
1.	ALL GPRS SERVICE CODE	Code for All GPRS Service.

Table 3-147 (page 3-118) shows GRRS Services: Detail level of the dimension. Stores the GPRS Service Detail Information.

Table 3-147   GRRS Services Detail

Sr. Number	Attribute	Description
1.	EFFECTIVE FROM DATE	Active from. Standard SCD field,
2.	EFFECTIVE TO DATE	Date the party left the program. Will be null if the party is currently a member of the program.
3.	EQUIPMENT FUNCTIONALITY CODE	The code of function
4.	GPRS SERVICE CODE	GPRS service code
5.	GPRS SERVICE DESC	GPRS service description
6.	GPRS SERVICE NAME	GPRS service name
7.	IN PLATFORM CODE	IN PLATFORM CODE.
8.	NETWORK CODE	Identifier of the network.
9.	PRODUCT CODE	The unique identifier of product.
10.	PRODUCT DESC	Full Description.
11.	PRODUCT GROUP CODE	The unique identifier of product group
12.	PRODUCT NAME	Product name.
13.	PRODUCT PACKAGE CHARGE TYPE CODE	The unique identifier of product package charge type.
14.	PRODUCT PACKAGE TYPE CODE	Code for product package type
15.	PRODUCT TYPE CODE	Retrofitted from column PRODUCT_KEY of table FACT_MARKET_SHARE
16.	STATUS CODE	An indicator of the address current status. For instance, this address may be valid, invalid, temporary, and so on.

Table 3-147   (Cont.) GRRS Services Detail

Sr. Number	Attribute	Description
17.	PRODUCT RATING PLAN TYPE CODE	No value

3.1.65 Handset Model

Description: HANDSET MODEL (page 2-87)

Handset Model Hierarchies

Standard Handset Model Hierarchy:
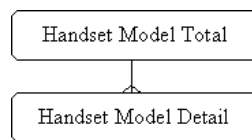
Handset Model Levels

Table 3-148 (page 3-119) shows Handset Model Total: All Handset Model are most aggregate level of the dimension.

Table 3-148   Handset Model Total

Sr. Number	Attribute	Description
1.	HANDSET MODEL TOTAL CODE	Code for All Handset Model.

Table 3-149 (page 3-119) shows Handset Model Detail: Detail level of the dimension. Stores the Handset Model Detail Information.

Table 3-149   Handset Model Detail

Sr. Number	Attribute	Description
1.	AVAILABLE FOR SALE DATE	The date when this ITEM becomes available for sale. For example, certain books have specific publication dates, music entertainment release dates.
2.	BRAND CODE	Unique Identifier for a item brand
3.	BRAND NAME	One Item can have one brand name. One brand name can extend to multiple items. A unique name to denote a class of Items as a product of a single supplier or manufacturer. The brand can include private label Items.
4.	COMMISSION IND	A flag to indicate whether this ITEM has a commission related to it or not

Table 3-149   (Cont.) Handset Model Detail

Sr. Number	Attribute	Description
5.	CUSTOMER USAGE INDICATOR	Indicates whether equipment should be used by customer, otherwise for service provider.
6.	DISCOUNT IND	A flag to indicate whether this ITEM can be discounted.
7.	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date
8.	EFFECTIVE TO DATE	Date the party left the program. Will be null if the party is currently a member of the program.
9.	EQUIPMENT CODE	EQUIPMENT CODE.
10.	EQUIPMENT DESC	EQUIPMENT DESC.
11.	EQUIPMENT FUNCTIONALITY CODE	The code of function
12.	EQUIPMENT NAME	EQUIPMENT NAME.
13.	HANDSET BRAND CODE	Code for Handset Brand.
14.	HANDSET BRAND DESC	Description of the Handset Brand.
15.	HANDSET BRAND NAME	Name of the Handset Brand.
16.	HANDSET MODEL CODE	The date when this ITEM becomes available for sale. For example, certain books have specific publication dates, music entertainment release dates.
17.	HANDSET MODEL DESC	Description of Handset Model.
18.	HANDSET MODEL NAME	Name of the Handset Model.
19.	IN PLATFORM CODE	IN PLATFORM CODE.
20.	INVENTORY IND	Indicates whether an item is an inventory item or a non-inventory item (such as gift certificates, labor)
21.	ITEM CLUSTER CODE	Surrogate key used to identify an Item cluster. This column is used for Behavior Profiling.
22.	ITEM CODE	Unique identifier for item type.
23.	ITEM TYPE CODE	Unique identifier for item type.
24.	MERCHANDISE IND	Indicates whether the item's sales are financially tracked in the stock ledger.

Table 3-149   (Cont.) Handset Model Detail

Sr. Number	Attribute	Description
25.	NETWORK CODE	Identifier of the network.
26.	PERISHABLE IND	Indicates whether the item is perishable.
27.	PRICE AUDIT IND	An indicator to denote whether the ITEM was validated (scanned) during verification of the ITEM table.
28.	PRIMARY ALTERNATE ITEM NAME	Default Alternate Item Name
29.	PRIMARY ALTERNATE ITEM NUMBER	Default Alternate Item Number
30	PRODUCT CODE	Description of Handset Model.
31.	PRODUCT GROUP CODE	Code for Product Group.
32.	PRODUCT NAME	Product name.
33.	PRODUCT PACKAGE CHARGE TYPE CODE	Code. For example: CMBND
34.	PRODUCT PACKAGE TYPE CODE	Identifier for the offer. For example: Individual.
35.	PRODUCT RATING PLAN TYPE CODE	Identifier for the offer.
36.	PRODUCT TYPE CODE	Code. For example CALL
37.	RECIPE IND	The recipe identifier that is associated to the selling item.
38.	SECURITY REQUIRED TYPE CODE	A code that defines the security environment and procedures required for receiving, displaying and selling the item. This is for high-priced merchandise like jewelry, certain prescription drugs, ordinance, fireworks, and so on.
39.	SELLABLE IND	Indicates whether the item can be sold. If 'N', then the only analysis available is on customer order lines of type partial within Customer Order Management
40.	SHRINK IND	An indicator to denote if the ITEM could loose weight from the time of order until the time of receipt

Table 3-149   (Cont.) Handset Model Detail

Sr. Number	Attribute	Description
41.	STATUS CODE	An indicator of the address current status. For instance, this address may be valid, invalid, temporary, and so on.
42.	STOP SALE IND	Indicates that sale of the item should be stopped immediately at the location.
43.	STORE REORDERABLE IND	Indicates whether the store may re-order the item.
44.	SUBSTITUTE IDENTIFIED IND	An ITEM for which there is a substitute available for sale within the RETAIL STORE
45.	SWELL IND	An indicator to indicate if the ITEM may gain weight or swell from time of order to time of receipt.
46.	TAX EXEMPT CODE	A code to denote the tax exemption status from sales and use tax. The codes refer to the UCC code
47.	UNIT PRICE FACTOR	The number of units of measure per selling unit. Used as the divisor when calculating the ITEMs unit retail price. For example: $1.67 per pound or $2.59 for 32 fl. oz.
48.	UOM CODE	The code used to specify the units in which a value is being expressed, or manner in which a measurement has been taken. This code relates to the UCC data element 355.
49.	VENDOR CODE	The vendor who provide this product. Here product should be an product item. For example: handset, STB
50.	VENDOR SITE CODE	Unique identifier or the Vendor Site
51	PRODUCT DESC	No value
52	MODEL TYPE CODE	No value

3.1.66 IN Platform

Description: IN PLATFORM (page 2-88)

IN Platform Hierarchies

Standard IN Platform Hierarchy:
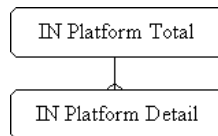
IN Platform Level

Table 3-150 (page 3-123) shows IN Platform Total: All IN Platform are most aggregate level of the dimension.

Table 3-150   IN Platform Total

Sr. Number	Attribute	Description
1.	ALL IN PLATFORM CODE	Code for All IN Platform.

Table 3-151 (page 3-123) shows IN Platform Detail: Detail level of the dimension. Stores the IN Platform Detail Information.

Table 3-151   IN Platform Detail

Sr. Number	Attribute	Description	Sample Value
1.	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date	12/31/2005 12:00:00 AM
2.	EFFECTIVE TO DATE	Date the party left the program. Will be null if the party is currently a member of the program.	12/31/2005 12:00:00 AM
3.	IN PLATFORM CODE	Id for IN Platform.	5101
4.	IN PLATFORM DESC	IN Platform description.	No value
5.	IN PLATFORM NAME	IN Platform name.	No value
6.	NETWORK CODE	The network which is used by this platform	1
8.	STATUS CODE	An indicator of the address current status. For instance, this address may be valid, invalid, temporary, and so on.	No value

3.1.67 Initiative Type

Description: INITIATIVE TYPE (page 2-89)

Initiative Type Hierarchies

Standard Initiative Type Hierarchy:
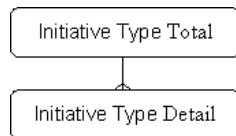
Initiative Type Levels

Table 3-152 (page 3-124) shows Initiative Type Total: All Initiative Type are most aggregate level of the dimension.

Table 3-152   Initiative Type Total

Sr. Number	Attribute	Description
1.	ALL INITIATIVE TYPE CODE	Code for All Initiative Type.

Table 3-153 (page 3-124) shows Initiative Type Detail: Detail level of the dimension. Stores the Initiative Type Detail Information.

Table 3-153   Initiative Type Detail

Sr. Number	Attribute	Description
1.	INITIATIVE TYPE CODE	The initiative type identifier.
2.	INITIATIVE TYPE NAME	The initiative type name.
3.	INITIATIVE TYPE DESC	The initiative type description
4.	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension.

3.1.68 Interaction Channel

Description: INTERACTION CHANNEL (page 2-89)

Interaction Channel Hierarchies

Standard Interaction Channel Hierarchy:
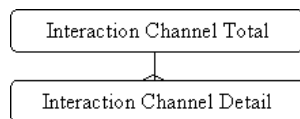
Interaction Channel Levels

Table 3-154 (page 3-124) shows Interaction Channel Total: All Initiative Type are most aggregate level of the dimension.

Table 3-154   Interaction Channel Total

Sr. Number	Attribute	Description
1.	ALL INTERACTION CHANNEL CODE	Code for All Interaction Channel.

Table 3-155 (page 3-125) shows Interaction Channel Detail: Detail level of the dimension. It Stores the Interaction Channel Detail Information.

Table 3-155   Interaction Channel Detail

Sr. Number	Attribute	Description
1.	CAPACITY QUANTITY	The number of transaction that a Channel can handle, at a point of time.
2.	CHANNEL CODE	A unique identifier for channel
3.	CHANNEL DESC	Description for Channel
4.	CHANNEL NAME	The name assigned to a channel. SHOP
5.	CHANNEL TYPE CODE	A code used to uniquely identify a major grouping of Channels. Examples: M - MailT - Telephone TV - Television. SLCHNL
6.	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date 12/31/2005 12:00:00 AM
7.	EFFECTIVE TO DATE	Date the party left the program. Will be null if the party is currently a member of the program. 12/31/2005 12:00:00 AM
8.	INTERACTION CHANNEL CODE	A code for Interaction channel
9.	PARTY CODE	A code for any person or business that is of interest to the Communications Service Provider.
10.	PARTY TYPE CODE	PARTY TYPE CODE. For example ORG
11.	STATUS CODE	An indicator of the address current status. For instance, this address may be valid, invalid, temporary, and so on. An indicator of the address current status. For instance, this address may be valid, invalid, temporary, and so on.

3.1.69 Interaction Direction

Description: INTERACTION DIRECTION (page 2-89)

Interaction Direction Hierarchies

Standard INTERACTION DIRECTION Hierarchy:
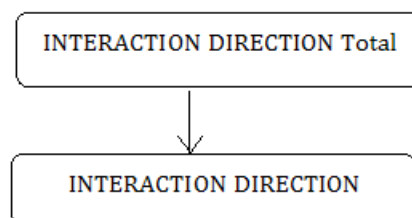
Interaction Direction Levels

The following table shows INTERACTION DIRECTION Total: All INTERACTION DIRECTION is most aggregate level of the dimension.

Table for INTERACTION DIRECTION Total

Table 3-156   INTERACTION DIRECTION Total

Sr. Number	Attribute	Description
1	INTERACTION DIRECTION Total	Code for All INTERACTION DIRECTION Total.

Detail table shows INTERACTION DIRECTION Detail: It captures information relating to interaction Direction.

Detail table INTERACTION DIRECTION Detail

Table 3-157   INTERACTION DIRECTION Detail

Sr. Number	Attribute	Description
1	INTERACTION DIRECTION NAME	Direction name.
2	INTERACTION DIRECTION CODE	Identifier of the interaction direction.
3	LANGUAGE CODE	No value
4	INTERACTION DIRECTION DESC	No value

3.1.70 Interaction Type

Description: INTERACTION TYPE (page 2-91)

Interaction Type Hierarchies

Standard INTERACTION TYPE Hierarchy:
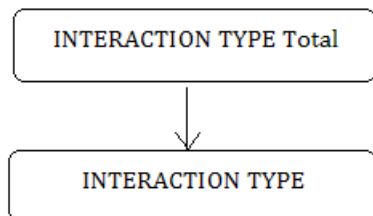
Interaction Type Levels

The following table shows INTERACTION TYPE Total: All INTERACTION TYPE is most aggregate level of the dimension.

Table for INTERACTION TYPE Total

Table 3-158   INTERACTION TYPE Total

Sr. Number	Attribute	Description
1	INTERACTION TYPE Total	Code for All INTERACTION TYPE Total.

Detail table shows INTERACTION TYPE Detail: It captures information relating to interaction Type.

Detail table INTERACTION TYPE Detail

Table 3-159   INTERACTION TYPE Detail

Sr. Number	Attribute
1	INTERACTION TYPE CODE
2	INTERACTION TYPE DESC
3	INTERACTION TYPE NAME
4	LANGUAGE CODE

3.1.71 Invoice Adjustment Reason

Description: INVOICE ADJUSTMENT REASON (page 2-93)

Invoice Adjustment Reason Hierarchies

Standard Invoice Adjustment Reason Hierarchy:
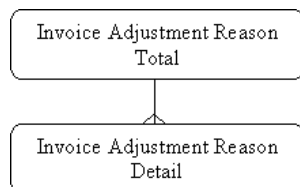
Invoice Adjustment Reason Levels

Table 3-160 (page 3-127) shows Invoice Adjustment Reason Total: All Invoice Adjustment Reason are most aggregate level of the dimension.

Table 3-160   Invoice Adjustment Reason Total

Sr. Number	Attribute	Description
1.	ALL INVOICE ADJUSTMENT REASON CODE	Code for All Invoice Adjustment Reason.

Table 3-161 (page 3-128) shows Invoice Adjustment Reason Detail: Detail level of the dimension. It Stores the Invoice Adjustment Reason Detail Information.

Table 3-161   Invoice Adjustment Reason Detail

Sr. Number	Attribute	Description	Sample Value
2.	INVOICE ADJUSTMENT RSN CODE	A unique identifier for reason	CMPLN
3.	INVOICE ADJUSTMENT RSN DESC	Description for reason	Customer complain
4.	INVOICE ADJUSTMENT RSN NAME	The name for invoice adjustment.	Customer complain
5.	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension.	No value

3.1.72 Invoice Adjustment Type

Description: INVOICE ADJUSTMENT TYPE (page 2-93)

Invoice Adjustment Type Hierarchies

Standard Invoice Adjustment Type Hierarchy:
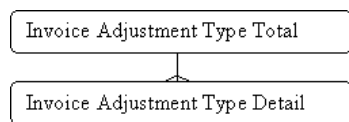
Invoice Adjustment Type Levels

Table 3-162 (page 3-128) shows Invoice Adjustment Type Total: All Invoice Adjustment Type are most aggregate level of the dimension.

Table 3-162   Invoice Adjustment Type Total

Sr. Number	Attribute	Description
1.	ALL INVOICE ADJUSTMENT TYPE CODE	Code for All Invoice Adjustment Type.

Table 3-163 (page 3-128) shows Invoice Adjustment Type Detail: Detail level of the dimension. It Stores the Invoice Adjustment Type Detail Information.

Table 3-163   Invoice Adjustment Type Detail

Sr. Number	Attribute	Description	Sample Value
1.	INVOICE ADJUSTMENT TYPE CODE	A code used to uniquely identify a adjustment type.	CMPGN
2.	INVOICE ADJUSTMENT TYPE DESC	A textual description of the adjustment Type.	Invoice Adjustment because of Specific Campaign in certain time period

Table 3-163   (Cont.) Invoice Adjustment Type Detail

Sr. Number	Attribute	Description	Sample Value
3.	INVOICE ADJUSTMENT TYPE NAME	The name assigned to a adjustment Type.	Campaign
4.	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension.	No value

3.1.73 Invoice Status

Description: INVOICE STATUS (page 2-95)

Invoice Status Hierarchies

Standard INVOICE STATUS Hierarchy:
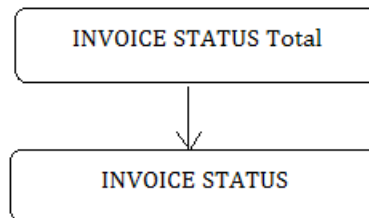
Invoice Status Levels

The following table shows INVOICE STATUS Total: All INVOICE STATUS is most aggregate level of the dimension.

Table for INVOICE STATUS Total

Table 3-164   INVOICE STATUS Total

Sr. Number	Attribute	Description
1	INVOICE STATUS Total	Code for All INVOICE STATUS Total.

Detail table shows INVOICE STATUS Detail: It captures information relating to Invoice Status.

Detail table INVOICE STATUS Detail

Table 3-165   INVOICE STATUS Detail

Sr. Number	Attribute
1	INVOICE STATUS CODE
2	INVOICE STATUS DESCRIPTION
3	INVOICE STATUS NAME
4	LANGUAGE CODE

3.1.74 ISP

Description: ISP (page 2-96)

ISP Hierarchies

Standard ISP Hierarchy:
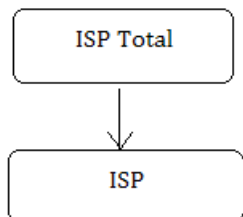
ISP Levels

The following table shows ISP Total: All ISP is most aggregate level of the dimension.

Table for ISP Total

Table 3-166   ISP Total

Sr. Number	Attribute	Description
1	ISP Total	Code for All ISP Total.

Detail table shows ISP Detail: It captures information relating to ISP.

Detail table ISP Detail

Table 3-167   ISP Detail

Sr. Number	Attribute	Description
1	STOCK EXCHANGE NAME	Abbreviation of listed companies as used on the stock exchange.
2	PAYMENT ACCOUNT NUMBER	Account number for payments.
3	JUDICIAL DISTRAINT CODE	Case identifier of the judicial distraint.
4	PAYMENT ACCOUNT CLOSE DATE	Closing date of the account for payments.
5	COURT CODE	Code of the law of court.
6	CHAIRMAN CODE	Connect to Another Person Party who is responsible for this Organization.
7	CONTACT NAME	Contact Employee for organization.

Table 3-167   (Cont.) ISP Detail

Sr. Number	Attribute	Description
8	JUDICIAL DISTRAINT DATE	Date of the judicial distraint.
9	VALIDATION START DATE	Date of the registration of the company' record deletion from the company register.
10	DUNS NUMBER	DUNS NUMBER is an identifier for organization
11	VALIDATION END DATE	Effective date of the deletion of the company's record from the company register.
12	FINAL SETTLEMENT END DATE	End date of final settlement.
13	DOMESTIC INDICATOR	For PARTYs that are organizations, this indicates whether the organization is foreign or domestically owned.
14	CONTACT CODE	ID of the contact person for the organization.
15	MANAGER CODE	ID of the manager for the organization.
16	TAX EXEMPT STATUS	Indicates if the org. is tax exempt.
17	MANAGER NAME	Name of manager for the whole company.
18	PAYMENT ACCOUNT OPEN DATE	Opening date of the account for payments.
19	ANNUAL REVENUE	Revenue of the company
20	ANNUAL REVENUE LOCAL	Revenue of the company in local currency.
21	ANNUAL REVENUE REPORTING	Revenue of the company in reporting currency.
22	BANKRUPTCY START DATE	start date of bankruptcy.
23	FINAL SETTLEMENT START DATE	Start date of final settlement.
24	LIQUIDATION START DATE	Start date of liquidation.

Table 3-167   (Cont.) ISP Detail

Sr. Number	Attribute	Description
25	TERMINATION DATE	Termination date of the company in case of company was founded with termination date.
26	LIQUIDATION END DATE	The date when the company/org was liquidated. If is null and start_date is not null, the company is undergoing the liquidation.
27	BANKRUPTCY END DATE	The end date of bankruptcy. If current date is behind start and end date is null, then the company is undergoing the bankruptcy process.
28	EQUITY AMOUNT	The equity value of the company/org.
29	EQUITY AMOUNT LOCAL	The equity value of the company/org.
30	EQUITY AMOUNT REPORTING	The equity value of the company/org.
31	SEAL IMAGE	The image of the Organization's Seal, or the Artificial Person's Signature.
32	ISP BUSINESS LICENSE CODE	The isp business license code issued by regulation authorities.
33	EMPLOYEE COUNT	Total number of employee in the company or organization.
34	COMPANY REGISTRY NUMBER	Will be same as Party.National_Identifier. Natural Key for Organization.
35	ANNUAL SALES LOCAL	No value
36	ANNUAL SALES REPORTING	No value
37	EXTERNAL ORGANIZATION TYPE CODE2	No value
38	ISP CODE	No value
39	ISP TYPE CODE2	No value
40	ANNUAL SALES	No value

Table 3-167 (Cont.) ISP Detail

Sr. Number	Attribute	Description
41	OTHER INDIVIDUAL CODE1	No value
42	PARTY ORGANIZATION TYPE CODE	No value

3.1.75 Item Subclass

Description: ITEM SUBCLASS (page 2-97)

Item Subclass Hierarchies

Standard ITEM SUBCLASS Hierarchy:
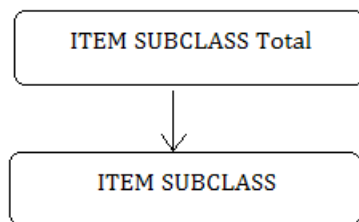
Item Subclass Levels

The following table shows ITEM SUBCLASS Total: All ITEM SUBCLASS is most aggregate level of the dimension.

Table for ITEM SUBCLASS Total

Table 3-168 ITEM SUBCLASS Total

Sr. Number	Attribute	Description
1	ITEM SUBCLASS Total	Code for All ITEM SUBCLASS Total.

Detail table shows ITEM SUBCLASS Detail: It captures information relating to Item Subclass.

Detail table ITEM SUBCLASS Detail

Table 3-169 ITEM SUBCLASS Detail

Sr. Number	Attribute
1	SUBCLASS BUYER NAME
2	SUBCLASS BUYER CODE
3	EFFECTIVE TO DATE
4	STATUS CODE

Table 3-169   (Cont.) ITEM SUBCLASS Detail

Sr. Number	Attribute
5	SUBCLASS NAME
6	ITEM CLASS CODE
7	SUBCLASS MERCHANDISER CODE
8	SUBCLASS CODE
9	PRODUCT ENTITY CODE
10	EFFECTIVE FROM DATE
11	SUBCLASS MERCHANDISER NAME

3.1.76 Legal Process Status Type

Description: LEGAL PROCESS STATUS TYPE (page 2-100)

Legal Process Status Type Hierarchies

Standard Legal Process Status Type Hierarchy:
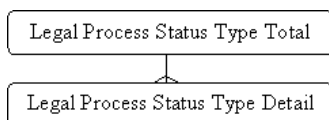
Legal Process Status type Levels

Table 3-170 (page 3-134) shows Legal Process Status Type Total: All Legal Process Status Type are most aggregate level of the dimension.

Table 3-170   Legal Process Status Type Total

Sr. Number	Attribute	Description
1.	ALL LEGAL PROCESS STATUS TYPE CODE	Code for All Legal Process Status Type.

Table 3-171 (page 3-134) shows Legal Process Status Type Detail: Detail level of the dimension. It Stores the Legal Process Status Type Detail Information.

Table 3-171   Legal Process Status Type Detail

Sr. Number	Attribute	Description
1.	LEGAL PROCESS STATUS TYPE CODE	Legal Process Started Indicator.
2.	LEGAL PROCESS STATUS TYPE DESC	Description for Legal Process Status Type.
3.	LEGAL PROCESS STATUS TYPE NAME	Name for Legal Process Status Type.

Table 3-171   (Cont.) Legal Process Status Type Detail

Sr. Number	Attribute	Description
4.	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension.

3.1.77 Lifecycle Type

Description: LIFECYCLE TYPE (page 2-100)

Lifecycle Type Hierarchies

Standard LIFECYCLE TYPE Hierarchy:
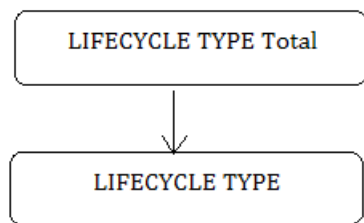
Lifecycle Type Levels

The following table shows LIFECYCLE TYPE Total: All LIFECYCLE TYPE is most aggregate level of the dimension.

Table for LIFECYCLE TYPE Total

Table 3-172   LIFECYCLE TYPE Total

Sr. Number	Attribute	Description
1	LIFECYCLE TYPE Total	Code for All LIFECYCLE TYPE Total.

Detail table shows LIFECYCLE TYPE Detail: It captures information relating to Lifecycle Type.

Detail table LIFECYCLE TYPE Detail

Table 3-173   LIFECYCLE TYPE Detail

Sr. Number	Attribute
1	LANGUAGE CODE
2	LIFECYCLE TYPE CODE
3	LIFECYCLE TYPE NAME
4	LIFECYCLE TYPE DESCRIPTION

3.1.78 Loyalty Program Channel

Description: LOYALTY PROGRAM CHANNEL

Loyalty Program Channel Hierarchies

Standard Loyalty Program Channel Hierarchy:
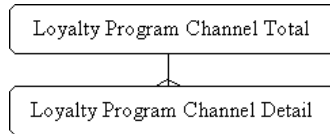
Loyalty Program Channel Levels

Table 3-174 (page 3-136) shows Loyalty Program Channel Total: All Loyalty Program Channel are most aggregate level of the dimension.

Table 3-174   Loyalty Program Channel Total

Sr. Number	Attribute	Description
1.	ALL LOYALTY PROGRAM CHANNEL CODE	Code for All Loyalty Program Channel.

Table 3-175 (page 3-136) shows Loyalty Program Channel Detail: Detail level of the dimension. It Stores the Loyalty Program Channel Detail Information.

Table 3-175   Loyalty Program Channel Detail

Sr. Number	Attribute	Description	Sample Value
1.	CAPACITY QUANTITY	The number of transaction that a Channel can handle, at a point of time.	No value
2.	CHANNEL CODE	The unique identifier for each Channel. A Channel identifies each possible link where interaction between the Communications Service Provider and the Customer occurs.	-1,1
3.	CHANNEL DESC	Description for that channel can be handle.	No value
4.	CHANNEL NAME	The name assigned to a channel.	No value
5.	CHANNEL TYPE CODE	Unique identifier of the channel type	LYLTCHNL
6.	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date	12/31/2005 12:00:00 AM

Table 3-175   (Cont.) Loyalty Program Channel Detail

Sr. Number	Attribute	Description	Sample Value
7.	EFFECTIVE TO DATE	Date the party left the program. Will be null if the party is currently a member of the program.	12/31/2005 12:00:00 AM
8.	LOYALTY PROGRAM CHANNEL CODE	Code for Loyalty Program Channel	-1,1
9.	PARTY CODE	A code for any person or business that is of interest to the Communications Service Provider.	No value
10.	PARTY TYPE CODE	PARTY TYPE CODE.	CUSTOMER
11.	STATUS CODE	An indicator of the address current status. For instance, this address may be valid, invalid, temporary, and so on. An indicator of the address current status. For instance, this address may be valid, invalid, temporary, and so on.	No value

3.1.79 Loyalty Tier

Description: LOYALTY TIER (page 2-103)

Loyalty Tier Hierarchies

Standard LOYALTY TIER Hierarchy:
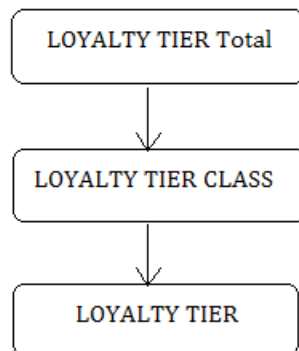
Loyalty Tier Levels

The following table shows LOYALTY TIER Total: All LOYALTY TIER is most aggregate level of the dimension.

Table for LOYALTY TIER Total:

Table 3-176   LOYALTY TIER Total

Sr. Number	Attribute	Description
1	LOYALTY TIER Total	Code for All LOYALTY TIER Total.

Detail table shows LOYALTY TIER CLASS Detail: It captures information relating to Loyalty Tier Class.

Detail table LOYALTY TIER CLASS Detail

Table 3-177   LOYALTY TIER CLASS Detail

Sr. Number	Attribute
1	CURRENT INDICATOR
2	PROGRAM CODE
3	LAST UPDATE BY
4	START QUALIFIG PERIOD CODE
5	EFFECT FROM DATE
6	LOYALTY TIER CLASS CODE
7	PROGRAM CODE 2
8	STATUS CODE
9	LOYALTY TIER CLASS NAME
10	LOAD DATE
11	LAST UPDATE DATE
12	EFFECT TO DATE

Detail table shows LOYALTY TIER Detail: It captures information relating to loyalty Tier.

Detail table LOYALTY TIER Detail

Table 3-178   LOYALTY TIER Detail

Sr. Number	Attribute
1	GRACE PERIOD
2	MINIMUM TIER LENGTH
3	LOWEST DEMOTN TIER
4	EXP POINTS INDICATOR
5	EFFECT TO DATE
6	EFFECT FROM DATE

Table 3-178   (Cont.) LOYALTY TIER Detail

Sr. Number	Attribute
7	DEMOTN TIER INDICATOR
8	CURRENT INDICATOR
9	STATUS CODE
10	TIRE QUALIFICATION START POINTS
11	TIRE CARD TYPE CODE1
12	TIRE CARD TYPE CODE
13	TIER LUNGE
14	PROGRAM CODE
15	POINTS EXPRY BASIC CODE
16	POINTS EXPIRY BASIS CODE 1
17	PRIMARY TIER INDICATOR
18	LOAD DATE
19	LAST UPDATE DATE
20	LOYALTY TIER CLASS CODE
21	LOYALTY TIER CLASS CODE 1
22	LOYALTY TIER CODE
23	LOYALTY TIER NAME
24	LAST UPDATE BY

3.1.80 Market Area

Description: MARKET AREA (page 2-106)

Market Area Hierarchies

Standard Market Area Hierarchy:

Market Area Levels

Table 3-179 (page 3-140) shows Market Area Total: All Market Area are most aggregate level of dimension.

Table 3-179   Market Area Total

Sr. Number	Attribute	Description
1.	ALL MARKET AREA CODE	Code for All Market Area's

Table 3-180 (page 3-140) shows Market Area Detail: Detail level of the dimension. It Stores the Market Area Information.

Table 3-180   Market Area Details

Sr. Number	Attribute	Description
1	MARKET AREA CODE	Market Area identifier
2	SERVICE COVERAGE AREA CODE	COVERAGE AREA CODE. Unique identifier for the coverage area
3	ORGANIZATION BUSINESS UNIT CODE	Market Area identifier
4	SECONDARY ZIP CODE	Applicable only in case the zip code spans across multiple zip codes
5	MARKET AREA LEVEL CODE	Identifier for the community or logical segment under the market area.
6	MARKET AREA UOM CODE	This is the unit of measure used to measure the size of the trading area, that is, miles, minutes, and so on.
7	PRIMARY ZIP CODE	Primary Zip code for the market area.
8	MARKET AREA NAME	Name of the market area.
9	MARKET AREA DESC	Description of the market area.
10	AREA TYPE	Type of Trading Area- Urban-Suburban
11	COUNTY	County / District
12.	CITY	City in which the market area belongs
13.	STATE	State or province
14.	COUNTRY	Country of the market area
15.	PULL FACTOR	Ratios that estimate the proportion of local sales that occurs in a town
16.	TRADE AREA CAPTURE	An estimate of the number of people who shop in the local area during a certain period
17.	TOTAL POPULATION	Estimated total population of the market area

Table 3-180 (Cont.) Market Area Details

Sr. Number	Attribute	Description
18.	STATE POPULATION	Estimated state population of the market area.
19.	STATE SALES	Estimated total retail sales in the state
20.	STATUS CODE	Unique Identifier of the status.
21.	DEFINITION TYPE	No value
22.	AREA SHAPE	No value
23.	STATE SALES LOCAL	No value
24.	STATE SALES REPORTING	No value
25.	EFFECTIVE FROM DATE	No value
26.	EFFECTIVE TO DATE	No value

3.1.81 Media Object Type

Description: MEDIA OBJECT TYPE

Media Object Type Hierarchies

Standard MEDIA OBJECT TYPE Hierarchy:
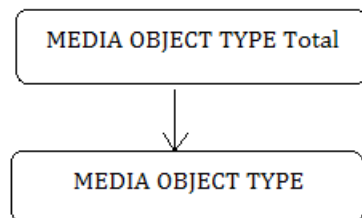
Media Object Type Levels

The following table shows MEDIA OBJECT TYPE Total: All MEDIA OBJECT TYPE is most aggregate level of the dimension.

Table for MEDIA OBJECT TYPE Total

Table 3-181 MEDIA OBJECT TYPE Total

Sr. Number	Attribute	Description
1	MEDIA OBJECT TYPE Total	Code for All MEDIA OBJECT TYPE Total.

Detail table shows MEDIA OBJECT TYPE Detail: It captures information relating to Media Object Type.

Detail table MEDIA OBJECT TYPE Detail

Table 3-182   MEDIA OBJECT TYPE Detail

Sr. Number	Attribute	Description
1	MEDIA OBJECT TYPE CODE	The code to identify the Media object.
2	MEDIA OBJECT TYPE DESC	The full Description.
3	MEDIA OBJECT TYPE NAME	The name
4	LANGUAGE CODE	No value

3.1.82 Network

Description: NETWORK (page 2-110)

Network Hierarchies

Standard Network Hierarchy:
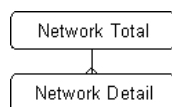
Network Levels

Table 3-183 (page 3-142) shows Network Total: All Networks are most aggregate level of dimension.

Table 3-183   Network Total

Sr. Number	Attribute	Description
1.	ALL NETWORK CODE	Code for All Network's.

Table 3-184 (page 3-142) shows Network Detail: Detail level of the dimension. It stores the Network information.

Table 3-184   Network Detail

Sr. Number	Attribute	Description	Sample Value
1.	NETWORK CODE	Identifier of the network	CDMA
2.	NETWORK TYPE CODE	A code that uniquely identifies the type of technology (for example GSM, CDMA) being used by a network.	CDMA

Table 3-184   (Cont.) Network Detail

Sr. Number	Attribute	Description	Sample Value
3.	EXTERNAL OPERATOR CODE	Unique identifier for operator. For example: Airtel, CMCC, NTT.	No value
4.	SERVICE PROVIDER CODE	Code of the service provider of the network.	No value
5.	NETWORK NAME	Name of the network	CDMA
6.	NETWORK DESC	A textual description that describes the type of technology (for example GSM, CDMA) being used by a network.	CDMA

3.1.83 Network Touchpoint

Description: NETWORK TOUCHPOINT (page 2-113)

Network Touchpoint Hierarchies

Standard NETWORK TOUCHPOINT Hierarchy:
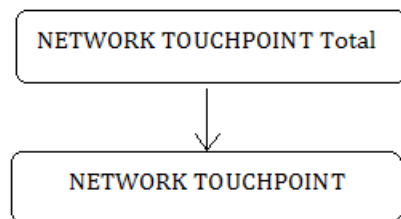
Network Touchpoint Levels

The following table shows NETWORK TOUCHPOINT Total: All NETWORK TOUCHPOINT is most aggregate level of the dimension.

Table for NETWORK TOUCHPOINT Total

Table 3-185   NETWORK TOUCHPOINT Total

Sr. Number	Attribute	Description
1	NETWORK TOUCHPOINT Total	Code for All NETWORK TOUCHPOINT Total.

Detail table shows NETWORK TOUCHPOINT Detail: It captures information relating to Network Touchpoint.

Detail table NETWORK TOUCHPOINT Detail

Table 3-186   NETWORK TOUCHPOINT Detail

Sr. Number	Attribute	Description
1	GEOGRAPHY ENTITY CODE	Geography Entity Code
2	NETWORK TOUCHPOINT CODE	Identifier of the site.
3	RURAL DELIVERY ADDRESS	Rural delivery instructions. This is implementation dependent.
4	INSTALLATION DATE	The date when the network touchpoint was established.
5	LATITUDE	The latitude measure for the trade area
6	LONGITUDE	The longitude measure for the trade area
7	POSTAL CODE	The site postal code.
8	NETWORK TOUCHPOINT CLASS CODE	Unique identifier of the network touchpoint class.
9	NETWORK TOUCHPOINT STATUS CODE	Unique identifier of the network touchpoint status.
10	NETWORK TOUCHPOINT TYPE CODE	Unique identifier of the network touchpoint type.
11	ADDRESS LOCATION CODE	No value
12	RESOURCE CODE	No value

3.1.84 Network Touchpoint Class

Description: NETWORK TOUCHPOINT CLASS (page 2-113)

Network Touchpoint Class Hierarchies

Standard Network Touchpoint Class Hierarchy:
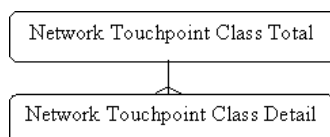
Network Touchpoint Class Levels

Table 3-187 (page 3-145) shows Network Touchpoint Class Total: All Networks Touch point class are most aggregate level of dimension.

Table 3-187   Network Touchpoint Class Total

Sr. Number	Attribute	Description
1.	NETWORK TOUCHPOINT CLASS TOTAL CODE	Code for All Network Touchpoint class.

Table 3-188 (page 3-145) shows Network Touchpoint Class Detail: Detail level of the dimension. It stores the Network Touchpoint class information.

Table 3-188   Network Touchpoint Class Detail

Sr. Number	Attribute	Description	Sample Value
1.	NETWORK TOUCHPOINT CLASS CODE	Unique identifier of the network touchpoint class.	INDVL
2.	NETWORK TOUCHPOINT CLASS NAME	Name of network touchpoint class.	Individual
3.	NETWORK TOUCHPOINT CLASS DESC	Description of network touchpoint class.	Network touchpoint is owned by Individual customer
4.	LANGUAGE CODE	Code for network touchpoint class languages.	No value

3.1.85 Network Touchpoint Status

Description: NETWORK TOUCHPOINT STATUS (page 2-113)

Network Touchpoint Status Hierarchies

Standard Network Touchpoint Status Hierarchy:
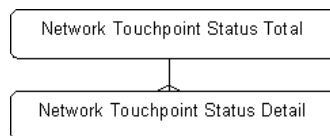
Network Touchpoint Status Level

Table 3-189 (page 3-145) shows Network Touchpoint Status Total: All Networks Touchpoint Status are most aggregate level of dimension.

Table 3-189   Network Touchpoint Status Total

Sr. Number	Attribute	Description
1.	NETWORK TOUCHPOINT STATUS TOTAL CODE	Code for All Network Touchpoint Status.

Table 3-190 (page 3-146) shows Network Touchpoint Status Detail: Detail level of the dimension. It stores the Network Touchpoint Status information.

Table 3-190   Network Touchpoint Status Detail

Sr. Number	Attribute	Description
1.	LANGUAGE CODE	Code for network touchpoint status languages
2.	NETWORK TOUCHPOINT STATUS CODE	Unique identifier of the network touchpoint status.
3.	NETWORK TOUCHPOINT STATUS NAME	Name of network touchpoint status.
4.	NETWORK TOUCHPOINT STATUS DESC	Description of network touchpoint status.

3.1.86 Network Touchpoint Type

Description: NETWORK TOUCHPOINT TYPE (page 2-113)

Network Touchpoint Type Hierarchies

Standard Network Touchpoint Type Hierarchy:
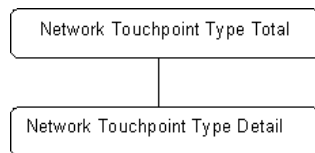
Network Touchpoint Type Levels

Table 3-191 (page 3-146) shows Network Touchpoint Type Total: All Networks Touchpoint Type are most aggregate level of dimension.

Table 3-191   Network Touchpoint Type Total

Sr. Number	Attribute	Description
1.	NETWORK TOUCHPOINT TYPE TOTAL CODE	Code for All Network Touchpoint Type.

Table 3-192 (page 3-146) shows Network Touchpoint Type Detail: Detail level of the dimension. It stores the Network Touchpoint Type information.

Table 3-192   Network Touchpoint Type Detail

Sr. Number	Attribute	Description	Sample Value
1.	LANGUAGE CODE	Code for network touchpoint type languages	No value
2.	NETWORK TOUCHPOINT TYPE CODE	Unique identifier of the network touchpoint type.	BRDBND

Table 3-192   (Cont.) Network Touchpoint Type Detail

Sr. Number	Attribute	Description	Sample Value
3.	NETWORK TOUCHPOINT TYPE NAME	Name of the network touchpoint type.	Broadband
4.	NETWORK TOUCHPOINT TYPE DESC	Description of network touchpoint type.	Broadband

3.1.87 Network Type

Description: NETWORK TYPE (page 2-113)

Network Type Hierarchies

Standard NETWORK TYPE Hierarchy:
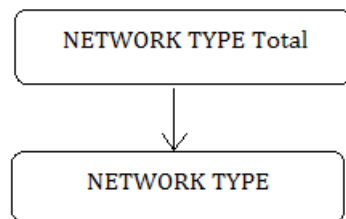
Network Type Levels

The following table shows NETWORK TYPE Total: All NETWORK TYPE is most aggregate level of the dimension.

Table for NETWORK TYPE Total

Table 3-193   NETWORK TYPE Total

Sr. Number	Attribute	Description
1	NETWORK TYPE Total	Code for All NETWORK TYPE Total.

Detail table shows NETWORK TYPE Detail: It captures information relating to Network Type.

Detail table NETWORK TYPE Detail

Table 3-194   NETWORK TYPE Detail

Sr. Number	Attribute	Description	Sample Value
1	NETWORK TYPE CODE	A code that uniquely identifies the type of technology (for example GSM, CDMA) being used by a network.	GSM, CDMA
2	NETWORK TYPE NAME	A name assigned to the type of technology (for example GSM, CDMA) being used by a network.	GSM, CDMA
3	NETWORK TYPE DESC	A textual description that describes the type of technology (for example GSM, CDMA) being used by a network.	GSM, CDMA

3.1.88 Notification Type

Description: NOTIFICATION TYPE (page 2-114)

Notification Type Hierarchies

Standard Notification Type Hierarchy:
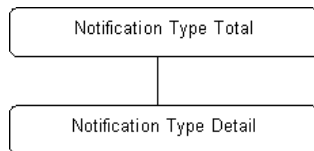
Notification Type Levels

Table 3-195 (page 3-148) shows Notification Type Total: All Notification Type are most aggregate level of dimension.

Table 3-195   Notification Type Total

Sr. Number	Attribute	Description
1.	NOTIFICATION TYPE TOTAL CODE	Code for All Notification Type total.

Table 3-196 (page 3-149) shows Notification Type Detail: Detail level of the dimension. It stores the Notification Type information.

Table 3-196   Notification Type Detail

Sr. Number	Attribute	Description	Sample Value
1.	LANGUAGE CODE	Code for Notification type languages	No value
2.	NOTIFICATION TYPE CODE	Code for UMS Notification Type.	FAX
3.	NOTIFICATION TYPE DESC	Description of the UMS Notification Type.	Fax
4.	NOTIFICATION TYPE NAME	Name of the UMS Notification Type.	Fax

3.1.89 NP Request Type

Description: NP REQUEST TYPE (page 2-114)

NP Request Type Hierarchies

Standard NP Request Type Hierarchy:
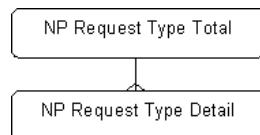
NP Request Type Levels

Table 3-197 (page 3-149) shows NP Request Type Total: All NP Request Type Total are most aggregate level of dimension.

Table 3-197   NP Request Type Total

Sr. Number	Attribute	Description
1.	NP REQUEST TYPE TOTAL CODE	Code for All NP Request Types Total.

Table 3-198 (page 3-149) shows NP Request Type Detail: Detail level of the dimension. It stores the NP Request Type information.

Table 3-198   NP Request Type Detail

Sr. Number	Attribute	Description	Sample Value
1.	LANGUAGE CODE	Code for NP Request Type language	No value
2.	NP REQUEST TYPE CODE	A code, used to uniquely identify the NP REQUEST TYPE.	IN
3.	NP REQUEST TYPE NAME	The name assigned to the NP REQUEST TYPE.	Porting In

Table 3-198   (Cont.) NP Request Type Detail

Sr. Number	Attribute	Description	Sample Value
4.	NP REQUEST TYPE DESC	A textual description of the NP REQUEST TYPE.	Porting In

3.1.90 On Off Net Type

Description: ON OFF NET TYPE (page 2-115)

On Off Net Type Hierarchies

Standard ON OFF NET TYPE Hierarchy:
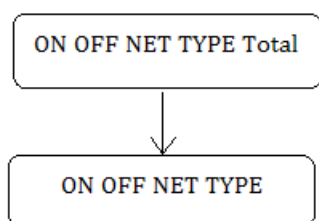
On Off Net Type Levels

The following table shows ON OFF NET TYPE Total: All ON OFF NET TYPE is most aggregate level of the dimension.

Table for ON OFF NET TYPE Total

Table 3-199   ON OFF NET TYPE Total

Sr. Number	Attribute	Description
1	ON OFF NET TYPE Total	Code for All ON OFF NET TYPE Total.

Detail table shows ON OFF NET TYPE Detail: It captures information relating to On Off net Type.

Detail table ON OFF NET TYPE Detail

Table 3-200   ON OFF NET TYPE Detail

Sr. Number	Attribute
1	LANGUAGE CODE
2	ON OFF NET TYPE DESC
3	ON OFF NET TYPE CODE
4	ON OFF NET TYPE NAME

3.1.91 Order Line Item State

Description: ORDER LINE ITEM STATE (page 2-116)

Order Line Item State Hierarchies

Standard ORDER LINE ITEM STATE Hierarchy:

```
┌─────────────────────────────────┐
│  ORDER LINE ITEM STATE Total     │
└─────────────────────────────────┘
                │
                ▼
┌─────────────────────────────────┐
│  ORDER LINE ITEM STATE TYPE      │
└─────────────────────────────────┘
                │
                ▼
┌─────────────────────────────────┐
│  ORDER LINE ITEM STATE           │
└─────────────────────────────────┘
```
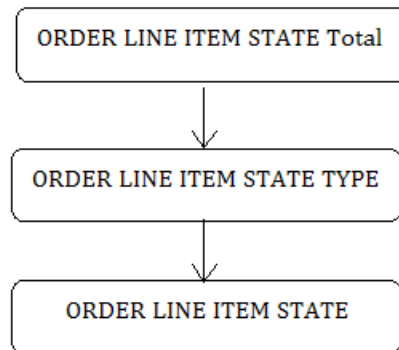
Order Line Item State Levels

The following table shows ORDER LINE ITEM STATE Total: All ORDER LINE ITEM STATE is most aggregate level of the dimension.

Table for ORDER LINE ITEM STATE Total

Table 3-201   ORDER LINE ITEM STATE Total

Sr. Number	Attribute	Description
1	ORDER LINE ITEM STATE Total	Code for All ORDER LINE ITEM STATE Total.

Detail table shows ORDER LINE ITEM STATE TYPE Detail: It captures information relating to Order Line item State Type.

Detail table ORDER LINE ITEM STATE TYPE Detail

Table 3-202   ORDER LINE ITEM STATE TYPE Detail

Sr. Number	Attribute
1	ORDER LINE ITEM STATE TYPE DESC
2	ORDER LINE ITEM STATE TYPE NAME
3	ORDER LINE ITEM STATE TYPE CODE

Detail table shows ORDER LINE ITEM STATE Detail: It captures information relating to Order Line item State.

Detail table ORDER LINE ITEM STATE Detail

Table 3-203   ORDER LINE ITEM STATE Detail

Sr. Number	Attribute	Description
1	ORDER LINE ITEM STATE CODE	A unique retailer assigned code denoting a potential state for a CustomerOrderLineItem. For example,: Deleted, Pending, PartialDelivery, DeliveryComplete, PartialPickup, PickupComplete and so on. For example: Deleted, Pending, PartialDelivery, DeliveryComplete, PartialPickup, PickupComplete
2	ORDER LINE ITEM STATE DESC	The description of the retailer assigned OrderLineItem state.
3	ORDER LINE ITEM STATE NAME	No value
4	ORDER LINE ITEM STATE TYPE CODE	No value
5	STATUS CODE	No value
6	EFFECTIVE TO DATE	No value
7	EFFECTIVE FROM DATE	No value

3.1.92 Order State

Description: ORDER STATE (page 2-116)

Order State Hierarchies

Standard ORDER STATE Hierarchy:
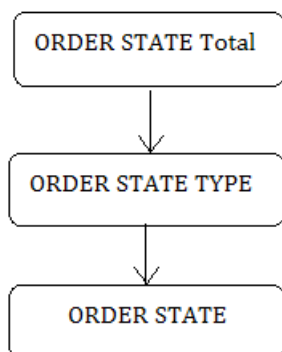
Order State Levels

The following table shows ORDER STATE Total: All ORDER STATE is most aggregate level of the dimension.

Table for ORDER STATE Total

Table 3-204   ORDER STATE Total

Sr. Number	Attribute	Description
1	ORDER STATE Total	Code for All ORDER STATE Total

Detail table shows ORDER STATE TYPE Detail: It captures information relating to Order State Type.

Detail table ORDER STATE TYPE Detail

Table 3-205   ORDER STATE TYPE Detail

Sr. Number	Attribute
1	ORDER STATE TYPE DESC
2	ORDER STATE TYPE CODE
3	ORDER STATE TYPE NAME

Detail table shows ORDER STATE Detail: It captures information relating to Order State.

Detail Table ORDER STATE Detail

Table 3-206   ORDER STATE Detail

Sr. Number	Attribute	Description
1	ORDER STATE DESC	The description of the Order State
2	ORDER STATE CODE	The Unique identifier for Order State
3	ORDER STATE TYPE CODE	No value
4	ORDER STATE NAME	No value
5	EFFECTIVE TO DATE	No value
6	EFFECTIVE FROM DATE	No value
7	STATUS CODE	No value

3.1.93 Order Type

Description:

Order Type Hierarchies

Standard ORDER TYPE Hierarchy:
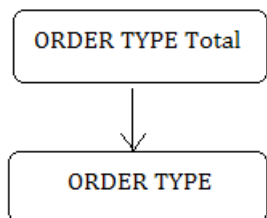
Order Type Levels

The following table shows ORDER TYPE Total: All ORDER TYPE is most aggregate level of the dimension.

Table for ORDER TYPE Total

Table 3-207   ORDER TYPE Total

Sr. Number	Attribute	Description
1	ORDER TYPE Total	Code for All ORDER TYPE Total.

Detail table shows ORDER TYPE Detail: It captures information relating to Order Type.

Detail table ORDER TYPE Detail

Table 3-208   ORDER TYPE Detail

Sr. Number	Attribute	Description
1	ORDER TYPE DESC	Description of Customer order type
2	ORDER TYPE CODE	Unique identifier for customer order type
3	ORDER TYPE NAME	No value
4	LANGUAGE CODE	No value

3.1.94 Organization

Description: ORGANIZATION HIERARCHY (page 2-118) is the hierarchy of business units within the organization, with ORGANIZATION BUSINESS UNIT (page 2-117) as lowest level and ORGANIZATION CORPORATE (page 2-117) as highest level.

Organization Hierarchies

Standard Organization Hierarchy:

Banner Hierarchy
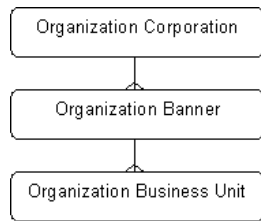
Company Hierarchy:
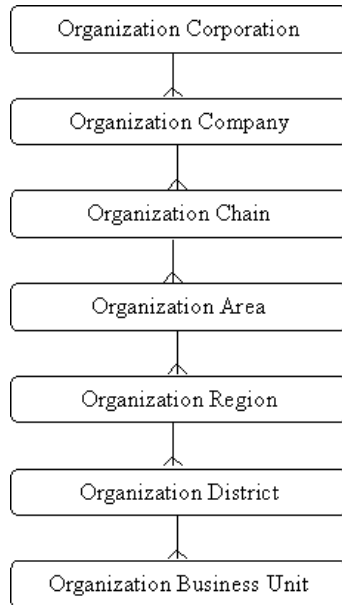
Division Hierarchy:
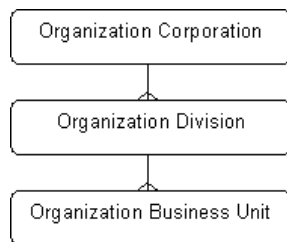
Organization Corporate Levels

Table 3-209 (page 3-155) shows All Organization Total: All Organization Total are most aggregate level of dimension.

Table 3-209   All Organization Total

Sr. Number	Attribute	Description
1.	ORGANIZATION TOTAL Id's	Code for All Organization Total.

Table 3-210 (page 3-156) shows Organization Corporate: Description level of the dimension. It stores the Organization Corporate information.

Table 3-210   Organization Corporate

Sr. Number	Attribute	Description
1.	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date For example: 12/31/2005 12:00:00 AM
2.	EFFECTIVE TO DATE	End effective date for the assignment. For example: 12/31/2005 12:00:00 AM
3.	ORGANIZATION CORPORATE CODE	Code for Organization Corporate
4.	ORGANIZATION CORPORATE DESC	Description for Organization Corporate
5.	ORGANIZATION CORPORATE ESTABLISHED	No value
6.	ORGANIZATION CORPORATE NAME	Name for Organization Corporate
7.	STATUS CODE	Current STATUS CODE of the assignment.

Organization Banner Levels

Table 3-211 (page 3-156) shows Organization Banner Levels: The name of a company's subsidiary that is recognizable to the consumer or the name of the store as it appears on the catalog, web channel or brick and mortar store.

Table 3-211   Organization Banner Levels

Sr. Number	Attribute	Description
1.	ALL ORGANIZATION BANNER ID's	Code for All Organization Banner.

Table 3-212 (page 3-156) shows Organization Banner: Description level of the dimension. It stores the Organization Banner information.

Table 3-212   Organization Banner

Sr. Number	Attribute	Description
1.	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date For example: 12/31/2005 12:00:00 AM

Table 3-212   (Cont.) Organization Banner

Sr. Number	Attribute	Description
2.	EFFECTIVE TO DATE	End effective date for the assignment. For example: 12/31/2005 12:00:00 AM
3.	ORGANIZATION BANNER CODE	Code for Organization Banner
4.	ORGANIZATION BANNER DESC	Description for Organization Banner.
5.	ORGANIZATION BANNER NAME	Name for Organization Banner
6.	ORGANIZATION CORPORATE CODE	Code for Organization Corporate
7.	STATUS CODE	Current STATUS CODE of the assignment.

Organization Company Levels

Table 3-213 (page 3-157) shows All Organization Company: All Organization Company are most aggregate level of Dimension.

Table 3-213   All Organization Company

Sr. Number	Attribute	Description
1.	ALL ORGANIZATION COMPANY ID's	Code for All Organization Company.

Table 3-214 (page 3-157) shows Organization Company: Description level of the dimension. It stores the Organization Company information.

Table 3-214   Organization Company

Sr. Number	Attribute	Description
1	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date For example: 12/31/2005 0:00
2	ORGANIZATION COMPANY DESC	Description for Organization Company
3	ORGANIZATION COMPANY CODE	Code for Organization Company
4	EFFECTIVE TO DATE	End effective date for the assignment. For example: 12/31/2005 12:00:00 AM

Table 3-214 (Cont.) Organization Company

Sr. Number	Attribute	Description
5	ORGANIZATION COMPANY NAME	Name for Organization Company
6	ORGANIZATION CORPORATE CODE	
7	STATUS CODE	Current STATUS CODE of the assignment.

Organization Division Levels

Table 3-215 (page 3-158) shows Organization Division Total: All Organization Division are most aggregate level of dimension.

Table 3-215   Organization Division Total

Sr. Number	Attribute	Description
1.	ALL ORGANIZATION DIVISION ID's	Code for All Organization Division.

Table 3-216 (page 3-158) shows Organization Division: Description level of the dimension. It stores the Organization Division information.

Table 3-216   Organization Division

Sr. Number	Attribute	Description
1.	ORGANIZATION DIVISION CODE	Code for Organization Division Ace Comms
3.	ORGANIZATION CORPORATE CODE	Code for Organization Code
4.	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date 12/31/2005 12:00:00 AM
5.	ORGANIZATION DIVISION DESC	Description for Organization Division Ace Comms
6.	ORGANIZATION DIVISION NAME	Name for Organization Division Ace Comms
7.	STATUS CODE	Current STATUS CODE of the assignment.
8.	EFFECTIVE TO DATE	No value

Organization Chain: Organization Chain Levels

Table 3-217 (page 3-159) shows Organization Chain Total: Chain is the second highest level within the organization hierarchy below company. A chain consists of one or more areas.

Table 3-217   Organization Chain Total

Sr. Number	Attribute	Description
1.	ALL ORGANIZATION CHAIN ID's	Code for All Organization Chain.

Table 3-218 (page 3-159) shows Organization Chain Detail: Description level of the dimension. It stores the Organization Chain information

Table 3-218   Organization Chain Detail

Sr. Number	Attribute	Description
1.	ORGANIZATION CHAIN CODE	Code for Organization chain
2.	ORGANIZATION CHAIN DESC	Description for Organization Chain
3.	ORGANIZATION CHAIN NAME	Name for Organization Chain
4.	EFFECTIVE FROM DATE	Description for Organization Chain
5.	EFFECTIVE TO DATE	End effective date for the assignment.
6.	ORGANIZATION COMPANY CODE	Code for Organization Company
7.	STATUS CODE	Current STATUS CODE of the assignment.

Organization Area

Table 3-219 (page 3-159) shows Organization Area Total: Organization hierarchy level within an organization chain and is the parent of one or more organization regions.

Table 3-219   Organization Area Total

Sr. Number	Attribute	Description
1.	ALL ORGANIZATION AREA ID's	Code for All Organization Area.

Table 3-220 (page 3-160) shows Organization Area Detail: Description level of the dimension. It stores the Organization Area information.

Table 3-220   Organization Area Detail

Sr. Number	Attribute	Description
1.	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date 12/31/2005 12:00:00 AM
2.	EFFECTIVE TO DATE	End effective date for the assignment. 12/31/2005 12:00:00 AM
3.	ORGANIZATION AREA CODE	Code for Organization area
4.	ORGANIZATION AREA DESC	Description for Organization Area
5.	ORGANIZATION AREA NAME	Name for Organization Area
6.	ORGANIZATION CHAIN CODE	Code for Organization Chain
7.	STATUS CODE	Current STATUS CODE of the assignment.

Organization Region Levels

Table 3-221 (page 3-160) shows All Organization Regions: Region is the fourth highest attribute within the organization hierarchy, below area. A region consists of one or more districts

Table 3-221   All Organization Regions

Sr. Number	Attribute	Description
1.	ALL ORGANIZATION REGION ID's	Code for All Organization Region.

Table 3-222 (page 3-160) shows Organization Region: Description level of the dimension. It stores the Organization Region information.

Table 3-222   Organization Region

Sr. Number	Attribute	Description
1.	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date 12/31/2005 12:00:00 AM
2.	EFFECTIVE TO DATE	End effective date for the assignment. 12/31/2005 12:00:00 AM
3.	ORGANIZATION AREA CODE	Code for Organization area.
4.	ORGANIZATION REGION CODE	Code for Organization region
5.	ORGANIZATION REGION DESC	Description for Organization region

Table 3-222   (Cont.) Organization Region

Sr. Number	Attribute	Description
6.	ORGANIZATION REGION NAME	Name for Organization Region
7.	STATUS CODE	Current STATUS CODE of the assignment.

Organization District Levels

Table 3-223 (page 3-161) shows All Organization District: District is the fifth highest attribute within the organization hierarchy, below region. A district consists of one or more business units.

Table 3-223   All Organization District

Sr. Number	Attribute	Description
1.	ALL ORGANIZATION DISTRICT ID's	Code for All Organization District.

Table 3-224 (page 3-161) shows Organization District: Description level of the dimension. It stores the Organization District information.

Table 3-224   Organization District

Sr. Number	Attribute	Description
1.	ORGANIZATION DISTRICT CODE	Code for Organization District 12/31/2005 12:00:00 AM
2.	EFFECTIVE TO DATE	End effective date for the assignment. 12/31/2005 12:00:00 AM
3.	EFFECTIVE FROM DATE	Active from. Standard SCD field, Effective Start Date
4.	ORGANIZATION DISTRICT DESC	Description for Organization District
5.	ORGANIZATION DISTRICT NAME	Name for Organization District
6.	ORGANIZATION REGION CODE	Code for Organization Region.
7.	STATUS CODE	Current STATUS CODE of the assignment.

Organization Business Unit

Organization business unit contains 2 kinds of information -store and branch company. In the higher level is branch company. Some customer cannot belong to a particular store, in that case, they are associated with a branch company. So branch company are put in organization business unit level. A business unit of the organization that sells, stores, or distributes merchandises and services through either

a physical location (store), catalog, web page or other channel, distribution center, or warehouse.

Table 3-225 (page 3-162) shows All Organization Business Unit: It is the lowest level of Organization.

Table 3-225 All Organization Business Unit

Sr. Number	Attribute	Description
1.	ALL ORGANIZATION BUSINESS UNIT ID's	Code for All Organization Business Unit.

Table 3-226 (page 3-162) shows Organization Business Unit: Description level of the dimension. It stores the Organization Business Unit information.

Table 3-226 Organization Business Unit

Sr. Number	Attribute	Description
1	ADDRESS LINE 1	Address. Line one of detailed postal address
2	ADDRESS LINE 2	Address. Line 2 of the detailed postal address
3	ADDRESS LINE 3	Address. Line 3 of the detailed postal address
4	ADDRESS LOCATION CODE	unique identifier for the address Location
5	ADDRESS TYPE CODE	Unique identifier of the address type.
6	ADDRESS USAGE	Describes how the address is used
7	ANNUAL REVENUE	Revenue of the company.
8	ANNUAL REVENUE LOCAL	Revenue of the company.
9	ANNUAL REVENUE REPORTING	Revenue of the company.
10	ANNUAL SALES	Sales of the company
11	ANNUAL SALES LOCAL	Sales of the company
12	ANNUAL SALES REPORTING	Sales of the company
13	BANKRUPTCY END DATE	The end date of bankruptcy. If current date is behind start and end date is null, then the company is undergoing the bankruptcy process.
14	BANKRUPTCY START DATE	start date of bankruptcy.
15	BUSINESS ENTITY CODE	Business Entity Identifier. Unique Identifier for Business Entity. For example: SPRINT

Table 3-226   (Cont.) Organization Business Unit

Sr. Number	Attribute	Description
16	BUSINESS UNIT CONCEPT	"Possible values include, Convenience, General Merchandise, Category dominant anchors with few small tenants, Fashion, Higher-end (Upscale), Fashion oriented, Manufacturer's Outlet, Leisure, Tourist oriented and Discount."
18	BUSINESS UNIT TYPE CODE	Unique identifier of the business unit type
19	CHAIRMAN CODE	Connect to Another Person Party who is responsible for this Organization.
20	CHANNEL TYPE CODE	Unique identifier of the channel type
21	COMPANY REGISTRY NUMBER	Will be same as Party. National_Identifier. Natural Key for Organization.
45	ACCOUNT CLERK CODE	This field is client specific. The definition and use of this field is customizable for each client
46	MANAGER EMPLOYEE NUMBER	Unique key denoting the employee number of the employee's manager.
47	MANAGER NAME	Name of manager for the whole company.
48	ORGANIZATION BANNER CODE	Unique identifier for Organization Banner
49	ORGANIZATION BUSINESS UNIT CODE	Unique identifier for Business Unit. To identify whether the site is a store, distribution center or warehouse. For example: SPRINT1
50	ORGANIZATION BUSINESS UNIT TYPE CODE	Unique identifier for Organization Business Unit Type
51	ORGANIZATION CODE	The unique identifier of the organization. For example: ORGUNIT1
52	ORGANIZATION DISTRICT CODE	Unique identifier for Organization district
53	ORGANIZATION DIVISION CODE	Unique identifier for division. For example: China Mobile Beijing
54	ORGANIZATION NAME	Name of the organization

Table 3-226   (Cont.) Organization Business Unit

Sr. Number	Attribute	Description
55	ORGANIZATIONAL DEMOGRAPHY VALUE CODE	Unique identifier for demography
56	PAYMENT ACCOUNT CLOSE DATE	Closing date of the account for payments. For example: 12/31/2005 12:00:00 AM
57	PAYMENT ACCOUNT NUMBER	Account number for payments.
58	PAYMENT ACCOUNT OPEN DATE	Opening date of the account for payments. For example: 12/31/2005 12:00:00 AM
59	POSTAL PLUS CODE	Four digit extension to the United States Postal ZIP code.
60	POSTCODE	Postal codes of interest to the Retail Organization
61	PRIMARY ADDRESS TELEPHONE	Default Address Telephone Number
62	PRIMARY BUSINESS UNIT CALENDAR CODE	Primary Business Unit Calendar Code
63	PRIMARY CURRENCY ISO CODE	The unique ISO standard identifier of the CURRENCY
64	PRIMARY EMAIL ADDRESS	Default Email Address
65	PRIMARY TRADE AREA CODE	Primary Trade area code, under which the business unit falls
66	SEAL IMAGE	The image of the Organization's Seal, or the Artificial Person's Signature.
67	SECONDARY DESCRIPTION	"The secondary description or name of the store or warehouse."
68	SHOPPING CENTER TYPE	Shopping center is group of retail and other commercial establishments that is planned, developed, owned, and managed as a single property. Strip Center (Neighborhood, Community)- Mall (Power, Super Regional, Regional, Fashion/ Specialty, Lifestyle, Outlet, Theme/ Festival)".
70	SHORT DESCRIPTION	The 3 character abbreviation of the store name.

Table 3-226   (Cont.) Organization Business Unit

Sr. Number	Attribute	Description
71	STOCK EXCHANGE NAME	Abbreviation of listed companies as used on the stock exchange.
72	TAX EXEMPT STATUS	Indicates if the org. is tax exempt.
73	TERMINATION DATE	Termination date of the company in case of company was founded with termination date. For example: 12/31/2005 12:00:00 AM
74	TIME ZONE	It denotes which TimeZone the Site is in.
75	TOTAL LINEAR DISTANCE	The total linear selling space of the location.
76	VALIDATION END DATE	Effective date of the deletion of the company's record from the company register. For example: 12/31/2005 12:00:00 AM
77	VALIDATION START DATE	Date of the registration of the company' record deletion from the company register. For example: 12/31/2005 12:00:00 AM
78	VAT INCLUDE INDICATOR	Indicates whether the Value Added Tax will be included in the retail prices for the store. Valid values are 'Y' or 'N'."
80	VAT REGION	"The number of the Value Added Tax region in which this store or warehouse is contained."
81	PARTY CODE	No value
82	PARTY TYPE CODE	No value
83	BUSINESS LEGAL STATUS CODE	No value
84	SOURCE SYSTEM CODE	No value
85	BARING REASON CODE	No value
86	STATUS CODE	No value
87	CITY	No value
88	STATE	No value
89	COUNTRY	No value

Table 3-226   (Cont.) Organization Business Unit

Sr. Number	Attribute	Description
90	PARTY NAME	No value
91	PARTY DESC	No value
92	LOCATION TYPE CODE	No value
93	CONTACT TYPE CODE	No value
94	ADDRESS	No value
95	PRIMARY MARKET AREA CODE	No value
96	ACTIVE INDICATOR	No value
97	CUSTOMER INDICATOR	No value
98	JUDICIAL DISTRAINT CODE	No value
99	CONTACT CODE	No value
100	COURT CODE	No value
101	MANAGER CODE	No value
102	DUNS NUMBER	No value
103	CONTACT NUMBER	No value
104	LONG DESCRIPTION	No value
105	CONSTRUCTION STATUS	No value
106	CONTACT NAME	No value
107	EXTERNAL NAME	No value
108	EMPLOYEE COUNT	No value
109	EQUITY AMOUNT	No value
110	EQUITY AMOUNT LOCAL	No value
111	EQUITY AMOUNT REPORTING	No value
112	LIQUIDATION START DATE	No value
113	LIQUIDATION END DATE	No value
114	DOMESTIC INDICATOR	No value
115	FINAL SETTLEMENT START DATE	No value
116	FINAL SETTLEMENT END DATE	No value
117	JUDICIAL DISTRAINT DATE	No value
118	EFFECTIVE FROM DATE	No value

Table 3-226   (Cont.) Organization Business Unit

Sr. Number	Attribute	Description
119	EFFECTIVE TO DATE	No value

3.1.95 Packet Control Unit Outage Reason

Description: PACKET CONTROL UNIT OUTAGE REASON (page 2-119)

Packet Control Unit Outage Reason Hierarchies

Standard PACKET CONTROL UNIT OUTAGE REASON Hierarchy:
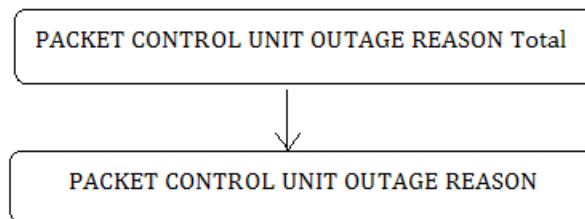
Packet Control Unit Outage Reason Levels

The following table shows PACKET CONTROL UNIT OUTAGE REASON Total: All PACKET CONTROL UNIT OUTAGE REASON is most aggregate level of the dimension.

Table for PACKET CONTROL UNIT OUTAGE REASON Total

Table 3-227   PACKET CONTROL UNIT OUTAGE REASON Total

Sr. Number	Attribute	Description
1	PACKET CONTROL UNIT OUTAGE REASON Total	Code for All PACKET CONTROL UNIT OUTAGE REASON Total.

Detail table shows PACKET CONTROL UNIT OUTAGE REASON Detail: It captures information relating to Packet Control Unit Outage Reason.

Detail table PACKET CONTROL UNIT OUTAGE REASON Detail

Table 3-228   PACKET CONTROL UNIT OUTAGE REASON Detail

Sr. Number	Attribute
1	PCU OUTAGE REASON CODE
2	PCU OUTAGE REASON DESC
3	LANGUAGE CODE
4	PCU OUTAGE REASON NAME

3.1.96 Partner Settlement Reason

Description: PARTNER SETTLEMENT REASON (page 2-119)

Partner Settlement Reason Hierarchies

Standard Partner Settlement Reason Hierarchy:
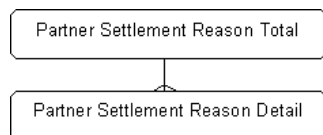
Partner Settlement Reason Levels

Table 3-229 (page 3-168) shows Partner Settlement Reason Total: All Partner Settlement Reason are most aggregate level of dimension.

Table 3-229   Partner Settlement Reason Total

Sr. Number	Attribute	Description
1.	ALL PARTNER SETTLEMENT REASON CODE	Code for All Partner Settlement Reason.

Table 3-230 (page 3-168) shows Partner Settlement Reason Detail: Detail level of the dimension. It stores the Partner Settlement Reason information.

Table 3-230   Partner Settlement Reason Detail

Sr. Number	Attribute	Description
1.	LANGUAGE CODE	Unique identifier for Language
2.	PARTNER SETTLEMENT REASON CODE	Unique identifier for Partner Settlement
3.	PARTNER SETTLEMENT REASON NAME	Name of the Partner Settlement
4.	PARTNER SETTLEMENT REASON DESC	Description for the Partner Settlement

3.1.97 Party

Description: PARTY (page 2-120)

Party Hierarchies

Standard Party Hierarchy:
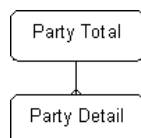
Party Levels

Table 3-231 (page 3-169) shows Party Total: All Party is most aggregate level of dimension.

Table 3-231   Party Total

Sr. Number	Attribute	Description
1.	ALL PARTY CODE	Code for All Party.

Table 3-232 (page 3-169) shows Party Detail: Detail level of the dimension. It stores the Party information.

Table 3-232   Party Detail

Sr. Number	Attribute	Description	Sample Value
1.	ACTIVE INDICATOR	Indicates if the party is currently active - which means the party has a current relationship with the carrier.	Y
2.	ADDRESS	Address of the party. Redundant to party location history.	No value
3.	BARING REASON CODE	Reasons for barring. For example, 1-Credit Limit, 2-Barring period.	No value
4.	BUSINESS LEGAL STATUS CODE	A unique identifier for a legal classification of a non-residential Customer.	No value
5.	CITY	City of the party. Redundant to party location history.	No value
6.	COUNTRY	Country of the party. Redundant to party location history.	No value
7.	CUSTOMER INDICATOR	Indicates if the party is a customer. Note: the party may have multiple relationships simultaneously - this flag identifies those parties which has a current account with the Telecommunications.	No value
8.	EFFECTIVE FROM DATE	EFFECTIVE FROM DATE, standard SCD2 column	12/31/2005 12:00:00 AM
9.	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column	12/31/2005 12:00:00 AM

Table 3-232   (Cont.) Party Detail

Sr. Number	Attribute	Description	Sample Value
10.	PARTY CODE	A code for any person or business that is of interest to the Communications Service Provider.	PRTY-50001
11.	PARTY DESC	Description of the party. Applicable to both individual and organization. Normally it refer to the full name.	Sprint
12.	PARTY NAME	Name of the party. Applicable to both individual and organization. Normally it refer to the full name.	Sprint
13.	PARTY TYPE CODE	Party Type Code	ORGUNIT
14.	POST CODE	Postcode of the party. Redundant to party location history.	No value
15.	SOURCE SYSTEM CODE	SOURCE SYSTEM ID, from which source ERP system this recorded was extracted.	No value
16.	STATE	State of the party. Redundant to party location history.	No value
17.	STATUS CODE	Current status of party.	No value

3.1.98 Payment Channel

Description: PAYMENT CHANNEL (page 2-127).

Payment Channel Hierarchies

Standard Payment Channel Hierarchy:
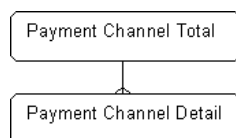
Payment Channel Levels

Table 3-233 (page 3-171) shows Payment Channel Total: All Payment Channel are most aggregate level of dimension.

Table 3-233   Payment Channel Total

Sr. Number	Attribute	Description
1.	PAYMENT CHANNEL TOTAL ID's	Code for All Payment Channel.

Table 3-234 (page 3-171) shows Payment Channel Detail: Detail level of the dimension. It stores the Payment Channel Detail information.

Table 3-234   Payment Channel Detail

Sr. Number	Attribute	Description	Sample Value
1.	CAPACITY QUANTITY	The number of transaction that a Channel can handle, at a point of time.	$1.00
2.	CHANNEL CODE	The unique identifier for each Channel. A Channel identifies each possible link where interaction between the Communications Service Provider and the Customer occurs.	No value
3.	PARTY CODE	A code for any person or business that is of interest to the Communications Service Provider.	No value
4.	PAYMENT CHANNEL CODE	The unique identifier for each Channel. A Channel identifies each possible link where interaction between the Communications Service Provider and the Customer occurs.	No value
5.	CHANNEL NAME	The name assigned to a channel.	PAY
6.	CHANNEL TYPE CODE	Unique identifier of the channel type	PAY
7.	PARTY TYPE CODE	No value	No value
8.	CHANNEL DESC	No value	No value
9.	EFFECTIVE FROM DATE	No value	No value
10.	EFFECTIVE TO DATE	No value	No value
11.	STATUS CODE	No value	No value

3.1.99 Payment Method Type

Description: PAYMENT METHOD TYPE (page 2-127)

Payment Method Type Hierarchies

Standard Payment Method Type Hierarchy:
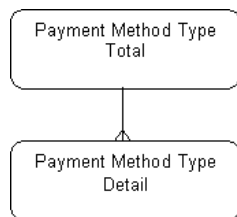
Payment Method Type Levels

Table 3-235 (page 3-172) shows Payment Method Type Total: All Payment Method Types are most aggregate level of dimension.

Table 3-235   Payment Method Type Total

Sr. Number	Attribute	Description
1.	PAYMENT METHOD TYPE TOTAL ID's	Code for All Payment Method Types.

Table 3-236 (page 3-172) shows Payment Method Type Detail: Detail level of the dimension. It stores the Payment Method Type Detail information.

Table 3-236   Payment Method Type Detail

Sr. Number	Attribute	Description	Sample Value
1.	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension.	No value
2.	PAYMENT METHOD TYPE CODE	Code for All Payment Methods Types	BNK
3.	PAYMENT METHOD TYPE DESC	Payment Method Type Description.	Bank
4.	PAYMENT METHOD TYPE NAME	Payment Method Type Name.	Bank

3.1.100 Payment Transaction Type

Description: PAYMENT TRANSACTION TYPE (page 2-127)

Payment Transaction Type Hierarchies

Standard Payment Transaction Type Hierarchy:
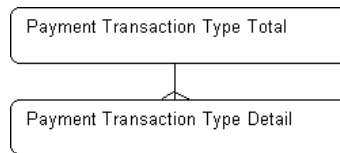
Payment Transaction Type Levels

Table 3-237 (page 3-173) shows Payment Transaction Type Total: All Payment Transaction Type are most aggregate level of dimension.

Table 3-237   Payment Transaction Type Total

Sr. Number	Attribute	Description
1.	PAYMENT TRANSACTION TYPE TOTAL CODE	Code for All Payment Transaction Type.

Table 3-238 (page 3-173) shows Payment Transaction Type Detail: Detail level of the dimension. It stores the Payment Transaction Type Detail information.

Table 3-238   Payment Transaction Type Detail

Sr. Number	Attribute	Description	Sample Value
1.	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension.	
2.	PAYMENT TRANSACTION TYPE CODE	Code for payment transaction type.	CRDT
3.	PAYMENT TRANSACTION TYPE DESC	Description for payment transaction type.	Credit
4.	PAYMENT TRANSACTION TYPE NAME	Name of payment transaction type.	credit

3.1.101 PCU Outage Reason

Description: PACKET CONTROL UNIT OUTAGE REASON (page 2-119)

PCU Outage Reason Hierarchies

Standard PCU Outage Reason Hierarchy:
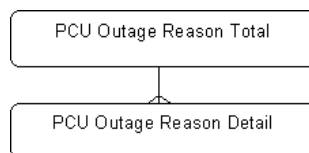
PCU Outage Reason Levels

Table 3-239 (page 3-174) shows PCU Outage Reason Total: All PCU Outage Reason are most aggregate level of dimension.

Table 3-239   PCU Outage Reason Total

Sr. Number	Attribute	Description
1.	PCU OUTAGE REASON TOTAL CODE	Code for All PCU Outage Reason.

Table 3-240 (page 3-174) shows PCU Outage Reason Detail: Detail level of the dimension. It stores the PCU Outage Reason Detail information.

Table 3-240   PCU Outage Reason Detail

Sr. Number	Attribute	Description
1.	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension.
2.	PCU OUTAGE REASON CODE	Code for PCU outage reason.
3.	PCU OUTAGE REASON DESC	Description for PCU outage reason.
4.	PCU OUTAGE REASON NAME	Name of PCU outage reason.

3.1.102 Peak Offpeak Time

Description: PEAK OFFPEAK TIME (page 2-127)

Peak Offpeak Time Hierarchies

Standard Peak Offpeak Time Hierarchy:
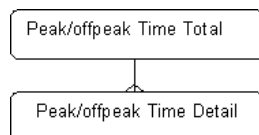
Peak Offpeak Time Levels

Table 3-241 (page 3-174) shows Peak Offpeak Time Total: All Peak Offpeak Time is most aggregate level of dimension.

Table 3-241   Peak Offpeak Time Total

Sr. Number	Attribute	Description
1.	PEAK OFFPEAK TIME TOTAL Id's	Code for All Peak Offpeak Time.

Table 3-242 (page 3-175) shows Peak Offpeak Time Detail: Detail level of the dimension. It stores the Peak Offpeak Time Detail information.

Table 3-242   Peak Offpeak Time Detail

Sr. Number	Attribute	Description	Sample Value
1.	HOLIDAY INDICATOR	Indicates if the time band applies on designated public holidays.	N
2.	PEAK OFFPEAK END	This is to express start and end date for all days, therefore it use varchar2 rather than date data type.	4/1/2008 5:00:00 PM
3.	PEAK OFFPEAK START	This is to express start and end date for all days, therefore it use varchar2 rather than date data type.	4/1/2008 5:00:00 PM
4.	PEAK OFFPEAK TIME CODE	Indicates if this time is busy hour.	PK
5.	PEAK OFFPEAK TIME DESC	Peak Off peak Time Description	No value
6.	PEAK OFFPEAK TIMENAME	Peak Off peak Time name	Peak Time
7.	WEEKDAY INDICATOR	Indicates if the time band applies on week days (Monday through Friday).	Y
8.	WEEKEND INDICATOR	Indicates if the time band applies on weekends (Saturday and Sunday).	Y
9.	LANGUAGE CODE	Unique identifier for language	No value

3.1.103 PPA Category

Description: PPA CATEGORY (page 2-148)

PPA Category Hierarchies

Standard PPA Category Hierarchy:
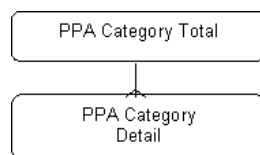
PPA Category Levels

Table 3-243 (page 3-176) shows PPA Category Total: Most Aggregate level of the dimension.

Table 3-243   PPA Category Total

Sr. Number	Attribute	Description
1.	PPA CATEGORY TOTAL ID	Code for All PPA Categories

Table 3-244 (page 3-176) shows PPA Category Detail: level of the dimension, stores PPA Category information.

Table 3-244   PPA Category Detail

Sr. Number	Attribute	Description	Sample Value
1.	PPA CATEGORY CD	PPA Category code	FLANSWER
2.	LANGUAGE CODE	Language Code	Language ID---Unique identifier for a row in the Language dimension
3.	PPA CATEGORY NAME	PPA Category Short Description	Free Local Answer
4.	PPA CATEGORY DESCRIPTION	PPA Category Description	free local answer

3.1.104 Product

Description: PRODUCT SPECIFICATION (page 2-158)

Product Hierarchies

Standard Product Hierarchy:
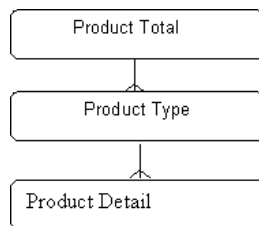
Product Levels

Table 3-245 (page 3-176) shows Product Total: This is the most aggregate level of the product dimension and hence represents the summation for all products including prepaid and post paid products/packages in the company.

Table 3-245   Product Total

Sr. Number	Attribute	Description
1.	All PRODUCTS ID	Identification for the top level value

Table 3-246 (page 3-177) shows Product Type: The level classifies products into two main categories, that is, Prepaid and Postpaid products.

Table 3-246   Product Type

Sr. Number	Attribute	Description
1.	PRODUCT TYPE CD	Product Type Code For example: BB
2.	PRODUCT TYPE DESCRIPTION	Product Type Description For example: Broad Band
3.	PRODUCT TYPE NAME	No value
4.	PRODUCT TYPE DESC	No value
5.	EFFECTIVE FROM DATE	No value
6.	EFFECTIVE TO DATE	No value
7.	STATUS CODE	No value

3.1.105 Product Specification Type

Description: PRODUCT SPECIFICATION TYPE (page 2-160)

Product Specification Type Hierarchies

Standard PRODUCT SPECIFICATION TYPE Hierarchy:
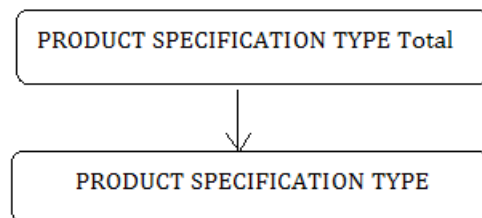
Product Specification Type Levels

The following table shows PRODUCT SPECIFICATION TYPE Total: All PRODUCT SPECIFICATION TYPE is most aggregate level of the dimension.

Table for PRODUCT SPECIFICATION TYPE Total

Table 3-247   PRODUCT SPECIFICATION TYPE Total

Sr. Number	Attribute	Description
1	PRODUCT SPECIFICATION TYPE Total	Code for All PRODUCT SPECIFICATION TYPE Total.

Detail table shows PRODUCT SPECIFICATION TYPE Detail: It captures information relating to Product Specification Type.

Detail table PRODUCT SPECIFICATION TYPE Detail

Table 3-248   PRODUCT SPECIFICATION TYPE Detail

Sr. Number	Attribute	Description
1	PRODUCT SPECIFICATION TYPE CODE	Code
2	PRODUCT SPECIFICATION TYPE DESC	FULL DESC<>
3	PRODUCT SPECIFICATION TYPE NAME	The Title.
4	STATUS CODE	No value
5	EFFECTIVE TO DATE	No value
6	EFFECTIVE FROM DATE	No value

3.1.106 Product Subscription Status

Description: PRODUCT SUBSCRIPTION STATUS (page 2-161)

Product Subscription Status Hierarchies

Standard PRODUCT SUBSCRIPTION STATUS Hierarchy:
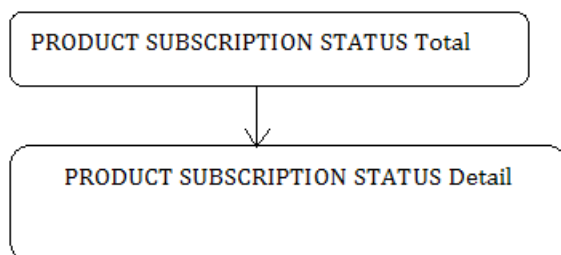
Product Subscription Status Levels

The following table shows PRODUCT SUBSCRIPTION STATUS Total: All PRODUCT SUBSCRIPTION STATUS is most aggregate level of the dimension.

Table for PRODUCT SUBSCRIPTION STATUS Total

Table 3-249   PRODUCT SUBSCRIPTION STATUS Total

Sr. Number	Attribute	Description
1	PRODUCT SUBSCRIPTION STATUS Total	Code for All PRODUCT SUBSCRIPTION STATUS Total.

Detail table shows PRODUCT SUBSCRIPTION STATUS Detail: It captures information relating to Product Subscription Status.

Detail table PRODUCT SUBSCRIPTION STATUS Detail

Table 3-250   PRODUCT SUBSCRIPTION STATUS Detail

Sr. Number	Attribute	Description	Sample Value
1	PRODUCT SUBSCRIPTION STATUS CODE	A code used to uniquely identify the classifications for a Subscription. Examples: A - Active, I - Inactive, P - Prospective.	A - Active, I - Inactive, P - Prospective
2	PRODUCT SUBSCRIPTION STATUS DESC	A textual description for a Subscription Status Type.	No value
3	PRODUCT SUBSCRIPTION STATUS NAME	The name assigned to a Subscription Status Type. Examples: Active, Inactive, Prospective.	Active, Inactive, Prospective
4	PRODUCT SUBSCRIPTION STATUS CATEGORY CODE	No value	No value
5	LANGUAGE CODE	No value	No value

3.1.107 Product Subscription Type

Description: PRODUCT SUBSCRIPTION TYPE (page 2-162)

Product Subscription Type Hierarchies

Standard PRODUCT SUBSCRIPTION TYPE Hierarchy:

PRODUCT SUBSCRIPTION TYPE Total

PRODUCT SUBSCRIPTION TYPE Detail
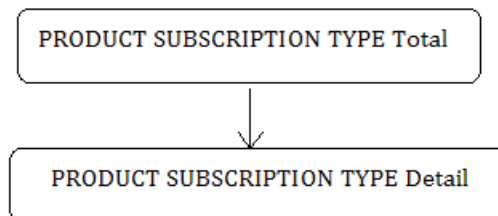
Product Subscription Type Levels

The following table shows PRODUCT SUBSCRIPTION TYPE Total: All PRODUCT SUBSCRIPTION TYPE is most aggregate level of the dimension.

Table for PRODUCT SUBSCRIPTION TYPE Total

Table 3-251   PRODUCT SUBSCRIPTION TYPE Total

Sr. Number	Attribute	Description
1	PRODUCT SUBSCRIPTION TYPE Total	Code for All PRODUCT SUBSCRIPTION TYPE Total.

Detail table shows PRODUCT SUBSCRIPTION TYPE Detail: It captures information relating to Product Subscription Type.

Detail table PRODUCT SUBSCRIPTION TYPE Detail

Table 3-252   PRODUCT SUBSCRIPTION TYPE Detail

Sr. Number	Attribute	Description
1	PRODUCT SUBSCRIPTION TYPE CATEGORY CODE	Category or classification of the subscription type. Can be used for grouping subscription types for analysis or reporting.
2	PRODUCT SUBSCRIPTION TYPE CODE	Identifier of the subscription type.
3	PRODUCT SUBSCRIPTION TYPE NAME	Name or description of the subscription type.
4	PRODUCT SUBSCRIPTION TYPE DESC	Name or description of the subscription type.
5	LANGUAGE CODE	Language ID---Unique identifier for a row in the Language dimension

3.1.108 Promotion

Description: PROMOTION (page 2-163)

Promotion Hierarchies

Standard Promotion Hierarchy:
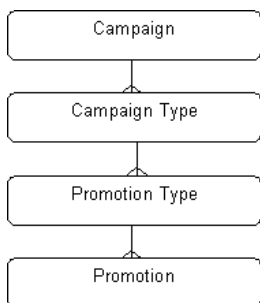
Promotion Levels

Table 3-253 (page 3-181) shows Campaign: A campaign is a concentrated effort to enhance the image of the enterprise, to retain, acquire, or consolidate customers.

Table 3-253   Campaign

Sr. Number	Attribute	Description
1	CAMPAIGN CODE	Unique Identifier for Campaign For example: CMPGN-1
2	CAMPAIGN DESC	A textual description of the Campaign.
3	CAMPAIGN NAME	Short Name of the Campaign
4	CAMPAIGN PURPOSE	Campaign purpose. The purpose of the campaign being conducted, in most of scenarios this field would be empty since this would be addressed in the Theme and Promotion Theme. But when this campaign is being executed as a continuation of a previous campaign due to demand, this field would contain the reason for that continuation. For example: ACQUIRE
5	CAMPAIGN PURPOSE TYPE CODE	Unique Identifier for a Campaign purpose type
6	CAMPAIGN STATUS CODE	A code used to uniquely identify strategy of a Campaign. For example: CSTAT
7	CAMPAIGN TYPE CODE	Unique Identifier for a Campaign type. For example: MMPRMTN
8	COST AMOUNT	The monetary cost of a Campaign.
9	COST AMOUNT LOCAL	The monetary cost of a Campaign.
10	COST AMOUNT REPORTING	The monetary cost of a Campaign.
11	COST CODE	Identify the cost to the Carrier.
12	EFFECTIVE FROM DATE	The start date of a Campaign.
13	EFFECTIVE TO DATE	The end date of a Campaign.
14	FUND SOURCE CODE	Campaign fund source type. Possible values would include, Vendor Sponsored, Charity and so on.
15	GLOBAL IND	Flag to indicate if the campaign is run globally. Flag to indicate if the campaign is run globally.
16	PARTNER IND	Indicates if the campaign has partners. Indicates if the campaign has partners

Table 3-253 (Cont.) Campaign

Sr. Number	Attribute	Description
17	PARTNER NUMBER	Identification number for partner.
18	PLANNED COST	Planned or budgeted total cost for the campaign.
19	PLANNED COST LOCAL	Planned or budgeted total cost for the campaign.
20	PLANNED COST REPORTING	Planned or budgeted total cost for the campaign.
21	PLANNED RESPONSE	Expected or planned response for the campaign.
22	PRIORITY	Campaign priority. Campaign priority

Table 3-254 Campaign Type

Sr. Number	Attribute	Description	Sample Value
1	CAMPAIGN TYPE CODE	A code used to uniquely identify a CAMPAIGN TYPE.	TGPRMTN
2	CAMPAIGN TYPE DESC	A textual description of a CAMPAIGN TYPE.	A Targeted Promotion
3	CAMPAIGN TYPE NAME	The name assigned to a CAMPAIGN TYPE.	Targeted Promotion
4	LANGUAGE CODE	Unique identifier for a row in the Language dimension.	No value

Table 3-255 Promotion Type

Sr. Number	Attribute	Description	Sample Value
1	PROMOTION TYPE CODE	A code used to uniquely identify a PROMOTION TYPE.	MAIL
2	PROMOTION TYPE DESC	A textual description of a PROMOTION TYPE.	Promotion by Mail
3	PROMOTION TYPE NAME	The name assigned to a PROMOTION TYPE.	Mail

Table 3-255   (Cont.) Promotion Type

Sr. Number	Attribute	Description	Sample Value
4	LANGUAGE CODE	Unique identifier for a row in the Language dimension.	No value

Table 3-256 (page 3-183) shows Promotion Type: This entity keeps types of Campaigns. Examples include: a targeted promotion (to specific individuals, account or group of accounts, a mass market promotion (to a massive audience usually through radio, television, and newspaper.

Table 3-256   Promotion

Sr. Number	Attribute	Description
1	PROMOTION CODE	A unique identifier for a campaign cell. For example: PRMTN-1
2	PROMOTION DESC	A textual description for a campaign Cell. For example: PRMTN-1
3	PROMOTION NAME	Name of Promotion For example: PRMTN-1
4	ACTUAL RESPONSE COUNT	Actual RESPONSE COUNT.
5	ACTUAL SALES AMOUNT	ACTUAL SALES AMOUNT.
6	ACTUAL SALES AMOUNT LOCAL	ACTUAL SALES AMOUNT.
7	ACTUAL SALES AMOUNT REPORTING	ACTUAL SALES AMOUNT.
8	ACTUAL SALES COUNT	ACTUAL SALES COUNT.
9	ACTUAL TOTAL COST	ACTUAL TOTAL COST.
10	ACTUAL TOTAL COST LOCAL	ACTUAL TOTAL COST.
11	ACTUAL TOTAL COST REPORTING	ACTUAL TOTAL COST.
12	CAMPAIGN CHANNEL CODE	A unique identifier for a campaign channel.
13	CAMPAIGN CODE	The campaign which this cost occurs in For example: CMPGN-1
14	GLOBAL IND	Flag to indicate if the campaign is run globally.
15	PARTICIPANT TARGET NUMBER	The number of target customers within a PROMOTION. 113
16	PARTNER NUMBER	Unique number assigned to the Partner
17	PERSON RESPONSIBLE	Name of the employee who is responsible for the promotion

Table 3-256   (Cont.) Promotion

Sr. Number	Attribute	Description
18	PLANNED RESPONSE COUNT	Number of positive responses expected on the full promotion time.
19	PLANNED SALES AMOUNT	Planned sales amount.
20	PLANNED SALES AMOUNT LOCAL	Planned sales amount local.
21	PLANNED SALES AMOUNT REPORTING	Planned sales amount reporting.
22	PLANNED SALES COUNT	Planned sales count
23	PLANNED TOTAL COST	Planned or budgeted total cost for the promotion. $200.00
24	PLANNED TOTAL COST LOCAL	Planned or budgeted total cost for the promotion. $200.00
25	PLANNED TOTAL COST REPORTING	Planned or budgeted total cost reporting for the promotion. $200.00
26	PROMOTION END DATE	Promotion end date. For example: 12/31/2005 12:00:00 AM
27	PROMOTION PURPOSE	Captures the purpose of the promotion.
28	PROMOTION START DATE	PROMOTION START DATE. For example: 12/31/2005 12:00:00 AM
29	PROMOTION TYPE CODE	A code used to uniquely identify a PROMOTION TYPE. For example: MAIL
30	TARGET TYPE CODE	A code used to uniquely identify a Categorization for each Target occurrence. Examples include: C = Customer A = Account AM = Access Method M = Market. For example: ACCS
31	THEME	Promotion theme
32	VERSION NUMBER	Version Number of the campaign. A campaign can have many versions before it goes active

3.1.109 Promotion Result Type

Description: PROMOTION RESULT TYPE (page 2-163)

Promotion Result Hierarchies

Standard Promotion Result Type Hierarchy:
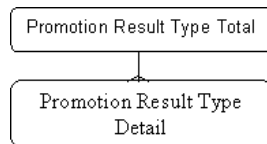
Promotion Result Type Levels

Table 3-257 (page 3-185) shows Promotion Result Type Total: Top level for the dimension with one single value indicating value for all promotion result type.

Table 3-257   Promotion Result Type Total

Sr. Number	Attribute	Description
1.	PROMOTION RESULT TYPE TOTAL ID	Code for All Promotion Result Type

Table 3-258 (page 3-185) shows Promotion Result Type Detail: Contain actual sales campaign result type values. Data for the sales campaign results will have these values. Like Offer accepted, Attribution prevented

Table 3-258   Promotion Result Type Detail

Sr. Number	Attribute	Description	Sample Value
1	PROMOTION RESULT CTGRY CODE	Code for Sales Campaign result category.	No value
2	PROMOTION RESULT CTGRY DESC	Code for Sales Campaign result category.	No value
3	PROMOTION RESULT CTGRY NAME	Description of the Sales Campaign result category.	No value
4	PROMOTION RESULT TYPE CODE	Name of the Sales Campaign result.	ATRPRVNT
5	PROMOTION RESULT TYPE DESC	Code for Sales Campaign Result.	Attribution Prevented
6	PROMOTION RESULT TYPE NAME	Description of the Sales Campaign result	Attribution Prevented
7	LANGUAGE CODE	Unique identifier for a row in the Language dimension.	No value

3.1.110 Quarter Hour

Description: QUARTER HOUR (page 2-168)

Quarter Hour Hierarchies

Standard QUARTER HOUR Hierarchy:
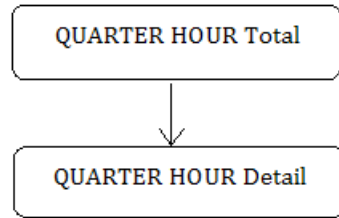
Quarter Hour Levels

The following table shows QUARTER HOUR Total: All QUARTER HOUR is most aggregate level of the dimension.

Table for QUARTER HOUR Total

Table 3-259   QUARTER HOUR Total

Sr. Number	Attribute	Description
1	QUARTER HOUR Total	Code for All QUARTER HOUR Total.

Detail table shows QUARTER HOUR Detail: It captures information relating to Quarter Hour.

Detail table QUARTER HOUR Detail

Table 3-260   QUARTER HOUR Detail

Sr. Number	Attribute	Description
1	QUARTER HOUR DESC	Description of the time of the day, the quarter represents.
2	QUARTER HOUR NUMBER	Quarter Hour value in the 24 hour clock. It is made up of the hour warehouse key, followed by 1 - 4 depending on the quarter hour. For example: 051 represents 5th hour 1st quarter hour.
3	HALF HOUR CODE1	Unique warehouse key of the half hour on a 24 hour clock on a particular day.
4	QUARTER HOUR CODE	Unique warehouse key of the Quarter Hour in a 24-hour clock on a particular day

3.1.111 Reason

Description: REASON (page 2-169)

Reason Hierarchies

Standard REASON Hierarchy:
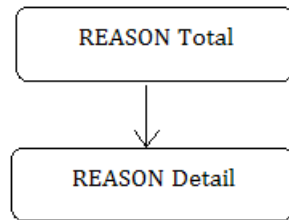
Reason Levels

The following table shows REASON Total: All REASON is most aggregate level of the dimension.

Table for REASON Total

Table 3-261   REASON Total

Sr. Number	Attribute	Description
1	REASON Total	Code for All Reason Total.

Detail table shows REASON Detail: It captures information relating to Reason.

Detail table REASON Detail

Table 3-262   REASON Detail

Sr. Number	Attribute
1	REASON CODE
2	REASON CATEGORY CODE
3	REASON NAME
4	LANGUAGE CODE
5	REASON DESC

3.1.112 Recharge Revenue Slab

Description: RECHARGE REVENUE SLAB (page 2-170)

Recharge Revenue Slab Hierarchies

Standard recharge revenue slab Hierarchy:
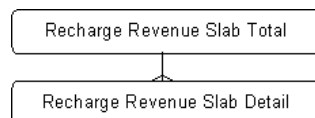
Recharge Revenue Slab Levels

Table 3-263 (page 3-188) shows Recharge Revenue Slab Total: Top level for the dimension with one single value indicating value for all slabs.

Table 3-263   Recharge Revenue Slab Total

Sr. Number	Attribute	Description
1.	RECHARGE REVENUE SLAB TOTAL ID	Code for All recharge revenue slabs

Table 3-264 (page 3-188) shows Recharge Revenue Slab Detail: Most detail level holds values for individual recharge slabs.

Table 3-264   Recharge Revenue Slab Detail

Sr. Number	Attribute	Description	Sample Value
1	RECHARGE REVENUE SLAB CODE	Recharge revenue slab ID or code.	RVN100
2	RECHARGE REVENUE SLAB DESC	Recharge revenue slab description.	Recharge revenue earned for $50-100
3	RECHARGE REVENUE SLAB NAME	Recharge revenue slab short description.	$50-100
4	SLAB RANGE END VALUE	End value of the slab.	No value
5	SLAB RANGE END VALUE LOCAL	End value of the slab.	No value
6	SLAB RANGE END VALUE REPORTING	End value of the slab.	No value
7	SLAB RANGE START VALUE	Starting value of the slab.	No value
8	SLAB RANGE START VALUE LOCAL	Starting value of the slab.	No value
9	SLAB RANGE START VALUE REPORTING	Starting value of the slab	No value
10	LANGUAGE CODE	Unique identifier for a row in the Language dimension.	No value

3.1.113 Redemption Type

Description: REDEMPTION TYPE (page 2-170)

Redemption Type Hierarchies

Standard Redemption Type Hierarchy:
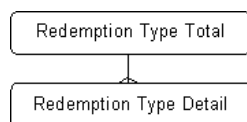
Redemption Type Levels

Table 3-265 (page 3-189) shows Redemption Type Total: Top level used to aggregate data for all the redemption types.

Table 3-265   Redemption Type Total

Sr. Number	Attribute	Description
1.	REDEMPTION TYPE TOTAL ID	Code for All redemption Types

Table 3-266 (page 3-189) shows Redemption Type: Granular level of the dimension at which data is available, lists all the redemption types and its descriptions.

Table 3-266   Redemption Type

Sr. Number	Attribute	Description	Sample Value
1	REDEMPTION TYPE CODE	Code for Redemption Types.	ACCTDPST
2	REDEMPTION TYPE DESC	Redemption Type Description.	Account Deposit
3	REDEMPTION TYPE NAME	Redemption Type Short Name.	Account Deposit
4	LANGUAGE CODE	Unique identifier for a row in the Language dimension.	No value

3.1.114 Retail Type

Description: RETAIL TYPE (page 2-178)

Retail Type Hierarchies

Standard RETAIL TYPE Hierarchy:
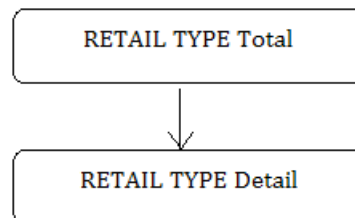
Retail Type Levels

The following table shows RETAIL TYPE Total: All RETAIL TYPE is most aggregate level of the dimension.

Table for RETAIL TYPE Total

Table 3-267   RETAIL TYPE Total

Sr. Number	Attribute	Description
1	RETAIL TYPE Total	Code for All Retail Type Total.

Detail table shows RETAIL TYPE Detail: It captures information relating to Retail Type.

Detail table RETAIL TYPE Detail

Table 3-268   RETAIL TYPE Detail

Sr. Number	Attribute
1	RETAIL TYPE DESC
2	RETAIL TYPE CODE
3	LANGUAGE CODE
4	RETAIL TYPE NAME

3.1.115 RF Carrier

Description: RF CARRIER (page 2-179)

RF Carrier Hierarchies

Standard RF Carrier Hierarchy:
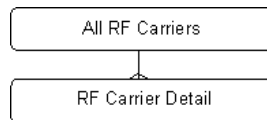
RF Carrier Levels

Table 3-269 (page 3-190) shows RF Carrier Total: Values for all carriers. Data may or may not be seen at this level.

Table 3-269   RF Carrier Total

Sr. Number	Attribute	Description
1.	CARRIER TOTAL ID	Code for All Carriers

Table 3-270 (page 3-190) shows RF Carrier Detail: The detail level of the dimension at which the data will be captured and stored.

Table 3-270   RF Carrier Detail

Sr. Number	Attribute	Description	Sample Value
1	RF CARRIER CODE	Carrier code or ID.	No value
2	RF CARRIER DESC	Carrier description.	No value
3	RF CARRIER NAME	Carrier Name.	No value
4	STATUS CODE	Current Status Identifier	No value
5	BASE TRANSCEIVER STATION CODE	Identifier for Transceiver Station	No value

Table 3-270   (Cont.) RF Carrier Detail

Sr. Number	Attribute	Description	Sample Value
6	EFFECTIVE FROM DATE	In Effect From	12/31/2005 12:00:00 AM
7	EFFECTIVE TO DATE	In Effect until date	12/31/2005 12:00:00 AM

3.1.116 Roaming Type

Description: ROAMING TYPE (page 2-179)

Roaming Type Hierarchies

Standard Roaming Type Hierarchy:
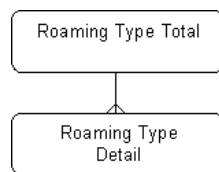
Roaming Type Levels

Table 3-271 (page 3-191) shows Roaming Type Total: The Subscriber type defines if the calls made/received are by the Roaming subscriber or by a non-roaming subscriber. Roaming type is further classified as Inbound and outbound roaming subscriber

Table 3-271   Roaming Type Total

Sr. Number	Attribute	Description
1.	ROAMING TYPE TOTAL CODE	Code for All Roaming Types

Table 3-272 (page 3-191) shows Roaming Type: If the calls made/received are by the Roaming subscriber or by a non-roaming subscriber.

Table 3-272   Roaming Type Detail

Sr. Number	Attribute	Description	Sample Value
1	ROAMING TYPE CODE	ROAMING TYPE CODE.	NONROAM
2	ROAMING TYPE DESC	ROAMING TYPE DESC.	Non-Roaming
3	ROAMING TYPE NAME	Short description of the ROAMING TYPE.	Non-Roaming
4	LANGUAGE CODE	Unique identifier for a row in the Language dimension.	No value

3.1.117 Sales Channel

Description: SALES CHANNEL (page 2-181)

Sales Channel Hierarchy

Standard Sales Channel Hierarchy:
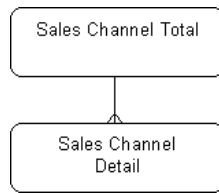
Sales Channel Levels

Table 3-273 (page 3-192) shows Sales Channel Total: The most aggregate level in the channel dimension. It combines the results of all channels and shows the total values for facts if selected in the report.

Table 3-273   Sales Channel Total

Sr. Number	Attribute	Description
1.	SALES CHANNEL TOTAL ID	Code for All Sales channels value

Table 3-274 (page 3-192) shows Sales Channel Detail: Sales channel is not multi tiered. Mainly there are three channels of sales such as Sales Representatives, Outlets and dealers. Which are represented by the channel level, which also becomes the lowest level for the channel dimension.

Table 3-274   Sales Channel Detail

Sr. Number	Attribute	Description	Sample Value
2	SALES CHANNEL CODE	Code for Sales Channel	No value
3	CHANNEL DESC	A text description for the channel	No value
4	CHANNEL CODE	The unique identifier for each Channel. A Channel identifies each possible link where interaction between the Communications Service Provider and the Customer occurs.	No value
5	CHANNEL NAME	Short name for the channel	A01
6	CHANNEL TYPE CODE	Unique identifier for channel	SLCHNL
7	CAPACITY QUANTITY	The number of transaction that a Channel can handle, at a point of time.	No value

Table 3-274   (Cont.) Sales Channel Detail

Sr. Number	Attribute	Description	Sample Value
8	DEALER CODE	The number of transaction that a Channel can handle, at a point of time.	No value
9	EFFECTIVE FROM DATE	The first date of the period when this Channel was valid.	12/31/2005 12:00:00 AM
10	EFFECTIVE TO DATE	The end date of the period when this Channel was valid.	12/31/2005 12:00:00 AM
11	PARTY CODE	A code for any person or business that is of interest to the Communications Service Provider.	No value
12	PARTY TYPE CODE	Code for party types	RPRSTTV
13	STATUS CODE	Current status	A

3.1.118 Sales Channel Representative

Description: SALES CHANNEL REPRESENTATIVE (page 2-181)

Sales Channel Hierarchies

Standard Sales Channel Representative Hierarchy:
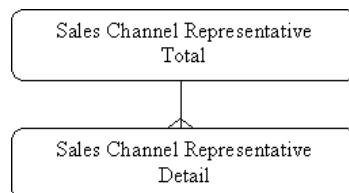
Sales Channel Representative Levels

Table 3-275 (page 3-193) shows Sales Channel Representative Total: The most aggregate level in the channel dimension.

Table 3-275   Sales Channel Representative Total

Sr. Number	Attribute	Description
1.	SALES CHANNEL REPRESENTATIVE TOTAL ID	Code for All Sales Channel Representative

Table 3-276 (page 3-194) shows Sales Channel Representative: This is the most granular level of the channel dimension. Values in this level represent the codes for sales representatives in the shops, Direct sales representatives and Sub-dealers in case of dealers.

Table 3-276   Sales Channel Representative

Sr. Number	Attribute	Description
1	SALES CHANNEL CODE	The unique identifier for each Channel. A Channel identifies each possible link where interaction between the Communications Service Provider and the Customer occurs.
2	SALES CHANNEL REPRESENTATIVE CODE	SALES CHANNEL REPRESENTATIVE CODE is used to track and detect sales performance on account payment status.
1	BILLING ADDRESS EFFECTIVE DATE	Date on which the billing address referenced in the billing_address_id column became active. This facilitates queries such as find customers who changed address in the last 3 months.""
2	BUSINESS DIVISION EXECUTIVE NAME	BUSINESS DIVISION EXECUTIVE LAST NAME is the last name of the business division executive to whom the employee reports to. Like LOB Owner.
3	BUSINESS PHONE NUMBER	Phone number used for business purpose
4	CELL PHONE NO	Redundancy to 'party contact information'
5	CHILDREN COUNT	Number of children
6	CONTACT ADDRESS EFFECTIVE DATE	Date on which the contact address referenced in the billing_address_id column became active. This facilitates queries such as find customers who changed address in the last 3 months.""
7	COST CENTER NUMBER	The cost center to which the bank employee expenses are charged.
8	DATE OF BIRTH	Date of Birth of the individual.
9	DATE OF DEATH	Date of natural person death.
10	DEATH CERTIFICATE CODE	The certification document number for customer's death.
11	DEPENDENTS COUNT	Number of dependents
12	DRIVER LICENSE NUMBER	Driver License Number in most countries.
13	DWELLING SIZE	Size of dwelling

Table 3-276   (Cont.) Sales Channel Representative

Sr. Number	Attribute	Description
14	DWELLING TENURE	Tenure of dwelling
15	ECONOMICALLY ACTIVE IND	customer is economically active (is not a minor or pensioner and so on.)
16	EDUCATION CODE	The customer highest level of education.
17	EMAIL	Redundancy to 'party contact information'
18	EMPLOYEE CODE	A code for any person or business that is of interest to the Communications Service Provider.
19	EMPLOYEE DESIGNATION CODE	Unique warehouse key, representing the designation
20	EMPLOYEE DISCOUNT GROUP CODE	Unique identifier for Employee Discount Group
21	EMPLOYEE KEY	Key value for each employee
22	EMPLOYEE NUMBER	Internal number for the employee.
23	EMPLOYEE TYPE CODE	Unique identifier for Employee Type
24	EMPLOYEE TYPE DESC	Description of the Employee Type
25	EMPLOYEE TYPE NAME	Unique identifier for the Employee Type
26	EMPLOYER TAX NUMBER	The tax code of Employer.
27	EMPLOYMENT BEGIN DATE	Start date for the employment.
28	EMPLOYMENT END DATE	If the employee quit, hold the information of past employment.
29	EMPLOYMENT EXEMPT IND	An employee exempt from the overtime policies due to the nature of the work, as compared to (Non-Exempt). Education requirements of the position and salary range. These employees are paid an annual salary and are not customarily eligible for overtime pay.
30	EMPLOYMENT STATUS	EMPLOYEE STATUS is the abbreviated identifier for the employment status. Employee

Table 3-276   (Cont.) Sales Channel Representative

Sr. Number	Attribute	Description
31	END OF JOB CONTRACT	End date of the customer's job contract (for contracts concluded for definite terms).
32	ETHNIC BACKGROUND	Customer Attribute of an employee
33	ETHNICITY	Classifies the individual for minority reporting purposes.
34	FAMILY NAME IN MAIDEN	Given name in maiden
35	FIRST NAME	First name of a party individual
36	FORM OF EMPLOYMENT	The customer's form of employment (private entrepreneur, employee, civil servant and so on.)
37	GENDER CODE	For PARTYs that are people, this is their GENDER. For PARTYs that are organizations, this is indicates whether the organization is foreign or domestically owned.
38	GIVEN NAME IN MAIDEN	Given name in maiden
39	HOME TELEPHONE NO	Redundant to 'party contact information'
40	HOUSEHOLD KEY	The code of household which the party belongs to.
41	INCOME	Income of a party individual
42	INCOME LCL	Income of a party individual
43	INCOME RPT	Income of a party individual
44	JOB CONTRACT TYPE	Type of the customer's job contract
45	JOB KEY	Code for job of subscriber.
46	JOB POSITION	job Position.
47	LANGUAGE CODE	Unique identifier for Language
48	LAST NAME	Last name of a party individual
49	LAST PERFORMANCE RATING	This describes the annual rating assigned to the employee.
50	LAST PERFORMANCE RATING DATE	When the last rating is done.
51	LEGAL TITLE TO HOUSING	The customer's legal title to home (rents, owns and so on.)

Table 3-276   (Cont.) Sales Channel Representative

Sr. Number	Attribute	Description
52	LIVING AT CURRENT ADDRESS SINCE	Date since the customer has lived at the present address.
53	MANAGER CODE	manager's employee code.
54	MARITAL STATUS	CSALADI ALLAPOT. Marital status
55	MARTIAL STATUS CODE	No value
56	MIDDLE NAME	Middle name of a party individual
57	MOTHER FIRST NAME	Mother's first name
58	MOTHER LAST NAME	Mother's last name
59	NAME OF WORKPLACE	Name of workplace
60	NAME PREFIX	Name prefix For example: Mr, Mrs, Ms, Dr,
61	NAME SUFFIX	Name suffix. For example: PhD, MD, JD, MA
62	NATIONALITY CODE	Code for Nationality of subscriber
63	NUMBER OF EARNERS IN HOUSEHOLD	Number of wage earners in the household.
64	NUMBER OF PERSONS LIVING IN HOUSEHOLD	Number of persons sharing the customer's household.
65	OFFICE TELEPHONE NO	Redundancy to 'party contact information'
66	ORGANIZATION BUSINESS UNIT KEY	No value
67	PERSONAL ID NUMBER	In China, this one will be same as party.national_identifier.
68	PLACE OF BIRTH	Where the person was born.
69	PREVIOUS EMPLOYER TAX NUMBER	Tax number of previous employer.
70	PREVIOUS EMPLOYMENT END DATE	End date of previous job.
71	PREVIOUS EMPLOYMENT START DATE	Start date of previous job.
72	SOC JOB KEY	No value
73	SOCIAL SECURITY NUMBER	In US, this code will be same as party.national_identifier. Null if some country does not have.

Table 3-276   (Cont.) Sales Channel Representative

Sr. Number	Attribute	Description
74	SOURCE OF INCOME	Source of income (can typify, may be several)
75	START OF EMPLOYMENT	Start of employment
76	TAX NUMBER	Tax number
77	ACTIVE IND	Activate Indicator
78	ADDRESS	Address
79	BARING REASON CODE	Unique identifier for Baring Reason
80	BUSINESS LEGAL STATUS CODE	A unique identifier for a legal classification of a non-residential Customer.
81	CITY	City of the party. Redundant to party location history.
82	COUNTRY	Country of the party. Redundant to party location history.
83	CUSTOMER IND	Indicator for Customer
84	EFFECTIVE FROM DATE	EFFECTIVE FROM DATE, standard SCD2 column.
85	EFFECTIVE TO DATE	EFFECTIVE TO DATE, standard SCD2 column.
86	EMPLOYEE NAME	Name of the employee
87	PARTY DESC	Description for the Party
88	PARTY KEY	Key value for Party
89	PARTY NAME	Name of the Party
90	PARTY TYPE CODE	Unique identifier for Party Type
91	POST CODE	Unique identifier for Post
92	SOURCE SYSTEM KEY	Key value for Source System
93	STATE	State Name
94	STATUS CODE	Current Status

3.1.119 Script

Description: SCRIPT (page 2-182)

Script Hierarchies

Standard SCRIPT Hierarchy:
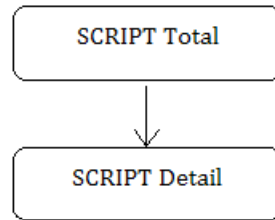
Script Levels

The following table shows SCRIPT Total: All SCRIPT is most aggregate level of the dimension.

Table for SCRIPT Total

Table 3-277   SCRIPT Total

Sr. Number	Attribute	Description
1	SCRIPT Total	Code for All Script Total.

Detail table shows SCRIPT Detail: It captures information relating to SCRIPT.

Detail table SCRIPT Detail

Table 3-278   SCRIPT Detail

Sr. Number	Attribute	Description
1	SCRIPT DESC	A brief description for a script.
2	SCRIPT NAME	A name assigned to a Script.
3	SCRIPT CODE	Unique identifier for a script.

3.1.120 Service Coverage Area

Description: SERVICE COVERAGE AREA (page 2-186)

Service Coverage Hierarchies

Standard Service Coverage Hierarchy:
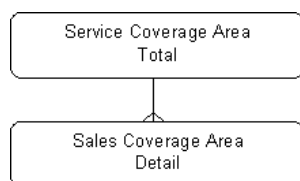
Service Coverage Area Levels

Table 3-279 (page 3-200) shows Service Coverage Area Total: Service areas are defined so that service providers can determine the demographic / psychographic / population data the geography served by the network.

Table 3-279   Service Coverage Area Total

Sr. Number	Attribute	Description
1.	SALES CHANNEL REPRESENTATIVE TOTAL ID	Code for All Sales Coverage Area values

Table 3-280 (page 3-200) shows Service Coverage Area: This is the detail level of Service Coverage Area.

Table 3-280   Service Coverage Area

Sr. Number	Attribute	Description
1	AREA SHAPE	Shape of the trade area
2	AREA TYPE	Urban - Suburban - Exurban - Rural
3	AVERAGE DRIVE TIME	Average drive time from the coverage area to the given store or site.
4	AVERAGE FAMILY SIZE	Average Family Size = Total population divided by number of families
5	AVERAGE HOUSEHOLD SIZE	Average household size in the coverage area.
6	AVERAGE NUMBER VEHICLES PER HOUSEHOLD	Average Number of Vehicles by household = total number of vehicles divided by total number of household.
7	CITY	City. City of the trade area
8	COMMUNITY SEGMENTS	The segmentation system was created to group neighborhoods based on socioeconomic and demographic composition such as age, income, home value, occupation, household type, education, and so on. They help improve the ability to predict behavior of social groups that are geographically clustered.
9	COMMUTER POPULATION	Total commuter population of the coverage area.
10	COUNTRY	Country. Country of the trade area
11	COUNTY	County / District. County / District of the trade area
12	DEFINITION SOURCE	The source of the definition
13	DEFINITION TYPE	Definition type of the market area, some standard classifications can include: Study traffic flow, Use a retail gravity model, Use a zip code method and so on. Some standard classifications can include: Study traffic flow, Use a retail gravity model, Use a zip code method and so on.
14	ISO CURRENCY CODE	Currency used for the demographic information
15	LATITUDE	The latitude measure for the trade area
16	LONGITUDE	The longitude measure for the trade area

Table 3-280   (Cont.) Service Coverage Area

Sr. Number	Attribute	Description
17	NUMBER OF HOUSEHOLDS	Approximate total number of households in the coverage area.
18	ORGANIZATION BUSINESS UNIT CODE	Unique identifier for Business Unit. To identify whether the site is a store, distribution center or warehouse.
19	PEAK SEASON POPULATION	The peak trading season of a given area can be determined by the seasonality or yearly economic cycle and so on. This is mostly applicable for renowned tourist spots.
20	PER CAPITA INCOME	Per Capita Income = income of that area divided by total population
21	PER CAPITA INCOME LOCAL	Per Capita Income = income of that area divided by total population
22	PER CAPITA INCOME REPORTING	Per Capita Income = income of that area divided by total population
23	PRIMARY ZIP CODE	Primary zip code of the market area. The primary zip code or the pin code of the Trade area
24	PRODUCT CODE	The short name for the product.
25	PULL FACTOR	Ratios that estimate the proportion of local sales that occurs in a town. Ratio that estimate the proportion of local sales that occurs in a town.
26	SECONDARY ZIP CODE	Secondary zip code in case the zip code spans across multiple zip codes. Applicable only in case the zip code spans across multiple zip codes
27	SERVICE COVERAGE AREA CODE	COVERAGE AREA CODE. Unique identifier for the coverage area
28	SERVICE COVERAGE AREA TYPE CODE	No value
29	STATE	State or province. State or province of the trade area
30	STATE POPULATION	Approximate population of the state.
31	STATE SALES	Estimated total retail sales in the state.
32	TOTAL POPULATION	Estimated total population of the market area
33	TOURIST POPULATION	Expected tourist population of the Trade coverage area.
34	TRADE AREA CAPTURE	An estimate of the number of people who shop in the local area during a certain period.
35	TRADE AREA CODE	Market Area identifier.
36	TRADE AREA DESC	Trade area description. Textual description of the trade area
37	TRADE AREA NAME	Market area name. The name of the trade area

3.1.121 SKU Item

Description: SKU ITEM (page 2-197)

SKU Item Hierarchies

Standard SKU ITEM Hierarchy:
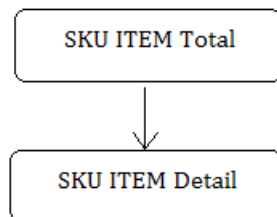
SKU Item Levels

The following table shows SKU ITEM Total: All SKU ITEM is most aggregate level of the dimension.

Table for SKU ITEM Total

Table 3-281   SKU ITEM Total

Sr. Number	Attribute	Description
1	SKU ITEM Total	Code for All SKU Item Total.

Detail table shows SKU ITEM Detail: It captures information relating to SKU Item Detail.

Detail table SKU ITEM Detail

Table 3-282   SKU ITEM Detail

Sr. Number	Attribute
1	TAX EXMPTN CODE
2	SHRINK INDICATOR
3	SILHOUETTE DSCR
4	SRVC ITEM DSCR
5	SRVC TERMS CODE
6	STAT CODE
7	SIZE TYPE CODE
8	SKU ITEM CODE
9	SKU ITEM CONSTRUCTION CODE

Table 3-282   (Cont.) SKU ITEM Detail

Sr. Number	Attribute
10	SKU ITEM DSCR
11	SKU ITEM INDICATORSTRY IDNT CODE
12	SKU ITEM LNG DSCR
13	SKU ITEM NAME
14	SKU ITEM NUMBER
15	SKU ITEM SALENG PRICE NUMBER
16	SKU TYPE CODE
17	SECURITY REQUIRED TYPE CODE
18	UOM CODE
19	VRTY NUMBER1
20	VRTY NUMBER2
21	VRTY NUMBER3
22	W ID
23	VNDR CODE
24	UNIT PRICE FCTR
25	NET COST AMOUNT REPORT
26	NET COST AMOUNT REPORT2
27	NET COST AMOUNT REPORT3
28	LAST UPDATE BY
29	LAST UPDATE DATE
30	LOAD DATE
31	PACK INDICATOR
32	PACK ORDERABLE CODE
33	PACK ORDERABLE DSCR
34	PACK SALEBL CODE
35	PACK SALEBL DSCR
36	PACK SIMPLE CODE
37	PACK SIMPLE DSCR
38	PACKAGE SIZE

Table 3-282   (Cont.) SKU ITEM Detail

Sr. Number	Attribute
39	ORGANIZATION CODE
40	ORGANIZATION TYPE CODE
41	PRICE LN CODE
42	PREPARED DSCR
43	PROD ENT CODE
44	PROD LN CODE
45	PRD COUNT
46	PKG UOM
47	PRD TYPE CODE
48	PENALITY AMOUNT
49	PENALITY AMOUNT LOCAL
50	PENALITY AMOUNT REPORT
51	PENALITY AMOUNT REPORT2
52	PENALITY AMOUNT REPORT3
53	PENALITY METHOD CODE
54	PENALITY PCTG
55	POS DEPT CODE
56	SALE UNIT LANDED COST AMOUNT
57	SALE UNIT LANDED COST AMOUNT LOCAL
58	SALE UNIT LANDED COST AMOUNT REPORT
59	SALE UNIT LANDED COST AMOUNT REPORT2
60	SALE UNIT LANDED COST AMOUNT REPORT3
61	SALE UT LAST RECEIVED BS CST AMOUNT
62	SALE UT LAST RECEIVED BS CST AMOUNT LOCAL
63	SALE UT LAST RECEIVED BS CST AMOUNT REPORT
64	SALE UT LAST RECEIVED BS CST AMOUNT REPORT2
65	SALE UT LAST RECEIVED BS CST AMOUNT REPORT3
66	SALE UT LAST RECEIVED CST ESTBD DATE
67	SALE UT LAST RECEIVED NT CST AMOUNT

Table 3-282   (Cont.) SKU ITEM Detail

Sr. Number	Attribute
68	SALE UT LAST RECEIVED NT CST AMOUNT LOCAL
69	SALE UT LAST RECEIVED NT CST AMOUNT REPORT
70	SALE UT LAST RECEIVED NT CST AMOUNT REPORT2
71	SALE UT LAST RECEIVED NT CST AMOUNT REPORT3
72	SALE WT OR UNIT COUNT INDICATOR
73	RECALL INDICATOR
74	RECIPE CODE
75	REF DNSTY
76	STOCK DSCR
77	STOCK ITEM COATING CODE
78	STOCK ITEM COLOR CODE
79	STOCK ITEM DYE CODE
80	STOCK ITEM FABRIC CODE
81	STOCK ITEM FIBER CODE
82	STOCK ITEM SIZE CODE
83	STOCK ITEM STYLE CODE
84	STOCK ITEM TYPE CODE
85	STOCK ITEM WEAVE CODE
86	STOCK ITEM WT CODE
87	SWELL INDICATOR
88	AGGR TYPE
89	ALERT TRANSACTION INDICATOR
90	AVLBL FOR SALE DATE
91	Attribute_58
92	BASE COST AMOUNT
93	BASE COST AMOUNT LOCAL
94	BASE COST AMOUNT REPORT
95	BASE COST AMOUNT REPORT2
96	BASE COST AMOUNT REPORT3

Table 3-282   (Cont.) SKU ITEM Detail

Sr. Number	Attribute
97	CONSTRCTN CODE
98	BLK TO SALENG UNIT WST FCTR PCTG
99	BLK TO SALENG UNIT WST TYPE CODE
100	BULK ITEM TARE CODE
101	COST ESTBD DATE
102	CURRENT INDICATOR
103	COVER COUNT
104	CUST PAYS FOR DSPSTN INDICATOR
105	CUSTOMER PICKUP TYPE CODE
106	CONVBL TYPE CODE
107	DEPOSIT AMOUNT
108	DEPOSIT AMOUNT LOCAL
109	DEPOSIT AMOUNT REPORT
110	DEPOSIT AMOUNT REPORT2
111	DEPOSIT AMOUNT REPORT3
112	DEPOSIT PCTG
113	DEPOSIT RULE CODE
114	EFFECT TO DATE
115	EFFECT FROM DATE
116	FABRIC DSCR
117	ENV TYPE CODE
118	FINANCIAL LEDGER ACCOUNT CODE
119	GROUP SELECT DSCR
120	HAZARDS MATERIAL TYPE CODE
121	HOLDING TIME
122	GLBL ITEM NUMBER
123	ITEM ORDR COLLCTN CODE
124	ITEM POS DEPT NUMBER
125	ITEM PRICE AUDIT INDICATOR

Table 3-282   (Cont.) SKU ITEM Detail

Sr. Number	Attribute
126	ITEM PRSHBL INDICATOR
127	ITEM RECIPE INDICATOR
128	ITEM SALE WT OR UNIT COUNT CODE
129	ITEM SALEABLE INDICATOR
130	ITEM SALENG RULE NUMBER
131	ITEM SHRNK INDICATOR
132	ITEM SPEC CODE
133	ITEM AUTHORIZED FOR SALE INDICATOR
134	ITEM DISC INDICATOR
135	ITEM ENV TYPE CODE
136	ITEM FULL PALLET ITEM INDICATOR
137	ITEM STORE REORDRBL INDICATOR
138	ITEM STP SALE INDICATOR
139	ITEM SUB IDNT INDICATOR
140	ITEM SWELL INDICATOR
141	ITEM USG CODE
142	ITEM CMISN INDICATOR
143	ITEM INVOICE INDICATOR
144	ITEM KIT SET CODE
145	ITEM MRCHNDS INDICATOR
146	ITEM NUMBER
147	INVOICE ACCOUNT METHOD CODE
148	NET COST AMOUNT
149	NET COST AMOUNT LOCAL

3.1.122 SPNM Other Party Number

Description: SPNM OTHER PARTY NUMBER (page 2-202)

SPNM Other Party Number Hierarchies

Standard SPNM OTHER PARTY NUMBER Hierarchy:
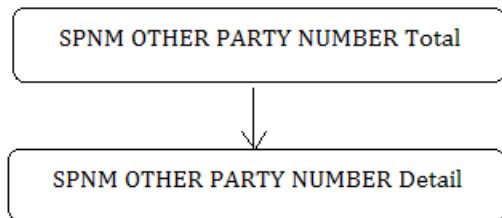
SPNM Other Party Number Levels

The following table shows SPNM OTHER PARTY NUMBER Total: All SPNM OTHER PARTY NUMBER is most aggregate level of the dimension.

Table for SPNM OTHER PARTY NUMBER Total

Table 3-283   SPNM OTHER PARTY NUMBER Total

Sr. Number	Attribute	Description
1	SPNM OTHER PARTY NUMBER Total	Code for All SPNM OTHER PARTY NUMBER Total.

Detail table shows SPNM OTHER PARTY NUMBER Detail: It captures information relating to SPNM OTHER PARTY NUMBER.

Detail table SPNM OTHER PARTY NUMBER Detail

Table 3-284   SPNM OTHER PARTY NUMBER Detail

Sr. Number	Attribute
1	STATUS CODE
2	SPNM CODE
3	SPNM GROUP CODE
4	EFFECTIVE TO DATE
5	OTHER PARTY NUMBER
6	EFFECTIVE FROM DATE
7	SPNM KEY

3.1.123 Subsidy Type

Description: SUBSIDY TYPE (page 2-203)

Subsidy Type Hierarchies

Standard Subsidy Type Hierarchy:
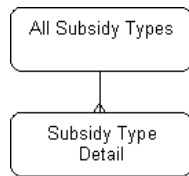
Subsidy Type Levels

Table 3-285 (page 3-209) shows Subsidy Type Total: Most aggregate level for the Subsidy Type dimension to see the aggregated value of all the subsidy types.

Table 3-285   Subsidy Type Total

Sr. Number	Attribute	Description
1.	SUBSIDY TYPE TOTAL CODE	Code for All Subsidy Types

Table 3-286 (page 3-209) shows Subsidy Type Detail: This level stores the actual values for subsidy types and enables analysis of related facts by subsidy types. This is the most granular level of the dimension data will be captured and stored at this level.

Table 3-286   Subsidy Type Detail

Sr. Number	Attribute	Description	Sample Value
1	SUBSIDY TYPE CODE	Code for Subsidy type	ACCTDPST
2	SUBSIDY TYPE DESC	Description of the Subsidy Type	Account Deposit
3	SUBSIDY TYPE NAME	Name of the Subsidy type	Account Deposit
4	LANGUAGE CODE	Unique identifier for a row in the Language dimension.	No value

3.1.124 Switch

Description: SWITCH (page 2-204)

Switch Hierarchies

Standard Switch Hierarchy:
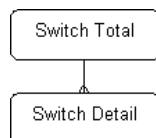
Switch Levels

Table 3-287 (page 3-210) shows Switch Total: Network switches or exchanges. It may a position switch (digital or analog), or GSM MSC.

Table 3-287   Switch Total

Sr. Number	Attribute	Description
1.	SWITCH TOTAL CODE	Code for Switches

Table 3-288 (page 3-210) shows Switch Detail: Network switches or exchanges. It may a position switch (digital or analog), or GSM MSC.

Table 3-288   Switch Detail

Sr. Number	Attribute	Description
1	SWITCH CODE	A unique identifier for a telecommunications device used to route telephone calls and communication transmissions.
2	SWITCH TYPE CODE	A code used to categorize a switch.
4	TECHNOLOGY CODE	A code that uniquely identifies a technology.
7	EFFECTIVE FROM DATE	Effective from date when valid
8	EFFECTIVE TO DATE	Effective to date when valid
9	EQUIPMENT CENTER CODE	The equipment center, where this equipment locates in.
10	EXTERNAL OUTBOUND INDICATOR	Indicate if the switch belongs to external operator, then the circuit.
11	NETWORK ELEMENT DESC	A text description for the Network
12	NETWORK ELEMENT CODE	Identifier of the network.
13	NETWORK ELEMENT NAME	Short name of the network.
14	NETWORK CODE	Code for the network.
15	STATUS CODE	No value

3.1.125 Technology Type

Description: TECHNOLOGY TYPE (page 2-206)

Technology Type Hierarchies

Standard Technology Type Hierarchy:
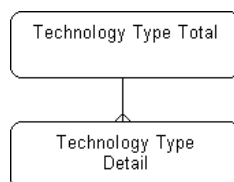
Technology Type Levels

Table 3-289 (page 3-211) shows Technology Type Total: Categories for a Technology. For example, wireless, copper line, Optical Fiber.

Table 3-289   Technology Type Total

Sr. Number	Attribute	Description
1.	ALL TECHNOLOGY CODE	Code for all technologies.

Table 3-290 (page 3-211) shows Technology Types: Detail level of each technology type. Categories for Technology, for example, wireless, copper line, Optical Fiber

Table 3-290   Technology Types

Sr. Number	Attribute	Description	Sample Value
1	TECHNOLOGY TYPE CODE	A code that uniquely identifies technology type.	CL
2	TECHNOLOGY TYPE DESC	A textual description that describes a technology type.	Copper Line
3	TECHNOLOGY TYPE NAME	A name assigned to a technology type.	Copper Line
4	LANGUAGE CODE	Unique identifier for a row in the Language dimension.	No value

3.1.126 Tender

Description: TENDER (page 2-206)

Tender Hierarchies

Standard TENDER Hierarchy:
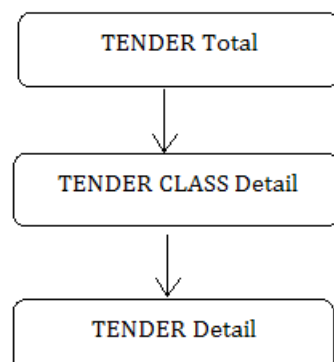
Tender Levels

The following table shows TENDER Total: All TENDER is most aggregate level of the dimension.

Table for TENDER Total

Sr. Number	Attribute	Description
1	TENDER Total	Code for All Tender Total.

Detail table shows TENDER CLASS Detail: It captures information relating to Tender Class.

Detail table TENDER CLASS Detail

Table 3-291   TENDER CLASS Detail

Sr. Number	Attribute
1	TENDER CLASS CODE
2	LANGUAGE CODE
3	TENDER CLASS NAME
4	TENDER CLASS DESC

Detail table shows TENDER Detail: It captures information relating to Tender.

Detail Table TENDER Detail

Table 3-292   TENDER Detail

Sr. Number	Attribute
1	OFFLINE TENDER CEILING APRVL AMOUNT REPORT2
2	OFFLINE TENDER CEILING APRVL AMOUNT REPORT3
3	OFFLINE TENDER FLOOR APPROVAL AMOUNT
4	OFFLINE TENDER FLOOR APPROVAL AMOUNT LOCAL
5	OFFLINE TENDER FLOOR APPROVAL AMOUNT REPORT
6	OFFLINE TENDER FLOOR APPROVAL AMOUNT REPORT2
7	OFFLINE TENDER FLOOR APPROVAL AMOUNT REPORT3
8	REALTIME BALANCE UPDT INDICATOR
9	PRSNL ID NBR REQUIRED INDICATOR
10	TENDER CLASS CODE
11	TENDER CODE

Table 3-292   (Cont.) TENDER Detail

Sr. Number	Attribute
12	TENDER CODE _1
13	STATUS CODE
14	SRL ID NBR REQUIRED INDICATOR
15	W ID
16	UNIT COUNT REQUIRED INDICATOR
17	ACCEPT FOR PAY ON ACCOUNT INDICATOR
18	ACCOUNT ID REQUIRED INDICATOR
19	ACCOUNT REC INDICATOR
20	AMOUNT COUNT REQUIRED INDICATOR
21	AUTHORIZATION EXP DT REQUIRED INDICATOR
22	AUTHORIZATION MAXIMUM WAIT ALWD SEC COUNT
23	AUTHORIZATION MTHD CODE
24	AUTHORIZATION REQUIRED INDICATOR
25	CHANGE THRESHOLD AMOUNT
26	CHANGE THRESHOLD AMOUNT LOCAL
27	CHANGE THRESHOLD AMOUNT REPORT
28	CHANGE THRESHOLD AMOUNT REPORT2
29	CHANGE THRESHOLD AMOUNT REPORT3
30	CHK ENCODENG INDICATOR
31	CURRENT INDICATOR
32	CUST ID REQUIRED INDICATOR
33	CUST SIGN REQUIRED INDICATOR
34	EFFECT TO DATE
35	DSCR
36	EFFECT FROM DATE
37	FINCL LDGR ACCOUNT CODE

Table 3-292   (Cont.) TENDER Detail

Sr. Number	Attribute
38	ENDORSEMENT REQUIRED INDICATOR
39	GFT CARD EXPRY INDICATOR
40	GFT CARD FIXED INDICATOR
41	ITEM RESTRICTED APPLY INDICATOR
42	MAGNET STRIP RDR REQUIRED INDICATOR
43	MICR INDICATOR
44	MINIMUM ACCEPT AMOUNT
45	MINIMUM ACCEPT AMOUNT LOCAL
46	MINIMUM ACCEPT AMOUNT REPORT
47	MINIMUM ACCEPT AMOUNT REPORT2
48	MINIMUM ACCEPT AMOUNT REPORT3
49	MAXIMUM ACCEPT AMOUNT
50	MAXIMUM ACCEPT AMOUNT LOCAL
51	MAXIMUM ACCEPT AMOUNT REPORT
52	MAXIMUM ACCEPT AMOUNT REPORT2
53	MAXIMUM ACCEPT AMOUNT REPORT3
54	MAXIMUM ACCEPT DENMTN
55	LAST UPDATE BY
56	LOAN PERMISSIBILITY INDICATOR
57	LAST UPDATE DATE
58	LOCAL CURRENCY AVAILABILITY INDICATOR
59	LOAD DATE
60	LOCAL ISO CURRENCY CODE
61	OVERRIDE TRIGGER MAXIMUM AMOUNT
62	OVERRIDE TRIGGER MAXIMUM AMOUNT LOCAL
63	OVERRIDE TRIGGER MAXIMUM AMOUNT REPORT

Table 3-292   (Cont.) TENDER Detail

Sr. Number	Attribute
64	OVERRIDE TRIGGER MAXIMUM AMOUNT REPORT2
65	OVERRIDE TRIGGER MAXIMUM AMOUNT REPORT3
66	ONLINE TENDER CEILING APPROVAL AMOUNT
67	ONLINE TENDER CEILING APPROVAL AMOUNT LOCAL
68	ONLINE TENDER CEILING APPROVAL AMOUNT REPORT
69	ONLINE TENDER CEILING APPROVAL AMOUNT REPORT2
70	ONLINE TENDER CEILING APPROVAL AMOUNT REPORT3
71	ONLINE TENDER FLOOR APPROVAL AMOUNT
72	ONLINE TENDER FLOOR APPROVAL AMOUNT LOCAL
73	ONLINE TENDER FLOOR APPROVAL AMOUNT REPORT
74	ONLINE TENDER FLOOR APPROVAL AMOUNT REPORT2
75	ONLINE TENDER FLOOR APPROVAL AMOUNT REPORT3
76	OPEN CASH DRAWER REQUIRED INDICATOR
77	OFFLINE TENDER CEILING APPROVAL AMOUNT
78	OFFLINE TENDER CEILING APPROVAL AMOUNT LOCAL
79	OFFLINE TENDER CEILING APRVL AMOUNT REPORT

3.1.127 Time Slot

Description: TIME SLOT

Time Slot Hierarchies

Standard Time Slot Hierarchy:
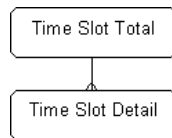
Time Slot Levels

Table 3-293 (page 3-216) shows Time Slot Total: Level to be used for summary analysis for all time slots. Most aggregate level of the dimension.

Table 3-293   Time Slot Total

Sr. Number	Attribute	Description
1.	TIME SLOT TOTAL ID	Key/code for grouping all the time hour slots of the day.

Table 3-294 (page 3-216) shows Time Slot Detail: Most detail level of the dimension at which data will be captured in the facts. Values will be used for detail analysis.

Table 3-294   Time Slot Detail

Sr. Number	Attribute	Description	Sample Value
1	HALF HOUR CODE	Retrofitted from column HALF_HOUR_CODE of table TIME_SLOT_DIM	No value
2	HALF HOUR NAME	Retrofitted from column HALF_HOUR_NAME of table TIME_SLOT_DIM	01:00 - 01:29 AM
3	HALF HOUR NUMBER	Retrofitted from column HLF_HOUR_NUMBER of table TIME_SLOT_DIM	No value
4	HALF HOUR TIME OF DAY	Retrofitted from column HLF_HOUR_TIME_OF_DAY of table TIME_SLOT_DIM	5/15/2008 1:00:00 AM
5	HOUR CODE	Retrofitted from column HOUR_CODE of table TIME_SLOT_DIM	No value
6	HOUR NAME	Retrofitted from column HOUR_NAME of table TIME_SLOT_DIM	01:00 - 01:29 AM
7	HOUR NUMBER	Retrofitted from column HOUR_NUMBER of table TIME_SLOT_DIM	1
8	HOUR TIME OF DAY	Retrofitted from column HOUR_TIME_OF_DAY of table TIME_SLOT_DIM	5/5/2008 1:00:00 AM
9	QTR HOUR CODE	Retrofitted from column QTR_HOUR_CODE of table TIME_SLOT_DIM	No value

Table 3-294   (Cont.) Time Slot Detail

Sr. Number	Attribute	Description	Sample Value
10	QTR HOUR NAME	Retrofitted from column QTR_HOUR_NAME of table TIME_SLOT_DIM	No value
11	QTR HOUR NUMBER	Retrofitted from column QTR_HOUR_NUMBER of table TIME_SLOT_DIM	No value
12	QTR HOUR TIME OF DAY	Retrofitted from column QTR_HOUR_TIME_OF_DAY of table TIME_SLOT_DIM	No value
13	TIME SLOT CODE	TIME SLOT CODE.	5,6
14	TIME SLOT NAME	TIME SLOT NAME.	01:00 - 01:14 AM
15	WHOLE DAY CODE	Retrofitted from column WHOLE_DAY_CODE of table TIME_SLOT_DIM	No value
16	WHOLE DAY NAME	Retrofitted from column WHOLE_DAY_NAME of table TIME_SLOT_DIM	No value

3.1.128 UMS Access Type

Description: UMS ACCESS TYPE (page 2-210)

UMS Access Type Hierarchies

Standard UMS Access Type Hierarchy:
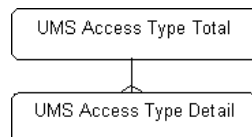
UMS Access Type Levels

Table 3-295 (page 3-217) shows UMS Access Type Total: Most aggregate level shows sum of values for all types of UMS access.

Table 3-295   UMS Access Type Total

Sr. Number	Attribute	Description
1.	UMS ACCESS TYPE TOTAL ID	Code for All UMS Access Types

Table 3-296 (page 3-218) shows UMS Access Type Detail: The granular level at which data will be captured. The values at this level indicate the actual UMS access types that are used to notify the UMS subscribers.

Table 3-296   UMS Access Type Detail

Sr. Number	Attribute	Description	Sample Value
1	UMS ACCESS TYPE CODE	Code for UMS Access Type.	FAX
2	UMS ACCESS TYPE DESC	Description of the UMS Access Type.	Fax
3	UMS ACCESS TYPE NAME	Short description of the UMS Access Type.	Fax
4	LANGUAGE CODE	Unique identifier for a row in the Language dimension.	No value

3.1.129 Value Added Services (VAS)

Description: VALUE ADDED SERVICE (page 2-211)

Value Added Services Hierarchies

Standard Value Added Service Hierarchy:
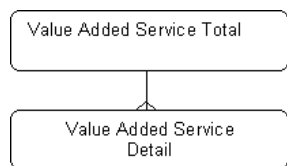
Value Added Services Levels

Table 3-297 (page 3-218) shows Value Added Service (VAS) Total: All VAS is the most aggregate level of the dimension and is used to see the results for all the services, that is, irrespective of type and individual service.

Table 3-297   Value Added Service Total

Sr. Number	Attribute	Description
1.	VALUE ADDED SERVICE TOTAL CODE	Code for All Value Added Service

Table 3-298 (page 3-218) shows Value Added Service (VAS): is the lowest level or the most detail level, at which data related to VAS facts will be captured and stored. The values in this level indicate the actual value added services offered by Service provider

Table 3-298   Value Added Service

Sr. Number	Attribute	Description
1	VALUE ADDED SERVICE TYPE NAME	Short description of the VAS type.
2	VALUE ADDED SERVICE TYPE DESC	Description of the VAS Type.
3	VALUE ADDED SERVICE TYPE CODE	Code for VAS type.

Table 3-298   (Cont.) Value Added Service

Sr. Number	Attribute	Description
4	VALUE ADDED SERVICE NAME	Short description of the VAS.
5	VALUE ADDED SERVICE DESC	Description of VAS.
6	VALUE ADDED SERVICE CODE	Code or Id for VAS.
7	PRODUCT TYPE CODE	Retrofitted from column PRODUCT_KEY of table FACT_MARKET_SHARE
8	PRODUCT RATING PLAN TYPE CODE	Identifier for the offer.
9	PRODUCT PACKAGE TYPE CODE	Identifier for the offer.
10	PRODUCT PACKAGE CHARGE TYPE CODE	Code.
11	PRODUCT NAME	Product name.
12	PRODUCT GROUP CODE	Unique identifier for Product Group.
13	PRODUCT CODE	Uniquely identifier of product.
14	NETWORK CODE	The network which is used by this platform
15	IN PLATFORM CODE	Code for IN Platform
16	EQUIPMENT FUNCTIONALITY CODE	The code of function
18	EFFECTIVE TO DATE	The end date of the period when this Channel was valid.
19	EFFECTIVE FROM DATE	Standard SCD field, effective from date
20	PROD_DESC	No value

4

Oracle Communications Data Model Physical Data Model

Provides information about the physical data model of Oracle Communications Data Model.

4.1 Introduction to Oracle Communications Data Model Physical Data Model

The Physical Data Model of the Oracle Communications Data Model is the physical manifestation of the logical data model into database tables and relationships (or foreign key constraints). Partitions, indexes, and Materialized Views have been added to aid performance.

The Physical data model includes the following:

- Aggregate Tables (page 4-74)

- Sequences in Oracle Communications Data Model (page 4-77)

> **Note:**
>
> Do not make changes to the schemas as such changes are not supported.

Oracle Communications Data Model provides the following types of tables:

- Reference tables contain information that is usually used as dimensions. They usually do not change often (or at all). Typically, Reference tables are PARTY, CUSTOMER, ADDRESS LOCATION, ACCOUNT, SUBSCRIPTION, and so on

- Lookup tables in the foundation layer are added to save the definition of short codes used in other tables.

- Base tables store information about any type of transactions (Calls Data Records or CDRs, Invoices, Payments, Business Interactions, and so on). They are usually transformed into facts.

- Derived Tables in the analytic layer are usually transition tables to STARs. They are also leveraged for the Mining models.

- Aggregate Tables, or materialized views, are the STAR schema themselves at a higher level of aggregation. They may be related to the OLAP cubes.

- Other table types, as show in Table 4-2 (page 4-2).

For more information on Oracle Communications Data Model table types, see "What is Oracle Communications Data Model (page 1-4)".

Table 4-1 (page 4-2) shows the table name prefix conventions. When you examine the predefined physical model, keep in mind the naming conventions shown in Table 4-1 (page 4-2) that use DW (Data Warehouse) prefixes to identify the types of tables and views.

Table 4-1   Table Name Prefix Conventions

Prefix	Description
DWA_	Aggregate table
DWB_	Base transaction table
DWD_	Derived table (Mining included)
DWL_	Lookup table
DWR_	Reference data table

Table 4-2   Other Table Name Prefix Conventions

Prefix	Description
DM$ DR$	Created when the mining models are trained. Used to store trained model and logs.

Table 4-2   (Cont.) Other Table Name Prefix Conventions

Prefix	Description
CUBE	Created when OLAP cubes are built. Used to store logs and results.

4.2 Reference Tables

Provides information on the Reference tables in Oracle Communications Data Model.

Table 4-3   Reference Tables

Table Name	More Information
DWR_ACCS_MTHD	ACCESS METHOD (page 2-22)
DWR_ACCS_MTHD_ACCT_ASGN	ACCESS METHOD ACCOUNT ASSIGNMENT (page 2-22)
DWR_ACCS_MTHD_ASGN	ACCESS METHOD ASSIGNMENT (page 2-22)
DWR_ACCS_MTHD_ELMNT	ACCESS METHOD ELEMENT (page 2-23)
DWR_ACCS_MTHD_ELMNT_ASGN	ACCESS METHOD ELEMENT ASSIGNMENT (page 2-23)
DWR_ACCS_MTHD_EQPMNT_ASGN	ACCESS METHOD EQUIPMENT ASSIGNMENT (page 2-23)
DWR_ACCS_MTHD_GEO_ASGN	ACCESS METHOD GEOGRAPHY ASSIGNMENT (page 2-23)
DWR_ACCS_MTHD_POOL	ACCESS METHOD POOL (page 2-23)
DWR_ACCS_MTHD_PROD_SBRP_ASGN	ACCESS METHOD PRODUCT SUBSCRIPTION ASSIGNMENT (page 2-24)
DWR_ACCS_MTHD_PRTY_ASGN	ACCESS METHOD PARTY ASSIGNMENT (page 2-23)
DWR_ACCS_MTHD_RSCE_ASGN	ACCESS METHOD RESOURCE ASSIGNMENT (page 2-24)
DWR_ACCS_MTHD_SGMNT	ACCESS METHOD SEGMENT (page 2-24)
DWR_ACCS_MTHD_SRVC_ASGN	ACCESS METHOD SERVICE ASSIGNMENT (page 2-24)
DWR_ACCSRS	ACCESSORIES (page 2-25)
DWR_ACCSRS_INSTNC	ACCESSORIES INSTANCE (page 2-25)
DWR_ACCT	ACCOUNT (page 2-25)
DWR_ACCT_AGRMNT_RLTN	ACCOUNT AGREEMENT RELATIONSHIP (page 2-25)
DWR_ACCT_ASGN	ACCOUNT ASSIGNMENT (page 2-25)
DWR_ACCT_BAL_GRP	ACCOUNT BALANCE GROUP (page 2-26)

Table 4-3   (Cont.) Reference Tables

Table Name	More Information
DWR_ACCT_BLLG_CYCL_HIST	ACCOUNT BILLING CYCLE HISTORY (page 2-26)
DWR_ACCT_BLLG_FRQNCY_HIST	ACCOUNT BILLING FREQUENCY HISTORY (page 2-26)
DWR_ACCT_BLLG_PRD_HIST	ACCOUNT BILLING PERIOD HISTORY (page 2-26)
DWR_ACCT_BSNS_INTRACN_RL	ACCOUNT BUSINESS INTERACTION ROLE (page 2-26)
DWR_ACCT_PREF_INVC_DLVRY	ACCOUNT PREFERRED INVOICE DELIVERY (page 2-28)
DWR_ACCT_PYMT_MTHD	ACCOUNT PAYMENT METHOD (page 2-27)
DWR_ACCT_PRFL	ACCOUNT PROFILE (page 2-28)
DWR_ACCT_PROD_SBRP_ASGN	ACCOUNT PRODUCT SUBSCRIPTION ASSIGNMENT (page 2-28)
DWR_ACCT_PRTY_PROD_OFR_RLTN	ACCOUNT PARTY PRODUCT OFFERING RELATIONSHIP (page 2-27)
DWR_ACCT_PYMT_PLN_ASGN	ACCOUNT PAYMENT PLAN ASSIGNMENT (page 2-28)
DWR_ACCT_SGMNT	ACCOUNT SEGMENT (page 2-29)
DWR_ACCT_SGMNT_ASGN_HIST	ACCOUNT SEGMENT ASSIGNMENT HISTORY (page 2-29)
DWR_ACCT_SGMNT_MDL	ACCOUNT SEGMENTATION MODEL (page 2-29)
DWR_ACCT_TAX_EXMPT_ASGN	ACCOUNT TAX EXEMPT ASSIGNMENT (page 2-29)
DWR_ACTVTY_PROVSN_PLN	ACTIVITY PROVISIONING PLAN (page 2-30)
DWR_ACTVTY_PROVSN_PLN_DTL	ACTIVITY PROVISIONING PLAN DETAIL (page 2-30)
DWR_ADDR_LOC	ADDRESS LOCATION (page 2-30)
DWR_ADDR_LOC_ADMIN_AREA_ASGN	ADDRESS LOCATION ADMIN AREA ASSIGNMENT (page 2-31)
DWR_ADDR_LOC_NAME	ADDRESS LOCATION NAME (page 2-31)
DWR_ADDR_PHONE	ADDRESS PHONE (page 2-31)
DWR_ADDR_RLTD	ADDRESS RELATED (page 2-31)
DWR_ADMINSTVE_AREA	ADMINISTRATIVE AREA (page 2-32)
DWR_ADTNL_TXT	ADDITIONAL TEXT (page 2-30)
DWR_ADVR_PRD	ADVERTISING PERIOD (page 2-32)

Table 4-3   (Cont.) Reference Tables

Table Name	More Information
DWR_ADVR_QTR	ADVERTISING QUARTER (page 2-32)
DWR_ADVR_WK	ADVERTISING WEEK (page 2-32)
DWR_ADVR_YR	ADVERTISING YEAR (page 2-32)
DWR_AF_SRVC	AF SERVICE (page 2-32)
DWR_AGNT	AGENT (page 2-32)
DWR_AGGRTN_INTRFC	AGGREGATION INTERFACE (page 2-35)
DWR_AGRMNT	AGREEMENT (page 2-33)
DWR_AGRMNT_ASGN	AGREEMENT ASSIGNMENT (page 2-33)
DWR_AGRMNT_DOC	AGREEMENT DOCUMENT (page 2-34)
DWR_AGRMNT_INTNT	AGREEMENT INTENT (page 2-34)
DWR_AGRMNT_ITEM	AGREEMENT ITEM (page 2-34)
DWR_AGRMNT_PROD_SPEC_ASGN	AGREEMENT PRODUCT SPECIFICATION ASSIGNMENT (page 2-34)
DWR_AGRMNT_SLA_RLTN	AGREEMENT SLA RELATIONSHIP (page 2-34)
DWR_ALWNCE_SBRP_PRICE_ALTRTN	ALLOWANCE SUBSCRIPTION PRICE ALTERNATION (page 2-35)
DWR_AM_SGMNT_PROD_CPBLTY_RL	ACCESS METHOD SEGMENT PROD CAPABILITY RL (page 2-24)
DWR_AMRCN_PRPTY_ADDR	AMERICAN PROPERTY ADDRESS (page 2-35)
DWR_ANZSIC_CLSFCTN	ANZSIC CLASSIFICATION (page 2-35)
DWR_ASSET	ASSET (page 2-36)
DWR_ASSET_PRTY_ASSOCTN	ASSET PARTY ASSOCIATION (page 2-36)
DWR_ASSET_SITE_ASGN	ASSET SITE ASSIGNMENT (page 2-36)
DWR_ATM_INTRFC	ATM INTERFACE (page 2-37)
DWR_ATONOMS_SYS	AUTONOMOUS SYSTEM (page 2-37)
DWR_AUXILIARY_CMPNT	AUXILIARY COMPONENT (page 2-37)
DWR_BASE_DAY	BASE DAY (page 2-38)
DWR_BASE_STN_CNTRLR	BASE STATION CONTROLLER (page 2-38)
DWR_BASE_TRNSCVR_STN	BASE TRANSCEIVER STATION (page 2-38)
DWR_BLLG_CYCL	BILLING CYCLE (page 2-38)
DWR_BNK	BANK (page 2-38)

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Table Name	More Information
DWR_BNK_DRCT_DEBIT_CHNL	BANK DIRECT DEBIT CHANNEL (page 2-38)
DWR_BRDBND_RTNG_PLN	BROADBAND RATING PLAN (page 2-39)
DWR_BRDBND_SRVC	BROADBAND SERVICE (page 2-39)
DWR_BRDGNG_PROTCL	BRIDGING PROTOCOL (page 2-39)
DWR_BRND	BRAND (page 2-39)
DWR_BROWSER_VRSN	BROWSER VERSION (page 2-39)
DWR_BSNS_ASSET	BUSINESS ASSET (page 2-40)
DWR_BSNS_HLF_MO	BUSINESS HALF MONTH (page 2-40)
DWR_BSNS_HLF_YR	BUSINESS HALF YEAR (page 2-40)
DWR_BSNS_INTRACN_ASGN	BUSINESS INTERACTION ASSIGNMENT (page 2-40)
DWR_BSNS_INTRACN_CHAR	BUSINESS INTERACTION CHARACTERISTIC (page 2-40)
DWR_BSNS_INTRACN_CHAR_VAL	BUSINESS INTERACTION CHARACTERISTIC VALUE (page 2-40)
DWR_BSNS_INTRACN_DOC	BUSINESS INTERACTION DOCUMENT (page 2-41)
DWR_BSNS_INTRACN_ITEM_SPEC	BUSINESS INTERACTION ITEM SPECIFICATION (page 2-41)
DWR_BSNS_INTRACN_LOC_ASGN	BUSINESS INTERACTION LOCATION ASSIGNMENT (page 2-41)
DWR_BSNS_INTRACN_SPEC	BUSINESS INTERACTION SPECIFICATION (page 2-41)
DWR_BSNS_MO	BUSINESS MONTH (page 2-42)
DWR_BSNS_QTR	BUSINESS QUARTER (page 2-42)
DWR_BSNS_UNIT_JB_RL	BUSINESS UNIT JOB ROLE (page 2-42)
DWR_BSNS_UNIT_SHFT	BUSINESS UNIT SHIFT (page 2-42)
DWR_BSNS_WK	BUSINESS WEEK (page 2-42)
DWR_BSNS_YR	BUSINESS YEAR (page 2-42)
DWR_CALL_CNTR	CALL CENTER (page 2-42)
DWR_CALL_CNTR_AGNT	CALL CENTER AGENT (page 2-42)
DWR_CALL_CNTR_SRVC_CAPBLTY	CALL CENTER SERVICE CAPABILITY (page 2-43)
DWR_CALL_FRWD	CALL FORWARD (page 2-43)

Table 4-3   (Cont.) Reference Tables

Table Name	More Information
DWR_CALL_SRC_DSTN	CALL SOURCE DESTINATION (page 2-44)
DWR_CALLR_ID	CALLER ID (page 2-44)
DWR_CARD	CARD (page 2-46)
DWR_CARD_RLTN	CARD RELATIONSHIP (page 2-46)
DWR_CBL	CABLE (page 2-42)
DWR_CBL_MDM	CABLE MODEM (page 2-42)
DWR_CELL	CELL (page 2-47)
DWR_CELL_SCTR	CELL SECTOR (page 2-47)
DWR_CELL_SITE	CELL SITE (page 2-47)
DWR_CFGBL_PROSPCCHAR_PROSPCAGN	CONFIGURABLE PRODSPECCHARRACTERISTIC PRODSPECIFICATION ASSIGNMENT (page 2-58)
DWR_CFGBL_PROD_SPEC_CHAR	CONFIGURABLE PRODUCT SPECIFICATION CHARACTERISTIC (page 2-58)
DWR_CFS_NTWK_SRVC_ASGN	CFS NETWORK SERVICE ASSIGNMENT (page 2-48)
DWR_CFS_SPEC_VRSN_DTL	CFS SPECIFICATION VERSION DETAIL (page 2-48)
DWR_CHASSIS	CHASSIS (page 2-48)
DWR_CHASSIS_POSN	CHASSIS POSITION (page 2-49)
DWR_CHNL	CHANNEL (page 2-48)
DWR_CLASS_BASEWTD_FAIRQUE_SRVC	CLASS BASE WEIGHTED FAIR QUEUE SERVICE (page 2-50)
DWR_CLNDR_HLF_MO	CALENDAR HALF MONTH (page 2-42)
DWR_CLNDR_HLF_YR	CALENDAR HALF YEAR (page 2-42)
DWR_CLNDR_MO	CALENDAR MONTH (page 2-42)
DWR_CLNDR_QTR	CALENDAR QUARTER (page 2-42)
DWR_CLNDR_WK	CALENDAR WEEK (page 2-42)
DWR_CLNDR_YR	CALENDAR YEAR (page 2-42)
DWR_CLNT	CLIENT (page 2-50)
DWR_CLNT_HOST	CLIENT HOST (page 2-50)
DWR_CLNT_VRSN	CLIENT VERSION (page 2-50)
DWR_CLSSIFR_SRVC	CLASSIFIER SERVICE (page 2-50)
DWR_CMPGN	CAMPAIGN (page 2-44)

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Table Name	More Information
DWR_CMPGN_CHAR	CAMPAIGN CHARACTERISTIC (page 2-45)
DWR_CMPGN_CHAR_RLTN	CAMPAIGN CHARACTERISTIC RELATIONSHIP (page 2-45)
DWR_CMPGN_CHAR_VAL	CAMPAIGN CHARACTERISTIC VALUE (page 2-45)
DWR_CMPGN_CHAR_VAL_USE	CAMPAIGN CHARACTERISTIC VALUE USE (page 2-45)
DWR_CMPGN_CHNL	CAMPAIGN CHANNEL (page 2-44)
DWR_CMPGN_CHNL_ASGN	CAMPAIGN CHANNEL ASSIGNMENT (page 2-44)
DWR_CMPGN_DOC	CAMPAIGN DOCUMENT (page 2-45)
DWR_CMPGN_MEDIA	CAMPAIGN MEDIA (page 2-45)
DWR_CMPGN_MEDIA_SLNG_ITEM	CAMPAIGN MEDIA SELLING ITEM (page 2-45)
DWR_CMPGN_MGMT_HIST	CAMPAIGN MANAGEMENT HISTORY (page 2-45)
DWR_CMPGN_MSG	CAMPAIGN MESSAGE (page 2-45)
DWR_CMPGN_MSG_DPCT	CAMPAIGN MESSAGE DEPICTION (page 2-45)
DWR_CMPGN_RLTN	CAMPAIGN RELATIONSHIP (page 2-46)
DWR_CMPGN_TERM_VAL	CAMPAIGN TERM VALUE (page 2-46)
DWR_CMPND_CNDITNNG_ELMNT	COMPOUND CONDITIONING ELEMENT (page 2-53)
DWR_CMPND_RSCE_CMPND_DTL_ASGN	COMPOUND RESOURCE COMPOUND DETAIL ASSIGNMENT (page 2-54)
DWR_CMPND_RSCE_COLLCTN	COMPOUND RESOURCE COLLECTION (page 2-54)
DWR_CMPND_RSCE_DTL	COMPOUND RESOURCE DETAIL (page 2-54)
DWR_CMPND_RSCE_RL	COMPOUND RESOURCE ROLE (page 2-55)
DWR_CMPND_RSCE_RL_ASGN	COMPOUND RESOURCE ROLE ASSIGNMENT (page 2-55)
DWR_CMPND_RSCE_RL_SPEC	COMPOUND RESOURCE ROLE SPEC (page 2-55)
DWR_CMPND_RSCE_SPEC	COMPOUND RESOURCE SPEC (page 2-55)
DWR_CMPND_RSCE_SPEC_ATMC	COMPOUND RESOURCE SPECIFICATION ATOMIC (page 2-56)
DWR_CMPND_RSCE_SPEC_CMPST	COMPOUND RESOURCE SPECIFICATION COMPOSITE (page 2-57)
DWR_CMPND_RSCE_TP_DTL	COMPOUND RESOURCE TP DETAIL (page 2-57)
DWR_CMPND_RSCE_UNIT	COMPOUND RESOURCE UNIT (page 2-58)

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Table Name	More Information
DWR_CMPND_RSCE	COMPOUND RESOURCE (page 2-54)
DWR_CMPST_COMP_PROD_CRL_CHAR	COMPOSITE COMP PROD CRRL CHARACTERISTIC (page 2-52)
DWR_CMPST_PROD_SPEC	COMPOSITE PRODUCT SPECIFICATION (page 2-53)
DWR_CMPST_PROD_SPEC_ASGN	COMPOSITE PRODUCT SPECIFICATION ASSIGNMENT (page 2-53)
DWR_CMPST_SRVC	COMPOSITE SERVICE (page 2-53)
DWR_CMPST_SRVC_INCLSN	COMPOSITE SERVICE INCLUSION (page 2-53)
DWR_CMPST_SRVC_TYP_INCLSN	COMPOSITE SERVICE TYPE INCLUSION (page 2-53)
DWR_CMPTR	COMPETITOR (page 2-52)
DWR_CMPTR_INTLGNCE	COMPETITOR INTELLIGENCE (page 2-52)
DWR_CMPTR_INTLGNCE_PRTY_RL	COMPETITOR INTELLIGENCE PARTY ROLE (page 2-52)
DWR_CMPTR_MKT_SGMNT_ASGN	COMPETITOR MARKET SEGMENT ASSIGNMENT (page 2-52)
DWR_CMPTR_MKT_SGMNT_SWOT	COMPETITOR MARKET SEGMENT SWOT (page 2-52)
DWR_CMPTR_PROD_CRLTN	COMPETITOR PRODUCT CORRELATION (page 2-52)
DWR_CMPTR_SWOT	COMPETITOR SWOT (page 2-52)
DWR_CMPTR_TIER_ASGN	COMPETITOR TIER ASSIGNMENT (page 2-52)
DWR_CMST_PRODOFR_PRC_CMNT_ASGN	COMPOSITE PROD OFFER PRICE COMPONENT ASSIGNMENT (page 2-53)
DWR_CMPTVE_TIER	COMPETITIVE TIER (page 2-52)
DWR_CNCT_LST	CONTACT LIST (page 2-59)
DWR_CNCTN	CONNECTION (page 2-58)
DWR_CNCTN_TMNT_PNT	CONNECTION TERMINATION POINT (page 2-58)
DWR_CNSEQ_PRFMNC_NTFCTN_SPEC	CONSEQUENCE PERFORMANCE NOTIFICATION SPEC (page 2-59)
DWR_CNTNT	CONTENT (page 2-59)
DWR_CNTNT_PRICE	CONTENT PRICE (page 2-60)
DWR_CNTNT_PRVDR	CONTENT PROVIDER (page 2-60)
DWR_COLLCTN	COLLECTION (page 2-50)

Table 4-3 (Cont.) Reference Tables

Table Name	More Information
DWR_COLLCTN_AGNCY	COLLECTION AGENCY (page 2-50)
DWR_COMP_INTL_CHAR	COMP INTEL CHARACTERISTIC (page 2-51)
DWR_COMP_INTL_CHAR_VAL	COMP INTEL CHARACTERISTIC VALUE (page 2-51)
DWR_COMP_INTL_MKT_SGMNT	COMP INTEL MARKET SEGMENT (page 2-51)
DWR_COMP_PROD_CRRL_CHARVALUSE	COMP PROD CRRL CHARACTERISTIC VALUE USE (page 2-52)
DWR_COMP_PROD_CRRL_CHAR	COMP PROD CRRL CHARACTERISTIC (page 2-51)
DWR_COMP_PROD_CRRL_CHAR_ASGN	COMP PROD CRRL CHARACTERISTIC ASSIGNMENT (page 2-51)
DWR_COMP_PROD_CRRL_CHAR_RLTN	COMP PROD CRRL CHARACTERISTIC RELATIONSHIP (page 2-51)
DWR_COMP_PROD_CRRL_CHAR_VAL	COMP PROD CRRL CHARACTERISTIC VALUE (page 2-51)
DWR_COMPLEX_ADDR	COMPLEX ADDRESS (page 2-52)
DWR_COMUNICTN_SRVC	COMMUNICATION SERVICE (page 2-51)
DWR_CORE_INTRFC	CORE INTERFACE (page 2-60)
DWR_COST_CNTR	COST CENTER (page 2-60)
DWR_COURIER	COURIER (page 2-61)
DWR_CPCTY	CAPACITY (page 2-46)
DWR_CPE_LGICL_DVC_RL	CPE LOGICAL DEVICE ROLE (page 2-62)
DWR_CRCUT_CMPNT	CIRCUIT COMPONENT (page 2-49)
DWR_CRCUT_XREF	CIRCUIT CROSS REFERENCE (page 2-49)
DWR_CRDT_CTGRY	CREDIT CATEGORY (page 2-62)
DWR_CRDT_SCR_PRVDR	CREDIT SCORE PROVIDER (page 2-62)
DWR_CRNCY_GEO_ENT_ASGN	CURRENCY GEOGRAPHY ENTITY ASSIGNMENT (page 2-62)
DWR_CROSSD_THRSHLD	CROSSED THRESHOLD (page 2-62)
DWR_CSTM_QUENG_SRVC	CUSTOM QUEUING SERVICE (page 2-62)
DWR_CSTM_TAB_CLMN_CHAR	CUSTOM TABLE COLUMN CHARACTERISTIC (page 2-62)
DWR_CTLG	CATALOG (page 2-47)
DWR_CTLG_ASGN	CATALOG ASSIGNMENT (page 2-47)

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Table Name	More Information
DWR_CTLG_CTLG_ITEM_ASGN	CATALOG CATALOG ITEM ASSIGNMENT (page 2-47)
DWR_CTLG_ITEM	CATALOG ITEM (page 2-47)
DWR_CTLG_ITEM_ASGN	CATALOG ITEM ASSIGNMENT (page 2-47)
DWR_CUST	CUSTOMER (page 2-62)
DWR_CUST_ACCT	CUSTOMER ACCOUNT (page 2-62)
DWR_CUST_ADDR	CUSTOMER ADDRESS (page 2-62)
DWR_CUST_AFFLTN	CUSTOMER AFFILIATION (page 2-62)
DWR_CUST_CLASS_ASGN	CUSTOMER CLASS ASSIGNMENT (page 2-63)
DWR_CUST_CLSTR	CUSTOMER CLUSTER (page 2-63)
DWR_CUST_COMMUNITY	CUSTOMER COMMUNITY (page 2-63)
DWR_CUST_DOC	CUSTOMER DOCUMENT (page 2-63)
DWR_CUST_FCNG_SRVC	CUSTOMER FACING SERVICE (page 2-64)
DWR_CUST_FCNG_SRVC_RL	CUSTOMER FACING SERVICE ROLE (page 2-64)
DWR_CUST_FCNG_SRVC_SPEC	CUSTOMER FACING SERVICE SPECIFICATION (page 2-64)
DWR_CUST_FCNG_SRVC_SPEC_ATMC	CUSTOMER FACING SERVICE SPECIFICATION ATOMIC (page 2-64)
DWR_CUST_FCNG_SRVC_SPEC_CMPST	CUSTOMER FACING SERVICE SPECIFICATION COMPOSITE (page 2-65)
DWR_CUST_FCNG_SRVC_SPEC_RL	CUSTOMER FACING SERVICE SPECIFICATION ROLE (page 2-65)
DWR_CUST_FCNG_SRVC_SPEC_VRSN	CUSTOMER FACING SERVICE SPECIFICATION VERSION (page 2-65)
DWR_CUST_GRP_ASGN	CUSTOMER GROUP ASSIGNMENT (page 2-65)
DWR_CUST_GRP_ITEM	CUSTOMER GROUP ITEM (page 2-66)
DWR_CUST_INDVL	CUSTOMER INDIVIDUAL (page 2-66)
DWR_CUST_OCCSN	CUSTOMER OCCASION (page 2-66)
DWR_CUST_ORDR_DOC	CUSTOMER ORDER DOCUMENT (page 2-66)
DWR_CUST_ORG	CUSTOMER ORGANIZATION (page 2-67)
DWR_CUST_PREF	CUSTOMER PREFERENCE (page 2-67)
DWR_CUST_RLTN	CUSTOMER RELATIONSHIP (page 2-67)

Table 4-3 (Cont.) Reference Tables

Table Name	More Information
DWR_CUST_RSTRCT_INFO	CUSTOMER RESTRICTED INFO (page 2-67)
DWR_CUST_RVN_BND_ASGN	CUSTOMER REVENUE BAND ASSIGNMENT (page 2-67)
DWR_CUST_SCR	CUSTOMER SCORE (page 2-67)
DWR_CUST_SGMNT	CUSTOMER SEGMENT (page 2-67)
DWR_CUST_SGMNT_MDL	CUSTOMER SEGMENTATION MODEL (page 2-68)
DWR_CUST_SIC_ASGN	CUSTOMER SIC ASSIGNMENT (page 2-68)
DWR_CUST_SRC	CUSTOMER SOURCE (page 2-68)
DWR_DAY	DAY (page 2-68)
DWR_DAY_ACT_CONDITION	DAY ACTUAL CONDITION (page 2-68)
DWR_DAY_TODATE_TRANS	DAY TODATE TRANSFORMATION (page 2-68)
DWR_DAY_TRANS	DAY TRANSFORMATION (page 2-68)
DWR_DEAL	DEAL (page 2-69)
DWR_DEAL_LN_ITEM	DEAL LINE ITEM (page 2-69)
DWR_DEMOG_ATRIB	DEMOGRAPHY ATTRIBUTE (page 2-69)
DWR_DEMOG_CHAR	DEMOGRAPHIC CHARACTERISTIC (page 2-69)
DWR_DEMOG_CHAR_ASGN	DEMOGRAPHIC CHARACTERISTIC ASSIGNMENT (page 2-69)
DWR_DEMOG_CHAR_VAL	DEMOGRAPHIC CHARACTERISTIC VALUE (page 2-69)
DWR_DEMOG_GRP	DEMOGRAPHY GROUP (page 2-69)
DWR_DFCT_RND_RBIN_SCHDLNG_SRVC	DEFICIT ROUND ROBIN SCHEDULING SERVICE (page 2-69)
DWR_DIFFSERV_SRVC	DIFFSERV SERVICE (page 2-70)
DWR_DISC_GRP	DISCOUNT GROUP (page 2-71)
DWR_DISC_SBRP_PRICE_ALTRTN	DISCOUNT SUBSCRIPTION PRICE ALTERATION (page 2-71)
DWR_DLR	DEALER (page 2-69)
DWR_DLR_DISC_GRP_ASGN	DEALER DISCOUNT GROUP ASSIGNMENT (page 2-69)
DWR_DOC_TYP_GRP_ASGN	DOCUMENT TYPE GROUP ASSIGNMENT (page 2-72)

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Table Name	More Information
DWR_DOMAIN	DOMAIN (page 2-72)
DWR_DRCTD_EDGE_VRTX_RLTN	TBS
DWR_DRPPR_SRVC	DROPPER SERVICE (page 2-72)
DWR_DRVD_VAL	DERIVED VALUE (page 2-69)
DWR_DSL_MDM	DSL MODEM (page 2-72)
DWR_DVC_INTRFC	DEVICE INTERFACE (page 2-70)
DWR_DVC_INTRFC_DTL	DEVICE INTERFACE DETAIL (page 2-70)
DWR_DVC_INTRFC_PHY_PRT_ASGN	DEVICE INTERFACE PHYSICAL PORT ASSIGNMENT (page 2-70)
DWR_DVC_INTRFC_RL	DEVICE INTERFACE ROLE (page 2-70)
DWR_DVC_INTRFC_TP_ASGN	DEVICE INTERFACE TP ASSIGNMENT (page 2-70)
DWR_EDGE_INTRFC	EDGE INTERFACE (page 2-72)
DWR_EF_SRVC	EF SERVICE (page 2-72)
DWR_EIGHT_ZERO_TWO_SRVC	802 SERVICE (page 2-22)
DWR_EML_ADDR	EMAIL ADDRESS (page 2-72)
DWR_EML_SRVC	EMAIL SERVICE (page 2-72)
DWR_EMP	EMPLOYEE (page 2-72)
DWR_EMP_DISC_GRP_ASGN	EMPLOYEE DISCOUNT GROUP ASSIGNMENT (page 2-73)
DWR_EMP_JB_RL_ASGN	EMPLOYEE JOB ROLE ASSIGNMENT (page 2-73)
DWR_EMP_LANG_CAPBLTY	EMPLOYEE LANGUAGE CAPABILITY (page 2-73)
DWR_EMP_RSTRCT_INFO	EMPLOYEE RESTRICTED INFO (page 2-73)
DWR_EMP_SCHL	EMPLOYEE SCHEDULE (page 2-73)
DWR_ENT	ENTITY (page 2-74)
DWR_ENT_RL	ENTITY ROLE (page 2-74)
DWR_ENT_SPEC	ENTITY SPECIFICATION (page 2-74)
DWR_EQPMNT	EQUIPMENT (page 2-74)
DWR_EQPMNT_CNTR	EQUIPMENT CENTER (page 2-74)
DWR_EQPMNT_FNCTNLTY	EQUIPMENT FUNCTIONALITY (page 2-74)
DWR_EQPMNT_FNCTNLTY_ASGN	EQUIPMENT FUNCTIONALITY ASSIGNMENT (page 2-74)

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Table Name	More Information
DWR_EQPMNT_HLDR	EQUIPMENT HOLDER (page 2-75)
DWR_EQPMNT_INSTNC	EQUIPMENT INSTANCE (page 2-75)
DWR_EQPMNT_RNTNG_AGRMNT	EQUIPMENT RENTING AGREEMENT (page 2-75)
DWR_EVT_FXBLE_CHAR_VAL_USE	EVENT FLEXIBLE CHARACTERISTIC VALUE USE (page 2-77)
DWR_EVT_LOC	EVENT LOCATION (page 2-77)
DWR_EVT_PRTY_INTRACN_CHAR_VAL	EVENT PARTY INTERACTION CHARACTERISTIC VALUE (page 2-78)
DWR_EXCHNG_LOC	EXCHANGE LOCATION (page 2-80)
DWR_EXCLD_PRT_DTL	EXCLUDE PORT DETAIL (page 2-80)
DWR_EXTRNL_CRDT_PRFL	EXTERNAL CREDIT PROFILE (page 2-81)
DWR_EXTRNL_CRDT_PRFL_ASGN	EXTERNAL CREDIT PROFILE ASSIGNMENT (page 2-81)
DWR_EXTRNL_INFO_SRC	EXTERNAL INFORMATION SOURCE (page 2-81)
DWR_EXTRNL_OPRTR	EXTERNAL OPERATOR (page 2-81)
DWR_FAIR_QUENG_SRVC	FAIR QUEUING SERVICE (page 2-81)
DWR_FCTR_CMPNY	FACTOR COMPANY (page 2-81)
DWR_FDA	FDA (page 2-81)
DWR_FIXED_LN_PRT	FIXED LINE PORT (page 2-82)
DWR_FIXED_LN_RTNG_PLN	FIXED LINE RATING PLAN (page 2-82)
DWR_FIXED_LN_SRVC	FIXED LINE SERVICE (page 2-82)
DWR_FRWL_RL	FIREWALL ROLE (page 2-82)
DWR_FRWRDNG_GRAPH	FORWARDING GRAPH NETWORK SERVICE ASSIGNMENT (page 2-83)
DWR_FRWRDNG_GRPH_NTWK_SVC_ASGN	FORWARDING GRAPH NETWORK SERVICE ASSIGNMENT (page 2-83)
DWR_FSAM	FSAM (page 2-83)
DWR_FSCL_HLF_MO	FISCAL HALF MONTH (page 2-82)
DWR_FSCL_HLF_YR	FISCAL HALF YEAR (page 2-82)
DWR_FSCL_MO	FISCAL MONTH (page 2-82)
DWR_FSCL_QTR	FISCAL QUARTER (page 2-82)
DWR_FSCL_WK	FISCAL WEEK (page 2-82)

Table 4-3   (Cont.) Reference Tables

Table Name	More Information
DWR_FSCL_YR	FISCAL YEAR (page 2-82)
DWR_FXBLE_CHAR	FLEXIBLE CHARACTERISTIC (page 2-82)
DWR_FXBLE_CHAR_ASGN	FLEXIBLE CHARACTERISTIC ASSIGNMENT (page 2-82)
DWR_FXBLE_CHAR_RLTN	FLEXIBLE CHARACTERISTIC RELATIONSHIP (page 2-82)
DWR_FXBLE_CHAR_VAL	FLEXIBLE CHARACTERISTIC VALUE (page 2-83)
DWR_FXBLE_CHAR_VAL_ASGN	FLEXIBLE CHARACTERISTIC VALUE ASSIGNMENT (page 2-83)
DWR_FXBLE_CHAR_VAL_RLTN	FLEXIBLE CHARACTERISTIC VALUE RELATIONSHIP (page 2-83)
DWR_GEO_BLDG	GEOGRAPHY BUILDING (page 2-83)
DWR_GEO_CITY	GEOGRAPHY CITY (page 2-83)
DWR_GEO_CNTRY	GEOGRAPHY COUNTRY (page 2-83)
DWR_GEO_CNTY	GEOGRAPHY COUNTY (page 2-83)
DWR_GEO_COMPLEX	GEOGRAPHY COMPLEX (page 2-83)
DWR_GEO_DEMOG_ATRIB	GEOGRAPHY DEMOGRAPHY ATTRIBUTE (page 2-84)
DWR_GEO_DEMOG_GRP	GEOGRAPHY DEMOGRAPHIC GROUP (page 2-84)
DWR_GEO_DEMOG_VAL	GEOGRAPHY DEMOGRAPHY VALUE (page 2-84)
DWR_GEO_ENT	GEOGRAPHY ENTITY (page 2-84)
DWR_GEO_ENT_ASGN	GEOGRAPHY ENTITY ASSIGNMENT (page 2-84)
DWR_GEO_ENT_HIER_LVL_ASGN	GEOGRAPHY ENTITY HIER LEVEL ASSIGNMENT (page 2-84)
DWR_GEO_HRCHY	GEOGRAPHY HIERARCHY (page 2-84)
DWR_GEO_HRCHY_LVL	GEOGRAPHY HIERARCHY LEVEL (page 2-84)
DWR_GEO_HRCHY_LVL_ASGN	GEOGRAPHY HIERARCHY LEVEL ASSIGNMENT (page 2-84)
DWR_GEO_LVL	GEOGRAPHY LEVEL (page 2-84)
DWR_GEO_LVL_ATRIB	GEOGRAPHY LEVEL ATTRIBUTE (page 2-84)
DWR_GEO_LVL_ATRIB_VAL	GEOGRAPHY LEVEL ATTRIBUTE VALUE (page 2-84)
DWR_GEO_RGN	GEOGRAPHY REGION (page 2-84)

Table 4-3   (Cont.) Reference Tables

Table Name	More Information
DWR_GEO_SBRGN	GEOGRAPHY SUB REGION (page 2-84)
DWR_GEO_STATE	GEOGRAPHY STATE (page 2-84)
DWR_GEO_STRT	GEOGRAPHY STREET (page 2-84)
DWR_GEO_WORLD	GEOGRAPHY WORLD (page 2-84)
DWR_GL_ACCT	GL ACCOUNT (page 2-85)
DWR_GL_ACCT_ASGN	GL ACCOUNT ASSIGNMENT (page 2-85)
DWR_GL_ACCT_SGMNT	GL ACCOUNT SEGMENT (page 2-85)
DWR_GL_COST_CNTR_SGMNT	GL COST CENTER SEGMENT (page 2-85)
DWR_GL_LDGR	GL LEDGER (page 2-86)
DWR_GL_LDGR_ACCT_ASGN	GL LEDGER ACCOUNT ASSIGNMENT (page 2-86)
DWR_GL_ORG_BSNS_UNIT_SGMNT	GL ORGANIZATION BUSINESS UNIT SEGMENT (page 2-86)
DWR_GL_PRD	GL PERIOD (page 2-86)
DWR_GL_PROD_SPEC_SGMNT	GL PRODUCT SPECIFICATION SEGMENT (page 2-86)
DWR_GL_PROJ_SGMNT	GL PROJECT SEGMENT (page 2-86)
DWR_GL_REF	GL REFERENCE (page 2-86)
DWR_GL_SBLDGR	GL SUBLEDGER (page 2-86)
DWR_GL_SGMNT	GL SEGMENT (page 2-86)
DWR_GRAPH_DRCTD_EDGE_RLTN	GRAPH DIRECTED EDGE RELATIONSHIP (page 2-87)
DWR_GRAPH_VRTX_RLTN	GRAPH DIRECTED EDGE RELATIONSHIP (page 2-87)
DWR_GPRS_SRVC	GPRS SERVICE (page 2-87)
DWR_HEAD_TAIL_DRPPR_SRVC	HEAD TAIL DROPPER SERVICE (page 2-88)
DWR_HH	HOUSEHOLD (page 2-88)
DWR_HLDR_ATMC	HOLDER ATOMIC (page 2-88)
DWR_HLDR_CMPST	HOLDER COMPOSITE (page 2-88)
DWR_HLF_HR	HALF HOUR (page 2-87)
DWR_HLF_MO_TODATE_TRANS	HALF MONTH TODATE TRANSFORMATION (page 2-87)
DWR_HLF_MO_TRANS	HALF MONTH TRANSFORMATION (page 2-87)

Table 4-3   (Cont.) Reference Tables

Table Name	More Information
DWR_HLF_YR_TODATE_TRANS	HALF YEAR TODATE TRANSFORMATION (page 2-87)
DWR_HLF_YR_TRANS	HALF YEAR TRANSFORMATION (page 2-87)
DWR_HM_SBCRBR_SERVER	HOME SUBSCRIBER SERVER (page 2-88)
DWR_HNDST_INSTNC	HANDSET INSTANCE (page 2-87)
DWR_HNDST_MDL	HANDSET MODEL (page 2-87)
DWR_HR	HOUR (page 2-88)
DWR_HRDWR	HARDWARE (page 2-88)
DWR_IDD	IDD (page 2-88)
DWR_IN_PLTFRM	IN PLATFORM (page 2-88)
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DWR_PRD_TRANS	PERIOD TRANSFORMATION (page 2-130)
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DWR_PRFMNC_IND_RLTN	PERFORMANCE INDICATOR RELATIONSHIP (page 2-129)
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DWR_PRFMNC_SPEC_INTRVL_CNVRSN	PERFORMANCE SPECIFICATION INTERVAL CONVERSION (page 2-130)
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DWR_PRFMNC_THRSHLD_RULE_DEF	PERFORMANCE THRESHOLD RULE DEFINITION (page 2-130)
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DWR_PRICE_DRVTN_RULE	PRICE DERIVATION RULE (page 2-149)
DWR_PRICE_TYP_RLTN	PRICE TYPE RELATIONSHIP (page 2-149)
DWR_PRIORITY_HRCHY_LVL	PRIORITY HIERARCHY LEVEL (page 2-150)
DWR_PRIORITY_QUENG_SRVC	PRIORITY QUEUING SERVICE (page 2-150)
DWR_PRMTN	PROMOTION (page 2-163)
DWR_PRMTN_MSG_RNDRNG	PROMOTION MESSAGE RENDERING (page 2-163)
DWR_PRMTN_PROD_CTLG_ASGN	PROMOTION PRODUCT CATALOG ASSIGNMENT (page 2-163)
DWR_PRMTN_PROD_OFR_ASGN	PROMOTION PRODUCT OFFERING ASSIGNMENT (page 2-163)
DWR_PRMTN_RLTN	PROMOTION RELATIONSHIP (page 2-163)
DWR_PRMTN_SL_CHNL_ASGN	PROMOTION SALES CHANNEL ASSIGNMENT (page 2-163)

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Table Name	More Information
DWR_PROD	PRODUCT (page 2-152)
DWR_PRODOFR_PRODOFR_PRICE_ASGN	PRODUCT OFFERING PRODUCT OFFERING PRICE ASSIGNMENT (page 2-156)
DWR_PROD_CAPBLTY	PRODUCT CAPABILITY (page 2-152)
DWR_PROD_CAPBLTY_VAL	PRODUCT CAPABILITY VALUE (page 2-152)
DWR_PROD_CHAR_VAL	PRODUCT CHARACTERISTIC VALUE (page 2-153)
DWR_PROD_COVRG_AREA	PRODUCT COVERAGE AREA (page 2-154)
DWR_PROD_COVRG_GEO_DTL	PRODUCT SPECIFICATION COVERAGE GEO DETAIL (page 2-159)
DWR_PROD_CTLG	PRODUCT CATALOG (page 2-152)
DWR_PROD_CTLG_CHAR	PRODUCT CATALOG CHARACTERISTIC (page 2-153)
DWR_PROD_CTLG_CHAR_ASGN	PRODUCT CATALOG CHARACTERISTIC ASSIGNMENT (page 2-153)
DWR_PROD_CTLG_CHAR_RLTN	PRODUCT CATALOG CHARACTERISTIC RELATIONSHIP (page 2-153)
DWR_PROD_CTLG_CHAR_VAL	PRODUCT CATALOG CHARACTERISTIC VALUE (page 2-153)
DWR_PROD_CTLG_CHAR_VAL_ASGN	PRODUCT CATALOG CHARACTERISTIC VALUE ASSIGNMENT (page 2-153)
DWR_PROD_CTLG_CHAR_VAL_RLTN	PRODUCT CATALOG CHARACTERISTIC VALUE RELATIONSHIP (page 2-153)
DWR_PROD_CTLG_GEO_ASGN	PRODUCT CATALOG GEOGRAPHY ASSIGNMENT (page 2-153)
DWR_PROD_CTLG_PROD_OFR_ASGN	PRODUCT CATALOG PRODUCT OFFERING ASSIGNMENT (page 2-153)
DWR_PROD_CTLG_SL_CHNL_ASGN	PRODUCT CATALOG SALES CHANNEL ASSIGNMENT (page 2-153)
DWR_PROD_CTLG_SPEC	PRODUCT CATALOG SPECIFICATION (page 2-153)
DWR_PROD_FNCTNLTY_DPNDCY	PRODUCT FUNCTIONALITY DEPENDENCY (page 2-154)
DWR_PROD_SPEC_CHAR_CFGBL_ASGN	PRODUCT SPECIFICATION CHARACTERISTIC CONFIGURABLE ASSIGNMENT (page 2-158)
DWR_PROD_GEO_ASGN	PRODUCT GEOGRAPHY ASSIGNMENT (page 2-154)
DWR_PROD_OFR	PRODUCT OFFERING (page 2-154)
DWR_PROD_OFR_AVLBLTY	PRODUCT OFFERING AVAILABILITY (page 2-154)

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Table Name	More Information
DWR_PROD_OFR_DOC_REQRMNT	PRODUCT OFFERING DOCUMENT REQUIREMENT (page 2-154)
DWR_PROD_OFR_GEO_ASGN	PRODUCT OFFERING GEOGRAPHY ASSIGNMENT (page 2-154)
DWR_PROD_OFR_GRP	PRODUCT OFFERING GROUP (page 2-155)
DWR_PROD_OFR_GRP_ASGN	PRODUCT OFFERING GROUP ASSIGNMENT (page 2-155)
DWR_PROD_OFR_MKT_SGMNT_AVLBLTY	PRODUCT OFFERING MARKET SEGMENT AVAILABILITY (page 2-155)
DWR_PROD_OFR_ORG_AVLBLTY	PRODUCT OFFERING ORGANIZATION AVAILABILITY (page 2-155)
DWR_PROD_OFR_PRICE	PRODUCT OFFERING PRICE (page 2-155)
DWR_PROD_OFR_PRICE_CMPNT	PRODUCT OFFERING PRICE COMPONENT (page 2-155)
DWR_PROD_OFR_PRICE_CMPST	PRODUCT OFFERING PRICE COMPOSITE (page 2-155)
DWR_PROD_OFR_PRICE_PLCY_ACTN	PRODUCT OFFERING PRICE POLICY ACTION (page 2-155)
DWR_PROD_OFR_PRICE_PLCY_CNDTN	PRODUCT OFFERING PRICE POLICY CONDITION (page 2-155)
DWR_PROD_OFR_PRICE_PLCY_VAL	PRODUCT OFFERING PRICE POLICY VALUE (page 2-155)
DWR_PROD_OFR_PRICE_PLCY_VAR	PRODUCT OFFERING PRICE POLICY VARIABLE (page 2-156)
DWR_PROD_OFR_PRICE_RCRNG	PRODUCT OFFERING PRICE RECURRING (page 2-156)
DWR_PROD_OFR_PRICE_RLTN	PRODUCT OFFERING PRICE RELATIONSHIP (page 2-156)
DWR_PROD_OFR_PROD_ASGN	PRODUCT OFFERING PRODUCT ASSIGNMENT (page 2-156)
DWR_PROD_OFR_PROD_SPEC_ASGN	PRODUCT OFFERING PRODUCT SPECIFICATION ASSIGNMENT (page 2-156)
DWR_PROD_OFR_RLTN	PRODUCT OFFERING RELATIONSHIP (page 2-156)
DWR_PROD_OFR_RTNG_PLN	PRODUCT OFFERING RATING PLAN (page 2-156)
DWR_PROD_OFR_RTNG_PLN_DTL	PRODUCT OFFERING RATING PLAN DETAIL (page 2-156)

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Table Name	More Information
DWR_PROD_OFR_SUB_BY_DOC	PRODUCT OFFERING SUBSTITUTE BY DOC (page 2-157)
DWR_PROD_OFR_TERM	PRODUCT OFFERING TERM (page 2-157)
DWR_PROD_PRICE_ALTRTN	PRODUCT PRICE ALTERATION (page 2-157)
DWR_PROD_PRICE_CMPNT	PRODUCT PRICE COMPONENT (page 2-157)
DWR_PROD_PRICE_PRTY_RL	PRODUCT PRICE PARTY ROLE (page 2-157)
DWR_PROD_PROD_CAPBLTY_VAL_ASGN	PRODUCT PRODUCT CAPABILITY VALUE ASSIGNMENT (page 2-157)
DWR_PROD_RLTN	PRODUCT RELATIONSHIP (page 2-157)
DWR_PROD_SBRP	PRODUCT SUBSCRIPTION (page 2-161)
DWR_PROD_SBRP_ASGN	PRODUCT SUBSCRIPTION ASSIGNMENT (page 2-161)
DWR_PROD_SBRP_PRICE	PRODUCT SUBSCRIPTION PRICE (page 2-161)
DWR_PROD_SBRP_PRICE_RLTN	PRODUCT SUBSCRIPTION PRICE RELATIONSHIP (page 2-161)
DWR_PROD_SBRP_PRODOFRPRIE_ASGN	PRODUCT SUBSCRIPTION PRODUCT OFFERING PRICE ASSIGNMENT (page 2-161)
DWR_PROD_SPEC	PRODUCT SPECIFICATION (page 2-158)
DWR_PROD_SPEC_ADTNL_TXT	PRODUCT SPECIFICATION ADDITIONAL TEXT (page 2-158)
DWR_PROD_SPEC_CHAR	PRODUCT SPECIFICATION CHARACTERISTIC (page 2-158)
DWR_PROD_SPEC_CHAR_RLTN	PRODUCT SPECIFICATION CHARACTERISTIC RELATIONSHIP (page 2-158)
DWR_PROD_SPEC_CHAR_USE	PRODUCT SPECIFICATION CHARACTERISTIC USE (page 2-158)
DWR_PROD_SPEC_CHAR_VAL	PRODUCT SPECIFICATION CHARACTERISTIC VALUE (page 2-159)
DWR_PROD_SPEC_CHAR_VAL_RLTN	PRODUCT SPECIFICATION CHARACTERISTIC VALUE RELATIONSHIP (page 2-159)
DWR_PROD_SPEC_CHAR_VAL_USE	PRODUCT SPECIFICATION CHARACTERISTIC VALUE USE (page 2-159)
DWR_PROD_SPEC_GRP_ASGN	PRODUCT SPECIFICATION GROUP ASSIGNMENT (page 2-159)
DWR_PROD_SPEC_HIST	PRODUCT SPECIFICATION HISTORY (page 2-160)

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Table Name	More Information
DWR_PROD_SPEC_NTWK_ASGN	PRODUCT SPECIFICATION NETWORK ASSIGNMENT (page 2-160)
DWR_PROD_SPEC_RLTN	PRODUCT SPECIFICATION RELATIONSHIP (page 2-160)
DWR_PROD_SPEC_VRSN	PRODUCT SPECIFICATION VERSION (page 2-161)
DWR_PROD_USRNM	PRODUCT USERNAME (page 2-162)
DWR_PROJ	PROJECT (page 2-162)
DWR_PROJ_ELMNT	PROJECT ELEMENT (page 2-163)
DWR_PROPOSAL	PROPOSAL (page 2-164)
DWR_PROPOSAL_RLTN	PROPOSAL RELATIONSHIP (page 2-164)
DWR_PROTCL	PROTOCOL (page 2-165)
DWR_PRPD_VCHR	PREPAID VOUCHER (page 2-148)
DWR_PRPD_VCHR_BTCH	PREPAID VOUCHER BATCH (page 2-148)
DWR_PRPD_VCHR_RCHRG_OPTN	PREPAID VOUCHER RECHARGE OPTION (page 2-149)
DWR_PRPD_VCHR_SPEC	PREPAID VOUCHER SPECIFICATION (page 2-149)
DWR_PRPTY	PROPERTY (page 2-164)
DWR_PRPTY_ADDR_LOC_ASGN	PROPERTY ADDRESS LOCATION ASSIGNMENT (page 2-164)
DWR_PRSPCT	PROSPECT (page 2-165)
DWR_PRSPCT_INDVL	PROSPECT INDIVIDUAL (page 2-165)
DWR_PRSPCT_ORG	PROSPECT ORGANIZATION (page 2-165)
DWR_PRSPCT_QLTY_SCR_VAL	PROSPECT QUALITY SCORE VALUE (page 2-165)
DWR_PRSPCT_RSTRCT_INFO	PROSPECT RESTRICTED INFORMATION (page 2-165)
DWR_PRTNR_PRMTN_PROG	PARTNER PROMOTION PROGRAM (page 2-119)
DWR_PRTY	PARTY (page 2-120)
DWR_PRTY_ACCT_ASGN	PARTY ACCOUNT ASSIGNMENT (page 2-120)
DWR_PRTY_ADDR_LOC_ASGN	PARTY ADDRESS LOCATION ASSIGNMENT (page 2-120)
DWR_PRTY_AGRMNT_ASGN	PARTY AGREEMENT ASSIGNMENT (page 2-120)
DWR_PRTY_ASGN	PARTY ASSIGNMENT (page 2-121)

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Table Name	More Information
DWR_PRTY_BSNS_INTRACN_RL	PARTY BUSINESS INTERACTION ROLE (page 2-121)
DWR_PRTY_CNTCT_INFO	PARTY CONTACT INFORMATION (page 2-121)
DWR_PRTY_DEMOG	PARTY DEMOGRAPHIC (page 2-122)
DWR_PRTY_DEMOG_ASGN	PARTY DEMOGRAPHIC ASSIGNMENT (page 2-122)
DWR_PRTY_DEMOG_VAL	PARTY DEMOGRAPHIC VALUE (page 2-122)
DWR_PRTY_GEO_ENT_ASGN	PARTY GEOGRAPHY ENTITY ASSIGNMENT (page 2-122)
DWR_PRTY_ID	PARTY IDENTIFICATION (page 2-122)
DWR_PRTY_LANG_CAPBLTY	PARTY LANGUAGE CAPABILITY (page 2-122)
DWR_PRTY_MKT_SGMNT_ASGN	PARTY MARKET SEGMENT ASSIGNMENT (page 2-122)
DWR_PRTY_NAME	PARTY NAME (page 2-123)
DWR_PRTY_PRFL	PARTY PROFILE (page 2-123)
DWR_PRTY_PRFL_CHAR_ASGN	PARTY PROFILE CHARACTERISTIC ASSIGNMENT (page 2-123)
DWR_PRTY_PRFL_TYP_CHAR	PARTY PROFILE TYPE CHARACTERISTIC (page 2-123)
DWR_PRTY_PRFL_TYP_CHAR_ASGN	PARTY PROFILE TYPE CHARACTERISTIC ASSIGNMENT (page 2-123)
DWR_PRTY_PRFL_TYP_CHAR_RLTN	PARTY PROFILE TYPE CHARACTERISTIC RELATIONSHIP (page 2-124)
DWR_PRTY_PRFL_TYP_CHAR_VAL	PARTY PROFILE TYPE CHARACTERISTIC VALUE (page 2-124)
DWR_PRTY_PRFL_TYP_CHAR_VALASGN	PARTY PROFILE TYPE CHARACTERISTIC VALUE ASSIGNMENT (page 2-124)
DWR_PRTY_PROD_SBRP_ASGN	PARTY PRODUCT SUBSCRIPTION ASSIGNMENT (page 2-123)
DWR_PRTY_PRTY_PRFL_ASGN	PARTY PARTY PROFILE ASSIGNMENT (page 2-123)
DWR_PRTY_PRTY_PRFL_VAL_USE	PARTY PARTY PROFILE VALUE USE (page 2-123)
DWR_PRTY_RL	PARTY ROLE (page 2-124)
DWR_PRTY_RL_ASGN	PARTY ROLE ASSIGNMENT (page 2-124)
DWR_PRTY_RL_CTGRY_ASGN	PARTY ROLE CATEGORY ASSIGNMENT (page 2-124)

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Table Name	More Information
DWR_PRTY_RL_OS_PRCS_ASGN	PARTY ROLE OS PROCESS ASSIGNMENT (page 2-124)
DWR_PRTY_RL_PRFL_ASGN	PARTY ROLE PROFILE ASSIGNMENT (page 2-124)
DWR_PRTY_RL_STAT	PARTY ROLE STATUS (page 2-124)
DWR_PRTY_SIM_CARD_ASGN	PARTY SIM CARD ASSIGNMENT (page 2-125)
DWR_PRTY_SKILL	PARTY SKILL (page 2-125)
DWR_PRTY_SRVC_ASGN	PARTY SERVICE ASSIGNMENT (page 2-125)
DWR_PTS_EXPRY_BASIS	POINTS EXPIRY BASIS (page 2-135)
DWR_PV_BIT_STRING_VAL	PV BIT STRING VALUE (page 2-166)
DWR_PV_BOLEN_VAL	PV BOOLEAN VALUE (page 2-166)
DWR_PV_INTEGER_VAL	PV INTEGER VALUE (page 2-166)
DWR_PV_IP_ADDR_VAL	PV IP ADDRESS VALUE (page 2-166)
DWR_PV_MAC_ADDR_VAL	PV MAC ADDRESS VALUE (page 2-166)
DWR_PV_STRING_VAL	PV STRING VALUE (page 2-166)
DWR_PVAR_1QCOS_VARBLE	PVAR 1QCOS VARIABLE (page 2-166)
DWR_PVAR_BIT_STRING_VARBLE	PVAR BIT STRING VARIABLE (page 2-166)
DWR_PVAR_DN_VARBLE	PVAR DN VARIABLE (page 2-167)
DWR_PVAR_DSCP_VARBLE	PVAR DSCP VARIABLE (page 2-167)
DWR_PVAR_ETHER_TYP_VARBLE	PVAR ETHER TYPE VARIABLE (page 2-167)
DWR_PVAR_IPTOS_VARBLE	PVAR IPTOS VARIABLE (page 2-167)
DWR_PVAR_IPV4_VARBLE	PVAR IPV4 VARIABLE (page 2-167)
DWR_PVAR_IPV6_FLOW_ID_VARBLE	PVAR IPV6 FLOW VARIABLE (page 2-167)
DWR_PVAR_IPV6_VARBLE	PVAR IPV6 VARIABLE (page 2-167)
DWR_PVAR_IPVRSN_VARBLE	PVAR IPVERSION VARIABLE (page 2-167)
DWR_PVAR_IP_PROTCL_VARBLE	PVAR IP PROTOCOL VARIABLE (page 2-167)
DWR_PVAR_MAC_VARBLE	PVAR MAC VARIABLE (page 2-167)
DWR_PVAR_PRT_VARBLE	PVAR PORT VARIABLE (page 2-167)
DWR_PVAR_STRING_VARBLE	PVAR STRING VARIABLE (page 2-167)
DWR_PVAR_VLAN_VARBLE	PVAR VLAN VARIABLE (page 2-167)
DWR_PYMT_CHNL	PAYMENT CHANNEL (page 2-127)

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Table Name	More Information
DWR_PYMT_PLN	PAYMENT PLAN (page 2-127)
DWR_PYTV_SRVC	PAY TV SERVICE (page 2-126)
DWR_QOS_SRVC	QOS SERVICE (page 2-168)
DWR_QOS_SRVC_RLTN	QOS SERVICE RELATIONSHIP (page 2-168)
DWR_QUE_SRVC	QUEUE SERVICE (page 2-168)
DWR_QTR_HR	QUARTER HOUR (page 2-168)
DWR_QTR_TODATE_TRANS	QUARTER TO DATE TRANSFORMATION (page 2-168)
DWR_QTR_TRANS	QUARTER TRANSFORMATION (page 2-168)
DWR_RACK	RACK (page 2-169)
DWR_RED_DRPPR_SRVC	RED DROPPER SERVICE (page 2-170)
DWR_RED_SRVC_ELMNT	RED SERVICE ELEMENT (page 2-170)
DWR_REFERRING_CTGRY	REFERRING CATEGORY (page 2-170)
DWR_REFERRING_CTGRY_LVL	REFERRING CATEGORY LEVEL (page 2-170)
DWR_REFERRING_SITE	REFERRING SITE (page 2-170)
DWR_REFERRING_URL	REFERRING URL (page 2-170)
DWR_RF_CARRIER	RF CARRIER (page 2-179)
DWR_RFS_NTWK_SRVC_ASGN	TBS
DWR_RFS_SPEC_VRSN_DTL	RFS SPECIFICATION VERSION DETAIL (page 2-179)
DWR_RL	ROLE (page 2-179)
DWR_RL_HRCHY	ROLES HIERARCHY (page 2-179)
DWR_RND_RBIN_SCHDLNG_SRVC	ROUND ROBIN SCHEDULING SERVICE (page 2-179)
DWR_RNGTN	RINGTONE (page 2-179)
DWR_ROOT_ENT	ROOT ENTITY (page 2-179)
DWR_ROUTED_PROTCL	ROUTED PROTOCOL (page 2-180)
DWR_ROUTER	ROUTER (page 2-180)
DWR_RPLCMT_SET	REPLACEMENT SET (page 2-171)
DWR_RSCE	RESOURCE (page 2-171)
DWR_RSCE_CANDIDATE	RESOURCE CANDIDATE (page 2-171)
DWR_RSCE_CHAR	RESOURCE CHARACTERISTIC (page 2-172)

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Table Name	More Information
DWR_RSCE_CHAR_ASGN	RESOURCE CHARACTERISTIC ASSIGNMENT (page 2-172)
DWR_RSCE_CHAR_RLTN	RESOURCE CHARACTERISTIC RELATIONSHIP (page 2-172)
DWR_RSCE_CHAR_VAL	RESOURCE CHARACTERISTIC VALUE (page 2-172)
DWR_RSCE_CHAR_VAL_ASGN	RESOURCE CHARACTERISTIC VALUE ASSIGNMENT (page 2-172)
DWR_RSCE_CHAR_VAL_RLTN	RESOURCE CHARACTERISTIC VALUE RELATIONSHIP (page 2-172)
DWR_RSCE_CTLG	RESOURCE CATALOG (page 2-171)
DWR_RSCE_CTLG_CANDIDATE_ASGN	RESOURCE CATALOG CANDIDATE ASSIGNMENT (page 2-171)
DWR_RSCE_CTLG_SPEC	RESOURCE CATALOG SPECIFICATION (page 2-171)
DWR_RSCE_FCNG_SRVC	RESOURCE FACING SERVICE (page 2-173)
DWR_RSCE_FCNG_SRVC_RL	RESOURCE FACING SERVICE ROLE (page 2-173)
DWR_RSCE_FCNG_SRVC_SPEC	RESOURCE FACING SERVICE SPECIFICATION (page 2-173)
DWR_RSCE_FCNG_SRVC_SPEC_ATMC	RESOURCE FACING SERVICE SPECIFICATION ATOMIC (page 2-173)
DWR_RSCE_FCNG_SRVC_SPEC_CMPST	RESOURCE FACING SERVICE SPECIFICATION COMPOSITE (page 2-174)
DWR_RSCE_FCNG_SRVC_SPEC_RL	RESOURCE FACING SERVICE SPECIFICATION ROLE (page 2-174)
DWR_RSCE_FCNG_SRVC_SPEC_VRSN	RESOURCE FACING SERVICE SPECIFICATION VERSION (page 2-174)
DWR_RSCE_INVLMNT_RL	RESOURCE INVOLVEMENT ROLE (page 2-174)
DWR_RSCE_MGMT_PLCY	RESOURCE MANAGEMENT POLICY (page 2-174)
DWR_RSCE_NOTE	RESOURCE NOTE (page 2-174)
DWR_RSCE_PRFMNC_SPEC	RESOURCE PERFORMANCE SPEC (page 2-175)
DWR_RSCE_PRT	RESOURCE PORT (page 2-175)
DWR_RSCE_PRTY_ASSOCTN	RESOURCE PARTY ASSOCIATION (page 2-175)
DWR_RSCE_PRTY_MGMT	RESOURCE PARTY MANAGEMENT (page 2-175)
DWR_RSCE_PRTY_PLCY_MGMT_ASGN	RESOURCE PARTY POLICY MANAGEMENT ASSIGNMENT (page 2-175)

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Table Name	More Information
DWR_RSCE_RL	RESOURCE ROLE (page 2-175)
DWR_RSCE_RL_ASGN	RESOURCE ROLE ASSIGNMENT (page 2-175)
DWR_RSCE_RL_PRTY_ASGN	RESOURCE ROLE PARTY ASSIGNMENT (page 2-175)
DWR_RSCE_RL_PRTY_RL_ASGN	RESOURCE ROLE PARTY ROLE ASSIGNMENT (page 2-176)
DWR_RSCE_RL_PRTY_RL_DTLS	RESOURCE ROLE PARTY ROLE DETAILS (page 2-176)
DWR_RSCE_RL_SPEC	RESOURCE ROLE SPECIFICATION (page 2-176)
DWR_RSCE_RLTN	RESOURCE RELATIONSHIP (page 2-175)
DWR_RSCE_SPEC	RESOURCE SPECIFICATION (page 2-176)
DWR_RSCE_SPEC_CHAR	RESOURCE SPECIFICATION CHARACTERISTIC (page 2-176)
DWR_RSCE_SPEC_CHAR_ASGN	RESOURCE SPECIFICATION CHARACTERISTIC ASSIGNMENT (page 2-176)
DWR_RSCE_SPEC_CHAR_RLTN	RESOURCE SPECIFICATION CHARACTERISTIC RELATIONSHIP (page 2-176)
DWR_RSCE_SPEC_CHAR_VAL	RESOURCE SPECIFICATION CHARACTERISTIC VALUE (page 2-176)
DWR_RSCE_SPEC_CHAR_VAL_ASGN	RESOURCE SPECIFICATION CHARACTERISTIC VALUE ASSIGNMENT (page 2-176)
DWR_RSCE_SPEC_CHAR_VAL_RLTN	RESOURCE SPECIFICATION CHARACTERISTIC VALUE RELATIONSHIP (page 2-177)
DWR_RSCE_SPEC_PERF_RL	RESOURCE SPECIFICATION PERF ROLE (page 2-177)
DWR_RSCE_SPEC_VRSN	RESOURCE SPECIFICATION VERSION (page 2-177)
DWR_RSCE_SPEC_VRSN_USG	RESOURCE SPECIFICATION VERSION USAGE (page 2-177)
DWR_RSCE_XREF	RESOURCE CROSS REFERENCE (page 2-172)
DWR_RTL_STORE	RETAIL STORE (page 2-178)
DWR_RTL_TCHPNT	RETAIL TOUCHPOINT (page 2-178)
DWR_RUTNG_DVC	ROUTING DEVICE (page 2-180)
DWR_RUTNG_PROTCL	ROUTING PROTOCOL (page 2-180)
DWR_RUTNG_RL	ROUTING ROLE (page 2-180)
DWR_SB_NTWK	SUB NETWORK (page 2-203)

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Table Name	More Information
DWR_SBRP_RSCE_RL_ASGN	SUBSCRIPTION RESOURCE ROLE ASSIGNMENT (page 2-203)
DWR_SBRP_SRVC_ASGN	SUBSCRIPTION SERVICE ASSIGNMENT (page 2-203)
DWR_SBRP_SRVC_CLASS_ASGN	SUBSCRIPTION SERVICE CLASS ASSIGNMENT (page 2-203)
DWR_SCHDLNG_SRVC	SCHEDULING SERVICE (page 2-181)
DWR_SCHDLNG_SRVC_ATMC	SCHEDULING SERVICE ATOMIC (page 2-182)
DWR_SCHDLNG_SRVC_CMPST	SCHEDULING SERVICE COMPOSITE (page 2-182)
DWR_SCND	SECOND (page 2-182)
DWR_SCRPT	SCRIPT (page 2-182)
DWR_SCRPT_QUES	SCRIPT QUESTION (page 2-182)
DWR_SEARCH	SEARCH (page 2-182)
DWR_SECURE_HLDR	SECURE HOLDER (page 2-182)
DWR_SERVER	SERVER (page 2-183)
DWR_SERVER_FARM	SERVER FARM (page 2-183)
DWR_SET_TOP_BOX	SET TOP BOX (page 2-194)
DWR_SET_TOP_BOX_MDL	SET TOP BOX MODEL (page 2-194)
DWR_SGMNT_CRTRA	SEGMENT CRITERIA (page 2-183)
DWR_SGNLNG_PROTCL	SIGNALING PROTOCOL (page 2-196)
DWR_SHELF	SHELF (page 2-195)
DWR_SHPR_SRVC	SHAPER SERVICE (page 2-195)
DWR_SIC_ASGN	SIC ASSIGNMENT (page 2-195)
DWR_SIC_DIV	SIC DIVISION (page 2-196)
DWR_SIM_CARD	SIM CARD (page 2-196)
DWR_SIM_CARD_ACCS_MTHD_ASGN	SIM CARD ACCESS METHOD ASSIGNMENT (page 2-196)
DWR_SIM_CARD_HNDST_ASGN	SIM CARD HANDSET ASSIGNMENT (page 2-196)
DWR_SIM_CARD_PROD_SBRP_ASGN	SIM CARD PRODUCT SUBSCRIPTION ASSIGNMENT (page 2-196)
DWR_SITE	SITE (page 2-197)
DWR_SITE_INTRFC_RL	SITE INTERFACE ROLE (page 2-197)

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Table Name	More Information
DWR_SITE_RL	SITE ROLE (page 2-197)
DWR_SKU_ITEM	SKU ITEM (page 2-197)
DWR_SL_CHNL	SALES CHANNEL (page 2-181)
DWR_SL_CHNL_RPRSTV	SALES CHANNEL REPRESENTATIVE (page 2-181)
DWR_SL_CMISN_PLN	SALES COMMISSION PLAN (page 2-181)
DWR_SL_CMISN_PLN_DTL	SALES COMMISSION PLAN DETAIL (page 2-181)
DWR_SLNG_LOC	SELLING LOCATION (page 2-183)
DWR_SLT	SLOT (page 2-198)
DWR_SLT_RLTN	SLOT RELATIONSHIP (page 2-198)
DWR_SMS_RTNG_PLN	SMS RATING PLAN (page 2-198)
DWR_SMS_SRVC	SMS SERVICE (page 2-198)
DWR_SOC_JB	SOC JOB (page 2-199)
DWR_SOC_JB_CTGRY	SOC JOB CATEGORY (page 2-199)
DWR_SOC_JB_GRP	SOC JOB GROUP (page 2-199)
DWR_SOC_JB_MJR_GRP	SOC JOB MAJOR GROUP (page 2-199)
DWR_SOFTWARE	SOFTWARE (page 2-200)
DWR_SOFTWARE_ATMC	SOFTWARE ATOMIC (page 2-200)
DWR_SOFTWARE_CMND	SOFTWARE COMMAND (page 2-200)
DWR_SOFTWARE_CMPST	SOFTWARE COMPOSITE (page 2-201)
DWR_SOFTWARE_FTR_SETS	SOFTWARE FEATURE SETS (page 2-201)
DWR_SOFTWARE_OS_RLTN	SOFTWARE OS RELATIONSHIP (page 2-201)
DWR_SPEC	SPECIFICATION (page 2-202)
DWR_SPEC_RL	SPECIFICATION ROLE (page 2-202)
DWR_SPLMNTR_SRVC	SUPPLEMENTARY SERVICE (page 2-203)
DWR_SPNM_OTHR_PRTY_NBR	SPNM OTHER PARTY NUMBER (page 2-202)
DWR_SPTRUM_COVRG_AREA	SPECTRUM COVERAGE AREA (page 2-202)
DWR_SRC_SYS	SOURCE SYSTEM (page 2-201)
DWR_SRC_SYS_KEY_MAPPING	SOURCE SYSTEM KEY MAPPING (page 2-201)

Table 4-3   (Cont.) Reference Tables

Table Name	More Information
DWR_SRSPC_CHRVL_RESPC_CHRVL_AN	SERVICE SPECIFICATION CHARACTERISTIC VAL RESOURCE SPECIFICATION CHARACTERISTIC VAL ASSIGNMENT (page 2-192)
DWR_SRVC	SERVICE (page 2-183)
DWR_SRVC_ADDR_LOC_ASGN	SERVICE ADDRESS LOCATION ASSIGNMENT (page 2-183)
DWR_SRVC_BNDL	SERVICE BUNDLE (page 2-184)
DWR_SRVC_BNDL_SPEC	SERVICE BUNDLE SPECIFICATION (page 2-184)
DWR_SRVC_BNDL_SPEC_ATMC	SERVICE BUNDLE SPECIFICATION ATOMIC (page 2-185)
DWR_SRVC_BNDL_SPEC_CMPST	SERVICE BUNDLE SPECIFICATION COMPOSITE (page 2-185)
DWR_SRVC_BSNS_ACTOR	SERVICE BUSINESS ACTOR (page 2-186)
DWR_SRVC_CHAR_VAL	SERVICE CHARACTERISTIC VALUE (page 2-186)
DWR_SRVC_CHAR_VAL_RLTN	SERVICE CHARACTERISTIC VALUE RELATIONSHIP (page 2-186)
DWR_SRVC_CHRVL_PROD_CHRVL_ASGN	SERVICE CHARACTERISTIC VALUE PRODUCT CHARACTERISTIC VALUE ASSIGNMENT (page 2-186)
DWR_SRVC_COVRG_AREA	SERVICE COVERAGE AREA (page 2-186)
DWR_SRVC_COVRG_AREA_RLTN	SERVICE COVERAGE AREA RELATIONSHIP (page 2-186)
DWR_SRVC_COVRG_GEO_DTL	SERVICE COVERAGE GEO DETAIL (page 2-187)
DWR_SRVC_DPNDCY	SERVICE DEPENDENCY (page 2-187)
DWR_SRVC_DVC_INTRFC_ASGN	SERVICE DEVICE INTERFACE ASSIGNMENT (page 2-187)
DWR_SRVC_EQPMNT_ASGN	SERVICE EQUIPMENT ASSIGNMENT (page 2-187)
DWR_SRVC_LR_DPNDCY	SERVICE LR DEPENDENCY (page 2-188)
DWR_SRVC_LVL_AGRMNT	SERVICE LEVEL AGREEMENT (page 2-187)
DWR_SRVC_LVL_AGRMNT_ITEM	SERVICE LEVEL AGREEMENT ITEM (page 2-187)
DWR_SRVC_LVL_AGRMNT_RLTN	SERVICE LEVEL AGREEMENT RELATIONSHIP (page 2-187)
DWR_SRVC_LVL_OBJCTV	SERVICE LEVEL OBJECTIVE (page 2-187)
DWR_SRVC_LVL_SPEC_APLCBLTY	SERVICE LEVEL SPECIFICATION APPLICABILITY (page 2-187)

Table 4-3   (Cont.) Reference Tables

Table Name	More Information
DWR_SRVC_LVL_SPEC_CNSEQ	SERVICE LEVEL SPECIFICATION CONSEQUENCE (page 2-188)
DWR_SRVC_LVL_SPEC_PRMTR	SERVICE LEVEL SPECIFICATION PARAMETER (page 2-188)
DWR_SRVC_MGMT_PLCY	SERVICE MANAGEMENT POLICY (page 2-188)
DWR_SRVC_PKG	SERVICE PACKAGE (page 2-188)
DWR_SRVC_PKG_BNDL_DTL	SERVICE PACKAGE BUNDLE DETAIL (page 2-188)
DWR_SRVC_PKG_SPEC	SERVICE PACKAGE SPECIFICATION (page 2-189)
DWR_SRVC_PKG_SPEC_ATMC	SERVICE PACKAGE SPECIFICATION ATOMIC (page 2-189)
DWR_SRVC_PKG_SPEC_CMPST	SERVICE PACKAGE SPECIFICATION COMPOSITE (page 2-189)
DWR_SRVC_PR_DPNDCY	SERVICE PR DEPENDENCY (page 2-190)
DWR_SRVC_PRBLM_CHAR	SERVICE PROBLEM CHARACTERISTIC (page 2-190)
DWR_SRVC_PRBLM_CHAR_VAL	SERVICE PROBLEM CHARACTERISTIC VALUE (page 2-190)
DWR_SRVC_PRFMNC_SPEC	SERVICE PERFORMANCE SPEC (page 2-189)
DWR_SRVC_PRTY_MGMT_HIST	SERVICE PARTY MANAGEMENT HISTORY (page 2-189)
DWR_SRVC_PRTY_PLCY_MGMT_ASGN	SERVICE PARTY POLICY MANAGEMENT ASSIGNMENT (page 2-189)
DWR_SRVC_RL	SERVICE ROLE (page 2-191)
DWR_SRVC_RSCE_ASGN	SERVICE RESOURCE ASSIGNMENT (page 2-190)
DWR_SRVC_SPEC	SERVICE SPECIFICATION (page 2-191)
DWR_SRVC_SPEC_ATMC	SERVICE SPECIFICATION ATOMIC (page 2-191)
DWR_SRVC_SPEC_CHAR	SERVICE SPECIFICATION CHARACTERISTIC (page 2-191)
DWR_SRVC_SPEC_CHAR_RLTN	SERVICE SPECIFICATION CHARACTERISTIC RELATIONSHIP (page 2-191)
DWR_SRVC_SPEC_CHAR_USE	SERVICE SPECIFICATION CHARACTERISTIC USE (page 2-192)
DWR_SRVC_SPEC_CHAR_VAL	SERVICE SPECIFICATION CHARACTERISTIC VALUE (page 2-192)
DWR_SRVC_SPEC_CHAR_VAL_ASGN	SERVICE SPECIFICATION CHARACTERISTIC VALUE ASSIGNMENT (page 2-192)

Table 4-3   (Cont.) Reference Tables

Table Name	More Information
DWR_SRVC_SPEC_CHAR_VAL_RLTN	SERVICE SPECIFICATION CHARACTERISTIC VALUE RELATIONSHIP (page 2-192)
DWR_SRVC_SPEC_CHAR_VAL_USE	SERVICE SPECIFICATION CHARACTERISTIC VALUE USE (page 2-192)
DWR_SRVC_SPEC_CMPST	SERVICE SPECIFICATION COMPOSITE (page 2-193)
DWR_SRVC_SPEC_PROD_SPEC_RLTN	SERVICE SPECIFICATION PRODUCT SPECIFICATION RELATIONSHIP (page 2-193)
DWR_SRVC_SPEC_RLTN	SERVICE SPECIFICATION RELATIONSHIP (page 2-193)
DWR_SRVC_SPEC_RL	SERVICE SPECIFICATION ROLE (page 2-193)
DWR_SRVC_SPEC_RSCE_SPEC_RLTN	SERVICE SPECIFICATION RESOURCE SPECIFICATION RELATIONSHIP (page 2-193)
DWR_SRVC_SPEC_VRSN	SERVICE SPECIFICATION VERSION (page 2-194)
DWR_SRVC_UTLZTN_DTL	SERVICE UTILIZATION DETAIL (page 2-194)
DWR_SRVSPC_CHR_RSCESPC_CHR_AGN	SERVICE SPECIFICATION CHAR RESOURCE SPECIFICATION CHARACTERISTIC ASSIGNMENT (page 2-193)
DWR_STNDRD_MRKR_SRVC	STANDARD MARKER SERVICE (page 2-202)
DWR_STRCT_SCHDLNG_SRVC	STRICT SCHEDULING SERVICE (page 2-202)
DWR_STRT_NAME	STREET NAME (page 2-202)
DWR_STRT_SGMNT	STREET SEGMENT (page 2-202)
DWR_STRT_SGMNT_ADDR_ASGN	STREET SEGMENT ADDRESS ASSIGNMENT (page 2-202)
DWR_STTSTCL_ENT	STATISTICAL ENTITY (page 2-202)
DWR_SURVEY	SURVEY (page 2-204)
DWR_SWTCH	SWITCH (page 2-204)
DWR_SWTCH_CAPBLTY	SWITCH CAPABILITY (page 2-204)
DWR_SWTCH_CMMND	SWITCH COMMAND (page 2-204)
DWR_SWTCH_RUTNG_DVC_ASGN	SWITCH ROUTING DEVICE ASSIGNMENT (page 2-204)
DWR_SWTCHNG_PROTCL	SWITCHING PROTOCOL (page 2-204)
DWR_SWTCHNG_RL	SWITCHING ROLE (page 2-204)
DWR_SYMBLGY	SYMBOLOGY (page 2-205)

Table 4-3   (Cont.) Reference Tables

Table Name	More Information
DWR_TASK	TASK (page 2-205)
DWR_TAX_AUTH	TAX AUTHORITY (page 2-205)
DWR_TAX_EXMPT	TAX EXEMPT (page 2-205)
DWR_TEMPLATE_SRVC_LVL_SPEC	TEMPLATE SERVICE LEVEL SPEC (page 2-206)
DWR_TFC_NTWK	TFC NETWORK (page 2-206)
DWR_TIME_OF_DAY_PRD_BND	TIME OF DAY PERIOD BAND (page 2-206)
DWR_TIME_SLT	TIME SLOT (page 2-206)
DWR_TIME_STNDRD_BY_DAY	TIME STANDARD BY DAY (page 2-206)
DWR_TIME_STNDRD_BY_WK	TIME STANDARD BY WEEK (page 2-206)
DWR_TIME_TOT	TIME TOTAL (page 2-207)
DWR_TMNT_PNT	TERMINATION POINT (page 2-206)
DWR_TNDR	TENDER (page 2-206)
DWR_TOKN_BCKT	TOKEN BUCKET (page 2-207)
DWR_TOS_SRVC	TOS SERVICE (page 2-207)
DWR_TRAIL	TRAIL (page 2-208)
DWR_TRAIL_TMNT_PNT	TRAIL TERMINATION POINT (page 2-208)
DWR_TRFC_CNDITNNG_SRVC	TRAFFIC CONDITIONING SERVICE (page 2-207)
DWR_TRFC_ID_SRVC	TRAFFIC IDENTIFICATION SERVICE (page 2-207)
DWR_TRFC_MTCH_CRTRA	TRAFFIC MATCH CRITERIA (page 2-207)
DWR_TRGT_ACCS_MTHD	TARGET ACCESS METHOD (page 2-205)
DWR_TRGT_ACCT	TARGET ACCOUNT (page 2-205)
DWR_TRGT_AGRMNT	TARGET AGREEMENT (page 2-205)
DWR_TRGT_GEO_AREA	TARGET GEOGRAPHY AREA (page 2-205)
DWR_TRGT_MKT_SGMNT	TARGET MARKET SEGMENT (page 2-205)
DWR_TV_CHNL	TV CHANNEL (page 2-208)
DWR_UDR_EVT_CHAR	UDR EVENT CHARACTERISTIC (page 2-208)
DWR_UDR_EVT_CHAR_RLTN	UDR EVENT SPECIFICATION CHARACTERISTIC RELATIONSHIP (page 2-209)
DWR_UDR_EVT_CHAR_VAL	UDR EVENT SPECIFICATION CHARACTERISTIC VALUE (page 2-209)

Table 4-3   (Cont.) Reference Tables

Table Name	More Information
DWR_UDR_EVT_CHAR_VAL_USE	UDR EVENT CHARACTERISTIC VALUE USE (page 2-209)
DWR_UDR_EVT_SPEC	UDR EVENT SPECIFICATION (page 2-209)
DWR_UDR_EVT_SPEC_CHAR	UDR EVENT SPECIFICATION CHARACTERISTIC (page 2-209)
DWR_UDR_EVT_SPEC_CHAR_RLTN	UDR EVENT SPECIFICATION CHARACTERISTIC RELATIONSHIP (page 2-209)
DWR_UDR_EVT_SPEC_CHAR_USE	UDR EVENT SPECIFICATION CHARACTERISTIC USE (page 2-209)
DWR_UDR_EVT_SPEC_CHAR_VAL	UDR EVENT SPECIFICATION CHARACTERISTIC VALUE (page 2-209)
DWR_UDR_EVT_SPEC_CHAR_VAL_RLTN	UDR EVENT SPECIFICATION CHARACTERISTIC VALUE RELATIONSHIP (page 2-209)
DWR_UDR_EVT_SPEC_CHAR_VAL_USE	UDR EVENT SPECIFICATION CHARACTERISTIC VALUE USE (page 2-209)
DWR_UDR_EVT_SPEC_RLTN	UDR EVENT SPECIFICATION RELATIONSHIP (page 2-209)
DWR_UDR_EVT_SPEC_VRSN	UDR EVENT SPECIFICATION VERSION (page 2-210)
DWR_UDR_EVT_TYP_VRSN	UDR EVENT TYPE VERSION (page 2-210)
DWR_URBN_PRPTY_ADDR	URBAN PROPERTY ADDRESS (page 2-211)
DWR_USER	USER (page 2-211)
DWR_VAL_ADD_SRVC	VALUE ADDED SERVICE (page 2-211)
DWR_VAL_CSTM	VALUE CUSTOM (page 2-211)
DWR_VAL_STNDRD	VALUE STANDARD (page 2-212)
DWR_VARBLE_CSTM	VARIABLE CUSTOM (page 2-212)
DWR_VARBLE_STNDRD	VARIABLE STANDARD (page 2-212)
DWR_VAS_SBRP	VAS SUBSCRIPTION (page 2-212)
DWR_VHCL	VEHICLE (page 2-212)
DWR_VISITOR	VISITOR (page 2-214)
DWR_VNDR	VENDOR (page 2-212)
DWR_VNDR_AGRMNT	VENDOR AGREEMENT (page 2-212)
DWR_VNDR_FCTR_CMPNY_ASGN	VENDOR FACTOR COMPANY ASSIGNMENT (page 2-213)

Table 4-3   (Cont.) Reference Tables

Table Name	More Information
DWR_VNDR_RTNG	VENDOR RATING (page 2-213)
DWR_VNDR_SITE	VENDOR SITE (page 2-213)
DWR_VNDR_SITE_COURIER_ASGN	VENDOR SITE COURIER ASSIGNMENT (page 2-213)
DWR_VOI_MSG_SRVC	VOICE MESSAGE SERVICE (page 2-214)
DWR_VPN_LGICL_DVC_RL	VPN LOGICAL DEVICE ROLE (page 2-214)
DWR_VPN_SRVC	VPN SERVICE (page 2-214)
DWR_VRTL_RSCE	VIRTUAL RESOURCE (page 2-213)
DWR_VRTL_TEAM	VIRTUAL TEAM (page 2-214)
DWR_WAN_PROTCL	WAN PROTOCOL (page 2-215)
DWR_WEATHR_CNDTN	WEATHER CONDITION (page 2-215)
DWR_WBSITE	WEBSITE (page 2-215)
DWR_WBSITE_USER	WEBSITE USER (page 2-215)
DWR_WEB_PG	WEB PAGE (page 2-215)
DWR_WEB_PG_CNTNT	WEB PAGE CONTENT (page 2-215)
DWR_WK_TODATE_TRANS	WEEK TODATE TRANSFORMATION (page 2-215)
DWR_WK_TRANS	WEEK TRANSFORMATION (page 2-215)
DWR_WKDAY	WEEKDAY (page 2-215)
DWR_WRLS_RSCE	WIRELESS RESOURCE (page 2-216)
DWR_WRLS_RTNG_PLN	WIRELESS RATING PLAN (page 2-216)
DWR_WRLS_SPTRUM	WIRELESS SPECTRUM (page 2-216)
DWR_WRLS_SRVC	WIRELESS SERVICE (page 2-216)
DWR_WTD_FAIR_QUENG_SRVC	WEIGHTED FAIR QUEUING SERVICE (page 2-215)
DWR_WTD_RND_RBIN_SCHDLNG_SRVC	WEIGHTED ROUND ROBIN SCHEDULING SERVICE (page 2-216)
DWR_YR_TRANS	

4.3 Lookup Tables

Table 4-4 (page 4-46) briefly describes the Lookup tables in Oracle Communications Data Model.

Table 4-4   Lookup Tables

Table Name	More Information
DWL_ACCT_BAL_IMPC_RSN	ACCOUNT BALANCE IMPACT REASON (page 2-26)
DWL_ACCS_MTHD_ASGN_TYP	ACCESS METHOD ASSIGNMENT TYPE (page 2-23)
DWL_ACCS_MTHD_CTGRY	ACCESS METHOD CATEGORY (page 2-23)
DWL_ACCS_MTHD_ELMNT_TYP	ACCESS METHOD ELEMENT TYPE (page 2-23)
DWL_ACCS_MTHD_PRTY_ASGN_TYP	ACCESS METHOD PARTY ASSIGNMENT TYPE (page 2-23)
DWL_ACCS_MTHD_STAT_RSN	ACCESS METHOD STATUS REASON (page 2-24)
DWL_ACCS_MTHD_STAT_TYP	ACCESS METHOD STATUS TYPE (page 2-24)
DWL_ACCS_MTHD_TYP	ACCESS METHOD TYPE (page 2-25)
DWL_ACCT_ADJ_RSN	ACCOUNT ADJUSTMENT REASON (page 2-25)
DWL_ACCT_ASGN_RSN	ACCOUNT ASSIGNMENT REASON (page 2-25)
DWL_ACCT_ASGN_TYP	ACCOUNT ASSIGNMENT TYPE (page 2-25)
DWL_ACCT_BAL_ADJ_TYP	ACCOUNT BALANCE ADJUSTMENT TYPE (page 2-26)
DWL_ACCT_BAL_TYP	ACCOUNT BALANCE TYPE (page 2-26)
DWL_ACCT_CYCL	ACCOUNTING CYCLE (page 2-29)
DWL_ACCT_EVT_TYP	ACCOUNT EVENT TYPE (page 2-27)
DWL_ACCT_ITEM_CTGRY	TBS
DWL_ACCT_PRFL_TYP	ACCOUNT PROFILE TYPE (page 2-28)
DWL_ACCT_PROD_SBRP_ASGN_RSN	ACCOUNT PRODUCT SUBSCRIPTION ASSIGNMENT REASON (page 2-28)
DWL_ACCT_PYMT_MTHD_STAT_RSN	ACCOUNT PAYMENT METHOD STATUS REASON (page 2-28)
DWL_ACCT_PYMT_MTHD_STAT_TYP	ACCOUNT PAYMENT METHOD STATUS TYPE (page 2-28)
DWL_ACCT_RFND_RSN	ACCOUNT REFUND REASON (page 2-28)
DWL_ACCT_RL_TYP	ACCOUNT ROLE TYPE (page 2-28)
DWL_ACCT_STAT_RSN	ACCOUNT STATUS REASON (page 2-29)
DWL_ACCT_STAT_TYP	ACCOUNT STATUS TYPE (page 2-29)
DWL_ACCT_TYP	ACCOUNT TYPE (page 2-29)
DWL_ACTVTY_CTGRY	ACTIVITY CATEGORY (page 2-30)

Table 4-4   (Cont.) Lookup Tables

Table Name	More Information
DWL_ACTVTY_JEOPARDY_RSN	ACTIVITY JEOPARDY REASON (page 2-30)
DWL_ACTVTY_JEOPARDY_TYP	ACTIVITY JEOPARDY TYPE (page 2-30)
DWL_ACTVTY_RLTN_TYP	ACTIVITY RELATIONSHIP TYPE (page 2-30)
DWL_ACTVTY_RSLT_TYP	ACTIVITY RESULT TYPE (page 2-30)
DWL_ACTVTY_TYP	ACTIVITY TYPE (page 2-30)
DWL_ADDR_LOC_CTGRY	ADDRESS LOCATION CATEGORY (page 2-31)
DWL_ADDR_RLTD_RSN	ADDRESS RELATED REASON (page 2-31)
DWL_ADDR_RLTD_TYP	ADDRESS RELATED TYPE (page 2-31)
DWL_ADDR_STAT	ADDRESS STATUS (page 2-31)
DWL_ADDR_STAT_RSN	ADDRESS STATUS REASON (page 2-31)
DWL_ADDR_TYP	ADDRESS TYPE (page 2-31)
DWL_ADDR_VRFY_TYP	ADDRESS VERIFICATION TYPE (page 2-31)
DWL_ADJ_TYP	ADJUSTMENT TYPE (page 2-32)
DWL_AGE_BND	AGE BAND (page 2-32)
DWL_AGE_GRP	AGE GROUP (page 2-32)
DWL_AGE_GRP_CTGRY	AGE GROUP CATEGORY (page 2-32)
DWL_AGE_ON_NET_BND	AGE ON NET BAND (page 2-32)
DWL_AGRMNT_ASGN_RSN	AGREEMENT ASSIGNMENT REASON (page 2-33)
DWL_AGRMNT_ASGN_TYP	AGREEMENT ASSIGNMENT TYPE (page 2-33)
DWL_AGRMNT_CHNG_INTTR_TYP	AGREEMENT CHANGE INITIATOR TYPE (page 2-33)
DWL_AGRMNT_CHNG_RSN	AGREEMENT CHANGE REASON (page 2-34)
DWL_AGRMNT_CHNG_TYP	AGREEMENT CHANGE TYPE (page 2-34)
DWL_AGRMNT_STAT_RSN	AGREEMENT STATUS REASON (page 2-35)
DWL_AGRMNT_STAT_TYP	AGREEMENT STATUS TYPE (page 2-35)
DWL_AGRMNT_TERM_TYP	AGREEMENT TERM TYPE (page 2-35)
DWL_AGRMNT_TYP	AGREEMENT TYPE (page 2-35)
DWL_APNMNT_TYP	APPOINTMENT TYPE (page 2-36)
DWL_ARPU_BND	ARPU BAND (page 2-36)

Table 4-4   (Cont.) Lookup Tables

Table Name	More Information
DWL_ASSET_TYP	ASSET TYPE (page 2-36)
DWL_ATHRZTN_MTHD	AUTHORIZATION METHOD (page 2-37)
DWL_AWRD_LVL	AWARD LEVEL (page 2-38)
DWL_BARNG_RSN	BARING REASON (page 2-38)
DWL_BER_FER_TYP	BER FER TYPE (page 2-38)
DWL_BLLG_FRQNCY	BILLING FREQUENCY (page 2-38)
DWL_BLLG_OCCRNCE_TYP	BILLING OCCURRENCE TYPE (page 2-39)
DWL_BLLG_PRD	BILLING PERIOD (page 2-39)
DWL_BLLG_STAT_CTGRY	BILLING STATUS CATEGORY (page 2-39)
DWL_BLLG_STAT_RSN	BILLING STATUS REASON (page 2-39)
DWL_BLLG_STAT_TYP	BILLING STATUS TYPE (page 2-39)
DWL_BROWSER_TYP	BROWSER TYPE (page 2-39)
DWL_BSNS_INTRACN_ASGN_TYP	BUSINESS INTERACTION ASSIGNMENT TYPE (page 2-40)
DWL_BSNS_INTRACN_CHAR_TYP	BUSINESS INTERACTION CHARACTERISTIC TYPE (page 2-40)
DWL_BSNS_INTRACN_STAT_RSN	BUSINESS INTERACTION STATUS REASON (page 2-42)
DWL_BSNS_LEGAL_STAT	BUSINESS LEGAL STATUS (page 2-42)
DWL_CALL_CNTR_AGNT_TYP	CALL CENTER AGENT TYPE (page 2-42)
DWL_CALL_CNTR_CASE_SUB_TYP	CALL CENTER CASE SUB TYPE (page 2-43)
DWL_CALL_CNTR_CASE_TTL	CALL CENTER CASE TITLE (page 2-43)
DWL_CALL_CNTR_CASE_TYP	CALL CENTER CASE TYPE (page 2-43)
DWL_CALL_DRCTN	CALL DIRECTION (page 2-43)
DWL_CALL_DRTN_BND	CALL DURATION BAND (page 2-43)
DWL_CALL_OTHR_TYP	CALL OTHER TYPE (page 2-43)
DWL_CALL_RCYLD_RSN	CALL RECYCLED REASON (page 2-43)
DWL_CALL_RUTNG_TYP	CALL ROUTING TYPE (page 2-43)
DWL_CALL_SRCHRG	CALL SURCHARGE (page 2-44)
DWL_CALL_SRVC_TYP	CALL SERVICE TYPE (page 2-43)
DWL_CALL_SUCC_FAIL_TYP	CALL SUCCESS FAILURE TYPE (page 2-44)

Table 4-4   (Cont.) Lookup Tables

Table Name	More Information
DWL_CALL_TMNT_RSN	CALL TERMINATION REASON (page 2-44)
DWL_CARD_HLDR_VRFY_TYP	CARD HOLDER VERIFICATION TYPE (page 2-46)
DWL_CARD_TYP	CARD TYPE (page 2-46)
DWL_CELL_OUTG_RSN	CELL OUTAGE REASON (page 2-47)
DWL_CELL_SITE_TYP	CELL SITE TYPE (page 2-48)
DWL_CELL_TYP	CELL TYPE (page 2-48)
DWL_CHNG_PPSD_BY_TYP	CHANGE PROPOSED BY TYPE (page 2-48)
DWL_CHNL_TYP	CHANNEL TYPE (page 2-48)
DWL_CMISN_TYP	COMMISSION TYPE (page 2-51)
DWL_CMPGN_CHNL_TYP	CAMPAIGN CHANNEL TYPE (page 2-44)
DWL_CMPGN_PRPS_TYP	CAMPAIGN PURPOSE TYPE (page 2-45)
DWL_CMPGN_STAT	CAMPAIGN STATUS (page 2-46)
DWL_CMPGN_TYP	CAMPAIGN TYPE (page 2-46)
DWL_CMPND_RSCE_DTL_TYP	COMPOUND RESOURCE DETAIL TYPE (page 2-54)
DWL_CMPNSATRY_RSN	COMPENSATORY REASON (page 2-52)
DWL_CMPST_PROD_SPEC_CHRG_TYP	COMPOSITE PRODUCT SPECIFICATION CHARGE TYPE (page 2-53)
DWL_CMPST_PROD_SPEC_TYP	COMPOSITE PRODUCT SPECIFICATION TYPE (page 2-53)
DWL_CNTCT_LST_CHNG_RSN	CONTACT LIST CHANGE REASON (page 2-59)
DWL_CNTCT_LST_RECRNC_TYP	CONTACT LIST RECURRENCE TYPE (page 2-59)
DWL_CNTCT_MEDIUM	CONTACT MEDIUM (page 2-59)
DWL_CNTCT_RL	CONTACT ROLES (page 2-59)
DWL_CNTNT_PRCNG_TYP	CONTENT PRICING TYPE (page 2-60)
DWL_CNTNT_TYP	CONTENT TYPE (page 2-60)
DWL_COLLCTN_TYP	COLLECTION TYPE (page 2-50)
DWL_COST_RSN	COST REASON (page 2-60)
DWL_COST_SUBTYP	COST SUBTYPE (page 2-61)
DWL_COST_TYP	COST TYPE (page 2-61)

Table 4-4 (Cont.) Lookup Tables

Table Name	More Information
DWL_CPN_SCAN	COUPON SCAN (page 2-61)
DWL_CPN_TYP	COUPON TYPE (page 2-61)
DWL_CRCUT_CMPNT_TYP	CIRCUIT COMPONENT TYPE (page 2-49)
DWL_CRCUT_CTGRY	CIRCUIT CATEGORY (page 2-49)
DWL_CRCUT_RNTL_EVT_TYP	CIRCUIT RENTAL EVENT TYPE (page 2-50)
DWL_CRCUT_TYP	CIRCUIT TYPE (page 2-50)
DWL_CRNCY	CURRENCY (page 2-62)
DWL_CRTFCT_TYP	CERTIFICATE TYPE (page 2-48)
DWL_CTLG_TYP	CATALOG TYPE (page 2-47)
DWL_CUST_CLASS	CUSTOMER CLASS (page 2-63)
DWL_CUST_CLSTR_TYP	CUSTOMER CLUSTER TYPE (page 2-63)
DWL_CUST_GRP	CUSTOMER GROUP (page 2-65)
DWL_CUST_OCCSN_TYP	CUSTOMER OCCASION TYPE (page 2-66)
DWL_CUST_ORDR_STATE_CHNG_RSN	CUSTOMER ORDER STATE CHANGE REASON (page 2-66)
DWL_CUST_RLTN_TYP	CUSTOMER RELATIONSHIP TYPE (page 2-67)
DWL_CUST_RVN_BND	CUSTOMER REVENUE BAND (page 2-67)
DWL_CUST_RVN_TYP	CUSTOMER REVENUE TYPE (page 2-67)
DWL_CUST_STAT_RSN	CUSTOMER STATUS REASON (page 2-68)
DWL_CUST_TYP	CUSTOMER TYPE (page 2-68)
DWL_DEBT_AGNG_BND	DEBT AGING BAND (page 2-69)
DWL_DOC_CNDTN_TYP	DOCUMENT CONDITION TYPE (page 2-71)
DWL_DOC_TYP	DOCUMENT TYPE (page 2-72)
DWL_DOC_TYP_GRP	DOCUMENT TYPE GROUP (page 2-72)
DWL_DOMAIN_TYP	DOMAIN TYPE (page 2-72)
DWL_DRCT_DEBIT_STAT_RSN	DIRECT DEBIT STATUS REASON (page 2-70)
DWL_DSPSTN_TYP	DISPOSITION TYPE (page 2-71)
DWL_DSTN_TYP	DESTINATION TYPE (page 2-70)
DWL_DSTNC_BND	DISTANCE BAND (page 2-71)
DWL_DVRT_RTRV_RSN	DIVERT RETRIEVE REASON (page 2-71)

Table 4-4   (Cont.) Lookup Tables

Table Name	More Information
DWL_DVRT_RTRV_TYP	DIVERT RETRIEVE TYPE (page 2-71)
DWL_EDU	EDUCATION (page 2-72)
DWL_EMP_DESIG	EMPLOYEE DESIGNATION (page 2-73)
DWL_EMP_JB_RL_TYP	EMPLOYEE JOB ROLE TYPE (page 2-73)
DWL_EMP_TYP	EMPLOYEE TYPE (page 2-73)
DWL_ENRL_CHNL	ENROLL CHANNEL (page 2-74)
DWL_ENRL_TYP	ENROLL TYPE (page 2-74)
DWL_ENTRY_MTHD	ENTRY METHOD (page 2-74)
DWL_ENV_TYP	ENVIRONMENT TYPE (page 2-74)
DWL_EQPMNT_INSTNC_STAT_TYP	EQUIPMENT INSTANCE STATUS TYPE (page 2-75)
DWL_EVT_ASGN_RSN	EVENT ASSIGNMENT REASON (page 2-76)
DWL_EVT_ASGN_TYP	EVENT ASSIGNMENT TYPE (page 2-76)
DWL_EVT_CLASS	EVENT CLASS (page 2-77)
DWL_EVT_CTGRY	EVENT CATEGORY (page 2-76)
DWL_EVT_PRTY_RL	EVENT PARTY ROLE (page 2-78)
DWL_EVT_RESPN_RSN	EVENT RESPONSE REASON (page 2-79)
DWL_EVT_RSLT	EVENT RESULT (page 2-79)
DWL_EVT_RSLTN	EVENT RESOLUTION (page 2-79)
DWL_EVT_RSN	EVENT REASON (page 2-79)
DWL_EVT_RSN_CTGRY	EVENT REASON CATEGORY (page 2-79)
DWL_EVT_STAT_RSN	EVENT STATUS REASON (page 2-79)
DWL_EVT_STAT_TYP	EVENT STATUS TYPE (page 2-80)
DWL_EVT_TYP	EVENT TYPE (page 2-80)
DWL_EXP_BASIS_TYP	EXPIRY BASIS TYPE (page 2-81)
DWL_EXP_RPT_STATE_TYP	EXPENSE REPORT STATE TYPE (page 2-80)
DWL_EXP_TYP	EXPENSE TYPE (page 2-80)
DWL_EXTRNL_ORG_TYP	EXTERNAL ORGANIZATION TYPE (page 2-81)
DWL_FLD_ACTVTY_RSLT_TYP	FIELD ACTIVITY RESULT TYPE (page 2-81)
DWL_FLD_ACTVTY_TYP	FIELD ACTIVITY TYPE (page 2-81)

Table 4-4   (Cont.) Lookup Tables

Table Name	More Information
DWL_FLT_RSLTN_TYP	FAULT RESOLUTION TYPE (page 2-81)
DWL_FLT_TYP	FAULT TYPE (page 2-81)
DWL_FRAUD_PRFL_CLASS	FRAUD PROFILE CLASS (page 2-83)
DWL_FUEL_SL_STAT	FUEL SALE STATUS (page 2-83)
DWL_FXBLE_CHAR_ASGN_TYP	FLEXIBLE CHARACTERISTIC ASSIGNMENT TYPE (page 2-82)
DWL_FXBLE_CHAR_TYP	FLEXIBLE CHARACTERISTIC TYPE (page 2-83)
DWL_GIVE_AWAY_TYP	GIVE AWAY TYPE (page 2-84)
DWL_GL_ACCT_TYP	GL ACCOUNT TYPE (page 2-85)
DWL_GL_JE_CTGRY	GL JOURNAL ENTRY CATEGORY (page 2-85)
DWL_GL_SGMNT_TYP	GL SEGMENT TYPE (page 2-86)
DWL_GNDR	GENDER (page 2-83)
DWL_IMPRESSION_EVT_TYP	IMPRESSION EVENT TYPE (page 2-88)
DWL_INTRACN_DRCTN	INTERACTION DIRECTION (page 2-89)
DWL_INTRACN_NAVGTN_ITEM_TYP	INTERACTION NAVIGATION ITEM TYPE (page 2-90)
DWL_INTRACN_NAVGTN_LVL	INTERACTION NAVIGATION LEVEL (page 2-90)
DWL_INTRACN_NAVGTN_TYP	INTERACTION NAVIGATION TYPE (page 2-90)
DWL_INTRACN_PRIORITY_TYP	INTERACTION PRIORITY TYPE (page 2-90)
DWL_INTRACN_RSLT_TYP	INTERACTION RESULT TYPE (page 2-90)
DWL_INTRACN_RSN	INTERACTION REASON (page 2-90)
DWL_INTRACN_STAT	INTERACTION STATUS (page 2-91)
DWL_INTRACN_STAT_TYP	INTERACTION STATUS TYPE (page 2-91)
DWL_INTRACN_TRNSFR_RSN	INTERACTION TRANSFER REASON (page 2-91)
DWL_INTRACN_TYP	INTERACTION TYPE (page 2-91)
DWL_INTTV_RSLT_TYP	INITIATIVE RESULT TYPE (page 2-89)
DWL_INTTV_TYP	INITIATIVE TYPE (page 2-89)
DWL_INVC_ADJ_RSN	INVOICE ADJUSTMENT REASON (page 2-93)
DWL_INVC_ADJ_TYP	INVOICE ADJUSTMENT TYPE (page 2-93)
DWL_INVC_DISC_RSN	INVOICE DISCOUNT REASON (page 2-93)

Table 4-4   (Cont.) Lookup Tables

Table Name	More Information
DWL_INVC_DISC_TYP	INVOICE DISCOUNT TYPE (page 2-94)
DWL_INVC_DLVRY_FRMT	INVOICE DELIVERY FORMAT (page 2-93)
DWL_INVC_DLVRY_TYP	INVOICE DELIVERY TYPE (page 2-93)
DWL_INVC_ITEM_DTL_TYP	INVOICE ITEM DETAIL TYPE (page 2-94)
DWL_INVC_ITEM_TYP	INVOICE ITEM TYPE (page 2-94)
DWL_INVC_PYMT_TERM_TYP	INVOICE PAYMENT TERM TYPE (page 2-95)
DWL_INVC_STAT	INVOICE STATUS (page 2-95)
DWL_INVC_TYP	INVOICE TYPE (page 2-95)
DWL_INVLMNT_RL	INVOLVEMENT ROLE (page 2-95)
DWL_IP_CAN_TYP	IP CAN TYPE (page 2-95)
DWL_ISP_BSNS_TYP	ISP BUSINESS TYPE (page 2-96)
DWL_ISP_TYP	ISP TYPE (page 2-96)
DWL_ITEM_LKUP_MTHD	ITEM LOOKUP METHOD (page 2-97)
DWL_ITEM_TYP	ITEM TYPE (page 2-97)
DWL_LANG	LANGUAGE (page 2-99)
DWL_LEGAL_PRCS_STAT_TYP	LEGAL PROCESS STATUS TYPE (page 2-100)
DWL_LFCCL_TYP	LIFECYCLE TYPE (page 2-100)
DWL_LND_USE_TYP	LAND USE TYPE (page 2-99)
DWL_LOOKUP	LOOKUP (page 2-103)
DWL_LR_STAT	LR STATUS (page 2-104)
DWL_LTTR_TYP	LETTER TYPE (page 2-100)
DWL_MDL_TYP	MODEL TYPE (page 2-109)
DWL_MDTN_STAT_CTGRY	MEDIATION STATUS CATEGORY (page 2-107)
DWL_MDTN_STAT_RSN	MEDIATION STATUS REASON (page 2-108)
DWL_MDTN_STAT_TYP	MEDIATION STATUS TYPE (page 2-108)
DWL_MEDIA_INTRFC_TYP	MEDIA INTERFACE TYPE (page 2-107)
DWL_MEDIA_OBJ_TYP	MEDIA OBJECT TYPE (page 2-107)
DWL_MNG_ACTN_TYP	MANAGE ACTION TYPE (page 2-104)
DWL_MRKR_TYP	MARKER TYPE (page 2-105)

Table 4-4   (Cont.) Lookup Tables

Table Name	More Information
DWL_MRTL_STAT	MARITAL STATUS (page 2-105)
DWL_NBR_AREA_TYP	NUMBER AREA TYPE (page 2-115)
DWL_NBR_NTWK_TYP	NUMBER NETWORK TYPE (page 2-115)
DWL_NP_RQST_LN_ITEM_STATE_TYP	NP REQUEST LINE ITEM STATE TYPE (page 2-114)
DWL_NP_RQST_STATE_RSN	NP REQUEST STATE REASON (page 2-114)
DWL_NP_RQST_STATE_TYP	NP REQUEST STATE TYPE (page 2-114)
DWL_NP_RQST_TYP	NP REQUEST TYPE (page 2-114)
DWL_NP_STEP	NP STEP (page 2-114)
DWL_NTFCTN_TYP	NOTIFICATION TYPE (page 2-114)
DWL_NTNLTY	NATIONALITY (page 2-110)
DWL_NTWK_ADDR_TYP	NETWORK ADDRESS TYPE (page 2-110)
DWL_NTWK_ASGN_TYP	NETWORK ASSIGNMENT TYPE (page 2-111)
DWL_NTWK_FNCTN_STATE	NETWORK FUNCTION INTERNAL TOPOLOGY (page 2-112)
DWL_NTWK_TCHPNT_CLASS	NETWORK TOUCHPOINT CLASS (page 2-113)
DWL_NTWK_TCHPNT_STAT	NETWORK TOUCHPOINT STATUS (page 2-113)
DWL_NTWK_TCHPNT_TYP	NETWORK TOUCHPOINT TYPE (page 2-113)
DWL_NTWK_TYP	NETWORK TYPE (page 2-113)
DWL_ONOFF_NET_TYP	ON OFF NET TYPE (page 2-115)
DWL_OPRTR_GRP	OPERATOR GROUP (page 2-115)
DWL_OPRTR_TYP	OPERATOR TYPE (page 2-116)
DWL_ORDR_LN_ITEM_STATE	ORDER LINE ITEM STATE (page 2-116)
DWL_ORDR_LN_ITEM_STATE_TYP	ORDER LINE ITEM STATE TYPE (page 2-116)
DWL_ORDR_STATE	ORDER STATE (page 2-116)
DWL_ORDR_STATE_TYP	ORDER STATE TYPE (page 2-116)
DWL_ORDR_TYP	ORDER TYPE (page 2-116)
DWL_ORG_BSNS_UNIT_TYP	ORGANIZATION BUSINESS UNIT TYPE (page 2-117)
DWL_ORG_TYP	ORGANIZATION TYPE (page 2-118)
DWL_PAY_CTGRY	PAY CATEGORY (page 2-126)

Table 4-4   (Cont.) Lookup Tables

Table Name	More Information
DWL_PAY_TYP	PAY TYPE (page 2-126)
DWL_PBLCTN_TYP	PUBLICATION TYPE (page 2-165)
DWL_PCHSE_ORDR_STATE_TYP	PURCHASE ORDER STATE TYPE (page 2-166)
DWL_PCU_OUTG_RSN	PACKET CONTROL UNIT OUTAGE REASON (page 2-119)
DWL_PIT_CHAR_TYP	PIT CHARACTERISTIC TYPE (page 2-135)
DWL_PK_OFPK_TIME	PEAK OFFPEAK TIME (page 2-127)
DWL_PLCY_EVT_SPEC_TYP	POLICY EVENT SPECIFICATION TYPE (page 2-143)
DWL_PLCY_EVT_TRGR_MSK	POLICY EVENT TRIGGER MASK (page 2-143)
DWL_POS_IDNT_TYP	POINT OF SALE IDENTITY TYPE (page 2-135)
DWL_POS_TYP	POINT OF SALE TYPE (page 2-135)
DWL_POSTL_SRVC_TYP	POSTAL SERVICE TYPE (page 2-147)
DWL_PPA_CTGRY	PPA CATEGORY (page 2-148)
DWL_PPA_DEDCTN_TYP	PPA DEDUCTION TYPE (page 2-148)
DWL_PRBLM_ESCALATN_LVL	PROBLEM ESCALATION LEVEL (page 2-150)
DWL_PRCS_PRMTR_OPRTR	PROCESS PARAMETER OPERATOR (page 2-152)
DWL_PRCS_RLTN_TYP	PROCESS RELATIONSHIP TYPE (page 2-152)
DWL_PRCS_STAT	PROCESS STATUS (page 2-152)
DWL_PRCS_TYP	PROCESS TYPE (page 2-152)
DWL_PREF_TYP	PREFERENCE TYPE (page 2-148)
DWL_PRFMNC_IND_GRP_SPEC	PERFORMANCE INDICATOR GROUP SPECIFICATION (page 2-128)
DWL_PRICE_RSN	PRICE REASON (page 2-149)
DWL_PRICE_TYP	PRICE TYPE (page 2-149)
DWL_PRICE_TYPE_RLTN_RSN	PRICE TYPE RELATION REASON (page 2-149)
DWL_PRIORITY_CTGRY	PRIORITY CATEGORY (page 2-149)
DWL_PRIORITY_HRCHY	PRIORITY HIERARCHY (page 2-149)
DWL_PRMTN_RSLT_TYP	PROMOTION RESULT TYPE (page 2-163)
DWL_PRMTN_TERM_TYP	PROMOTION TERM TYPE (page 2-164)
DWL_PRMTN_TYP	PROMOTION TYPE (page 2-164)

Table 4-4   (Cont.) Lookup Tables

Table Name	More Information
DWL_PROD_CAPBLTY_TYP	PRODUCT CAPABILITY TYPE (page 2-152)
DWL_PROD_CHAR_TYP	PRODUCT CHARACTERISTIC TYPE (page 2-153)
DWL_PROD_CTLG_PRSNT_TYP	PRODUCT CATALOG PRESENTATION TYPE (page 2-153)
DWL_PROD_CTLG_TYP	PRODUCT CATALOG TYPE (page 2-153)
DWL_PROD_LN	PRODUCT LINE (page 2-154)
DWL_PROD_OFR_ASGN_TYP	PRODUCT OFFERING ASSIGNMENT TYPE (page 2-154)
DWL_PROD_OFR_GRP_TYP	PRODUCT OFFERING GROUP TYPE (page 2-155)
DWL_PROD_OFR_PRICE_RLTN_TYP	PRODUCT OFFERING PRICE RELATIONSHIP TYPE (page 2-156)
DWL_PROD_OFR_PRICE_TYP	PRODUCT OFFERING PRICE TYPE (page 2-156)
DWL_PROD_OFR_RLTN_TYP	PRODUCT OFFERING RELATIONSHIP TYPE (page 2-157)
DWL_PROD_OFR_TYP	PRODUCT OFFERING TYPE (page 2-157)
DWL_PROD_RLTN_TYP	PRODUCT RELATIONSHIP TYPE (page 2-157)
DWL_PROD_SBRP_ASGN_TYP	PRODUCT SUBSCRIPTION ASSIGNMENT TYPE (page 2-161)
DWL_PROD_SBRP_EVT_TYP	PRODUCT SUBSCRIPTION EVENT TYPE (page 2-161)
DWL_PROD_SBRP_STAT	PRODUCT SUBSCRIPTION STATUS (page 2-161)
DWL_PROD_SBRP_STAT_CTGRY	PRODUCT SUBSCRIPTION STATUS CATEGORY (page 2-162)
DWL_PROD_SBRP_STAT_RSN	PRODUCT SUBSCRIPTION STATUS REASON (page 2-162)
DWL_PROD_SBRP_STAT_TYP	PRODUCT SUBSCRIPTION STATUS TYPE (page 2-162)
DWL_PROD_SBRP_TERM_TYP	PRODUCT SUBSCRIPTION TERM TYPE (page 2-162)
DWL_PROD_SBRP_TYP	PRODUCT SUBSCRIPTION TYPE (page 2-162)
DWL_PROD_SPEC_ASGN_RSN	PRODUCT SPECIFICATION ASSIGNMENT REASON (page 2-158)
DWL_PROD_SPEC_COVRG_AREA_TYP	PRODUCT SPECIFICATION COVERAGE AREA TYPE (page 2-159)

Table 4-4   (Cont.) Lookup Tables

Table Name	More Information
DWL_PROD_SPEC_CTGRY	PRODUCT SPECIFICATION CATEGORY (page 2-158)
DWL_PROD_SPEC_GRP	PRODUCT SPECIFICATION GROUP (page 2-159)
DWL_PROD_SPEC_GRP_TYP	PRODUCT SPECIFICATION GROUP TYPE (page 2-159)
DWL_PROD_SPEC_MGMT_RL	PRODUCT SPECIFICATION MANAGEMENT ROLE (page 2-160)
DWL_PROD_SPEC_MGMT_RSN	PRODUCT SPECIFICATION MANAGEMENT REASON (page 2-160)
DWL_PROD_SPEC_STAT_TYP	PRODUCT SPECIFICATION STATUS TYPE (page 2-160)
DWL_PROD_SPEC_TYP	PRODUCT SPECIFICATION TYPE (page 2-160)
DWL_PROD_STAT_TYP	PRODUCT STATUS TYPE (page 2-161)
DWL_PRPD_MBL_EVT_TYP	PREPAID MOBILE EVENT TYPE (page 2-148)
DWL_PRSNL_ID_REQD_TYP	PERSONAL ID REQUIRED TYPE (page 2-130)
DWL_PRSPCT_PRIORITY_TYP	PROSPECT PRIORITY TYPE (page 2-165)
DWL_PRSPCT_QLTY_SCR_TYP	PROSPECT QUALITY SCORE TYPE (page 2-165)
DWL_PRSPCT_REJECT_RSN	PROSPECT REJECT REASON (page 2-165)
DWL_PRTNR_PYMT_TYP	PARTNER PAYMENT TYPE (page 2-119)
DWL_PRTNR_STLMNT_RSN	PARTNER SETTLEMENT REASON (page 2-119)
DWL_PRTY_ACCT_ASGN_TYP	PARTY ACCOUNT ASSIGNMENT TYPE (page 2-120)
DWL_PRTY_AGRMNT_ASGN_RL	PARTY AGREEMENT ASSIGNMENT ROLE (page 2-120)
DWL_PRTY_AGRMNT_ASGN_TYP	PARTY AGREEMENT ASSIGNMENT TYPE (page 2-120)
DWL_PRTY_ASGN_RSN	PARTY ASSIGNMENT REASON (page 2-121)
DWL_PRTY_ASGN_TYP	PARTY ASSIGNMENT TYPE (page 2-121)
DWL_PRTY_CNTCT_INFO_TYP	PARTY CONTACT INFORMATION TYPE (page 2-121)
DWL_PRTY_CNTCT_LST_PRTCPTN	PARTY CONTACT LIST PARTICIPATION (page 2-121)
DWL_PRTY_CNTCT_LST_RL	PARTY CONTACT LIST ROLE (page 2-121)
DWL_PRTY_EVT_TYP	PARTY EVENT TYPE (page 2-122)

Table 4-4   (Cont.) Lookup Tables

Table Name	More Information
DWL_PRTY_IDNT_TYP	PARTY IDENTIFICATION TYPE (page 2-122)
DWL_PRTY_LOC_RSN	PARTY LOCATION REASON (page 2-122)
DWL_PRTY_LOC_TYP	PARTY LOCATION TYPE (page 2-122)
DWL_PRTY_MGMT_RL	PARTY MANAGEMENT ROLE (page 2-122)
DWL_PRTY_PRFL_TYP	PARTY PROFILE TYPE (page 2-123)
DWL_PRTY_ORDR_ASGN_TYP	PARTY ORDER ASSIGNMENT TYPE (page 2-123)
DWL_PRTY_PROD_SBRP_RL	PARTY PRODUCT SUBSCRIPTION ROLE (page 2-123)
DWL_PRTY_RL_CTGRY	PARTY ROLE CATEGORY (page 2-124)
DWL_PRTY_RL_TYP	PARTY ROLE TYPE (page 2-124)
DWL_PRTY_SGMNT_MTHD	PARTY SEGMENTATION METHOD (page 2-125)
DWL_PRTY_SIM_CARD_RL	PARTY SIM CARD ROLE (page 2-125)
DWL_PRTY_SRVC_ASGN_RL	PARTY SERVICE ASSIGNMENT ROLE (page 2-125)
DWL_PRTY_SRVC_ASGN_RSN	PARTY SERVICE ASSIGNMENT REASON (page 2-125)
DWL_PRTY_STAT_CHNG_RSN	PARTY STATUS CHANGE REASON (page 2-125)
DWL_PRTY_STAT_CTGRY	PARTY STATUS CATEGORY (page 2-125)
DWL_PRTY_STAT_TYP	PARTY STATUS TYPE (page 2-126)
DWL_PRTY_TYP	PARTY TYPE (page 2-126)
DWL_PYMT_AGNG_CLASS	PAYMENT AGING CLASS (page 2-126)
DWL_PYMT_MTHD_TYP	PAYMENT METHOD TYPE (page 2-127)
DWL_PYMT_RSLT	PAYMENT RESULT (page 2-127)
DWL_PYMT_TRX_TYP	PAYMENT TRANSACTION TYPE (page 2-127)
DWL_QOS_SRVC_SPEC_TYP	QOS SERVICE SPECIFICATION TYPE (page 2-168)
DWL_QTA_USG_BND	QUOTA USAGE BAND (page 2-168)
DWL_RAT_TYP	RAT TYPE (page 2-169)
DWL_RATABLE_UNIT_MEASUREMENT	RATABLE UNIT MEASUREMENT (page 2-169)
DWL_RDMPTN_TYP	REDEMPTION TYPE (page 2-170)
DWL_RCHRG_RVN_SLB	RECHARGE REVENUE SLAB (page 2-170)

Table 4-4   (Cont.) Lookup Tables

Table Name	More Information
DWL_RELGN	RELIGION (page 2-170)
DWL_RELIGIOUS_AFFLTN	RELIGIOUS AFFILIATION (page 2-170)
DWL_RFMP_MTHD	RFMP METHOD (page 2-179)
DWL_RLTN_TYP	RELATION TYPE (page 2-170)
DWL_RMNG_TYP	ROAMING TYPE (page 2-179)
DWL_ROOT_ENT_TYP	ROOT ENTITY TYPE (page 2-179)
DWL_RSCE_RLTN_TYP	RESOURCE RELATIONSHIP TYPE (page 2-175)
DWL_RSCE_SPEC_CTGRY	RESOURCE SPECIFICATION CATEGORY (page 2-176)
DWL_RSCE_SPEC_TYP	RESOURCE SPECIFICATION TYPE (page 2-177)
DWL_RSCE_STATE	RESOURCE STATE (page 2-177)
DWL_RSCE_STATE_RSN	RESOURCE STATE REASON (page 2-177)
DWL_RSCE_STATE_TYP	RESOURCE STATE TYPE (page 2-177)
DWL_RSCE_USG_EVT_TYP	RESOURCE USAGE EVENT TYPE (page 2-177)
DWL_RSN	REASON (page 2-169)
DWL_RSN_CTGRY	REASON CATEGORY (page 2-169)
DWL_RTL_TRML_STAT	RETAIL TERMINAL STATUS (page 2-178)
DWL_RTL_TRX_LI_TYP	RETAIL TRANSACTION LINE ITEM TYPE (page 2-178)
DWL_RTL_TYP	RETAIL TYPE (page 2-178)
DWL_RTNG_MTHD_TYP	RATING METHOD TYPE (page 2-169)
DWL_SBCRBR_ACTVTN_RSN	SUBSCRIBER ACTIVATION REASON (page 2-203)
DWL_SCRPT_QUES_TYP	SCRIPT QUESTION TYPE (page 2-182)
DWL_SCRTY_REQD_TYP	SECURITY REQUIRED TYPE (page 2-182)
DWL_SEASON	SEASON (page 2-182)
DWL_SRVR_STAT	SERVER STATUS (page 2-183)
DWL_SESSION_TYP	SESSION TYPE (page 2-194)
DWL_SGMNT_TYP	SEGMENT TYPE (page 2-183)
DWL_SIC_ASGN_RSN	SIC ASSIGNMENT REASON (page 2-195)

Table 4-4   (Cont.) Lookup Tables

Table Name	More Information
DWL_SIC_CLSFCTN	SIC CLASSIFICATION (page 2-196)
DWL_SIC_INDSTRY_GRP	SIC INDUSTRY GROUP (page 2-196)
DWL_SIM_CARD_ACCS_MTHD_RSN	SIM CARD ACCESS METHOD REASON (page 2-196)
DWL_SIM_CARD_ACTVTN_RSN	SIM CARD ACTIVATION REASON (page 2-196)
DWL_SIM_CARD_ACTVTN_TYP	SIM CARD ACTIVATION TYPE (page 2-196)
DWL_SIM_CARD_PROD_SBRP_RSN	SIM CARD PRODUCT SUBSCRIPTION REASON (page 2-196)
DWL_SIM_CARD_TYP	SIM CARD TYPE (page 2-197)
DWL_SITE_TYP	SITE TYPE (page 2-197)
DWL_SITE_TYP_CTGRY	SITE TYPE CATEGORY (page 2-197)
DWL_SKILL_TYP	SKILL TYPE (page 2-197)
DWL_SKU_TYP	SKU TYPE (page 2-198)
DWL_SL_OR_RETRN_ACTN	SALE OR RETURN ACTION (page 2-180)
DWL_SLNG_LOC_TYP	SELLING LOCATION TYPE (page 2-183)
DWL_SPNM	SPNM (page 2-202)
DWL_SRC_DSTN_TYP	SOURCE DESTINATION TYPE (page 2-201)
DWL_SRC_SYS_TYP	SOURCE SYSTEM TYPE (page 2-202)
DWL_SRVC_CLASS	SERVICE CLASS (page 2-186)
DWL_SRVC_CLASS_TYP	SERVICE CLASS TYPE (page 2-186)
DWL_SRVC_COVRG_AREA_TYP	SERVICE COVERAGE AREA TYPE (page 2-186)
DWL_SRVC_CTGRY	SERVICE CATEGORY (page 2-186)
DWL_SRVC_LVL_AGRMNT_TYP	SERVICE LEVEL AGREEMENT TYPE (page 2-187)
DWL_SRVC_LVL_SPEC	SERVICE LEVEL SPECIFICATION (page 2-187)
DWL_SRVC_LVL_UNMET_CNSEQ_TYP	SERVICE LEVEL UNMET CONSEQUENCE TYPE (page 2-188)
DWL_SRVC_PRBLM_CHAR_TYP	SERVICE PROBLEM CHARACTERISTIC TYPE (page 2-190)
DWL_SRVC_SPEC_TYP	SERVICE SPECIFICATION TYPE (page 2-193)
DWL_SRVC_STAT	SERVICE STATUS (page 2-194)
DWL_SRVC_STAT_CTGRY	SERVICE STATUS CATEGORY (page 2-194)

Table 4-4   (Cont.) Lookup Tables

Table Name	More Information
DWL_SRVC_STAT_RSN	SERVICE STATUS REASON (page 2-194)
DWL_SRVC_TYP	SERVICE TYPE (page 2-194)
DWL_SRVC_USG_TYP	SERVICE USAGE TYPE (page 2-194)
DWL_SUBSDY_TYP	SUBSIDY TYPE (page 2-203)
DWL_SWOT_TYP	SWOT TYPE (page 2-205)
DWL_SWTCH_CAPBLTY_TYP	SWITCH CAPABILITY TYPE (page 2-204)
DWL_SWTCH_TYP	SWITCH TYPE (page 2-204)
DWL_TAX_CTGRY	TAX CATEGORY (page 2-205)
DWL_TCH_TYP	TCH TYPE (page 2-206)
DWL_TECH	TECHNOLOGY (page 2-206)
DWL_TECH_TYP	TECHNOLOGY TYPE (page 2-206)
DWL_TIER_CARD_TYP	TIER CARD TYPE (page 2-206)
DWL_TIME_ZN	TIME ZONE (page 2-207)
DWL_TNDR_CLASS	TENDER CLASS (page 2-206)
DWL_TRGT_TYP	TARGET TYPE (page 2-205)
DWL_TRNK_GRP	TRUNK GROUP (page 2-208)
DWL_TRNSFR_TYP	TRANSFER TYPE (page 2-208)
DWL_TRX_CTGRY	TRANSACTION CATEGORY (page 2-208)
DWL_TRX_TYP	TRANSACTION TYPE (page 2-208)
DWL_UDR_EVT_CHAR_TYP	UDR EVENT CHARACTERISTIC TYPE (page 2-209)
DWL_UDR_EVT_SPEC_TYP	UDR EVENT SPECIFICATION TYPE (page 2-209)
DWL_UDR_EVT_STAT	UDR EVENT STATUS (page 2-210)
DWL_UDR_EVT_TYP	UDR EVENT TYPE (page 2-210)
DWL_UMS_ACCS_TYP	UMS ACCESS TYPE (page 2-210)
DWL_UMS_EVT_TYP	UMS EVENT TYPE (page 2-210)
DWL_UNSUCC_CALL_RSN	UNSUCCESSFUL CALL REASON (page 2-211)
DWL_UOM	UNIT OF MEASURE (page 2-211)
DWL_UOM_TYP	UNIT OF MEASURE TYPE (page 2-211)
DWL_USG_TYP	USAGE TYPE (page 2-211)

Table 4-4   (Cont.) Lookup Tables

Table Name	More Information
DWL_VAL_TYP	VALUE TYPE (page 2-212)
DWL_VISITOR_TYP	VISITOR TYPE (page 2-214)
DWL_VNDR_CLASS	VENDOR CLASS (page 2-213)
DWL_VNDR_RTNG_TYP	VENDOR RATING TYPE (page 2-213)
DWL_VNDR_SITE_TYP	VENDOR SITE TYPE (page 2-213)
DWL_VOL_BND	VOLUME BAND (page 2-214)
DWL_WEB_PG_RNDRNG_TYP	WEB PAGE RENDERING TYPE (page 2-215)
DWL_WEB_PG_TYP	WEB PAGE TYPE (page 2-215)

4.4 Base Tables

Table 4-5 (page 4-62) briefly describes the Base tables in Oracle Communications Data Model.

Table 4-5   Base Tables

Table Name	More Information
DWB_ACCRUAL_EVT	ACCRUAL EVENT (page 2-29)
DWB_ACCS_MTHD_PORT_HIST	ACCESS METHOD PORTING HISTORY (page 2-24)
DWB_ACCS_MTHD_STAT_HIST	ACCESS METHOD STATUS HISTORY (page 2-24)
DWB_ACCT_ACCTNG_CYCL_HIST	ACCOUNT ACCOUNTING CYCLE HISTORY (page 2-25)
DWB_ACCT_BAL	ACCOUNT BALANCE (page 2-25)
DWB_ACCT_BAL_IMPC	ACCOUNT BALANCE IMPACT (page 2-26)
DWB_ACCT_BLLG_OCCRNCE	ACCOUNT BILLING OCCURRENCE (page 2-26)
DWB_ACCT_COST	ACCOUNT COST (page 2-26)
DWB_ACCT_CRDT_LMT	ACCOUNT CREDIT LIMIT (page 2-26)
DWB_ACCT_DEBT	ACCOUNT DEBT (page 2-27)
DWB_ACCT_DEBT_ACTION	ACCOUNT DEBT ACTION (page 2-27)
DWB_ACCT_MNGMNT_HIST	ACCOUNT MANAGEMENT HISTORY (page 2-27)
DWB_ACCT_PROD_OFR_PRTCPTN_HIST	ACCOUNT PRODUCT OFFERING PARTICIPATION HISTORY (page 2-28)
DWB_ACCT_PYMT	ACCOUNT PAYMENT (page 2-27)
DWB_ACCT_PYMT_MTHD_STAT	ACCOUNT PAYMENT METHOD STATUS (page 2-27)

Table 4-5   (Cont.) Base Tables

Table Name	More Information
DWB_ACCT_PYMT_PYMT_PLN_ASGN	ACCOUNT PAYMENT PAYMENT PLAN ASSIGNMENT (page 2-28)
DWB_ACCT_STAT_HIST	ACCOUNT STATUS HISTORY (page 2-29)
DWB_ACTVTY_JEOPARDY	ACTIVITY JEOPARDY (page 2-30)
DWB_ADDR_STAT_HIST	ADDRESS STATUS HISTORY (page 2-31)
DWB_ADHOC_COLLCTN	ADHOC COLLECTION (page 2-32)
DWB_AGRMNT_APRVL	AGREEMENT APPROVAL (page 2-33)
DWB_AGRMNT_APRVL_ASGN	AGREEMENT APPROVAL ASSIGNMENT (page 2-33)
DWB_AGRMNT_STAT	AGREEMENT STATUS (page 2-34)
DWB_AGRMNT_TERM	AGREEMENT TERM (page 2-35)
DWB_APNMNT	APPOINTMENT (page 2-36)
DWB_APNMNT_CLNDR	APPOINTMENT CALENDAR (page 2-36)
DWB_ASSET_APPRSL_HIST	ASSET APPRAISAL HISTORY (page 2-36)
DWB_ASSET_CNDTN_HIST	ASSET CONDITION HISTORY (page 2-36)
DWB_ASSET_DEPRCN_HIST	ASSET DEPRECIATION HISTORY (page 2-36)
DWB_BLK_LST_HIST	BLACK LIST HISTORY (page 2-39)
DWB_BRDBND_USG_EVT	BROADBAND USAGE EVENT (page 2-39)
DWB_BSNS_INTRACN	BUSINESS INTERACTION (page 2-40)
DWB_BSNS_INTRACN_CHAR_VAL_USE	BUSINESS INTERACTION CHARACTERISTIC VALUE USE (page 2-41)
DWB_BSNS_INTRACN_HIST	BUSINESS INTERACTION HISTORY (page 2-41)
DWB_BSNS_INTRACN_ITEM	BUSINESS INTERACTION ITEM (page 2-41)
DWB_BSNS_INTRACN_ITEM_PRICE	BUSINESS INTERACTION ITEM PRICE (page 2-41)
DWB_BSNS_INTRACN_PYMT_ASGN	BUSINESS INTERACTION PAYMENT ASSIGNMENT (page 2-41)
DWB_BSNS_INTRACN_RL	BUSINESS INTERACTION ROLE (page 2-41)
DWB_BSNS_INTRACN_VRSN	BUSINESS INTERACTION VERSION (page 2-42)
DWB_CELL_SITE_COST	CELL SITE COST (page 2-47)
DWB_CHNL_COST	CHANNEL COST (page 2-48)
DWB_CMPGN_COST	CAMPAIGN COST (page 2-45)

Table 4-5 (Cont.) Base Tables

Table Name	More Information
DWB_CMPGN_MSG_CRTVE	CAMPAIGN MESSAGE CREATIVE (page 2-45)
DWB_CNCT_LST_COST	CONTACT LIST COST (page 2-59)
DWB_CNSEQ_PRFMNC_NTFCTN	CONSEQUENCE PERFORMANCE NOTIFICATION (page 2-59)
DWB_CNTNT_DLVRY_EVT	CONTENT DELIVERY EVENT (page 2-59)
DWB_COST	COST (page 2-60)
DWB_COST_CNTR_BDGT	COST CENTER BUDGET (page 2-60)
DWB_COURIER_COST	COURIER COST (page 2-61)
DWB_CRCUT_TRFC	CIRCUIT TRAFFIC (page 2-50)
DWB_CRNCY_EXCHNG_RATE	CURRENCY EXCHANGE RATE (page 2-62)
DWB_CUST_COST	CUSTOMER COST (page 2-63)
DWB_CUST_FLD_SRVC_ACTVTY	CUSTOMER FIELD SERVICE ACTIVITY (page 2-65)
DWB_CUST_FLD_SRVC_DTL	CUSTOMER FIELD SERVICE DETAIL (page 2-65)
DWB_CUST_ORDR	CUSTOMER ORDER (page 2-66)
DWB_CUST_ORDR_LN_ITEM	CUSTOMER ORDER LINE ITEM (page 2-66)
DWB_CUST_ORDR_LN_ITEM_ST_ASGN	CUSTOMER ORDER LINE ITEM STATE ASSIGN (page 2-66)
DWB_CUST_ORDR_PYMT	CUSTOMER ORDER PAYMENT (page 2-66)
DWB_CUST_ORDR_STATE_ASGN	CUSTOMER ORDER STATE ASSIGNMENT (page 2-66)
DWB_DATA_SRVC_EVT	DATA SERVICE EVENT (page 2-68)
DWB_DISC_LI	DISCOUNT LINE ITEM (page 2-71)
DWB_EMP_ACT_LBR_HRLY	EMPLOYEE ACTUAL LABOR HOURLY (page 2-72)
DWB_EMP_ACT_LBR_SALARIED	EMPLOYEE ACTUAL LABOR SALARIED (page 2-72)
DWB_EMP_COST	EMPLOYEE COST (page 2-73)
DWB_EMP_EXP_RPT	EMPLOYEE EXPENSE REPORT (page 2-73)
DWB_EMP_EXP_RPT_ITEM	EMPLOYEE EXPENSE REPORT ITEM (page 2-73)
DWB_EMP_EXP_RPT_STATE	EMPLOYEE EXPENSE REPORT STATE (page 2-73)
DWB_EMP_TRNG_REC	EMPLOYEE TRAINING RECORD (page 2-73)
DWB_EQPMNT_CNTR_COST	EQUIPMENT CENTER COST (page 2-74)
DWB_ERRD_FIXED_LN_CALL_EVT	ERRORED FIXED LINE CALL EVENT (page 2-75)
DWB_ERRD_GPRS_USG_EVT	ERRORED RAW WIRELESS CALL EVENT (page 2-75)

Table 4-5   (Cont.) Base Tables

Table Name	More Information
DWB_ERRD_MDTD_CALL_EVT	ERRORED MEDIATED CALL EVENT (page 2-75)
DWB_ERRD_MMS_EVT	ERRORED MMS EVENT (page 2-75)
DWB_ERRD_RAW_WRLS_CALL_EVT	ERRORED RATED WIRELESS CALL EVENT (page 2-75)
DWB_ERRD_RTD_WRLS_CALL_EVT	ERRORED RAW WIRELESS CALL EVENT (page 2-75)
DWB_ERRD_SMS_EVT	ERRORED SMS EVENT (page 2-75)
DWB_ERRD_WRLS_CNTNT_DNLDG_EVT	ERRORED RAW WIRELESS CALL EVENT (page 2-75)
DWB_EVT	EVENT (page 2-76)
DWB_EVT_ACCS_MTHD_ACTVTY	EVENT ACCESS METHOD ACTIVITY (page 2-76)
DWB_EVT_ACCT	EVENT ACCOUNT (page 2-76)
DWB_EVT_AGRMNT	EVENT AGREEMENT (page 2-76)
DWB_EVT_ASGN	EVENT ASSIGNMENT (page 2-76)
DWB_EVT_CMPST_PROD_SPEC	EVENT COMPOSITE PRODUCT SPECIFICATION (page 2-77)
DWB_EVT_COST	EVENT COST (page 2-77)
DWB_EVT_CRCUT_RNTL	EVENT CIRCUIT RENTAL (page 2-76)
DWB_EVT_EMP_ACTVTY	EVENT EMPLOYEE ACTIVITY (page 2-77)
DWB_EVT_EMIT_DTL	EVENT EMIT DETAIL (page 2-77)
DWB_EVT_EMP_PYRL	EVENT EMPLOYEE PAYROLL (page 2-77)
DWB_EVT_EQPMNT_INSTNC	EVENT EQUIPMENT INSTANCE (page 2-77)
DWB_EVT_FINCL	EVENT FINANCIAL (page 2-77)
DWB_EVT_GEO	EVENT GEOGRAPHY (page 2-77)
DWB_EVT_LYLTY_PROG	EVENT LOYALTY PROGRAM (page 2-78)
DWB_EVT_PROD_SBRP_WRLS	EVENT PRODUCT SUBSCRIPTION WIRELESS (page 2-79)
DWB_EVT_PRPD_MBL	EVENT PREPAID MOBILE (page 2-79)
DWB_EVT_PRTY_ASGN	EVENT PARTY ASSIGNMENT (page 2-78)
DWB_EVT_PRTY_INTRACN	EVENT PARTY INTERACTION (page 2-78)
DWB_EVT_PRTY_INTRACN_CHAT_DTL	EVENT PARTY INTERACTION CHAT DETAIL (page 2-78)
DWB_EVT_PRTY_INTRACN_ITEM	EVENT PARTY INTERACTION ITEM (page 2-78)
DWB_EVT_PRTY_INTRACN_PRTCPTN	EVENT PARTY INTERACTION PARTICIPATION (page 2-78)
DWB_EVT_PRTY_PRFL	EVENT PARTY PROFILE (page 2-78)

Table 4-5   (Cont.) Base Tables

Table Name	More Information
DWB_EVT_SBRP_CHNG	EVENT SUBSCRIPTION CHANGE (page 2-80)
DWB_EVT_SIM_CARD	EVENT SIM CARD (page 2-79)
DWB_EVT_STAT	EVENT STATUS (page 2-79)
DWB_EVT_TRGR_DTL	EVENT TRIGGER DETAIL (page 2-80)
DWB_EVTEMP_ACTPRTY_INTRACNASGN	EVENT EMP ACTIVITY PARTY INTERACTION ASSIGNMENT (page 2-77)
DWB_EXP_RPT_PRTY_ASGN	EXPENSE REPORT PARTY ASSIGNMENT (page 2-80)
DWB_FIXED_LN_CALL_EVT	FIXED LINE CALL EVENT (page 2-82)
DWB_GL_BAL	GL BALANCE (page 2-85)
DWB_GL_JE	GL JOURNAL ENTRY (page 2-85)
DWB_GL_JE_BTCH	GL JOURNAL ENTRY BATCH (page 2-85)
DWB_GL_JE_LN	GL JOURNAL ENTRY LINE (page 2-85)
DWB_GL_JE_LN_SBLDGR_ASGN	GL JE LINE SUBLEDGER ASSIGNMENT (page 2-85)
DWB_GL_SBLDGR_JE	GL SUBLEDGER JOURNAL ENTRY (page 2-87)
DWB_GL_SBLDGR_JE_LN	GL SUBLEDGER JOURNAL ENTRY LINE (page 2-87)
DWB_GPRS_USG_EVT	GPRS USAGE EVENT (page 2-87)
DWB_IDD_CALL_EVT	IDD CALL EVENT (page 2-88)
DWB_IMPRESSION	IMPRESSION (page 2-88)
DWB_INTRACN_ANSWR_CHOICE	INTERACTION ANSWER CHOICE (page 2-89)
DWB_INTRACN_NAVGTN_HIST	INTERACTION NAVIGATION HISTORY (page 2-90)
DWB_INTRACN_QUES_RESPN	INTERACTION QUESTION RESPONSE (page 2-90)
DWB_INTRACN_TRNSFR_HIST	INTERACTION TRANSFER HISTORY (page 2-91)
DWB_INTRNT_ACCS_EVT	INTERNET ACCESS EVENT (page 2-91)
DWB_INV_ITEM_STATE	INVENTORY ITEM STATE (page 2-91)
DWB_INVC	INVOICE (page 2-92)
DWB_INVC_ADJ	INVOICE ADJUSTMENT (page 2-92)
DWB_INVC_DISC	INVOICE DISCOUNT (page 2-93)
DWB_INVC_GENRTN_PRCS	INVOICE GENERATION PROCESS (page 2-94)
DWB_INVC_ITEM	INVOICE ITEM (page 2-94)
DWB_INVC_ITEM_DTL	INVOICE ITEM DETAIL (page 2-94)

Table 4-5   (Cont.) Base Tables

Table Name	More Information
DWB_INVC_ITEM_RLTN	INVOICE ITEM RELATIONSHIP (page 2-94)
DWB_INVC_ITEM_USG_DTL	INVOICE ITEM USAGE DETAIL (page 2-95)
DWB_INVC_ITEM_USG_DTL_SPEC	INVOICE ITEM USAGE DETAIL (page 2-95)
DWB_INVC_PYMT_ASGN	INVOICE PAYMENT ASSIGNMENT (page 2-95)
DWB_INVC_PYMT_TERM	INVOICE PAYMENT TERM (page 2-95)
DWB_INVC_STAT_HIST	INVOICE STATUS HISTORY (page 2-95)
DWB_INVC_TAX_ITEM	INVOICE TAX ITEM (page 2-95)
DWB_INV_ADJ_DOC_LI	INVENTORY ADJUSTMENT DOCUMENT LINE ITEM (page 2-91)
DWB_INV_CNTRL_DOC	INVENTORY CONTROL DOCUMENT (page 2-91)
DWB_INV_CNTRL_DOC_LI	INVENTORY CONTROL DOCUMENT LINE ITEM (page 2-91)
DWB_ISP_USG_EVT	ISP USAGE EVENT (page 2-97)
DWB_IVR_INTRACN_NAVGTN_HIST	IVR INTERACTION NAVIGATION HISTORY (page 2-97)
DWB_JE_LN_CUST_ORDR_ITEM_ASGN	JOURNAL ENTRY LINE CUSTOMER ORDER ITEM ASSIGNMENT (page 2-98)
DWB_JE_LN_INVC_ITEM_ASGN	JOURNAL ENTRY LINE INVOICE ITEM ASSIGNMENT (page 2-98)
DWB_LATE_FIXED_LN_CALL_EVT	LATE FIXED LINE CALL EVENT (page 2-99)
DWB_LATE_UDR_EVT	LATE UDR EVENT (page 2-99)
DWB_LATE_WRLS_CALL_EVT	LATE WIRELESS CALL EVENT (page 2-99)
DWB_LYLTY_MBRSHIP_ENRL	LOYALTY MEMBERSHIP ENROLL (page 2-103)
DWB_LYLTY_TIER_CHNG_HIST	LOYALTY TIER CHANGE HISTORY (page 2-104)
DWB_MBRSHIP_ACCT_BAL_HIST	MEMBERSHIP ACCOUNT BALANCE HISTORY (page 2-108)
DWB_MDTD_CALL_EVT	MEDIATED CALL EVENT (page 2-107)
DWB_MEDIA_OBJ_COST	MEDIA OBJECT COST (page 2-107)
DWB_MMS_EVT	MMS EVENT (page 2-109)
DWB_MNGMT_JB	MANAGEMENT JOB (page 2-105)
DWB_MSRMNT_JB	MEASUREMENT JOB (page 2-107)
DWB_MSRMNT_THRSHLD_JB	MEASUREMENT THRESHOLD JOB (page 2-107)
DWB_MTCHD_PLCY	MATCHED POLICY (page 2-106) Note: this table is reserved for use by the Oracle Communications Policy and Charging Analytics solution.

Table 4-5   (Cont.) Base Tables

Table Name	More Information
DWB_MTCHD_PLCY_TBL	MATCHED POLICY TABLE (page 2-106) Note: this table is reserved for use by the Oracle Communications Policy and Charging Analytics solution.
DWB_NP_RQST_HDR	NP REQUEST HEADER (page 2-114)
DWB_NP_RQST_LN_ITEM	NP REQUEST LINE ITEM (page 2-114)
DWB_NP_RQST_LN_ITEM_STATE_HIST	NP REQUEST LINE ITEM STATE HISTORY (page 2-114)
DWB_NP_RQST_STATE_HIST	NP REQUEST STATE HISTORY (page 2-114)
DWB_ORG_BSNS_UNIT_COST	ORGANIZATION BUSINESS UNIT COST (page 2-117)
DWB_PCHSE_ORDR	PURCHASE ORDER (page 2-166)
DWB_PCHSE_ORDR_LN_ITEM	PURCHASE ORDER LINE ITEM (page 2-166)
DWB_PCHSE_ORDR_LN_ITEM_STATE	PURCHASE ORDER LINE ITEM STATE (page 2-166)
DWB_PCHSE_ORDR_STATE	PURCHASE ORDER STATE (page 2-166)
DWB_PHY_CNT_DOC	PHYSICAL COUNT DOCUMENT (page 2-131)
DWB_PHY_CNT_DOC_LI	PHYSICAL COUNT DOCUMENT LINE ITEM (page 2-131)
DWB_PLCY_EVT	POLICY EVENT (page 2-143)
DWB_PLCY_EVT_ASGN	POLICY EVENT ASSIGNMENT (page 2-143)
DWB_PRBLM	PROBLEM (page 2-150)
DWB_PRBLM_CMNTS	PROBLEM COMMENTS (page 2-150)
DWB_PRBLM_LOC_ASGN	PROBLEM LOCATION ASSIGNMENT (page 2-150)
DWB_PRBLM_RLTN	PROBLEM RELATIONSHIP (page 2-150)
DWB_PRBLM_RSCE_ASGN	PROBLEM RESOURCE ASSIGNMENT (page 2-150)
DWB_PRBLM_SRVC_ASGN	PROBLEM SERVICE ASSIGNMENT (page 2-150)
DWB_PRBLM_STAT_HIST	PROBLEM STATUS HISTORY (page 2-150)
DWB_PRBLM_TRKNG_REC_ASGN	PROBLEM TRACKING RECORD ASSIGNMENT (page 2-150)
DWB_PRCS_COST	PROCESS COST (page 2-151)
DWB_PRCS_EVT	PROCESS EVENT (page 2-151)
DWB_PRCS_INVC_DSPTCHG_EVT	PROCESS INVOICE DISPATCHING EVENT (page 2-151)
DWB_PRCS_INVC_GNRTN_EVT	PROCESS INVOICE GENERATION EVENT (page 2-151)
DWB_PRCS_INVC_ISSNG_EVT	PROCESS INVOICE ISSUING EVENT (page 2-151)

Table 4-5   (Cont.) Base Tables

Table Name	More Information
DWB_PRCSEVT_PRMTRVAL_OPRTR_ASG	PROCESS EVENT PARAMETER VALUE OPERATOR ASSIGNMENT (page 2-151)
DWB_PRFMNC	PERFORMANCE (page 2-127)
DWB_PRFMNC_CNSEQ	PERFORMANCE CONSEQUENCE (page 2-128)
DWB_PRFMNC_IND	PERFORMANCE INDICATOR (page 2-128)
DWB_PRFMNC_IND_GRP	PERFORMANCE INDICATOR GROUP (page 2-128)
DWB_PRFMNC_NTFCTN	PERFORMANCE NOTIFICATION (page 2-129)
DWB_PRICE_EVT	PRICE EVENT (page 2-149)
DWB_PRMTN_CLSTR_USG	PROMOTION CLUSTER USAGE (page 2-163)
DWB_PRMTN_CNCT_LST_UTLZTN	PROMOTION CONTACT LIST UTILIZATION (page 2-163)
DWB_PRMTN_COST	PROMOTION COST (page 2-163)
DWB_PRMTN_MGMT_HIST	PROMOTION MANAGEMENT HISTORY (page 2-163)
DWB_PRMTN_TERM_VAL	PROMOTION TERM VALUE (page 2-164)
DWB_PROD_OFR_COST	PRODUCT OFFERING COST (page 2-154)
DWB_PROD_OFR_MGMT	PRODUCT OFFERING MANAGEMENT (page 2-155)
DWB_PROD_SBRP_STAT_HIST	PRODUCT SUBSCRIPTION STATUS HISTORY (page 2-162)
DWB_PROD_SPEC_COST	PRODUCT SPECIFICATION COST (page 2-159)
DWB_PROD_SPEC_MGMT_HIST	PRODUCT SPECIFICATION MANAGEMENT HISTORY (page 2-160)
DWB_PROD_SPEC_STAT_HIST	PRODUCT SPECIFICATION STATUS HISTORY (page 2-160)
DWB_PROD_STAT_HIST	PRODUCT STATUS HISTORY (page 2-161)
DWB_PRPD_RCHRG	PREPAID RECHARGE (page 2-148)
DWB_PRTNR_PYMT	PARTNER PAYMENT (page 2-119)
DWB_PRTY_AM_PROD_OFR_ASGN_HIST	PARTY AM PRODUCT OFFERING ASSIGNMENT HISTORY (page 2-121)
DWB_PRTY_AM_PROD_OFR_ASGN_STAT	PARTY AM PRODUCT OFFERING ASSIGNMENT STATUS (page 2-121)
DWB_PRTY_COST_ASGN	PARTY COST ASSIGNMENT (page 2-122)
DWB_PRTY_ORDR_ASGN	PARTY ORDER ASSIGNMENT (page 2-123)
DWB_PRTY_PRMTN_RESPN	PARTY PROMOTION RESPONSE (page 2-124)
DWB_PRTY_STAT_HIST	PARTY STATUS HISTORY (page 2-125)

Table 4-5   (Cont.) Base Tables

Table Name	More Information
DWB_PTV_FULL_CHNL_ACTVTN	PTV FULL CHANNEL ACTIVATION (page 2-165)
DWB_PTV_QPI_SRVC_EVT	PTV QPI SERVICE EVENT (page 2-165)
DWB_PTV_USG_EVT	PTV USAGE EVENT (page 2-165)
DWB_RAW_GPRS_USG_EVT	RAW GPRS USAGE EVENT (page 2-169)
DWB_RAW_MMS_EVT	RAW MMS EVENT (page 2-169)
DWB_RAW_SMS_EVT	RAW SMS EVENT (page 2-169)
DWB_RAW_WRLS_CALL_EVT	RAW WIRELESS CALL EVENT (page 2-169)
DWB_REDEM_EVT	REDEMPTION EVENT (page 2-170)
DWB_RSCE_ALRM	RESOURCE ALARM (page 2-171)
DWB_RSCE_ALRM_CMNT	RESOURCE ALARM COMMENT (page 2-171)
DWB_RSCE_ALRM_RLTN	RESOURCE ALARM RELATIONSHIP (page 2-171)
DWB_RSCE_ALRM_RSCE_ASGN	RESOURCE ALARM RESOURCE ASSIGNMENT (page 2-171)
DWB_RSCE_ALRM_TRKNG_REC_ASGN	RESOURCE ALARM TRACKING RECORD ASSIGNMENT (page 2-171)
DWB_RSCE_BSNS_INTRACN_RL	RESOURCE BUSINESS INTERACTION ROLE (page 2-171)
DWB_RSCE_COST	RESOURCE COST (page 2-172)
DWB_RSCE_FLT_ASGN	RESOURCE FAULT ASSIGNMENT (page 2-174)
DWB_RSCE_HIST	RESOURCE HISTORY (page 2-174)
DWB_RSCE_ORDR	RESOURCE ORDER (page 2-175)
DWB_RSCE_ORDR_LN_ITEM	RESOURCE ORDER LINE ITEM (page 2-175)
DWB_RSCE_PRFMNC	RESOURCE PERFORMANCE (page 2-175)
DWB_RSCE_STATE_HIST	RESOURCE STATE HISTORY (page 2-177)
DWB_RTD_UDR_EVT	RATED UDR EVENT (page 2-169)
DWB_RTL_SL_RTRN_LI	RETAIL SALES RETURN LINE ITEM (page 2-177)
DWB_RTL_TNDR_LI	RETAIL TENDER LINE ITEM (page 2-178)
DWB_RTL_TRX	RETAIL TRANSACTION (page 2-178)
DWB_RTL_TRX_LN_ITEM	RETAIL TRANSACTION LINE ITEM (page 2-178)
DWB_SBRP_TERM_VAL	SUBSCRIPTION TERM VALUE (page 2-203)
DWB_SCRPT_ANSWR	SCRIPT ANSWER (page 2-182)
DWB_SESSION	SESSION (page 2-194)

Table 4-5   (Cont.) Base Tables

Table Name	More Information
DWB_SL_CHNL_CMISN_PLN_ASGN	SALES CHANNEL COMMISSION PLAN ASSIGNMENT (page 2-181)
DWB_SL_CMISN_DTL	SALES COMMISSION DETAIL (page 2-181)
DWB_SL_CMISN_PYRL	SALES COMMISSION PAYROLL (page 2-181)
DWB_SMS_EVT	TBS
DWB_SRVC_ORDR	SERVICE ORDER (page 2-188)
DWB_SRVC_ORDR_LN_ITEM	SERVICE ORDER LINE ITEM (page 2-188)
DWB_SRVC_PRFMNC	SERVICE PERFORMANCE (page 2-189)
DWB_SRVC_PRBLM	SERVICE PROBLEM (page 2-190)
DWB_SRVC_PRBLM_RSCE_ALRM_ASGN	SERVICE PROBLEM RESOURCE ALARM ASSIGNMENT (page 2-190)
DWB_SRVC_PRBLM_SBRP_ASGN	SERVICE PROBLEM SUBSCRIPTION ASSIGNMENT (page 2-190)
DWB_SRVC_PRBLM_SRVC_ASGN	SERVICE PROBLEM SERVICE ASSIGNMENT (page 2-190)
DWB_SRVC_RQST	SERVICE REQUEST (page 2-190)
DWB_SRVC_RQST_HIST	SERVICE REQUEST HISTORY (page 2-190)
DWB_SRVC_RQST_LN_ITEM	SERVICE REQUEST LINE ITEM (page 2-190)
DWB_SRVC_RQST_LN_ITEM_HIST	SERVICE REQUEST LINE ITEM (page 2-190)
DWB_SRVC_STAT_HIST	SERVICE STATUS HISTORY (page 2-194)
DWB_TAP_IN_WRLS_RMNG_EVT	TAP IN WIRELESS ROAMING EVENT (page 2-205)
DWB_TAP_OUT_WRLS_RMNG_EVT	TAP OUT WIRELESS ROAMING EVENT (page 2-205)
DWB_TNDR_CNTRL_TRX	TENDER CONTROL TRANSACTION (page 2-206)
DWB_TRBLE_TCKT	TROUBLE TICKET (page 2-208)
DWB_TRBLE_TCKT_FLD_SPPRT_ASGN	TROUBLE TICKET FIELD SUPPORT ASSIGNMENT (page 2-208)
DWB_TRBLE_TCKT_ITEM	TROUBLE TICKET ITEM (page 2-208)
DWB_TRKNG_REC	TRACKING RECORD (page 2-207)
DWB_UDR_EVT	UDR EVENT (page 2-208)
DWB_UDR_EVT_ASGN	UDR EVENT ASSIGNMENT (page 2-208)
DWB_UMS_EVT	UMS EVENT (page 2-210)
DWB_UNIT_ALWNCE	UNIT ALLOWANCE (page 2-210)

Table 4-5 (Cont.) Base Tables

Table Name	More Information
DWB_VNDR_APNMNT	VENDOR APPOINTMENT (page 2-213)
DWB_VOIP_CALL_EVT	VOIP CALL EVENT (page 2-214)
DWB_WEB_INTRACN_NAVGTN_HIST	WEB INTERACTION NAVIGATION HISTORY (page 2-215)
DWB_WRK_QUE	WORK QUEUE (page 2-216)
DWB_WRLS_CALL_EVT	WIRELESS CALL EVENT (page 2-216)
DWB_WRLS_CNTNT_DNLDG_EVT	WIRELESS CONTENT DOWNLOADING EVENT (page 2-216)
DWB_WRLS_RMNG_EVT	WIRELESS ROAMING EVENT (page 2-216)
DWB_WRLS_RMNG_EVT_BTCH	WIRELESS ROAMING EVENT BATCH (page 2-216)

4.5 Derived Tables

Table 4-6 Oracle Communications Data Model Derived Tables

Table Name	More Information
DWD_ACCT_BAL_MO	ACCOUNT BALANCE MONTH DRVD (page 2-26)
DWD_ACCT_DEBT_MO	Not used
DWD_ACCT_FRST_ACTVTY	ACCOUNT FIRST ACTIVITY DERIVED (page 2-27)
DWD_ACCT_LAST_ACTVTY	ACCOUNT LAST ACTIVITY DERIVED (page 2-27)
DWD_ACCT_PYMT_DAY	ACCOUNT PAYMENT DAY DRVD (page 2-27)
DWD_ACCT_PYMT_MTHD_STAT_HIST	ACCOUNT PAYMENT METHOD STATUS HIST DRVD (page 2-27)
DWD_AGRMNT	AGREEMENT DRVD (page 2-34)
DWD_AGRMNT_CHNG	AGREEMENT CHANGED DRVD (page 2-34)
DWD_AGRMNT_RVN_DAY	AGREEMENT REVENUE DAY DRVD (page 2-34)
DWD_CANBLZTN_DTL_DAY	CANNIBALIZATION DETAIL DAY DRVD (page 2-46)
DWD_CMISN	COMMISSION DRVD (page 2-51)
DWD_CMPGN_HIST_DAY	CAMPAIGN HISTORY DAY DRVD (page 2-45)
DWD_CNT_DAY	COUNT DAY DRVD (page 2-61)
DWD_CNTCT_CNTR_DAY	CONTACT CENTER DAY DERIVED (page 2-59)
DWD_COST_CNTR	COST CENTER DRVD (page 2-60)
DWD_CUST_COST	CUSTOMER COST DRVD (page 2-63)
DWD_CUST_DNA	CUSTOMER DNA DRVD (page 2-63)

Table 4-6   (Cont.) Oracle Communications Data Model Derived Tables

Table Name	More Information
DWD_CUST_EQPMNT_INSTLTN_DAY	CUSTOMER EQUIPMENT INSTALLATION DAY DRVD (page 2-64)
DWD_CUST_ORDR_DAY	CUSTOMER ORDER DAY DERIVED (page 2-66)
DWD_CUST_ORDR_LN_ITEM_DAY	CUSTOMER ORDER LINE ITEM DAY DERIVED (page 2-66)
DWD_CUST_RFMP_SCR	CUSTOMER RFMP SCORE (page 2-67)
DWD_CUST_SKU_SL_RETRN_DAY	CUSTOMER SKU SALES RETURN DAY DRVD (page 2-68)
DWD_DATA_USG_DAY	DATA USAGE DAY DRVD (page 2-68)
DWD_GIVE_AWAY_ITEM_DAY	GIVE AWAY ITEM DAY DRVD (page 2-84)
DWD_INVC_AGNG_DAY	INVOICE AGING DAY DRVD (page 2-93)
DWD_INVC_DAY	INVOICE DAY DRVD (page 2-93)
DWD_INV_ADJ_ITEM_DAY	Not used
DWD_INV_POSN_ITEM_DAY	INVENTORY POSITION ITEM DAY DRVD (page 2-92)
DWD_INV_RCPT_ITEM_DAY	INVENTORY RECEIPT ITEM DAY DRVD (page 2-92)
DWD_INV_UNAVL_ITEM_DAY	INVENTORY UNAVAILABLE ITEM DAY DRVD (page 2-92)
DWD_INV_VNDR_CMPLNC_DAY	INVENTORY VENDOR COMPLIANCE DAY DRVD (page 2-92)
DWD_INV_XFER_ITEM_DAY	INVENTORY TRANSFER ITEM DAY DRVD (page 2-92)
DWD_IN_PLTFRM_DAY	IN PLATFORM DAY DRVD (page 2-89)
DWD_LYLTY_MBR_PNT_DAY	LOYALTY MEMBER POINT DAY DRVD (page 2-103)
DWD_MKT_SHARE	MARKET SHARE DRVD (page 2-106)
DWD_MSC_TRFC_DAY	MSC TRAFFIC DAY DRVD (page 2-109)
DWD_NBR_PRT_DAY	NUMBER PORT DAY DRVD (page 2-115)
DWD_NTWK_AVLBLTY_DAY	NETWORK AVAILABILITY DAY DRVD (page 2-111)
DWD_NTWK_TCHPNT	NETWORK TOUCHPOINT DRVD (page 2-113)
DWD_ORG_BSNS_UNT_HRS_DAY	ORGANIZATION BUSINESS UNIT HOURS DAY DRVD (page 2-117)
DWD_POS_TNDR_FLOW	POINT OF SALE TENDER FLOW DRVD (page 2-135)
DWD_PRCS_INVC_DAY	PROCESS INVOICE DAY DRVD (page 2-151)
DWD_PRPD_ACCT_STTSTC_DAY	PREPAID ACCOUNT STATISTIC DRVD (page 2-148)
DWD_PRPD_ALWNCE_DAY	Not used

Table 4-6   (Cont.) Oracle Communications Data Model Derived Tables

Table Name	More Information
DWD_PRTNR_STLMNT	PARTNER SETTLEMENT DRVD (page 2-119)
DWD_RTL_SL_RETRN_ITEM_DAY	RETAIL SALES RETURN ITEM DAY DRVD (page 2-177)
DWD_RF_NTWK_CPCTY_DAY	RF NETWORK CAPACITY DAY DRVD (page 2-179)
DWD_RVN_DAY	REVENUE DAY DRVD (page 2-178)
DWD_SL_RPRSTV_STTSTC	SALES REPRESENTATIVE STATISTICS DRVD (page 2-181)
DWD_SPLMNTR_SRVC_USG	SUPPLEMENTARY SERVICE USAGE DRVD (page 2-204)
DWD_SRVC_PRBLM_DAY	SERVICE PROBLEM DAY DRVD (page 2-190)
DWD_STORE_EFFNCY_DAY	STORE EFFICIENCY DAY DRVD (page 2-202)
DWD_VAS_SBRP_QCK_SUMM	VAS SUBSCRIPTION QUICK SUMMARY DRVD (page 2-212)
DWD_VAS_USG_DAY	VAS USAGE DAY DRVD (page 2-212)
DWD_VOI_CALL_DAY	VOICE CALL DAY DRVD (page 2-214)

4.6 Aggregate Tables

Table 4-7 (page 4-74) briefly describes the Aggregate tables in Oracle Communications Data Model.

Table 4-7   Aggregate Tables

Table Name	More Information
DWA_ACCT_DEBT_MO	ACCOUNT DEBT MONTH AGGR (page 2-27)
DWA_ACCT_PYMT_MO	ACCOUNT PAYMENT MONTH AGGR (page 2-28)
DWA_ACCT_STTSTC_MO	ACCOUNT STATISTIC MONTH AGGR (page 2-29)
DWA_AGRMNT_ACCT_SBRP_PROD	AGREEMENT ACCOUNT SUBSCRIPTION PRODUCT AGGR (page 2-33)
DWA_ARPU_BASE_CUST_TYP	ARPU BASE CUSTOMER TYPE AGGR (page 2-36)
DWA_BER_FER_ERR_RATIO_MO	BER FER ERROR RATIO MONTH AGGR (page 2-38)
DWA_CALL_CNTR_CALL_MO	CALL CENTER CALL MONTH AGGR (page 2-43)
DWA_CALL_CNTR_CASE_MO	CALL CENTER CASE MONTH AGGR (page 2-43)
DWA_CELL_STTSTC_MO	CELL STATISTIC MONTH AGGR (page 2-48)
DWA_CMISN_MO	COMMISSION MONTH AGGR (page 2-51)
DWA_CNT_MO	COUNT MONTH AGGR (page 2-61)
DWA_COST_CNTR_MO	COST CENTER MONTH AGGR (page 2-60)

Table 4-7   (Cont.) Aggregate Tables

Table Name	More Information
DWA_CUST_ACQSTN_SUMM_MO	CUSTOMER ACQUISITION SUMMARY MONTH AGGR (page 2-62)
DWA_CUST_CHRN_MO	CUSTOMER CHURN MONTH AGGR (page 2-63)
DWA_CUST_COST_MO	CUSTOMER COST MONTH AGGR (page 2-63)
DWA_CUST_DEBT_COLLCTN_MO	CUSTOMER DEBT COLLECTION MONTH AGGR (page 2-63)
DWA_CUST_EQPMNT_INSTLTN_MO	CUSTOMER EQUIPMENT INSTALLATION MO AGGR (page 2-64)
DWA_CUST_GROSS_ORDRS_QTR	CUSTOMER GROSS ORDER QUARTERLY (page 2-65)
DWA_CUST_ORDR_MO	CUSTOMER ORDER MONTH AGGR (page 2-66)
DWA_DATA_USG_MO	DATA USAGE MONTH AGGR (page 2-68)
DWA_IN_PLTFRM_MO	IN PLATFORM MONTH AGGR (page 2-89)
DWA_INV_POSN_DEPT_DAY	INVENTORY POSITION DEPARTMENT DAY AGGR (page 2-92)
DWA_INV_POSN_SBC_MO	INVENTORY POSITION SUBCLASS MONTH AGGR (page 2-92)
DWA_INVC_MO	INVOICE MONTH AGGR (page 2-95)
DWA_INVC_ADJ_MO	INVOICE ADJUSTMENT MONTH AGGR (page 2-92)
DWA_LYLTY_PROG_MO	LOYALTY PROGRAM MO AGGR (page 2-103)
DWA_MKT_SHARE	MARKET SHARE AGGR (page 2-106)
DWA_MSC_TRFC_MO	MSC TRAFFIC MONTH AGGR (page 2-109)
DWA_NBR_PRT_MO	NUMBER PORT MONTH AGGR (page 2-115)
DWA_NTWK_AVLBLTY_MO	NETWORK AVAILABILITY MONTH AGGR (page 2-111)
DWA_NTWK_TCHPNT_MO	NETWORK TOUCHPOINT MONTH AGGR (page 2-113)
DWA_PRPD_ALWNCE_MO	PREPAID ALLOWANCE MONTH AGGR (page 2-148)
DWA_PRTNR_STLMNT_MO	PARTNER SETTLEMENT MONTH AGGR (page 2-119)
DWA_RDMPTN_MO	REDEMPTION MO AGGR (page 2-170)
DWA_RF_NTWK_CPCTY_MO	RF NETWORK CAPACITY MONTH AGGR (page 2-179)
DWA_RVN_MO	REVENUE MONTH AGGR (page 2-179)
DWA_SBSCBR_STTSTC_MO	SUBSCRIPTION STATISTIC MONTH AGGR (page 2-203)
DWA_SL_CMPGN_SUMM_MO	SALES CAMPAIGN SUMMARY MONTH AGGR (page 2-180)

Table 4-7   (Cont.) Aggregate Tables

Table Name	More Information
DWA_SPLMNTR_SRVC_USG_MO	Not used
DWA_STORE_EFFNCY_MO	STORE EFFICIENCY MONTH AGGR (page 2-202)
DWA_VAS_SBRP_QCK_SUMM_MO	VAS SUBSCRIPTION QUICK SUMMARY MO AGGR (page 2-212)
DWA_VAS_USG_MO	VAS USAGE MONTH AGGR (page 2-212)
DWA_VOI_CALL_MO	VOICE CALL MONTH AGGR (page 2-214)

4.7 Temporary and Other Tables

Table 4-8 (page 4-76) and Table 4-9 (page 4-76) briefly describes the temporary and control tables in Oracle Communications Data Model.

Table 4-8   Temporary Oracle Communications Data Model Tables

Table Name	Description
DWA_CUST_GROSS_ORDRS_QTR	This entity gives order measures, number of orders and total order amount, in same quarters of consecutive years.
DWA_CUST_NET_ORDRS_QTR	This entity gives order measures, number of orders and total order amount, in consecutive quarters.
DWA_CUST_ORDR_MO	This entity summarizes orders placed by customers at month level aggregation. Using this entity, order measures, number of orders and total order amount, across order status, order type, product, product type dimensions can be computed.
TMP_DWD_CUST_RFMP_SCR_1	
TMP_DWD_CUST_RFMP_SCR_2	

Table 4-9   Control Tables

Table Name	Description
DWC_ETL_PARAMETER	Store ETL parameters such as etl start date and etl end date. For more information, see "Intra-ETL Load Parameters Control Table (page A-1)".
DWC_INTRA_ETL_ACTIVITY	Reports errors at the individual program level. For more information, see "Intra-ETL Monitoring Process Control Tables (page A-3)".
DWC_INTRA_ETL_PROCESS	Reports errors at the whole batch load level. For more information, see "Intra-ETL Monitoring Process Control Tables (page A-3)".

Table 4-9 (Cont.) Control Tables

Table Name	Description
DWC_MESSAGE	"Intra-ETL Monitoring Process Control Tables (page A-3)"
DWC_OLAP_ETL_PARAMETER	Reports OLAP ETL parameter. For more information, see "Intra-ETL OLAP Mapping Control Table (page A-2)".

4.8 Sequences in Oracle Communications Data Model

Table 4-10 (page 4-77) lists the sequence names in Oracle Communications Data Model.

Table 4-10 Sequence Name for Oracle Communications Data Model

Table Name	Sequence Name
DWC_INTRA_ETL_ACTIVITY	INTRA_ETL_ACTIVITY_SEQ
DWC_INTRA_ETL_PROCESS	INTRA_ETL_PROCESS_SEQ
DWD_TMF_KPI	DWD_TMF_KPI_SEQ
DWR_DAY_TODATE_TRANS	DAY_TODATE_TRANS_SEQ
DWR_HLF_MO_TODATE_TRANS	HLF_MO_TODATE_TRANS_SEQ
DWR_MO_TODATE_TRANS	MO_TODATE_TRANS_SEQ
DWR_MO_TRANS	MO_TRANS_SEQ
DWR_QTR_TODATE_TRANS	QTR_TODATE_TRANS_SEQ
DWR_QTR_TRANS	QTR_TRANS_SEQ
DWR_WK_TODATE_TRANS	WK_TODATE_TRANS_SEQ
DWR_YR_TRANS	YR_TRANS_SEQ

4.9 Compressed Tables

Compressed Tables

This section lists the Compressed Tables in Oracle Communications Data Model. Oracle Communications Data Model uses Database Compression on these tables to save space and load times.

DWA_ACCT_DEBT_MO
DWA_ACCT_PYMT_MO
DWA_ACCT_STTSTC_MO
DWA_ARPU_BASE_CUST_TYP
DWA_BER_FER_ERR_RATIO_MO
DWA_CALL_CNTR_CALL_MO
DWA_CALL_CNTR_CASE_MO

DWA_CELL_STTSTC_MO
DWA_CMISN_MO
DWA_CNT_MO
DWA_COST_CNTR_MO
DWA_CUST_ACQSTN_SUMM_MO
DWA_CUST_CHRN_MO
DWA_CUST_COST_MO
DWA_CUST_DEBT_COLLCTN_MO
DWA_CUST_EQPMNT_INSTLTN_MO
DWA_CUST_GROSS_ORDRS_QTR
DWA_CUST_ORDR_MO
DWA_DATA_USG_MO
DWA_IN_PLTFRM_MO
DWA_INV_POSN_DEPT_DAY
DWA_INV_POSN_SBC_MO
DWA_INVC_ADJ_MO
DWA_INVC_MO
DWA_LYLTY_PROG_MO
DWA_MKT_SHARE
DWA_MSC_TRFC_MO
DWA_NBR_PRT_MO
DWA_NTWK_AVLBLTY_MO
DWA_NTWK_TCHPNT_MO
DWA_PRPD_ALWNCE_MO
DWA_PRTNR_STLMNT_MO
DWA_RDMPTN_MO
DWA_RF_NTWK_CPCTY_MO
DWA_RVN_MO
DWA_SBSCBR_STTSTC_MO
DWA_SL_CMPGN_SUMM_MO
DWA_SPLMNTR_SRVC_USG_MO
DWA_STORE_EFFNCY_MO
DWA_VAS_SBRP_QCK_SUMM_MO
DWA_VAS_USG_MO
DWA_VOI_CALL_MO
DWB_ACCS_MTHD_PORT_HIST
DWB_ACCS_MTHD_STAT_HIST
DWB_ACCT_ACCTNG_CYCL_HIST
DWB_ACCT_BAL_IMPC
DWB_ACCT_BLLG_OCCRNCE
DWB_ACCT_COST
DWB_ACCT_CRDT_LMT
DWB_ACCT_MNGMNT_HIST
DWB_ACCT_PROD_OFR_PRTCPTN_HIST
DWB_ACCT_PYMT
DWB_ACCT_PYMT_MTHD_STAT
DWB_ACCT_STAT_HIST
DWB_ADDR_STAT_HIST
DWB_AGRMNT_APRVL
DWB_AGRMNT_STAT
DWB_AGRMNT_TERM
DWB_APNMNT_CLNDR
DWB_BLK_LST_HIST
DWB_BRDBND_USG_EVT
DWB_BSNS_INTRACN

DWB_BSNS_INTRACN_HIST
DWB_BSNS_INTRACN_ITEM
DWB_BSNS_INTRACN_ITEM_PRICE
DWB_BSNS_UNIT_COST
DWB_CELL_SITE_COST
DWB_CHNL_COST
DWB_CMPGN_COST
DWB_CMPGN_MSG_CRTVE
DWB_CNCT_LST_COST
DWB_CNTNT_DLVRY_EVT
DWB_COST
DWB_COST_CNTR_BDGT
DWB_COURIER_COST
DWB_CRCUT_RNTL
DWB_CRCUT_TRFC
DWB_CRNCY_EXCHNG_RATE
DWB_CUST_COST
DWB_CUST_FLD_SRVC_ACTVTY
DWB_CUST_FLD_SRVC_DTL
DWB_CUST_ORDR
DWB_CUST_ORDR_LN_ITEM
DWB_CUST_ORDR_LN_ITEM_ST_ASGN
DWB_CUST_ORDR_PYMT
DWB_CUST_ORDR_STATE_ASGN
DWB_DATA_SRVC_EVT
DWB_DISC_LI
DWB_EMP_ACT_LBR_HRLY
DWB_EMP_ACT_LBR_SALARIED
DWB_EMP_COST
DWB_EMP_EXP_RPT
DWB_EMP_TRNG_REC
DWB_EQPMNT_CNTR_COST
DWB_ERRD_MDTD_CALL_EVT
DWB_ERRD_RAW_WRLS_CALL_EVT
DWB_ERRD_RTD_WRLS_CALL_EVT
DWB_EVT
DWB_EVT_ACCS_MTHD_ACTVTY
DWB_EVT_ACCT
DWB_EVT_AGRMNT
DWB_EVT_ASGN
DWB_EVT_CMPST_PROD_SPEC
DWB_EVT_COST
DWB_EVT_CRCUT_RNTL
DWB_EVT_EMP_PYRL
DWB_EVT_EQPMNT_INSTNC
DWB_EVT_FINCL
DWB_EVT_GEO
DWB_EVT_LYLTY_PROG
DWB_EVT_PROD_SBRP_WRLS
DWB_EVT_PRPD_MBL
DWB_EVT_PRTY_ASGN
DWB_EVT_PRTY_INTRACN
DWB_EVT_PRTY_PRFL
DWB_EVT_SBRP_CHNG
DWB_EVT_SIM_CARD

DWB_EVT_STAT
DWB_EXP_RPT_PRTY_ASGN
DWB_FIXED_LN_CALL_EVT
DWB_GPRS_USG_EVT
DWB_IDD_CALL_EVT
DWB_INTRACN_QUES_RESPN
DWB_INTRNT_ACCS_EVT
DWB_INV_ADJ_DOC_LI
DWB_INV_CNTRL_DOC
DWB_INV_CNTRL_DOC_LI
DWB_INV_ITEM_STATE
DWB_INVC
DWB_INVC_ADJ
DWB_INVC_DISC
DWB_INVC_ITEM
DWB_INVC_ITEM_DTL
DWB_INVC_PYMT_ASGN
DWB_INVC_PYMT_TERM
DWB_INVC_STAT_HIST
DWB_ISP_USG_EVT
DWB_MDTD_CALL_EVT
DWB_MEDIA_OBJ_COST
DWB_MMS_EVT
DWB_NP_RQST_HDR
DWB_NP_RQST_LN_ITEM
DWB_NP_RQST_LN_ITEM_STATE_HIST
DWB_PHY_CNT_DOC
DWB_PHY_CNT_DOC_LI
DWB_PLCY_EVT_ATMC
DWB_PLCY_EVT_CMPST
DWB_PRBLM_CMNTS
DWB_PRBLM_LOC_ASGN
DWB_PRBLM_RLTN
DWB_PRBLM_RSCE_ASGN
DWB_PRBLM_SRVC_ASGN
DWB_PRCS_COST
DWB_PRICE_EVT
DWB_PRMTN_CLSTR_USG
DWB_PRMTN_CNCT_LST_UTLZTN
DWB_PRMTN_COST
DWB_PRMTN_MGMT_HIST
DWB_PRMTN_TERM_VAL
DWB_PROD_OFR_COST
DWB_PROD_OFR_MGMT
DWB_PROD_SBRP_STAT_HIST
DWB_PROD_SPEC_COST
DWB_PROD_SPEC_MGMT_HIST
DWB_PROD_SPEC_STAT_HIST
DWB_PRPD_RCHRG
DWB_PRTNR_PYMT
DWB_PRTY_AM_PROD_OFR_ASGN_HIST
DWB_PRTY_AM_PROD_OFR_ASGN_STAT
DWB_PRTY_COST_ASGN
DWB_PRTY_ORDR_ASGN
DWB_PRTY_PRMTN_RESPN

DWB_PRTY_STAT_HIST
DWB_PTV_FULL_CHNL_ACTVTN
DWB_PTV_QPI_SRVC_EVT
DWB_PTV_USG_EVT
DWB_RAW_MMS_EVT
DWB_RAW_WRLS_CALL_EVT
DWB_RSCE_COST
DWB_RSCE_HIST
DWB_RSCE_ORDR
DWB_RSCE_ORDR_LN_ITEM
DWB_RSCE_PRFMNC
DWB_RSCE_STATE_HIST
DWB_RTD_UDR_EVT
DWB_RTL_SL_RTRN_LI
DWB_RTL_TNDR_LI
DWB_RTL_TRX
DWB_SBRP_TERM_VAL
DWB_SL_CMISN_DTL
DWB_SL_CMISN_PYRL
DWB_SMS_EVT
DWB_SRVC_LVL_AGRMNT_VILTN
DWB_SRVC_ORDR
DWB_SRVC_ORDR_LN_ITEM
DWB_SRVC_RQST
DWB_TAP_IN_WRLS_RMNG_EVT
DWB_TAP_OUT_WRLS_RMNG_EVT
DWB_TNDR_CNTRL_TRX
DWB_TRBLE_TCKT
DWB_TRBLE_TCKT_FLD_SPPRT_ASGN
DWB_TRBLE_TCKT_ITEM
DWB_TRKNG_REC
DWB_UDR_EVT
DWB_UDR_EVT_ASGN
DWB_UMS_EVT
DWB_UNIT_ALWNCE
DWB_VNDR_APNMNT
DWB_VOIP_CALL_EVT
DWB_WRLS_CALL_EVT
DWB_WRLS_CNTNT_DNLDG_EVT
DWB_WRLS_RMNG_EVT
DWB_WRLS_RMNG_EVT_BTCH
DWD_ACCT_BAL_MO
DWD_ACCT_DEBT_MO
DWD_ACCT_FRST_ACTVTY
DWD_ACCT_LAST_ACTVTY
DWD_ACCT_PYMT_DAY
DWD_ACCT_PYMT_MTHD_STAT_HIST
DWD_AGRMNT
DWD_AGRMNT_CHNG
DWD_AGRMNT_RVN_DAY
DWD_CANBLZTN_DTL_DAY
DWD_CMISN
DWD_CMPGN_HIST_DAY
DWD_CNT_DAY
DWD_CNTCT_CNTR_DAY

DWD_COST_CNTR
DWD_CUST_COST
DWD_CUST_DNA
DWD_CUST_EQPMNT_INSTLTN_DAY
DWD_CUST_ORDR_DAY
DWD_CUST_ORDR_LN_ITEM_DAY
DWD_CUST_RFMP_SCR
DWD_CUST_SKU_SL_RETRN_DAY
DWD_DATA_USG_DAY
DWD_GIVE_AWAY_ITEM_DAY
DWD_IN_PLTFRM_DAY
DWD_INV_ADJ_ITEM_DAY
DWD_INV_POSN_ITEM_DAY
DWD_INV_RCPT_ITEM_DAY
DWD_INV_UNAVL_ITEM_DAY
DWD_INV_VNDR_CMPLNC_DAY
DWD_INV_XFER_ITEM_DAY
DWD_INVC_AGNG_DAY
DWD_INVC_DAY
DWD_LYLTY_MBR_PNT_DAY
DWD_MKT_SHARE
DWD_MSC_TRFC_DAY
DWD_NBR_PRT_DAY
DWD_NTWK_AVLBLTY_DAY
DWD_NTWK_TCHPNT
DWD_ORG_BSNS_UNT_HRS_DAY
DWD_POS_TNDR_FLOW
DWD_PRCS_INVC_DAY
DWD_PRPD_ACCT_STTSTC_DAY
DWD_PRPD_ALWNCE_DAY
DWD_PRTNR_STLMNT
DWD_RF_NTWK_CPCTY_DAY
DWD_RTL_SL_RETRN_ITEM_DAY
DWD_RVN_DAY
DWD_SL_RPRSTV_STTSTC
DWD_SPLMNTR_SRVC_USG
DWD_SRVC_PRBLM_DAY
DWD_STORE_EFFNCY_DAY
DWD_TMF_KPI
DWD_VAS_SBRP_QCK_SUMM
DWD_VAS_USG_DAY
DWD_VOI_CALL_DAY

4.10 Oracle Communications Data Model OLAP Cube MV, Cube View

This section includes information on the following:

- Oracle OLAP Cube Views: Oracle OLAP cube views provide organizations with the ability to both improve the performance and analytic content of SQL-based business intelligence applications. OLAP cube views are relational views of OLAP cubes, dimensions, and hierarchies that reveal the full content of cubes and dimensions.

- Cube MV (Materialized Cube Views): Cube-organized materialized views, introduced, in Oracle Database 11*g*, play the same role as table-based materialized

views. That is, a summary management solution that is transparent to the querying application. Like table-based materialized views, the application queries the detail tables and the database automatically rewrites the query to access summary data in the materialized view. In the case of cube-organized materialized views, the data is managed in the cube rather than a table.

Table 4-11 (page 4-83) shows the cube materialized views in ocdm_sys schema.

Table 4-11   OLAP Cube Materialized Views in ocdm_sys Schema

Cube Materialized View Name	OLAP Object Name	OLAP Object Type	More Information
CB$ACM	ACM	Cube	Customer Acquisition Cube: ACM (page 9-107)
CB$ADM	ADM	Cube	Account Debt Cube: ADM (page 9-2)
CB$AGRMNT	AGRMNT	Cube	Agreement Cube: AGRMNT (page 9-11)
CB$APM	APM	Cube	Account Payment Cube: APM (page 9-7)
CB$ARRSN_HARRSN	ARRSN_HARRSN	Dimension_Hierarchy	Account Refund Reason: ARRSN (page 8-3)
CB$CAGNCY_HCAGNCY	CAGNCY_HCAGNCY	Dimension_Hierarchy	Collection Agency: CAGNCY (page 8-5)
CB$CCM	CCM	Cube	Cost Product Offering Cube: CCM (page 9-99)
CB$CHRN	CHRN	Cube	Subscriber Churn Statistic Cube: CHRN (page 9-142)
CB$CMSN	CMSN	Cube	Commission Cube: CMSN (page 9-91)
CB$CMTYP_HCMTYP	CMTYP_HCMTYP	Dimension_Hierarchy	Commission Type: CMTYP (page 8-6)
CB$COM	COM	Cube	Cost Organizational Cube: COM (page 9-93)
CB$CRNRSN_HCRNRSN	CRNRSN_HCRNRSN	Dimension_Hierarchy	Churn Reason: CRNRSN (page 8-5)
CB$CSGMNT_HCSGMNT	CSGMNT_HCSGMNT	Dimension_Hierarchy	Customer Segment: CSGMNT (page 8-9)
CB$CSM	CSM	Cube	Cell Statistic Cube: CSM (page 9-18)
CB$CUSTYP_HCUSTYP	CUSTYP_HCUSTYP	Dimension_Hierarchy	Customer Type: CUSTYP (page 8-10)
CB$CUST_HCUST	CUST_HCUST	Dimension_Hierarchy	Customer: CUST (page 8-8)

Table 4-11   (Cont.) OLAP Cube Materialized Views in ocdm_sys Schema

Cube Materialized View Name	OLAP Object Name	OLAP Object Type	More Information
CB$DAB_HDAB	DAB_HDAB	Dimension_Hierarchy	Debt Aging Band: DAB (page 8-10)
CB$GEO_HGEO	GEO_HGEO	Dimension_Hierarchy	Geography: GEO (page 8-11)
CB$IAM	IAM	Cube	Invoice Adjustment Cube: IAM (page 9-123)
CB$IARSN_HIARSN	IARSN_HIARSN	Dimension_Hierarchy	Invoice Adjustment Reason: IARSN (page 8-13)
CB$IATYP_HIATYP	IATYP_HIATYP	Dimension_Hierarchy	Invoice Adjustment Type: IATYP (page 8-14)
CB$INVCM	INVCM	Cube	Invoice Customer Type Cube: INVCM (page 9-125)
CB$ORG_HBANNER	ORG_HBANNER	Dimension_Hierarchy	Organization: ORG (page 8-14)
CB$ORG_HCHAIN	ORG_HCHAIN	Dimension_Hierarchy	Organization: ORG (page 8-14)
CB$ORG_HCORPORATE	ORG_HCORPORATE	Dimension_Hierarchy	Organization: ORG (page 8-14)
CB$PMTYP_HPMTYP	PMTYP_HPMTYP	Dimension_Hierarchy	Payment Method Type: PMTYP (page 8-19)
CB$POPT_HPOPT	POPT_HPOPT	Dimension_Hierarchy	Peak Offpeak Time: POPT (page 8-20)
CB$PRMTN_HCMPGN	PRMTN_HCMPGN	Dimension_Hierarchy	Promotion: PRMTN (page 8-24)
CB$PRMTN_HPRMTN	PRMTN_HPRMTN	Dimension_Hierarchy	Promotion: PRMTN (page 8-24)
CB$PROD_HPROD	PROD_HPROD	Dimension_Hierarchy	Product: PROD (page 8-22)
CB$PTTYP_HPTTYP	PTTYP_HPTTYP	Dimension_Hierarchy	Payment Transaction Type: PTTYP (page 8-20)
CB$RVN	RVN	Cube	Revenue Cube: RVN (page 9-135)
CB$SLCHNL_HSLCHNL	SLCHNL_HSLCHNL	Dimension_Hierarchy	Sales Channel: SLCHNL (page 8-26)
CB$TIME_HTBSNS	TIME_HTBSNS	Dimension_Hierarchy	Time: TIME (page 8-33)
CB$TSLT_HTSLT	TSLT_HTSLT	Dimension_Hierarchy	Time Slot: TSLT (page 8-43)

Table 4-12 (page 4-85) shows the OLAP cube views in ocdm_sys schema.

Table 4-12   OLAP Cube Views in ocdm_sys schema

Cube View Name	OLAP Object Name	OLAP Object Type	More Information
ACM_FCST_STTSTC_VIEW	ACM_FCST_STTSTC	Cube	Customer Acquisition Forecast Statistic Cube: ACM_FCST_STTSTC (page 9-155)
ACM_FCST_VIEW	ACM_FCST	Cube	Customer Acquisition Forecast Cube: ACM_FCST (page 9-154)
ACM_VIEW	ACM	Cube	Customer Acquisition Forecast Cube: ACM_FCST (page 9-154)
ADM_VIEW	ADM	Cube	Customer Acquisition Cube: ACM (page 9-107)
APM_VIEW	APM	Cube	Account Payment Cube: APM (page 9-7)
ARRSN_HARRSN_VIEW	ARRSN_HARRSN	Hierarchy	Account Refund Reason: ARRSN (page 8-3)
ARRSN_VIEW	ARRSN	Dimension	Account Refund Reason: ARRSN (page 8-3)
CAGNCY_HCAGNCY_VIEW	CAGNCY_HCAGNCY	Hierarchy	Collection Agency: CAGNCY (page 8-5)
CAGNCY_VIEW	CAGNCY	Dimension	Collection Agency: CAGNCY (page 8-5)
CCM_VIEW	CCM	Cube	Cost Product Offering Cube: CCM (page 9-99)
CHRN_VIEW	CHRN	Cube	Subscriber Churn Statistic Cube: CHRN (page 9-142)
CMSN_VIEW	CMSN	Cube	Commission Cube: CMSN (page 9-91)
CMTYP_HCMTYP_VIEW	CMTYP_HCMTYP	Hierarchy	Commission Type: CMTYP (page 8-6)
CMTYP_VIEW	CMTYP	Dimension	Commission Type: CMTYP (page 8-6)
CM_VIEW	CM	Cube	Agreement Cube: AGRMNT (page 9-11)
COM_VIEW	COM	Cube	Cost Organizational Cube: COM (page 9-93)
CRNRSN_HCRNRSN_VIEW	CRNRSN_HCRNRSN	Hierarchy	Churn Reason: CRNRSN (page 8-5)
CRNRSN_VIEW	CRNRSN	Dimension	Churn Reason: CRNRSN (page 8-5)
CSGMNT_HCSGMNT_VIEW	CSGMNT_HCSGMNT	Hierarchy	Customer Segment: CSGMNT (page 8-9)

Table 4-12   (Cont.) OLAP Cube Views in ocdm_sys schema

Cube View Name	OLAP Object Name	OLAP Object Type	More Information
CSGMNT_VIEW	CSGMNT	Dimension	Customer Segment: CSGMNT (page 8-9)
CSM_FCST_VIEW	CSM_FCST	Cube	Cell Statistic Forecast Cube: CSM_FCST (page 9-156)
CSM_VIEW	CSM	Cube	Cell Statistic Cube: CSM (page 9-18)
CUSTYP_HCUSTYP_VIEW	CUSTYP_HCUSTYP	Hierarchy	Customer Type: CUSTYP (page 8-10)
CUSTYP_VIEW	CUSTYP	Dimension	Customer Type: CUSTYP (page 8-10)
CUST_HCUST_VIEW	CUST_HCUST	Hierarchy	Customer: CUST (page 8-8)
CUST_VIEW	CUST	Dimension	Customer: CUST (page 8-8)
DAB_HDAB_VIEW	DAB_HDAB	Hierarchy	Debt Aging Band: DAB (page 8-10)
DAB_VIEW	DAB	Dimension	Debt Aging Band: DAB (page 8-10)
GEO_HGEO_VIEW	GEO_HGEO	Hierarchy	Geography: GEO (page 8-11)
GEO_VIEW	GEO	Dimension	Geography: GEO (page 8-11)
IAM_VIEW	IAM	Cube	Invoice Adjustment Cube: IAM (page 9-123)
IARSN_HIARSN_VIEW	IARSN_HIARSN	Hierarchy	Invoice Adjustment Reason: IARSN (page 8-13)
IARSN_VIEW	IARSN	Dimension	Invoice Adjustment Reason: IARSN (page 8-13)
IATYP_HIATYP_VIEW	IATYP_HIATYP	Hierarchy	Invoice Adjustment Type: IATYP (page 8-14)
IATYP_VIEW	IATYP	Dimension	Invoice Adjustment Type: IATYP (page 8-14)
ICT_VIEW	ICT	Cube	Invoice Customer Type Cube: INVCM (page 9-125)
ORG_HBANNER_VIEW	ORG_HBANNER	Hierarchy	Organization: ORG (page 8-14)
ORG_HCHAIN_VIEW	ORG_HCHAIN	Hierarchy	Organization: ORG (page 8-14)
ORG_HCORPORATE_VIEW	ORG_HCORPORATE	Hierarchy	Organization: ORG (page 8-14)
ORG_VIEW	ORG	Dimension	Organization: ORG (page 8-14)
PMTYP_HPMTYP_VIEW	PMTYP_HPMTYP	Hierarchy	Payment Method Type: PMTYP (page 8-19)

Table 4-12   (Cont.) OLAP Cube Views in ocdm_sys schema

Cube View Name	OLAP Object Name	OLAP Object Type	More Information
PMTYP_VIEW	PMTYP	Dimension	Payment Method Type: PMTYP (page 8-19)
POPT_HPOPT_VIEW	POPT_HPOPT	Hierarchy	Peak Offpeak Time: POPT (page 8-20)
POPT_VIEW	POPT	Dimension	Peak Offpeak Time: POPT (page 8-20)
PRMTN_HCMPGN_VIEW	PRMTN_HCMPGN	Hierarchy	Promotion: PRMTN (page 8-24)
PRMTN_HPRMTN_VIEW	PRMTN_HPRMTN	Hierarchy	Promotion: PRMTN (page 8-24)
PRMTN_VIEW	PRMTN	Dimension	Promotion: PRMTN (page 8-24)
PROD_HPROD_VIEW	PROD_HPROD	Hierarchy	Product: PROD (page 8-22)
PROD_VIEW	PROD	Dimension	Product: PROD (page 8-22)
PTTYP_HPTTYP_VIEW	PTTYP_HPTTYP	Hierarchy	Payment Transaction Type: PTTYP (page 8-20)
PTTYP_VIEW	PTTYP	Dimension	Payment Transaction Type: PTTYP (page 8-20)
RVN_FCST_VIEW	RVN_FCST	Cube	Revenue Forecast Cube: RVN_FCST (page 9-157)
RVN_VIEW	RVN	Cube	Revenue Cube: RVN (page 9-135)
SLCHNL_HSLCHNL_VIEW	SLCHNL_HSLCHNL	Hierarchy	Sales Channel: SLCHNL (page 8-26)
SLCHNL_VIEW	SLCHNL	Dimension	Sales Channel: SLCHNL (page 8-26)
TIME_HTBSNS_VIEW	TIME_HTBSNS	Hierarchy	Time: TIME (page 8-33)
TIME_VIEW	TIME	Dimension	Time: TIME (page 8-33)
TSLT_HTSLT_VIEW	TSLT_HTSLT	Hierarchy	Time Slot: TSLT (page 8-43)
TSLT_VIEW	TSLT	Dimension	Time Slot: TSLT (page 8-43)

5

Oracle Communications Data Model Logical to Physical Mapping

Provides a table listing the Oracle Communications Data Model entities in the logical data model, and the physical database tables or views to which the logical entities have been implemented or "physicalized".

Overview of Mapping and Inheritance in Oracle Communications Data Model (page 5-1)

> The physical manifestation of the logical data model into database tables and relationships is not necessarily a pure 1:1 mapping from logical entities to physical tables.

Logical to Physical Mappings for Oracle Communications Data Model (page 5-2)

5.1 Overview of Mapping and Inheritance in Oracle Communications Data Model

The physical manifestation of the logical data model into database tables and relationships is not necessarily a pure 1:1 mapping from logical entities to physical tables.

Physically, Oracle Communications Data Model is setup for best performance, and minimal data disk storage, leveraging the database options and consulting best practices wherever possible. The foundation layer follows the Third normal Form rule ("the key, only the key and nothing but the key") while the analytics layer is setup for optimal reporting performance. Partitions, Indexes, primary and foreign keys, constraints, and Materialized Views are used to map the logical model in the best possible way by default.

The complete Oracle Communications Data Model model is installed into the database schema:

- `OCDM_SYS`: Schema includes the Oracle Communications Data Model tables from the foundation and analytics layers, including the OLAP cubes. This also includes the mining models and related objects like source tables, model building database packages, target tables and the specific views.

Inheritance with Subtypes and SuperEntities

Some logical entities are sub-types of super-entities. Physically, there are different ways to realize this. For example, `WIRELESS CALL EVENT` and `FIXED LINE CALL EVENT` are both sub-types of `RATED UDR EVENT`. To avoid data duplication, one could use either `RATED UDR EVENT` as a view of both tables or the sub-types could be a filtered view of the main table `RATED UDR EVENT`. The decision on how to materialize the logical entity is based on consulting experience.

5.2 Logical to Physical Mappings for Oracle Communications Data Model

Table 5-1 (page 5-2) and Table 5-2 (page 5-33) list the Oracle Communications Data Model entities in the logical data model, and the physical database tables or views to which the logical entities have been implemented or "physicalized".

Table 5-1   Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
ACCESS METHOD (page 2-22)	DWR_ACCS_MTHD
ACCESS METHOD ACCOUNT ASSIGNMENT (page 2-22)	DWR_ACCS_MTHD_ACCT_ASGN
ACCESS METHOD ASSIGNMENT (page 2-22)	DWR_ACCS_MTHD_ASGN
ACCESS METHOD ASSIGNMENT TYPE (page 2-23)	DWL_ACCS_MTHD_ASGN_TYP
ACCESS METHOD CATEGORY (page 2-23)	DWL_ACCS_MTHD_CTGRY
ACCESS METHOD ELEMENT (page 2-23)	DWR_ACCS_MTHD_ELMNT
ACCESS METHOD ELEMENT ASSIGNMENT (page 2-23)	DWR_ACCS_MTHD_ELMNT_ASGN
ACCESS METHOD ELEMENT TYPE (page 2-23)	DWL_ACCS_MTHD_ELMNT_TYP
ACCESS METHOD EQUIPMENT ASSIGNMENT (page 2-23)	DWR_ACCS_MTHD_EQPMNT_ASGN
ACCESS METHOD GEOGRAPHY ASSIGNMENT (page 2-23)	DWR_ACCS_MTHD_GEO_ASGN
ACCESS METHOD PARTY ASSIGNMENT (page 2-23)	DWR_ACCS_MTHD_PRTY_ASGN
ACCESS METHOD PARTY ASSIGNMENT TYPE (page 2-23)	DWL_ACCS_MTHD_PRTY_ASGN_TYP
ACCESS METHOD POOL (page 2-23)	DWR_ACCS_MTHD_POOL
ACCESS METHOD PORTING HISTORY (page 2-24)	DWB_ACCS_MTHD_PORT_HIST
ACCESS METHOD PRODUCT SUBSCRIPTION ASSIGNMENT (page 2-24)	DWR_ACCS_MTHD_PROD_SBRP_ASGN
ACCESS METHOD RESOURCE ASSIGNMENT (page 2-24)	DWR_ACCS_MTHD_RSCE_ASGN
ACCESS METHOD SEGMENT (page 2-24)	DWR_ACCS_MTHD_SGMNT
ACCESS METHOD SEGMENT PROD CAPABILITY RL (page 2-24)	DWR_AM_SGMNT_PROD_CPBLTY_RL
ACCESS METHOD SERVICE ASSIGNMENT (page 2-24)	DWR_ACCS_MTHD_SRVC_ASGN
ACCESS METHOD STATUS HISTORY (page 2-24)	DWB_ACCS_MTHD_STAT_HIST
ACCESS METHOD STATUS REASON (page 2-24)	DWL_ACCS_MTHD_STAT_RSN
ACCESS METHOD STATUS TYPE (page 2-24)	DWL_ACCS_MTHD_STAT_TYP
ACCESS METHOD TYPE (page 2-25)	DWL_ACCS_MTHD_TYP

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
ACCESSORIES (page 2-25)	DWR_ACCSRS
ACCESSORIES INSTANCE (page 2-25)	DWR_ACCSRS_INSTNC
ACCOUNT (page 2-25)	DWR_ACCT
ACCOUNT ACCOUNTING CYCLE HISTORY (page 2-25)	DWB_ACCT_ACCTNG_CYCL_HIST
ACCOUNT ADJUSTMENT REASON (page 2-25)	DWL_ACCT_ADJ_RSN
ACCOUNT AGREEMENT RELATIONSHIP (page 2-25)	DWR_ACCT_AGRMNT_RLTN
ACCOUNT ASSIGNMENT (page 2-25)	DWR_ACCT_ASGN
ACCOUNT ASSIGNMENT REASON (page 2-25)	DWL_ACCT_ASGN_RSN
ACCOUNT ASSIGNMENT TYPE (page 2-25)	DWL_ACCT_ASGN_TYP
ACCOUNT BALANCE (page 2-25)	DWB_ACCT_BAL
ACCOUNT BALANCE ADJUSTMENT TYPE (page 2-26)	DWL_ACCT_BAL_ADJ_TYP
ACCOUNT BALANCE GROUP (page 2-26)	DWR_ACCT_BAL_GRP
ACCOUNT BALANCE IMPACT (page 2-26)	DWB_ACCT_BAL_IMPC
ACCOUNT BALANCE MONTH DRVD (page 2-26)	DWD_ACCT_BAL_MO
ACCOUNT BALANCE TYPE (page 2-26)	DWL_ACCT_BAL_TYP
ACCOUNT BILLING CYCLE HISTORY (page 2-26)	DWR_ACCT_BLLG_CYCL_HIST
ACCOUNT BILLING FREQUENCY HISTORY (page 2-26)	DWR_ACCT_BLLG_FRQNCY_HIST
ACCOUNT BILLING OCCURRENCE (page 2-26)	DWB_ACCT_BLLG_OCCRNCE
ACCOUNT BILLING PERIOD HISTORY (page 2-26)	DWR_ACCT_BLLG_PRD_HIST
ACCOUNT BUSINESS INTERACTION ROLE (page 2-26)	DWR_ACCT_BSNS_INTRACN_RL
ACCOUNT COST (page 2-26)	DWB_ACCT_COST
ACCOUNT CREDIT LIMIT (page 2-26)	DWB_ACCT_CRDT_LMT
ACCOUNT DEBT (page 2-27)	DWB_ACCT_DEBT
ACCOUNT DEBT MONTH AGGR (page 2-27)	DWA_ACCT_DEBT_MO
ACCOUNT EVENT TYPE (page 2-27)	DWL_ACCT_EVT_TYP
ACCOUNT FIRST ACTIVITY DERIVED (page 2-27)	DWD_ACCT_FRST_ACTVTY
ACCOUNT LAST ACTIVITY DERIVED (page 2-27)	DWD_ACCT_LAST_ACTVTY
ACCOUNT MANAGEMENT HISTORY (page 2-27)	DWB_ACCT_MNGMNT_HIST
ACCOUNT PARTY PRODUCT OFFERING RELATIONSHIP (page 2-27)	DWR_ACCT_PRTY_PROD_OFR_RLTN

Table 5-1 (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
ACCOUNT PAYMENT (page 2-27)	DWB_ACCT_PYMT
ACCOUNT PAYMENT DAY DRVD (page 2-27)	DWD_ACCT_PYMT_DAY
ACCOUNT PAYMENT METHOD (page 2-27)	DWR_ACCT_PYMT_MTHD
ACCOUNT PAYMENT METHOD STATUS (page 2-27)	DWB_ACCT_PYMT_MTHD_STAT
ACCOUNT PAYMENT METHOD STATUS HIST DRVD (page 2-27)	DWD_ACCT_PYMT_MTHD_STAT_HIST
ACCOUNT PAYMENT METHOD STATUS REASON (page 2-28)	DWL_ACCT_PYMT_MTHD_STAT_RSN
ACCOUNT PAYMENT METHOD STATUS TYPE (page 2-28)	DWL_ACCT_PYMT_MTHD_STAT_TYP
ACCOUNT PAYMENT MONTH AGGR (page 2-28)	DWA_ACCT_PYMT_MO
ACCOUNT PAYMENT PAYMENT PLAN ASSIGNMENT (page 2-28)	DWB_ACCT_PYMT_PYMT_PLN_ASGN
ACCOUNT PAYMENT PLAN ASSIGNMENT (page 2-28)	DWR_ACCT_PYMT_PLN_ASGN
ACCOUNT PREFERRED INVOICE DELIVERY (page 2-28)	DWR_ACCT_PREF_INVC_DLVRY
ACCOUNT PRODUCT OFFERING PARTICIPATION HISTORY (page 2-28)	DWB_ACCT_PROD_OFR_PRTCPTN_HIST
ACCOUNT PRODUCT SUBSCRIPTION ASSIGNMENT (page 2-28)	DWR_ACCT_PROD_SBRP_ASGN
ACCOUNT PRODUCT SUBSCRIPTION ASSIGNMENT REASON (page 2-28)	DWL_ACCT_PROD_SBRP_ASGN_RSN
ACCOUNT PROFILE (page 2-28)	DWR_ACCT_PRFL
ACCOUNT REFUND REASON (page 2-28)	DWL_ACCT_RFND_RSN
ACCOUNT ROLE TYPE (page 2-28)	DWL_ACCT_RL_TYP
ACCOUNT SEGMENT (page 2-29)	DWR_ACCT_SGMNT
ACCOUNT SEGMENT ASSIGNMENT HISTORY (page 2-29)	DWR_ACCT_SGMNT_ASGN_HIST
ACCOUNT SEGMENTATION MODEL (page 2-29)	DWR_ACCT_SGMNT_MDL
ACCOUNT STATISTIC MONTH AGGR (page 2-29)	DWA_ACCT_STTSTC_MO
ACCOUNT STATUS HISTORY (page 2-29)	DWB_ACCT_STAT_HIST
ACCOUNT STATUS REASON (page 2-29)	DWL_ACCT_STAT_RSN
ACCOUNT STATUS TYPE (page 2-29)	DWL_ACCT_STAT_TYP
ACCOUNT TAX EXEMPT ASSIGNMENT (page 2-29)	DWR_ACCT_TAX_EXMPT_ASGN
ACCOUNT TYPE (page 2-29)	DWL_ACCT_TYP

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
ACCOUNTING CYCLE (page 2-29)	DWL_ACCT_CYCL
ACCOUNTING ITEM CATEGORY (page 2-29)	DWL_ACCT_ITEM_CTGRY
ACCRUAL EVENT (page 2-29)	DWB_ACCRUAL_EVT
ACTIVITY CATEGORY (page 2-30)	DWL_ACTVTY_CTGRY
ACTIVITY JEOPARDY (page 2-30)	DWB_ACTVTY_JEOPARDY
ACTIVITY JEOPARDY REASON (page 2-30)	DWL_ACTVTY_JEOPARDY_RSN
ACTIVITY JEOPARDY TYPE (page 2-30)	DWL_ACTVTY_JEOPARDY_TYP
ACTIVITY PROVISIONING PLAN (page 2-30)	DWR_ACTVTY_PROVSN_PLN
ACTIVITY PROVISIONING PLAN DETAIL (page 2-30)	DWR_ACTVTY_PROVSN_PLN_DTL
ACTIVITY RELATIONSHIP TYPE (page 2-30)	DWL_ACTVTY_RLTN_TYP
ACTIVITY RESULT TYPE (page 2-30)	DWL_ACTVTY_RSLT_TYP
ACTIVITY TYPE (page 2-30)	DWL_ACTVTY_TYP
ADDITIONAL TEXT (page 2-30)	DWR_ADTNL_TXT
ADDRESS LOCATION (page 2-30)	DWR_ADDR_LOC
ADDRESS LOCATION ADMIN AREA ASSIGNMENT (page 2-31)	DWR_ADDR_LOC_ADMIN_AREA_ASGN
ADDRESS LOCATION NAME (page 2-31)	DWR_ADDR_LOC_NAME
ADDRESS PHONE (page 2-31)	DWR_ADDR_PHONE
ADDRESS RELATED (page 2-31)	DWR_ADDR_RLTD
ADDRESS RELATED REASON (page 2-31)	DWL_ADDR_RLTD_RSN
ADDRESS RELATED TYPE (page 2-31)	DWL_ADDR_RLTD_TYP
ADDRESS STATUS (page 2-31)	DWL_ADDR_STAT
ADDRESS STATUS HISTORY (page 2-31)	DWB_ADDR_STAT_HIST
ADDRESS STATUS REASON (page 2-31)	DWL_ADDR_STAT_RSN
ADDRESS TYPE (page 2-31)	DWL_ADDR_TYP
ADDRESS VERIFICATION TYPE (page 2-31)	DWL_ADDR_VRFY_TYP
ADHOC COLLECTION (page 2-32)	DWB_ADHOC_COLLCTN
ADJUSTMENT TYPE (page 2-32)	DWL_ADJ_TYP
ADMINISTRATIVE AREA (page 2-32)	DWR_ADMINSTVE_AREA
ADVERTISING PERIOD (page 2-32)	DWR_ADVR_PRD

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
ADVERTISING QUARTER (page 2-32)	DWR_ADVR_QTR
ADVERTISING WEEK (page 2-32)	DWR_ADVR_WK
ADVERTISING YEAR (page 2-32)	DWR_ADVR_YR
AF SERVICE (page 2-32)	DWR_AF_SRVC
AGE BAND (page 2-32)	DWL_AGE_BND
AGE GROUP (page 2-32)	DWL_AGE_GRP
AGE ON NET BAND (page 2-32)	DWL_AGE_ON_NET_BND
AGENT (page 2-32)	DWR_AGNT
AGGREGATION INTERFACE (page 2-35)	DWR_AGGRTN_INTRFC
AGREEMENT (page 2-33)	DWR_AGRMNT
AGREEMENT ACCOUNT SUBSCRIPTION PRODUCT AGGR (page 2-33)	DWA_AGRMNT_ACCT_SBRP_PROD
AGREEMENT APPROVAL (page 2-33)	DWB_AGRMNT_APRVL
AGREEMENT APPROVAL ASSIGNMENT (page 2-33)	DWB_AGRMNT_APRVL_ASGN
AGREEMENT ASSIGNMENT (page 2-33)	DWR_AGRMNT_ASGN
AGREEMENT ASSIGNMENT REASON (page 2-33)	DWL_AGRMNT_ASGN_RSN
AGREEMENT ASSIGNMENT TYPE (page 2-33)	DWL_AGRMNT_ASGN_TYP
AGREEMENT CHANGE INITIATOR TYPE (page 2-33)	DWL_AGRMNT_CHNG_INTTR_TYP
AGREEMENT CHANGE REASON (page 2-34)	DWL_AGRMNT_CHNG_RSN
AGREEMENT CHANGE TYPE (page 2-34)	DWL_AGRMNT_CHNG_TYP
AGREEMENT CHANGED DRVD (page 2-34)	DWD_AGRMNT_CHNG
AGREEMENT DOCUMENT (page 2-34)	DWR_AGRMNT_DOC
AGREEMENT DRVD (page 2-34)	DWD_AGRMNT
AGREEMENT INTENT (page 2-34)	DWR_AGRMNT_INTNT
AGREEMENT ITEM (page 2-34)	DWR_AGRMNT_ITEM
AGREEMENT PRODUCT SPECIFICATION ASSIGNMENT (page 2-34)	DWR_AGRMNT_PROD_SPEC_ASGN
AGREEMENT REVENUE DAY DRVD (page 2-34)	DWD_AGRMNT_RVN_DAY
AGREEMENT SLA RELATIONSHIP (page 2-34)	DWR_AGRMNT_SRVCLVL_AGRMNT_RLTN
AGREEMENT STATUS (page 2-34)	DWB_AGRMNT_STAT

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
AGREEMENT STATUS REASON (page 2-35)	DWL_AGRMNT_STAT_RSN
AGREEMENT STATUS TYPE (page 2-35)	DWL_AGRMNT_STAT_TYP
AGREEMENT TERM (page 2-35)	DWB_AGRMNT_TERM
AGREEMENT TERM TYPE (page 2-35)	DWL_AGRMNT_TERM_TYP
AGREEMENT TYPE (page 2-35)	DWL_AGRMNT_TYP
ALLOWANCE SUBSCRIPTION PRICE ALTERNATION (page 2-35)	DWR_ALWNCE_SBRP_PRICE_ALTRTN
AMERICAN PROPERTY ADDRESS (page 2-35)	DWR_AMRCN_PRPTY_ADDR
ANZSIC CLASSIFICATION (page 2-35)	DWR_ANZSIC_CLSFCTN
APPOINTMENT (page 2-36)	DWB_APNMNT
APPOINTMENT CALENDAR (page 2-36)	DWB_APNMNT_CLNDR
APPOINTMENT TYPE (page 2-36)	DWL_APNMNT_TYP
ARPU BAND (page 2-36)	DWL_ARPU_BND
ARPU BASE CUSTOMER TYPE AGGR (page 2-36)	DWA_ARPU_BASE_CUST_TYP
ASSET (page 2-36)	DWR_ASSET
ASSET APPRAISAL HISTORY (page 2-36)	DWB_ASSET_APPRSL_HIST
ASSET CONDITION HISTORY (page 2-36)	DWB_ASSET_CNDTN_HIST
ASSET DEPRECIATION HISTORY (page 2-36)	DWB_ASSET_DEPRCN_HIST
ASSET PARTY ASSOCIATION (page 2-36)	DWR_ASSET_PRTY_ASSOCTN
ASSET SITE ASSIGNMENT (page 2-36)	DWR_ASSET_SITE_ASGN
ASSET TYPE (page 2-36)	DWL_ASSET_TYP
ATM INTERFACE (page 2-37)	DWR_ATM_INTRFC
AUTHORIZATION METHOD (page 2-37)	DWL_ATHRZTN_MTHD
AUTONOMOUS SYSTEM (page 2-37)	DWR_ATONOMS_SYS
AUXILIARY COMPONENT (page 2-37)	DWR_AUXILIARY_CMPNT
AWARD LEVEL (page 2-38)	DWL_AWRD_LVL
BANK (page 2-38)	DWR_BNK
BANK DIRECT DEBIT CHANNEL (page 2-38)	DWR_BNK_DRCT_DEBIT_CHNL
BARING REASON (page 2-38)	DWL_BARNG_RSN
BASE DAY (page 2-38)	DWR_BASE_DAY

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
BASE STATION CONTROLLER (page 2-38)	DWR_BASE_STN_CNTRLR
BASE TRANSCEIVER STATION (page 2-38)	DWR_BASE_TRNSCVR_STN
BER FER ERROR RATIO MONTH AGGR (page 2-38)	DWA_BER_FER_ERR_RATIO_MO
BER FER TYPE (page 2-38)	DWL_BER_FER_TYP
BILLING CYCLE (page 2-38)	DWR_BLLG_CYCL
BILLING FREQUENCY (page 2-38)	DWL_BLLG_FRQNCY
BILLING OCCURRENCE TYPE (page 2-39)	DWL_BLLG_OCCRNCE_TYP
BILLING PERIOD (page 2-39)	DWL_BLLG_PRD
BILLING STATUS CATEGORY (page 2-39)	DWL_BLLG_STAT_CTGRY
BILLING STATUS REASON (page 2-39)	DWL_BLLG_STAT_RSN
BILLING STATUS TYPE (page 2-39)	DWL_BLLG_STAT_TYP
BLACK LIST HISTORY (page 2-39)	DWB_BLK_LST_HIST
BRAND (page 2-39)	DWR_BRND
BRIDGING PROTOCOL (page 2-39)	DWR_BRDGNG_PROTCL
BROADBAND RATING PLAN (page 2-39)	DWR_BRDBND_RTNG_PLN
BROADBAND SERVICE (page 2-39)	DWR_BRDBND_SRVC
BROADBAND USAGE EVENT (page 2-39)	DWB_BRDBND_USG_EVT
BROWSER TYPE (page 2-39)	DWL_BROWSER_TYP
BROWSER VERSION (page 2-39)	DWR_BROWSER_VRSN
BUSINESS ASSET (page 2-40)	DWR_BSNS_ASSET
BUSINESS HALF MONTH (page 2-40)	DWR_BSNS_HLF_MO
BUSINESS HALF YEAR (page 2-40)	DWR_BSNS_HLF_YR
BUSINESS INTERACTION (page 2-40)	DWB_BSNS_INTRACN
BUSINESS INTERACTION ASSIGNMENT (page 2-40)	DWR_BSNS_INTRACN_ASGN
BUSINESS INTERACTION ASSIGNMENT TYPE (page 2-40)	DWL_BSNS_INTRACN_ASGN_TYP
BUSINESS INTERACTION CHARACTERISTIC (page 2-40)	DWR_BSNS_INTRACN_CHAR
BUSINESS INTERACTION CHARACTERISTIC TYPE (page 2-40)	DWL_BSNS_INTRACN_CHAR_TYP
BUSINESS INTERACTION CHARACTERISTIC VALUE (page 2-40)	DWR_BSNS_INTRACN_CHAR_VAL
BUSINESS INTERACTION CHARACTERISTIC VALUE USE (page 2-41)	DWB_BSNS_INTRACN_CHAR_VAL_ USE

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
BUSINESS INTERACTION DOCUMENT (page 2-41)	DWR_BSNS_INTRACN_DOC
BUSINESS INTERACTION HISTORY (page 2-41)	DWB_BSNS_INTRACN_HIST
BUSINESS INTERACTION ITEM (page 2-41)	DWB_BSNS_INTRACN_ITEM
BUSINESS INTERACTION ITEM PRICE (page 2-41)	DWB_BSNS_INTRACN_ITEM_PRICE
BUSINESS INTERACTION ITEM SPECIFICATION (page 2-41)	DWR_BSNS_INTRACN_ITEM_SPEC
BUSINESS INTERACTION LOCATION ASSIGNMENT (page 2-41)	DWR_BSNS_INTRACN_LOC_ASGN
BUSINESS INTERACTION PAYMENT ASSIGNMENT (page 2-41)	DWB_BSNS_INTRACN_PYMT_ASGN
BUSINESS INTERACTION ROLE (page 2-41)	DWB_BSNS_INTRACN_RL
BUSINESS INTERACTION SPECIFICATION (page 2-41)	DWR_BSNS_INTRACN_SPEC
BUSINESS INTERACTION STATUS REASON (page 2-42)	DWL_BSNS_INTRACN_STAT_RSN
BUSINESS INTERACTION VERSION (page 2-42)	DWB_BSNS_INTRACN_VRSN
BUSINESS LEGAL STATUS (page 2-42)	DWL_BSNS_LEGAL_STAT
BUSINESS MONTH (page 2-42)	DWR_BSNS_MO
BUSINESS QUARTER (page 2-42)	DWR_BSNS_QTR
BUSINESS UNIT JOB ROLE (page 2-42)	DWR_BSNS_UNIT_JB_RL
BUSINESS UNIT SHIFT (page 2-42)	DWR_BSNS_UNIT_SHFT
BUSINESS WEEK (page 2-42)	DWR_BSNS_WK
BUSINESS YEAR (page 2-42)	DWR_BSNS_YR
CABLE (page 2-42)	DWR_CBL
CABLE MODEM (page 2-42)	DWR_CBL_MDM
CALENDAR HALF MONTH (page 2-42)	DWR_CLNDR_HLF_MO
CALENDAR HALF YEAR (page 2-42)	DWR_CLNDR_HLF_YR
CALENDAR MONTH (page 2-42)	DWR_CLNDR_MO
CALENDAR QUARTER (page 2-42)	DWR_CLNDR_QTR
CALENDAR WEEK (page 2-42)	DWR_CLNDR_WK
CALENDAR YEAR (page 2-42)	DWR_CLNDR_YR
CALL CENTER (page 2-42)	DWR_CALL_CNTR
CALL CENTER AGENT (page 2-42)	DWR_CALL_CNTR_AGNT
CALL CENTER AGENT TYPE (page 2-42)	DWL_CALL_CNTR_AGNT_TYP

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
CALL CENTER CALL MONTH AGGR (page 2-43)	DWA_CALL_CNTR_CALL_MO
CALL CENTER CASE MONTH AGGR (page 2-43)	DWA_CALL_CNTR_CASE_MO
CALL CENTER CASE SUB TYPE (page 2-43)	DWL_CALL_CNTR_CASE_SUB_TYP
CALL CENTER CASE TITLE (page 2-43)	DWL_CALL_CNTR_CASE_TTL
CALL CENTER CASE TYPE (page 2-43)	DWL_CALL_CNTR_CASE_TYP
CALL CENTER SERVICE CAPABILITY (page 2-43)	DWR_CALL_CNTR_SRVC_CAPBLTY
CALL DIRECTION (page 2-43)	DWL_CALL_DRCTN
CALL FORWARD (page 2-43)	DWR_CALL_FRWD
CALL OTHER TYPE (page 2-43)	DWL_CALL_OTHR_TYP
CALL RECYCLED REASON (page 2-43)	DWL_CALL_RCYLD_RSN
CALL ROUTING TYPE (page 2-43)	DWL_CALL_RUTNG_TYP
CALL SERVICE TYPE (page 2-43)	DWL_CALL_SRVC_TYP
CALL SOURCE DESTINATION (page 2-44)	DWR_CALL_SRC_DSTN
CALL SUCCESS FAILURE TYPE (page 2-44)	DWL_CALL_SUCC_FAIL_TYP
CALL SURCHARGE (page 2-44)	DWL_CALL_SRCHRG
CALL TERMINATION REASON (page 2-44)	DWL_CALL_TMNT_RSN
CALL TYPE (page 2-44)	DWL_CALL_TYP
CALLER ID (page 2-44)	DWR_CALLR_ID
CAMPAIGN (page 2-44)	DWR_CMPGN
CAMPAIGN CHANNEL (page 2-44)	DWR_CMPGN_CHNL
CAMPAIGN CHANNEL ASSIGNMENT (page 2-44)	DWR_CMPGN_CHNL_ASGN
CAMPAIGN CHANNEL TYPE (page 2-44)	DWL_CMPGN_CHNL_TYP
CAMPAIGN CHARACTERISTIC (page 2-45)	DWR_CMPGN_CHAR
CAMPAIGN CHARACTERISTIC RELATIONSHIP (page 2-45)	DWR_CMPGN_CHAR_RLTN
CAMPAIGN CHARACTERISTIC VALUE (page 2-45)	DWR_CMPGN_CHAR_VAL
CAMPAIGN CHARACTERISTIC VALUE USE (page 2-45)	DWR_CMPGN_CHAR_VAL_USE
CAMPAIGN COST (page 2-45)	DWB_CMPGN_COST
CAMPAIGN DOCUMENT (page 2-45)	DWR_CMPGN_DOC
CAMPAIGN HISTORY DAY DRVD (page 2-45)	DWD_CMPGN_HIST_DAY

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
CAMPAIGN MANAGEMENT HISTORY (page 2-45)	DWR_CMPGN_MGMT_HIST
CAMPAIGN MEDIA (page 2-45)	DWR_CMPGN_MEDIA
CAMPAIGN MEDIA SELLING ITEM (page 2-45)	DWR_CMPGN_MEDIA_SLNG_ITEM
CAMPAIGN MESSAGE (page 2-45)	DWR_CMPGN_MSG
CAMPAIGN MESSAGE CREATIVE (page 2-45)	DWB_CMPGN_MSG_CRTVE
CAMPAIGN MESSAGE DEPICTION (page 2-45)	DWR_CMPGN_MSG_DPCT
CAMPAIGN PURPOSE TYPE (page 2-45)	DWL_CMPGN_PRPS_TYP
CAMPAIGN RELATIONSHIP (page 2-46)	DWR_CMPGN_RLTN
CAMPAIGN STATUS (page 2-46)	DWL_CMPGN_STAT
CAMPAIGN TERM VALUE (page 2-46)	DWR_CMPGN_TERM_VAL
CAMPAIGN TYPE (page 2-46)	DWL_CMPGN_TYP
CANNIBALIZATION DETAIL DAY DRVD (page 2-46)	DWD_CANBLZTN_DTL_DAY
CAPACITY (page 2-46)	DWR_CPCTY
CARD (page 2-46)	DWR_CARD
CARD HOLDER VERIFICATION TYPE (page 2-46)	DWL_CARD_HLDR_VRFY_TYP
CARD RELATIONSHIP (page 2-46)	DWR_CARD_RLTN
CARD TYPE (page 2-46)	DWL_CARD_TYP
CATALOG TYPE (page 2-47)	DWL_CTLG_TYP
CELL (page 2-47)	DWR_CELL
CELL OUTAGE REASON (page 2-47)	DWL_CELL_OUTAGE_RSN
CELL SECTOR (page 2-47)	DWR_CELL_SCTR
CELL SITE (page 2-47)	DWR_CELL_SITE
CELL SITE COST (page 2-47)	DWB_CELL_SITE_COST
CELL SITE TYPE (page 2-48)	DWL_CELL_SITE_TYP
CELL STATISTIC MONTH AGGR (page 2-48)	DWA_CELL_STTSTC_MO
CELL TYPE (page 2-48)	DWL_CELL_TYP
CERTIFICATE TYPE (page 2-48)	DWL_CRTFCT_TYP
CFS SPECIFICATION VERSION DETAIL (page 2-48)	DWR_CFS_SPEC_VRSN_DTL
CHANGE PROPOSED BY TYPE (page 2-48)	DWL_CHNG_PPSD_BY_TYP

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
CHANNEL (page 2-48)	DWR_CHNL
CHANNEL COST (page 2-48)	DWB_CHNL_COST
CHANNEL TYPE (page 2-48)	DWL_CHNL_TYP
CHASSIS (page 2-48)	DWR_CHASSIS
CHASSIS POSITION (page 2-49)	DWR_CHASSIS_POSN
CIRCUIT CATEGORY (page 2-49)	DWL_CRCUT_CTGRY
CIRCUIT COMPONENT (page 2-49)	DWR_CRCUT_CMPNT
CIRCUIT CROSS REFERENCE (page 2-49)	DWR_CRCUT_XREF
__TODEL_CIRCUIT RENTAL (page 2-216)	DWB_CRCUT_RNTL
CIRCUIT RENTAL EVENT TYPE (page 2-50)	DWL_CRCUT_RNTL_EVT_TYP
CIRCUIT TRAFFIC (page 2-50)	DWB_CRCUT_TRFC
CIRCUIT TYPE (page 2-50)	DWL_CRCUT_TYP
CLASS BASE WEIGHTED FAIR QUEUE SERVICE (page 2-50)	DWR_CLASS_BASEWTD_FAIRQUE_ SRVC
CLASSIFIER SERVICE (page 2-50)	DWR_CLSSIFR_SRVC
CLIENT (page 2-50)	DWR_CLNT
CLIENT HOST (page 2-50)	DWR_CLNT_HOST
CLIENT VERSION (page 2-50)	DWR_CLNT_VRSN
COLLECTION (page 2-50)	DWR_COLLCTN
COLLECTION AGENCY (page 2-50)	DWR_COLLCTN_AGNCY
COLLECTION TYPE (page 2-50)	DWL_COLLCTN_TYP
COMMISSION DRVD (page 2-51)	DWD_CMISN
COMMISSION MONTH AGGR (page 2-51)	DWA_CMISN_MO
COMMISSION TYPE (page 2-51)	DWL_CMISN_TYP
COMMUNICATION SERVICE (page 2-51)	DWR_COMUNICTN_SRVC
COMP INTEL CHARACTERISTIC (page 2-51)	DWR_COMP_INTL_CHAR
COMP INTEL CHARACTERISTIC VALUE (page 2-51)	DWR_COMP_INTL_CHAR_VAL
COMP INTEL MARKET SEGMENT (page 2-51)	DWR_COMP_INTL_MKT_SGMNT
COMP PROD CRRL CHARACTERISTIC (page 2-51)	DWR_COMP_PROD_CRRL_CHAR

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
COMP PROD CRRL CHARACTERISTIC ASSIGNMENT (page 2-51)	DWR_COMP_PROD_CRRL_CHAR_ASGN
COMP PROD CRRL CHARACTERISTIC RELATIONSHIP (page 2-51)	DWR_COMP_PROD_CRRL_CHAR_RLTN
COMP PROD CRRL CHARACTERISTIC VALUE (page 2-51)	DWR_COMP_PROD_CRRL_CHAR_VAL
COMP PROD CRRL CHARACTERISTIC VALUE USE (page 2-52)	DWR_COMP_PROD_CRRL_CHARVALUSE
COMPENSATORY REASON (page 2-52)	DWL_CMPNSATRY_RSN
COMPETITIVE TIER (page 2-52)	DWR_CMPTVE_TIER
COMPETITOR (page 2-52)	DWR_CMPTR
COMPETITOR INTELLIGENCE (page 2-52)	DWR_CMPTR_INTLGNCE
COMPETITOR INTELLIGENCE PARTY ROLE (page 2-52)	DWR_CMPTR_INTLGNCE_PRTY_RL
COMPETITOR MARKET SEGMENT ASSIGNMENT (page 2-52)	DWR_CMPTR_MKT_SGMNT_ASGN
COMPETITOR MARKET SEGMENT SWOT (page 2-52)	DWR_CMPTR_MKT_SGMNT_SWOT
COMPETITOR PRODUCT CORRELATION (page 2-52)	DWR_CMPTR_PROD_CRLTN
COMPETITOR SWOT (page 2-52)	DWR_CMPTR_SWOT
COMPETITOR TIER ASSIGNMENT (page 2-52)	DWR_CMPTR_TIER_ASGN
COMPLEX ADDRESS (page 2-52)	DWR_COMPLEX_ADDR
COMPOSITE COMP PROD CRRL CHARACTERISTIC (page 2-52)	DWR_CMPST_COMP_PROD_CRL_CHAR
COMPOSITE PROD OFFER PRICE COMPONENT ASSIGNMENT (page 2-53)	DWR_CMST_PRODOFR_PRC_CMNT_ASGN
COMPOSITE PRODUCT SPECIFICATION (page 2-53)	DWR_CMPST_PROD_SPEC
COMPOSITE PRODUCT SPECIFICATION ASSIGNMENT (page 2-53)	DWR_CMPST_PROD_SPEC_ASGN
COMPOSITE PRODUCT SPECIFICATION CHARGE TYPE (page 2-53)	DWL_CMPST_PROD_SPEC_CHRG_TYP
COMPOSITE PRODUCT SPECIFICATION TYPE (page 2-53)	DWL_CMPST_PROD_SPEC_TYP
COMPOSITE SERVICE (page 2-53)	DWR_CMPST_SRVC
COMPOSITE SERVICE INCLUSION (page 2-53)	DWR_CMPST_SRVC_INCLSN
COMPOSITE SERVICE TYPE INCLUSION (page 2-53)	DWR_CMPST_SRVC_TYP_INCLSN
COMPOUND CONDITIONING ELEMENT (page 2-53)	DWR_CMPND_CNDITNNG_ELMNT

Table 5-1 (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
COMPOUND RESOURCE (page 2-54)	DWR_CMPND_RSCE
COMPOUND RESOURCE COLLECTION (page 2-54)	DWR_CMPND_RSCE_COLLCTN
COMPOUND RESOURCE COMPOUND DETAIL ASSIGNMENT (page 2-54)	DWR_CMPND_RSCE_CMPND_DTL_ASGN
COMPOUND RESOURCE DETAIL (page 2-54)	DWR_CMPND_RSCE_DTL
COMPOUND RESOURCE DETAIL TYPE (page 2-54)	DWL_CMPND_RSCE_DTL_TYP
COMPOUND RESOURCE ROLE (page 2-55)	DWR_CMPND_RSCE_RL
COMPOUND RESOURCE ROLE ASSIGNMENT (page 2-55)	DWR_CMPND_RSCE_RL_ASGN
COMPOUND RESOURCE ROLE SPEC (page 2-55)	DWR_CMPND_RSCE_RL_SPEC
COMPOUND RESOURCE SPEC (page 2-55)	DWR_CMPND_RSCE_SPEC
COMPOUND RESOURCE SPECIFICATION ATOMIC (page 2-56)	DWR_CMPND_RSCE_SPEC_ATMC
COMPOUND RESOURCE SPECIFICATION COMPOSITE (page 2-57)	DWR_CMPND_RSCE_SPEC_CMPST
COMPOUND RESOURCE TP DETAIL (page 2-57)	DWR_CMPND_RSCE_TP_DTL
COMPOUND RESOURCE UNIT (page 2-58)	DWR_CMPND_RSCE_UNIT
CONFIGURABLE PRODSPECCHARRACTERISTIC PRODSPECIFICATION ASSIGNMENT (page 2-58)	DWR_CFGBL_PROSPCCHAR_PROSPCAGN
CONFIGURABLE PRODUCT SPECIFICATION CHARACTERISTIC (page 2-58)	DWR_CFGBL_PROD_SPEC_CHAR
CONNECTION (page 2-58)	DWR_CNCTN
CONNECTION TERMINATION POINT (page 2-58)	DWR_CNCTN_TMNT_PNT
CONSEQUENCE PERFORMANCE NOTIFICATION (page 2-59)	DWB_CNSEQ_PRFMNC_NTFCTN
CONSEQUENCE PERFORMANCE NOTIFICATION SPEC (page 2-59)	DWR_CNSEQ_PRFMNC_NTFCTN_SPEC
CONTACT CENTER DAY DERIVED (page 2-59)	DWD_CNTCT_CNTR_DAY
CONTACT LIST (page 2-59)	DWR_CNCT_LST
CONTACT LIST CHANGE REASON (page 2-59)	DWL_CNCT_LST_CHNG_RSN
CONTACT LIST COST (page 2-59)	DWB_CNCT_LST_COST
CONTACT LIST RECURRENCE TYPE (page 2-59)	DWL_CNCT_LST_RECRNC_TYP
CONTACT MEDIUM (page 2-59)	DWL_CNTCT_MEDIUM
CONTACT ROLES (page 2-59)	DWL_CNCT_RLS
CONTENT (page 2-59)	DWR_CNTNT

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
CONTENT DELIVERY EVENT (page 2-59)	DWB_CNTNT_DLVRY_EVT
CONTENT PRICE (page 2-60)	DWR_CNTNT_PRICE
CONTENT PRICING TYPE (page 2-60)	DWL_CNTNT_PRCNG_TYP
CONTENT PROVIDER (page 2-60)	DWR_CNTNT_PRVDR
CONTENT TYPE (page 2-60)	DWL_CNTNT_TYP
CORE INTERFACE (page 2-60)	DWR_CORE_INTRFC
COST (page 2-60)	DWB_COST
COST CENTER (page 2-60)	DWR_COST_CNTR
COST CENTER BUDGET (page 2-60)	DWB_COST_CNTR_BDGT
COST CENTER DRVD (page 2-60)	DWD_COST_CNTR
COST CENTER MONTH AGGR (page 2-60)	DWA_COST_CNTR_MO
COST REASON (page 2-60)	DWL_COST_RSN
COST SUBTYPE (page 2-61)	DWL_COST_SUBTYP
COST TYPE (page 2-61)	DWL_COST_TYP
COUNT DAY DRVD (page 2-61)	DWD_CNT_DAY
COUNT MONTH AGGR (page 2-61)	DWA_CNT_MO
COUPON SCAN (page 2-61)	DWL_CPN_SCAN
COUPON TYPE (page 2-61)	DWL_CPN_TYP
COURIER (page 2-61)	DWR_COURIER
COURIER COST (page 2-61)	DWB_COURIER_COST
CPE LOGICAL DEVICE ROLE (page 2-62)	DWR_CPE_LGICL_DVC_RL
CREDIT CATEGORY (page 2-62)	DWR_CRDT_CTGRY
CREDIT SCORE PROVIDER (page 2-62)	DWR_CRDT_SCR_PRVDR
CROSSED THRESHOLD (page 2-62)	DWR_CROSSD_THRSHLD
CURRENCY (page 2-62)	DWL_CRNCY
CURRENCY EXCHANGE RATE (page 2-62)	DWB_CRNCY_EXCHNG_RATE
CURRENCY GEOGRAPHY ENTITY ASSIGNMENT (page 2-62)	DWR_CRNCY_GEO_ENT_ASGN
CUSTOM QUEUING SERVICE (page 2-62)	DWR_CSTM_QUENG_SRVC
CUSTOMER (page 2-62)	DWR_CUST

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
CUSTOMER ACCOUNT (page 2-62)	DWR_CUST_ACCT
CUSTOMER ACQUISITION SUMMARY MONTH AGGR (page 2-62)	DWA_CUST_ACQSTN_SUMM_MO
CUSTOMER ADDRESS (page 2-62)	DWR_CUST_ADDR
CUSTOMER AFFILIATION (page 2-62)	DWR_CUST_AFFLTN
CUSTOMER CHURN MONTH AGGR (page 2-63)	DWA_CUST_CHRN_MO
CUSTOMER CLASS (page 2-63)	DWL_CUST_CLASS
CUSTOMER CLASS ASSIGNMENT (page 2-63)	DWR_CUST_CLASS_ASGN
CUSTOMER CLUSTER (page 2-63)	DWR_CUST_CLSTR
CUSTOMER CLUSTER TYPE (page 2-63)	DWL_CUST_CLSTR_TYP
CUSTOMER COMMUNITY (page 2-63)	DWR_CUST_COMMUNITY
CUSTOMER COST (page 2-63)	DWB_CUST_COST
CUSTOMER COST DRVD (page 2-63)	DWD_CUST_COST
CUSTOMER COST MONTH AGGR (page 2-63)	DWA_CUST_COST_MO
CUSTOMER DEBT COLLECTION MONTH AGGR (page 2-63)	DWA_CUST_DEBT_COLLCTN_MO
CUSTOMER DNA DRVD (page 2-63)	DWD_CUST_DNA
CUSTOMER DOCUMENT (page 2-63)	DWR_CUST_DOC
CUSTOMER EQUIPMENT INSTALLATION DAY DRVD (page 2-64)	DWD_CUST_EQPMNT_INSTLTN_DAY
CUSTOMER EQUIPMENT INSTALLATION MO AGGR (page 2-64)	DWA_CUST_EQPMNT_INSTLTN_MO
CUSTOMER FACING SERVICE (page 2-64)	DWR_CUST_FCNG_SRVC
CUSTOMER FACING SERVICE ROLE (page 2-64)	DWR_CUST_FCNG_SRVC_RL
CUSTOMER FACING SERVICE SPECIFICATION (page 2-64)	DWR_CUST_FCNG_SRVC_SPEC
CUSTOMER FACING SERVICE SPECIFICATION ATOMIC (page 2-64)	DWR_CUST_FCNG_SRVC_SPEC_ATMC
CUSTOMER FACING SERVICE SPECIFICATION COMPOSITE (page 2-65)	DWR_CUST_FCNG_SRVC_SPEC_CMPST
CUSTOMER FACING SERVICE SPECIFICATION ROLE (page 2-65)	DWR_CUST_FCNG_SRVC_SPEC_RL
CUSTOMER FACING SERVICE SPECIFICATION VERSION (page 2-65)	DWR_CUST_FCNG_SRVC_SPEC_VRSN
CUSTOMER FIELD SERVICE ACTIVITY (page 2-65)	DWB_CUST_FLD_SRVC_ACTVTY

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
CUSTOMER FIELD SERVICE DETAIL (page 2-65)	DWB_CUST_FLD_SRVC_DTL
CUSTOMER GROSS ORDER QUARTERLY (page 2-65)	DWA_CUST_GROSS_ORDRS_QTR
CUSTOMER GROUP (page 2-65)	DWL_CUST_GRP
CUSTOMER GROUP ASSIGNMENT (page 2-65)	DWR_CUST_GRP_ASGN
CUSTOMER GROUP ITEM (page 2-66)	DWR_CUST_GRP_ITEM
CUSTOMER INDIVIDUAL (page 2-66)	DWR_CUST_INDVL
CUSTOMER OCCASION (page 2-66)	DWR_CUST_OCCSN
CUSTOMER OCCASION TYPE (page 2-66)	DWL_CUST_OCCSN_TYP
CUSTOMER ORDER (page 2-66)	DWB_CUST_ORDR
CUSTOMER ORDER DAY DERIVED (page 2-66)	DWD_CUST_ORDR_DAY
CUSTOMER ORDER DOCUMENT (page 2-66)	DWR_CUST_ORDR_DOC
CUSTOMER ORDER LINE ITEM (page 2-66)	DWB_CUST_ORDR_LN_ITEM
CUSTOMER ORDER LINE ITEM DAY DERIVED (page 2-66)	DWD_CUST_ORDR_LN_ITEM_DAY
CUSTOMER ORDER LINE ITEM STATE ASSIGN (page 2-66)	DWB_CUST_ORDR_LN_ITEM_ST_ASGN
CUSTOMER ORDER MONTH AGGR (page 2-66)	DWA_CUST_ORDR_MO
CUSTOMER ORDER PAYMENT (page 2-66)	DWB_CUST_ORDR_PYMT
CUSTOMER ORDER PRIORITY TYPE (page 2-66)	DWL_CUST_ORDR_PRIORITY_TYP
CUSTOMER ORDER STATE ASSIGNMENT (page 2-66)	DWB_CUST_ORDR_STATE_ASGN
CUSTOMER ORDER STATE CHANGE REASON (page 2-66)	DWL_CUST_ORDR_STATE_CHNG_RSN
CUSTOMER ORGANIZATION (page 2-67)	DWR_CUST_ORG
CUSTOMER PREFERENCE (page 2-67)	DWR_CUST_PREF
CUSTOMER RELATIONSHIP (page 2-67)	DWR_CUST_RLTN
CUSTOMER RELATIONSHIP TYPE (page 2-67)	DWL_CUST_RLTN_TYP
CUSTOMER RESTRICTED INFO (page 2-67)	DWR_CUST_RSTRCT_INFO
CUSTOMER REVENUE BAND (page 2-67)	DWL_CUST_RVN_BND
CUSTOMER REVENUE BAND ASSIGNMENT (page 2-67)	DWR_CUST_RVN_BND_ASGN
CUSTOMER REVENUE TYPE (page 2-67)	DWL_CUST_RVN_TYP
CUSTOMER RFMP SCORE (page 2-67)	DWD_CUST_RFMP_SCR

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
CUSTOMER SCORE (page 2-67)	DWR_CUST_SCR
CUSTOMER SEGMENT (page 2-67)	DWR_CUST_SGMNT
CUSTOMER SEGMENTATION MODEL (page 2-68)	DWR_CUST_SGMNT_MDL
CUSTOMER SIC ASSIGNMENT (page 2-68)	DWR_CUST_SIC_ASGN
CUSTOMER SKU SALES RETURN DAY DRVD (page 2-68)	DWD_CUST_SKU_SL_RETRN_DAY
CUSTOMER SOURCE (page 2-68)	DWR_CUST_SRC
CUSTOMER STATUS REASON (page 2-68)	DWL_CUST_STAT_RSN
CUSTOMER TYPE (page 2-68)	DWL_CUST_TYP
DATA SERVICE EVENT (page 2-68)	DWB_DATA_SRVC_EVT
DATA USAGE DAY DRVD (page 2-68)	DWD_DATA_USG_DAY
DATA USAGE MONTH AGGR (page 2-68)	DWA_DATA_USG_MO
DAY (page 2-68)	DWR_DAY
DAY ACTUAL CONDITION (page 2-68)	DWR_DAY_ACT_CONDITION
DAY TODATE TRANSFORMATION (page 2-68)	DWR_DAY_TODATE_TRANS
DAY TRANSFORMATION (page 2-68)	DWR_DAY_TRANS
DEAL (page 2-69)	DWR_DEAL
DEAL LINE ITEM (page 2-69)	DWR_DEAL_LN_ITEM
DEALER (page 2-69)	DWR_DLR
DEALER DISCOUNT GROUP ASSIGNMENT (page 2-69)	DWR_DLR_DISC_GRP_ASGN
DEBT AGING BAND (page 2-69)	DWL_DEBT_AGNG_BND
DEFICIT ROUND ROBIN SCHEDULING SERVICE (page 2-69)	DWR_DFCT_RND_RBIN_SCHDLNG_SRVC
DEMOGRAPHIC CHARACTERISTIC (page 2-69)	DWR_DEMOG_CHAR
DEMOGRAPHIC CHARACTERISTIC ASSIGNMENT (page 2-69)	DWR_DEMOG_CHAR_ASGN
DEMOGRAPHIC CHARACTERISTIC VALUE (page 2-69)	DWR_DEMOG_CHAR_VAL
DEMOGRAPHY ATTRIBUTE (page 2-69)	DWR_DEMOG_ATRIB
DEMOGRAPHY GROUP (page 2-69)	DWR_DEMOG_GRP
DERIVED VALUE (page 2-69)	DWR_DRVD_VAL
DESTINATION TYPE (page 2-70)	DWL_DSTN_TYP
DEVICE INTERFACE (page 2-70)	DWR_DVC_INTRFC

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
DEVICE INTERFACE DETAIL (page 2-70)	DWR_DVC_INTRFC_DTL
DEVICE INTERFACE PHYSICAL PORT ASSIGNMENT (page 2-70)	DWR_DVC_INTRFC_PHY_PRT_ASGN
DEVICE INTERFACE ROLE (page 2-70)	DWR_DVC_INTRFC_RL
DEVICE INTERFACE TP ASSIGNMENT (page 2-70)	DWR_DVC_INTRFC_TP_ASGN
DIFFSERV SERVICE (page 2-70)	DWR_DIFFSERV_SRVC
DIRECT DEBIT STATUS REASON (page 2-70)	DWL_DRCT_DEBIT_STAT_RSN
DISCOUNT GROUP (page 2-71)	DWR_DISC_GRP
DISCOUNT LINE ITEM (page 2-71)	DWB_DISC_LI
DISCOUNT SUBSCRIPTION PRICE ALTERATION (page 2-71)	DWR_DISC_SBRP_PRICE_ALTRTN
DISPOSITION TYPE (page 2-71)	DWL_DSPSTN_TYP
DISTANCE BAND (page 2-71)	DWL_DSTNC_BND
DIVERT RETRIEVE REASON (page 2-71)	DWL_DVRT_RTRV_RSN
DIVERT RETRIEVE TYPE (page 2-71)	DWL_DVRT_RTRV_TYP
DOCUMENT CONDITION TYPE (page 2-71)	DWL_DOC_CNDTN_TYP
DOCUMENT TYPE (page 2-72)	DWL_DOC_TYP
DOCUMENT TYPE GROUP (page 2-72)	DWL_DOC_TYP_GRP
DOCUMENT TYPE GROUP ASSIGNMENT (page 2-72)	DWR_DOC_TYP_GRP_ASGN
DOMAIN (page 2-72)	DWR_DOMAIN
DOMAIN TYPE (page 2-72)	DWL_DOMAIN_TYP
DROPPER SERVICE (page 2-72)	DWR_DRPPR_SRVC
DSL MODEM (page 2-72)	DWR_DSL_MDM
EDGE INTERFACE (page 2-72)	DWR_EDGE_INTRFC
EDUCATION (page 2-72)	DWL_EDU
EF SERVICE (page 2-72)	DWR_EF_SRVC
EMAIL ADDRESS (page 2-72)	DWR_EML_ADDR
EMAIL SERVICE (page 2-72)	DWR_EML_SRVC
EMPLOYEE (page 2-72)	DWR_EMP
EMPLOYEE ACTUAL LABOR HOURLY (page 2-72)	DWB_EMP_ACT_LBR_HRLY
EMPLOYEE ACTUAL LABOR SALARIED (page 2-72)	DWB_EMP_ACT_LBR_SALARIED

Table 5-1 *(Cont.) Entity Mapping Table: Logical to Physical Mapping A to M*

Table or View	Entity
EMPLOYEE COST (page 2-73)	DWB_EMP_COST
EMPLOYEE DESIGNATION (page 2-73)	DWL_EMP_DESIG
EMPLOYEE DISCOUNT GROUP ASSIGNMENT (page 2-73)	DWR_EMP_DISC_GRP_ASGN
EMPLOYEE EXPENSE REPORT (page 2-73)	DWB_EMP_EXP_RPT
EMPLOYEE EXPENSE REPORT ITEM (page 2-73)	DWB_EMP_EXP_RPT_ITEM
EMPLOYEE EXPENSE REPORT STATE (page 2-73)	DWB_EMP_EXP_RPT_STATE
EMPLOYEE JOB ROLE ASSIGNMENT (page 2-73)	DWR_EMP_JB_RL_ASGN
EMPLOYEE JOB ROLE TYPE (page 2-73)	DWL_EMP_JB_RL_TYP
EMPLOYEE LANGUAGE CAPABILITY (page 2-73)	DWR_EMP_LANG_CAPBLTY
EMPLOYEE RESTRICTED INFO (page 2-73)	DWR_EMP_RSTRCT_INFO
EMPLOYEE SCHEDULE (page 2-73)	DWR_EMP_SCHL
EMPLOYEE TRAINING RECORD (page 2-73)	DWB_EMP_TRNG_REC
EMPLOYEE TYPE (page 2-73)	DWL_EMP_TYP
ENROLL CHANNEL (page 2-74)	DWL_ENRL_CHNL
ENROLL TYPE (page 2-74)	DWL_ENRL_TYP
ENTITY (page 2-74)	DWR_ENT
ENTITY ROLE (page 2-74)	DWR_ENT_RL
ENTITY SPECIFICATION (page 2-74)	DWR_ENT_SPEC
ENTRY METHOD (page 2-74)	DWL_ENTRY_MTHD
ENVIRONMENT TYPE (page 2-74)	DWL_ENV_TYP
EQUIPMENT (page 2-74)	DWR_EQPMNT
EQUIPMENT CENTER (page 2-74)	DWR_EQPMNT_CNTR
EQUIPMENT CENTER COST (page 2-74)	DWB_EQPMNT_CNTR_COST
EQUIPMENT FUNCTIONALITY (page 2-74)	DWR_EQPMNT_FNCTNLTY
EQUIPMENT FUNCTIONALITY ASSIGNMENT (page 2-74)	DWR_EQPMNT_FNCTNLTY_ASGN
EQUIPMENT HOLDER (page 2-75)	DWR_EQPMNT_HLDR
EQUIPMENT INSTANCE (page 2-75)	DWR_EQPMNT_INSTNC
EQUIPMENT INSTANCE STATUS TYPE (page 2-75)	DWL_EQPMNT_INSTNC_STAT_TYP
EQUIPMENT RENTING AGREEMENT (page 2-75)	DWR_EQPMNT_RNTNG_AGRMNT

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
ERRORED MEDIATED CALL EVENT (page 2-75)	DWB_ERRD_MDTD_CALL_EVT
ERRORED RATED WIRELESS CALL EVENT (page 2-75)	DWB_ERRD_RAW_WRLS_CALL_EVT
ERRORED RAW WIRELESS CALL EVENT (page 2-75)	DWB_ERRD_RTD_WRLS_CALL_EVT
EVENT (page 2-76)	DWB_EVT
EVENT ACCESS METHOD ACTIVITY (page 2-76)	DWB_EVT_ACCS_MTHD_ACTVTY
EVENT ACCOUNT (page 2-76)	DWB_EVT_ACCT
EVENT AGREEMENT (page 2-76)	DWB_EVT_AGRMNT
EVENT ASSIGNMENT (page 2-76)	DWB_EVT_ASGN
EVENT ASSIGNMENT REASON (page 2-76)	DWL_EVT_ASGN_RSN
EVENT ASSIGNMENT TYPE (page 2-76)	DWL_EVT_ASGN_TYP
EVENT CATEGORY (page 2-76)	DWL_EVT_CTGRY
EVENT CIRCUIT RENTAL (page 2-76)	DWB_EVT_CRCUT_RNTL
EVENT CLASS (page 2-77)	DWL_EVT_CLASS
EVENT COMPOSITE PRODUCT SPECIFICATION (page 2-77)	DWB_EVT_CMPST_PROD_SPEC
EVENT COST (page 2-77)	DWB_EVT_COST
EVENT EMIT DETAIL (page 2-77)	DWB_EVT_EMIT_DTL
EVENT EMPLOYEE ACTIVITY (page 2-77)	DWB_EVT_EMP_ACTVTY
EVENT EMPLOYEE PAYROLL (page 2-77)	DWB_EVT_EMP_PYRL
EVENT EQUIPMENT INSTANCE (page 2-77)	DWB_EVT_EQPMNT_INSTNC
EVENT FINANCIAL (page 2-77)	DWB_EVT_FINCL
EVENT GEOGRAPHY (page 2-77)	DWB_EVT_GEO
EVENT LOCATION (page 2-77)	DWR_EVT_LOC
EVENT LOYALTY PROGRAM (page 2-78)	DWB_EVT_LYLTY_PROG
EVENT PARTY ASSIGNMENT (page 2-78)	DWB_EVT_PRTY_ASGN
EVENT PARTY INTERACTION (page 2-78)	DWB_EVT_PRTY_INTRACN
EVENT PARTY INTERACTION CHARACTERISTIC VALUE (page 2-78)	DWR_EVT_PRTY_INTRACN_CHAR_VAL
EVENT PARTY INTERACTION CHAT DETAIL (page 2-78)	DWB_EVT_PRTY_INTRACN_CHAT_DTL

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
EVENT PARTY INTERACTION ITEM (page 2-78)	DWB_EVT_PRTY_INTRACN_ITEM
EVENT PARTY INTERACTION PARTICIPATION (page 2-78)	DWB_EVT_PRTY_INTRACN_PRTCP TN
EVENT PARTY PROFILE (page 2-78)	DWB_EVT_PRTY_PRFL
EVENT PARTY ROLE (page 2-78)	DWL_EVT_PRTY_RL
EVENT PREPAID MOBILE (page 2-79)	DWB_EVT_PRPD_MBL
EVENT PRODUCT SUBSCRIPTION WIRELESS (page 2-79)	DWB_EVT_PROD_SBRP_WRLS
EVENT REASON (page 2-79)	DWL_EVT_RSN
EVENT REASON CATEGORY (page 2-79)	DWL_EVT_RSN_CTGRY
EVENT RESOLUTION (page 2-79)	DWL_EVT_RSLTN
EVENT RESPONSE REASON (page 2-79)	DWL_EVT_RESPN_RSN
EVENT RESULT (page 2-79)	DWL_EVT_RSLT
EVENT SIM CARD (page 2-79)	DWB_EVT_SIM_CARD
EVENT STATUS (page 2-79)	DWB_EVT_STAT
EVENT STATUS REASON (page 2-79)	DWL_EVT_STAT_RSN
EVENT STATUS TYPE (page 2-80)	DWL_EVT_STAT_TYP
EVENT SUBSCRIPTION CHANGE (page 2-80)	DWB_EVT_SBRP_CHNG
EVENT TRIGGER DETAIL (page 2-80)	DWB_EVT_TRGR_DTL
EVENT TYPE (page 2-80)	DWL_EVT_TYP
EXCHANGE LOCATION (page 2-80)	DWR_EXCHNG_LOC
EXCLUDE PORT DETAIL (page 2-80)	DWR_EXCLD_PRT_DTL
EXPENSE REPORT PARTY ASSIGNMENT (page 2-80)	DWB_EXP_RPT_PRTY_ASGN
EXPENSE REPORT STATE TYPE (page 2-80)	DWL_EXP_RPT_STATE_TYP
EXPENSE TYPE (page 2-80)	DWL_EXP_TYP
EXPIRY BASIS TYPE (page 2-81)	DWL_EXP_BASIS_TYP
EXTERNAL CREDIT PROFILE (page 2-81)	DWR_EXTRNL_CRDT_PRFL
EXTERNAL CREDIT PROFILE ASSIGNMENT (page 2-81)	DWR_EXTRNL_CRDT_PRFL_ASGN
EXTERNAL INFORMATION SOURCE (page 2-81)	DWR_EXTRNL_INFO_SRC
EXTERNAL OPERATOR (page 2-81)	DWR_EXTRNL_OPRTR
EXTERNAL ORGANIZATION TYPE (page 2-81)	DWL_EXTRNL_ORG_TYP

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
FACTOR COMPANY (page 2-81)	DWR_FCTR_CMPNY
FAIR QUEUING SERVICE (page 2-81)	DWR_FAIR_QUENG_SRVC
FAULT RESOLUTION TYPE (page 2-81)	DWL_FLT_RSLTN_TYP
FAULT TYPE (page 2-81)	DWL_FLT_TYP
FDA (page 2-81)	DWR_FDA
FIELD ACTIVITY RESULT TYPE (page 2-81)	DWL_FLD_ACTVTY_RSLT_TYP
FIELD ACTIVITY TYPE (page 2-81)	DWL_FLD_ACTVTY_TYP
FIREWALL ROLE (page 2-82)	DWR_FRWL_RL
FISCAL HALF MONTH (page 2-82)	DWR_FSCL_HLF_MO
FISCAL HALF YEAR (page 2-82)	DWR_FSCL_HLF_YR
FISCAL MONTH (page 2-82)	DWR_FSCL_MO
FISCAL QUARTER (page 2-82)	DWR_FSCL_QTR
FISCAL WEEK (page 2-82)	DWR_FSCL_WK
FISCAL YEAR (page 2-82)	DWR_FSCL_YR
FIXED LINE CALL EVENT (page 2-82)	DWB_FIXED_LN_CALL_EVT
FIXED LINE PORT (page 2-82)	DWR_FIXED_LN_PRT
FIXED LINE RATING PLAN (page 2-82)	DWR_FIXED_LN_RTNG_PLN
FIXED LINE SERVICE (page 2-82)	DWR_FIXED_LN_SRVC
FLEXIBLE CHARACTERISTIC (page 2-82)	DWR_FXBLE_CHAR
FLEXIBLE CHARACTERISTIC ASSIGNMENT (page 2-82)	DWR_FXBLE_CHAR_ASGN
FLEXIBLE CHARACTERISTIC ASSIGNMENT TYPE (page 2-82)	DWL_FXBLE_CHAR_ASGN_TYP
FLEXIBLE CHARACTERISTIC RELATIONSHIP (page 2-82)	DWR_FXBLE_CHAR_RLTN
FLEXIBLE CHARACTERISTIC TYPE (page 2-83)	DWL_FXBLE_CHAR_TYP
FLEXIBLE CHARACTERISTIC VALUE (page 2-83)	DWR_FXBLE_CHAR_VAL
FLEXIBLE CHARACTERISTIC VALUE ASSIGNMENT (page 2-83)	DWR_FXBLE_CHAR_VAL_ASGN
FLEXIBLE CHARACTERISTIC VALUE RELATIONSHIP (page 2-83)	DWR_FXBLE_CHAR_VAL_RLTN
FRAUD PROFILE CLASS (page 2-83)	DWL_FRAUD_PRFL_CLASS
FSAM (page 2-83)	DWR_FSAM
FUEL SALE STATUS (page 2-83)	DWL_FUEL_SL_STAT

Table 5-1 (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
GENDER (page 2-83)	DWL_GNDR
GEOGRAPHY BUILDING (page 2-83)	DWR_GEO_BLDG
GEOGRAPHY CITY (page 2-83)	DWR_GEO_CITY
GEOGRAPHY COMPLEX (page 2-83)	DWR_GEO_COMPLEX
GEOGRAPHY COUNTRY (page 2-83)	DWR_GEO_CNTRY
GEOGRAPHY COUNTY (page 2-83)	DWR_GEO_CNTY
GEOGRAPHY DEMOGRAPHIC GROUP (page 2-84)	DWR_GEO_DEMOG_GRP
GEOGRAPHY DEMOGRAPHY ATTRIBUTE (page 2-84)	DWR_GEO_DEMOG_ATRIB
GEOGRAPHY DEMOGRAPHY VALUE (page 2-84)	DWR_GEO_DEMOG_VAL
GEOGRAPHY ENTITY (page 2-84)	DWR_GEO_ENT
GEOGRAPHY ENTITY ASSIGNMENT (page 2-84)	DWR_GEO_ENT_ASGN
GEOGRAPHY ENTITY HIER LEVEL ASSIGNMENT (page 2-84)	DWR_GEO_ENT_HIER_LVL_ASGN
GEOGRAPHY HIERARCHY (page 2-84)	DWR_GEO_HRCHY
GEOGRAPHY HIERARCHY LEVEL (page 2-84)	DWR_GEO_HRCHY_LVL
GEOGRAPHY HIERARCHY LEVEL ASSIGNMENT (page 2-84)	DWR_GEO_HRCHY_LVL_ASGN
GEOGRAPHY LEVEL (page 2-84)	DWR_GEO_LVL
GEOGRAPHY LEVEL ATTRIBUTE (page 2-84)	DWR_GEO_LVL_ATRIB
GEOGRAPHY LEVEL ATTRIBUTE VALUE (page 2-84)	DWR_GEO_LVL_ATRIB_VAL
GEOGRAPHY REGION (page 2-84)	DWR_GEO_RGN
GEOGRAPHY STATE (page 2-84)	DWR_GEO_STATE
GEOGRAPHY STREET (page 2-84)	DWR_GEO_STRT
GEOGRAPHY SUB REGION (page 2-84)	DWR_GEO_SBRGN
GEOGRAPHY WORLD (page 2-84)	DWR_GEO_WORLD
GIVE AWAY ITEM DAY DRVD (page 2-84)	DWD_GIVE_AWAY_ITEM_DAY
GIVE AWAY TYPE (page 2-84)	DWL_GIVE_AWAY_TYP
GL ACCOUNT (page 2-85)	DWR_GL_ACCT
GL ACCOUNT ASSIGNMENT (page 2-85)	DWR_GL_ACCT_ASGN
GL ACCOUNT SEGMENT (page 2-85)	DWR_GL_ACCT_SGMNT
GL ACCOUNT TYPE (page 2-85)	DWL_GL_ACCT_TYP

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
GL BALANCE (page 2-85)	DWB_GL_BAL
GL COST CENTER SEGMENT (page 2-85)	DWR_GL_COST_CNTR_SGMNT
GL JE LINE SUBLEDGER ASSIGNMENT (page 2-85)	DWB_GL_JE_LN_SBLDGR_ASGN
GL JOURNAL ENTRY (page 2-85)	DWB_GL_JE
GL JOURNAL ENTRY BATCH (page 2-85)	DWB_GL_JE_BTCH
GL JOURNAL ENTRY CATEGORY (page 2-85)	DWL_GL_JE_CTGRY
GL JOURNAL ENTRY LINE (page 2-85)	DWB_GL_JE_LN
GL LEDGER (page 2-86)	DWR_GL_LDGR
GL LEDGER ACCOUNT ASSIGNMENT (page 2-86)	DWR_GL_LDGR_ACCT_ASGN
GL ORGANIZATION BUSINESS UNIT SEGMENT (page 2-86)	DWR_GL_ORG_BSNS_UNIT_SGMNT
GL PERIOD (page 2-86)	DWR_GL_PRD
GL PRODUCT SPECIFICATION SEGMENT (page 2-86)	DWR_GL_PROD_SPEC_SGMNT
GL PROJECT SEGMENT (page 2-86)	DWR_GL_PROJ_SGMNT
GL REFERENCE (page 2-86)	DWR_GL_REF
GL SEGMENT (page 2-86)	DWR_GL_SGMNT
GL SEGMENT TYPE (page 2-86)	DWL_GL_SGMNT_TYP
GL SUBLEDGER (page 2-86)	DWR_GL_SBLDGR
GL SUBLEDGER JOURNAL ENTRY (page 2-87)	DWB_GL_SBLDGR_JE
GL SUBLEDGER JOURNAL ENTRY LINE (page 2-87)	DWB_GL_SBLDGR_JE_LN
GPRS SERVICE (page 2-87)	DWR_GPRS_SRVC
GPRS USAGE EVENT (page 2-87)	DWB_GPRS_USG_EVT
HALF HOUR (page 2-87)	DWR_HLF_HR
HALF MONTH TODATE TRANSFORMATION (page 2-87)	DWR_HLF_MO_TODATE_TRANS
HALF MONTH TRANSFORMATION (page 2-87)	DWR_HLF_MO_TRANS
HALF YEAR TODATE TRANSFORMATION (page 2-87)	DWR_HLF_YR_TODATE_TRANS
HALF YEAR TRANSFORMATION (page 2-87)	DWR_HLF_YR_TRANS
HANDSET INSTANCE (page 2-87)	DWR_HNDST_INSTNC
HANDSET MODEL (page 2-87)	DWR_HNDST_MDL
HARDWARE (page 2-88)	DWR_HRDWR

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
HEAD TAIL DROPPER SERVICE (page 2-88)	DWR_HEAD_TAIL_DRPPR_SRVC
HOLDER ATOMIC (page 2-88)	DWR_HLDR_ATMC
HOLDER COMPOSITE (page 2-88)	DWR_HLDR_CMPST
HOME SUBSCRIBER SERVER (page 2-88)	DWR_HM_SBCRBR_SERVER
HOUR (page 2-88)	DWR_HR
HOUSEHOLD (page 2-88)	DWR_HH
IDD (page 2-88)	DWR_IDD
IDD CALL EVENT (page 2-88)	DWB_IDD_CALL_EVT
IMPRESSION (page 2-88)	DWB_IMPRESSION
IMPRESSION EVENT TYPE (page 2-88)	DWL_IMPRESSION_EVT_TYP
IN PLATFORM (page 2-88)	DWR_IN_PLTFRM
IN PLATFORM DAY DRVD (page 2-89)	DWD_IN_PLTFRM_DAY
IN PLATFORM MONTH AGGR (page 2-89)	DWA_IN_PLTFRM_MO
IN ROUTING DEVICE (page 2-89)	DWR_IN_RUTNG_DVC
INDIVIDUAL DEMOGRAPHY PROFILE (page 2-89)	DWR_INDVL_DEMOG_PRFL
INDIVIDUAL DEMOGRAPHY VALUE (page 2-89)	DWR_INDVL_DEMOG_VAL
INDIVIDUAL NAME (page 2-89)	DWR_INDVL_NAME
INITIATIVE RESULT TYPE (page 2-89)	DWL_INTTV_RSLT_TYP
INITIATIVE TYPE (page 2-89)	DWL_INTTV_TYP
INSTALLMENT AGREEMENT (page 2-89)	DWR_INSTLMNT_AGRMNT
INTERACTION ANSWER CHOICE (page 2-89)	DWB_INTRACN_ANSWR_CHOICE
INTERACTION CHANNEL (page 2-89)	DWR_INTRACN_CHNL
INTERACTION DIRECTION (page 2-89)	DWL_INTRACN_DRCTN
INTERACTION NAVIGATION ASSIGNMENT (page 2-89)	DWR_INTRACN_NAVGTN_ASGN
INTERACTION NAVIGATION HISTORY (page 2-90)	DWB_INTRACN_NAVGTN_HIST
INTERACTION NAVIGATION ITEM (page 2-90)	DWR_INTRACN_NAVGTN_ITEM
INTERACTION NAVIGATION ITEM TYPE (page 2-90)	DWL_INTRACN_NAVGTN_ITEM_TYP
INTERACTION NAVIGATION LEVEL (page 2-90)	DWL_INTRACN_NAVGTN_LVL
INTERACTION NAVIGATION TYPE (page 2-90)	DWL_INTRACN_NAVGTN_TYP

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
INTERACTION NAVIGATION TYPE VERSION (page 2-90)	DWR_INTRACN_NAVGTN_TYP_VRSN
INTERACTION PRIORITY TYPE (page 2-90)	DWL_INTRACN_PRIORITY_TYP
INTERACTION QUESTION RESPONSE (page 2-90)	DWB_INTRACN_QUES_RESPN
INTERACTION REASON (page 2-90)	DWL_INTRACN_RSN
INTERACTION RESULT TYPE (page 2-90)	DWL_INTRACN_RSLT_TYP
INTERACTION STATUS (page 2-91)	DWL_INTRACN_STAT
INTERACTION STATUS TYPE (page 2-91)	DWL_INTRACN_STAT_TYP
INTERACTION TRANSFER HISTORY (page 2-91)	DWB_INTRACN_TRNSFR_HIST
INTERACTION TRANSFER REASON (page 2-91)	DWL_INTRACN_TRNSFR_RSN
INTERACTION TYPE (page 2-91)	DWL_INTRACN_TYP
INTERNET ACCESS EVENT (page 2-91)	DWB_INTRNT_ACCS_EVT
INVENTORY ADJUSTMENT DOCUMENT LINE ITEM (page 2-91)	DWB_INV_ADJ_DOC_LI
INVENTORY CONTROL DOCUMENT (page 2-91)	DWB_INV_CNTRL_DOC
INVENTORY CONTROL DOCUMENT LINE ITEM (page 2-91)	DWB_INV_CNTRL_DOC_LI
INVENTORY ITEM STATE (page 2-91)	DWB_INV_ITEM_STATE
INVENTORY LOCATION (page 2-92)	DWR_INV_LOC
INVENTORY POSITION DEPARTMENT DAY AGGR (page 2-92)	DWA_INV_POSN_DEPT_DAY
INVENTORY POSITION ITEM DAY DRVD (page 2-92)	DWD_INV_POSN_ITEM_DAY
INVENTORY POSITION SUBCLASS MONTH AGGR (page 2-92)	DWA_INV_POSN_SBC_MO
INVENTORY RECEIPT ITEM DAY DRVD (page 2-92)	DWD_INV_RCPT_ITEM_DAY
INVENTORY TRANSFER ITEM DAY DRVD (page 2-92)	DWD_INV_XFER_ITEM_DAY
INVENTORY UNAVAILABLE ITEM DAY DRVD (page 2-92)	DWD_INV_UNAVL_ITEM_DAY
INVENTORY VENDOR COMPLIANCE DAY DRVD (page 2-92)	DWD_INV_VNDR_CMPLNC_DAY
INVOICE (page 2-92)	DWB_INVC
INVOICE ADJUSTMENT (page 2-92)	DWB_INVC_ADJ
INVOICE ADJUSTMENT MONTH AGGR (page 2-92)	DWA_INVC_ADJ_MO
INVOICE ADJUSTMENT QUOTA (page 2-92)	DWR_INVC_ADJ_QTA
INVOICE ADJUSTMENT REASON (page 2-93)	DWL_INVC_ADJ_RSN
INVOICE ADJUSTMENT TYPE (page 2-93)	DWL_INVC_ADJ_TYP

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
INVOICE AGING DAY DRVD (page 2-93)	DWD_INVC_AGNG_DAY
INVOICE DELIVERY FORMAT (page 2-93)	DWL_INVC_DLVRY_FRMT
INVOICE DELIVERY TYPE (page 2-93)	DWL_INVC_DLVRY_TYP
INVOICE DISCOUNT (page 2-93)	DWB_INVC_DISC
INVOICE DISCOUNT REASON (page 2-93)	DWL_INVC_DISC_RSN
INVOICE DISCOUNT TYPE (page 2-94)	DWL_INVC_DISC_TYP
INVOICE DAY DRVD (page 2-93)	DWD_INVC_DAY
INVOICE GENERATION PROCESS (page 2-94)	DWB_INVC_GENRTN_PRCS
INVOICE ITEM (page 2-94)	DWB_INVC_ITEM
INVOICE ITEM DETAIL (page 2-94)	DWB_INVC_ITEM_DTL
INVOICE ITEM DETAIL TYPE (page 2-94)	DWL_INVC_ITEM_DTL_TYP
INVOICE ITEM RELATIONSHIP (page 2-94)	DWB_INVC_ITEM_RLTN
INVOICE ITEM TYPE (page 2-94)	DWL_INVC_ITEM_TYP
INVOICE MONTH AGGR (page 2-95)	DWA_INVC_MO
INVOICE PAYMENT ASSIGNMENT (page 2-95)	DWB_INVC_PYMT_ASGN
INVOICE PAYMENT TERM (page 2-95)	DWB_INVC_PYMT_TERM
INVOICE PAYMENT TERM TYPE (page 2-95)	DWL_INVC_PYMT_TERM_TYP
INVOICE PROCESS ASSIGNMENT (page 2-95)	DWR_INVC_PRCS_ASGN
INVOICE STATUS (page 2-95)	DWL_INVC_STAT
INVOICE STATUS HISTORY (page 2-95)	DWB_INVC_STAT_HIST
INVOICE STATUS TYPE (page 2-95)	DWL_INVC_STAT_TYP
INVOICE TAX ITEM (page 2-95)	DWB_INVC_TAX_ITEM
INVOICE TYPE (page 2-95)	DWL_INVC_TYP
INVOLVEMENT ROLE (page 2-95)	DWL_INVLMNT_RL
IP ADDRESS (page 2-95)	DWR_IP_ADDR
IP ADDRESS POOL (page 2-95)	DWR_IP_ADDR_POOL
IP CAN TYPE (page 2-95)	DWL_IP_CAN_TYP
IP SUBNET (page 2-96)	DWR_IP_SUBNET
IPV4 ADDRESS (page 2-96)	DWR_IPV4_ADDR

Table 5-1 (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
ISP (page 2-96)	DWR_ISP
ISP BUSINESS (page 2-96)	DWR_ISP_BSNS
ISP BUSINESS ASSIGNMENT (page 2-96)	DWR_ISP_BSNS_ASGN
ISP BUSINESS TYPE (page 2-96)	DWL_ISP_BSNS_TYP
ISP TYPE (page 2-96)	DWL_ISP_TYP
ISP USAGE EVENT (page 2-97)	DWB_ISP_USG_EVT
ISP USER (page 2-97)	DWR_ISP_USER
ITEM CLASS (page 2-97)	DWR_ITEM_CLASS
ITEM CLUSTER (page 2-97)	DWR_ITEM_CLSTR
ITEM COMPANY (page 2-97)	DWR_ITEM_CMPNY
ITEM DEPARTMENT (page 2-97)	DWR_ITEM_DEPT
ITEM DIVISION (page 2-97)	DWR_ITEM_DIV
ITEM GROUP (page 2-97)	DWR_ITEM_GRP
ITEM LOOKUP METHOD (page 2-97)	DWL_ITEM_LKUP_MTHD
ITEM SPECIFICATION (page 2-97)	DWR_ITEM_SPEC
ITEM SUBCLASS (page 2-97)	DWR_ITEM_SBC
ITEM TYPE (page 2-97)	DWL_ITEM_TYP
IVR INTERACTION NAVIGATION HISTORY (page 2-97)	DWB_IVR_INTRACN_NAVGTN_HIST
IVR MENU CONTENT (page 2-98)	DWR_IVR_MENU_CNTNT
IVR MENU ITEM (page 2-98)	DWR_IVR_MENU_ITEM
JOB (page 2-98)	DWR_JB
JOB ROLE (page 2-98)	DWR_JB_RL
JOURNAL ENTRY LINE CUSTOMER ORDER ITEM ASSIGNMENT (page 2-98)	DWB_JE_LN_CUST_ORDR_ITEM_ASGN
JOURNAL ENTRY LINE INVOICE ITEM ASSIGNMENT (page 2-98)	DWB_JE_LN_INVC_ITEM_ASGN
JURISDICTION (page 2-98)	DWR_JUR
KEY PERFORMANCE INDICATOR SLS PARM (page 2-98)	DWR_KEY_PRFMNC_IND_SLS_PARM
KEY QUALITY INDICATOR SLS PARM (page 2-98)	DWR_KEY_QLTY_IND_SLS_PARM

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
LAN (page 2-98)	DWR_LAN
LAN PROTOCOL (page 2-98)	DWR_LAN_PROTCL
LAND PARCEL ADDRESS (page 2-98)	DWR_LAND_PARCEL_ADDR
LAND USE TYPE (page 2-99)	DWL_LND_USE_TYP
LANGUAGE (page 2-99)	DWL_LANG
LANGUAGE DIALECT (page 2-99)	DWR_LANG_DIALECT
LAYER NETWORK (page 2-99)	DWR_LAYER_NTWK
LEGAL PROCESS STATUS TYPE (page 2-100)	DWL_LEGAL_PRCS_STAT_TYP
LETTER TYPE (page 2-100)	DWL_LTTR_TYP
LIFECYCLE TYPE (page 2-100)	DWL_LFCCL_TYP
LOCAL ADDRESS LOCATION (page 2-100)	DWR_LCL_ADDR_LOC
LOGICAL CAPACITY (page 2-100)	DWR_LGICL_CPCTY
LOGICAL DEVICE (page 2-100)	DWR_LGICL_DVC
LOGICAL DEVICE ATOMIC (page 2-100)	DWR_LGICL_DVC_ATMC
LOGICAL DEVICE COMPOSITE (page 2-101)	DWR_LGICL_DVC_CMPST
LOGICAL DEVICE OS ASSIGNMENT (page 2-101)	DWR_LGICL_DVC_OS_ASGN
LOGICAL DEVICE ROLE (page 2-101)	DWR_LGICL_DVC_RL
LOGICAL DEVICE ROLE SPEC (page 2-101)	DWR_LGICL_DVC_RL_SPEC
LOGICAL DEVICE SPECIFICATION (page 2-101)	DWR_LGICL_DVC_SPEC
LOGICAL INTERFACE (page 2-101)	DWR_LGICL_INTRFC
LOGICAL RESOURCE (page 2-102)	DWR_LGICL_RSCE
LOGICAL RESOURCE PHYSICAL SUPPORT (page 2-102)	DWR_LGICL_RSCE_PHY_SPPRT
LOGICAL RESOURCE ROLE (page 2-102)	DWR_LGICL_RSCE_RL
LOGICAL RESOURCE ROLE ASSIGNMENT (page 2-102)	DWR_LGICL_RSCE_RL_ASGN
LOGICAL RESOURCE ROLE SPECIFICATION (page 2-102)	DWR_LGICL_RSCE_RL_SPEC
LOGICAL RESOURCE SPECIFICATION ATOMIC (page 2-102)	DWR_LGICL_RSCE_SPEC_ATMC
LOGICAL RESOURCE SPECIFICATION (page 2-102)	DWR_LGICL_RSCE_SPEC
LOGICAL RESOURCE SPECIFICATION COMPOSITE (page 2-103)	DWR_LGICL_RSCE_SPEC_CMPST
LOGICAL RESOURCE SPECIFICATION PHYSICAL SUPPORT (page 2-103)	DWR_LGICL_RSCE_SPEC_PHY_SPPRT

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
LOGICAL RESOURCE SPECIFICATION VERSION (page 2-103)	DWR_LGICL_RSCE_SPEC_VRSN
LOOKUP (page 2-103)	DWL_LOOKUP
LOYALTY MEMBER POINT DAY DRVD (page 2-103)	DWD_LYLTY_MBR_PNT_DAY
LOYALTY MEMBERSHIP ENROLL (page 2-103)	DWB_LYLTY_MBRSHIP_ENRL
LOYALTY PROGRAM (page 2-103)	DWR_LYLTY_PROG
LOYALTY PROGRAM MO AGGR (page 2-103)	DWA_LYLTY_PROG_MO
LOYALTY TIER (page 2-103)	DWR_LYLTY_TIER
LOYALTY TIER CHANGE HISTORY (page 2-104)	DWB_LYLTY_TIER_CHNG_HIST
LOYALTY TIER CLASS (page 2-104)	DWR_LYLTY_TIER_CLASS
LR STATUS (page 2-104)	DWL_LR_STAT
MAILBOX (page 2-104)	DWR_MAILBOX
MANAGE ACTION TYPE (page 2-104)	DWL_MNG_ACTN_TYP
MANAGED ENTITY (page 2-104)	DWR_MANAGED_ENT
MANAGED HARDWARE (page 2-104)	DWR_MANAGED_HRDWR
MANAGED TRANSMISSION ENTITY (page 2-105)	DWR_MANAGED_TRNSMISN_ENT
MANAGEMENT DOMAIN (page 2-105)	DWR_MGMT_DOMAIN
MANAGEMENT INFORMATION (page 2-105)	DWR_MGMT_INFO
MANAGEMENT JOB (page 2-105)	DWB_MNGMT_JB
MANAGEMENT PROTOCOL (page 2-105)	DWR_MGMT_PROTCL
MARITAL STATUS (page 2-105)	DWL_MRTL_STAT
MARKER POOL (page 2-105)	DWR_MRKR_POOL
MARKER SERVICE (page 2-105)	DWR_MRKR_SRVC
MARKER SERVICE MARKER POOL ASSIGNMENT (page 2-105)	DWR_MRKR_SRVC_MRKR_POOL_ASGN
MARKER TYPE (page 2-105)	DWL_MRKR_TYP
MARKET AREA (page 2-106)	DWR_MKT_AREA
MARKET AREA LEVEL (page 2-106)	DWR_MKT_AREA_LVL
MARKET SEGMENT (page 2-106)	DWR_MKT_SGMNT
MARKET SEGMENT CHARACTERISTIC (page 2-106)	DWR_MKT_SGMNT_CHAR
MARKET SEGMENT CHARACTERISTIC VALUE (page 2-106)	DWR_MKT_SGMNT_CHAR_VAL

Table 5-1 (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
MARKET SHARE AGGR (page 2-106)	DWA_MKT_SHARE
MARKET SHARE DRVD (page 2-106)	DWD_MKT_SHARE
MARKET STATISTICS (page 2-106)	DWR_MKT_STTSTCS
MATCHED POLICY (page 2-106)	DWB_MTCHD_PLCY
MATCHED POLICY TABLE (page 2-106)	DWB_MTCHD_PLCY_TBL
MEASUREMENT JOB (page 2-107)	DWB_MSRMNT_JB
MEASUREMENT THRESHOLD JOB (page 2-107)	DWB_MSRMNT_THRSHLD_JB
MEDIA INTERFACE (page 2-107)	DWR_MEDIA_INTRFC
MEDIA INTERFACE LOGICAL INTERFACE ASSIGNMENT (page 2-107)	DWR_MDIA_ITRFC_LGL_INTRFC_A SGN
MEDIA INTERFACE TYPE (page 2-107)	DWL_MEDIA_INTRFC_TYP
MEDIA OBJECT (page 2-107)	DWR_MEDIA_OBJ
MEDIA OBJECT ASSIGNMENT (page 2-107)	DWR_MEDIA_OBJ_ASGN
MEDIA OBJECT COST (page 2-107)	DWB_MEDIA_OBJ_COST
MEDIA OBJECT TYPE (page 2-107)	DWL_MEDIA_OBJ_TYP
MEDIATED CALL EVENT (page 2-107)	DWB_MDTD_CALL_EVT
MEDIATION STATUS CATEGORY (page 2-107)	DWL_MDTN_STAT_CTGRY
MEDIATION STATUS REASON (page 2-108)	DWL_MDTN_STAT_RSN
MEDIATION STATUS TYPE (page 2-108)	DWL_MDTN_STAT_TYP
MEMBERSHIP ACCOUNT (page 2-108)	DWR_MBRSHIP_ACCT
MEMBERSHIP ACCOUNT BALANCE HISTORY (page 2-108)	DWB_MBRSHIP_ACCT_BAL_HIST
METER PROFILE (page 2-108)	DWR_MTR_PRFL
METER SERVICE (page 2-108)	DWR_MTR_SRVC
METER SERVICE PROFILE ASSIGNMENT (page 2-108)	DWR_MTR_SRVC_PRFL_ASGN
MINUTE (page 2-108)	DWR_MNT
MMS EVENT (page 2-109)	DWB_MMS_EVT
MMS SERVICE (page 2-109)	DWR_MMS_SRVC
MOBILE SWITCHING CENTER (page 2-109)	DWR_MBL_SWTCHNG_CNTR
MODEL TYPE (page 2-109)	DWL_MDL_TYP
MONITORED CLASS CRITERIA (page 2-109)	DWR_MNITRD_CLASS_CRTRA

Table 5-1   (Cont.) Entity Mapping Table: Logical to Physical Mapping A to M

Table or View	Entity
MONITORED INSTANCES CRITERIA (page 2-109)	DWR_MNITRD_INSTNCS_CRTRA
MONITORED OBJECTS CRITERIA (page 2-109)	DWR_MNITRD_OBJS_CRTRA
MONTH TODATE TRANSFORMATION (page 2-109)	DWR_MO_TODATE_TRANS
MONTH TRANSFORMATION (page 2-109)	DWR_MO_TRANS
MSC TRAFFIC DAY DRVD (page 2-109)	DWD_MSC_TRFC_DAY
MSC TRAFFIC MONTH AGGR (page 2-109)	DWA_MSC_TRFC_MO
MUSIC DOWNLOAD (page 2-109)	DWR_MUS_DNLD

Table 5-2   Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
NAICS CLASSIFICATION (page 2-109)	DWR_NAICS_CLSFCTN
NAICS INDUSTRY (page 2-110)	DWR_NAICS_INDSTRY
NAICS INDUSTRY GROUP (page 2-110)	DWR_NAICS_INDSTRY_GRP
NAICS INDUSTRY SECTOR (page 2-110)	DWR_NAICS_INDSTRY_SCTR
NAICS INDUSTRY SUBSECTOR (page 2-110)	DWR_NAICS_INDSTRY_SUBSCTR
NATIONALITY (page 2-110)	DWL_NTNLTY
NEGOTIATED SERVICE LEVEL SPEC (page 2-110)	DWR_NEGOTIATED_SRVC_LVL_SPEC
NETWORK (page 2-110)	DWR_NTWK
NETWORK ADDRESS (page 2-110)	DWR_NTWK_ADDR
NETWORK ADDRESS INTERFACE BINDING (page 2-110)	DWR_NTWK_ADDR_INTRFC_BNDNG
NETWORK ADDRESS TYPE (page 2-110)	DWL_NTWK_ADDR_TYP
NETWORK ASSIGNMENT (page 2-111)	DWR_NTWK_ASGN
NETWORK ASSIGNMENT TYPE (page 2-111)	DWL_NTWK_ASGN_TYP
NETWORK ATOMIC (page 2-111)	DWR_NTWK_ATMC
NETWORK AVAILABILITY DAY DRVD (page 2-111)	DWD_NTWK_AVLBLTY_DAY
NETWORK AVAILABILITY MONTH AGGR (page 2-111)	DWA_NTWK_AVLBLTY_MO
NETWORK CAPACITY (page 2-111)	DWR_NTWK_CPCTY
NETWORK COMPOSITE (page 2-111)	DWR_NTWK_CMPST
NETWORK DOMAIN (page 2-111)	DWR_NTWK_DOMAIN

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
NETWORK DOMAIN ASSIGNMENT (page 2-111)	DWR_NTWK_DOMAIN_ASGN
NETWORK FORWARDING SERVICE (page 2-111)	DWR_NTWK_FRWRDNG_SRVC
NETWORK NODE (page 2-112)	DWR_NTWK_NODE
NETWORK ROUTE (page 2-112)	DWR_NTWK_ROUTE
NETWORK ROUTE POINT (page 2-112)	DWR_NTWK_ROUTE_PNT
NETWORK ROUTE POINT ASSIGNMENT (page 2-112)	DWR_NTWK_ROUTE_PNT_ASGN
NETWORK ROUTE SECTION (page 2-112)	DWR_NTWK_ROUTE_SECTN
NETWORK SERVICE COVERAGE ASSIGNMENT (page 2-112)	DWR_NTWK_SRVC_COVRG_ASGN
NETWORK SITE (page 2-113)	DWR_NTWK_SITE
NETWORK SITE ADDITIONAL TEXT (page 2-113)	DWR_NTWK_SITE_ADDTXT
NETWORK SITE ADDRESS LOCATION HISTORY (page 2-113)	DWR_NTWK_SITE_ADDR_LOC_HIST
NETWORK TOUCHPOINT (page 2-113)	DWR_NTWK_TCHPNT
NETWORK TOUCHPOINT CLASS (page 2-113)	DWL_NTWK_TCHPNT_CLASS
NETWORK TOUCHPOINT DRVD (page 2-113)	DWD_NTWK_TCHPNT
NETWORK TOUCHPOINT MONTH AGGR (page 2-113)	DWA_NTWK_TCHPNT_MO
NETWORK TOUCHPOINT STATUS (page 2-113)	DWL_NTWK_TCHPNT_STAT
NETWORK TOUCHPOINT TYPE (page 2-113)	DWL_NTWK_TCHPNT_TYP
NETWORK TYPE (page 2-113)	DWL_NTWK_TYP
Not used	DWD_ACCT_DEBT_MO
Not used	DWD_INV_ADJ_ITEM_DAY
Not used	DWD_PRPD_ALWNCE_DAY
Not used	DWA_SPLMNTR_SRVC_USG_MO
NOTIFICATION TYPE (page 2-114)	DWL_NTFCTN_TYP
NP MOBILE MSISDN (page 2-114)	DWR_NP_MBL_MSISDN
NP REQUEST HEADER (page 2-114)	DWB_NP_RQST_HDR
NP REQUEST LINE ITEM (page 2-114)	DWB_NP_RQST_LN_ITEM
NP REQUEST LINE ITEM STATE HISTORY (page 2-114)	DWB_NP_RQST_LN_ITEM_STATE_HIST
NP REQUEST LINE ITEM STATE TYPE (page 2-114)	DWL_NP_RQST_LN_ITEM_STATE_TYP

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
NP REQUEST STATE HISTORY (page 2-114)	DWB_NP_RQST_STATE_HIST
NP REQUEST STATE REASON (page 2-114)	DWL_NP_RQST_STATE_RSN
NP REQUEST STATE TYPE (page 2-114)	DWL_NP_RQST_STATE_TYP
NP REQUEST TYPE (page 2-114)	DWL_NP_RQST_TYP
NP STEP (page 2-114)	DWL_NP_STEP
NUMBER AREA (page 2-114)	DWR_NBR_AREA
NUMBER COUNTRY (page 2-115)	DWR_NBR_CNTRY
NUMBER NETWORK TYPE (page 2-115)	DWL_NBR_NTWK_TYP
NUMBER PORT DAY DRVD (page 2-115)	DWD_NBR_PRT_DAY
NUMBER PORT MONTH AGGR (page 2-115)	DWA_NBR_PRT_MO
ON OFF NET TYPE (page 2-115)	DWL_ONOFF_NET
OPERATING SYSTEM (page 2-115)	DWR_OPERTNG_SYS
OPERATOR GROUP (page 2-115)	DWL_OPRTR_GRP
OPERATOR TYPE (page 2-116)	DWL_OPRTR_TYP
ORACLE GEOMETRY (page 2-116)	DWR_ORACLE_GEOMETRY
ORDER LINE ITEM STATE (page 2-116)	DWL_ORDR_LN_ITEM_STATE
ORDER LINE ITEM STATE TYPE (page 2-116)	DWL_ORDR_LN_ITEM_STATE_TYP
ORDER STATE (page 2-116)	DWL_ORDR_STATE
ORDER STATE TYPE (page 2-116)	DWL_ORDR_STATE_TYP
ORDER TYPE (page 2-116)	DWL_ORDR_TYP
ORGANIZATION (page 2-116)	DWR_ORG
ORGANIZATION AREA (page 2-116)	DWR_ORG_AREA
ORGANIZATION BANNER (page 2-117)	DWR_ORG_BNR
ORGANIZATION BUSINESS ENTITY (page 2-117)	DWR_ORG_BSNS_ENT
ORGANIZATION BUSINESS UNIT (page 2-117)	DWR_ORG_BSNS_UNIT
ORGANIZATION BUSINESS UNIT COST (page 2-117)	DWB_ORG_BSNS_UNIT_COST
ORGANIZATION BUSINESS UNIT HOURS DAY DRVD (page 2-117)	DWD_ORG_BSNS_UNT_HRS_DAY
ORGANIZATION BUSINESS UNIT TYPE (page 2-117)	DWL_ORG_BSNS_UNIT_TYP
ORGANIZATION CHAIN (page 2-117)	DWR_ORG_CHAIN

Table 5-2 (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
ORGANIZATION COMPANY (page 2-117)	DWR_ORG_CMPNY
ORGANIZATION CORPORATE (page 2-117)	DWR_ORG_CRPRT
ORGANIZATION DISTRICT (page 2-117)	DWR_ORG_DSTRCT
ORGANIZATION DIVISION (page 2-117)	DWR_ORG_DIV
ORGANIZATION HIERARCHY (page 2-118)	DWR_ORG_HRCHY
ORGANIZATION HIERARCHY LEVEL (page 2-118)	DWR_ORG_HRCHY_LVL
ORGANIZATION HIERARCHY LEVEL ASSIGNMENT (page 2-118)	DWR_ORG_HRCHY_LVL_ASGN
ORGANIZATION HIERARCHY VERSION (page 2-118)	DWR_ORG_HRCHY_VRSN
ORGANIZATION ITEM SELLING PRICE (page 2-118)	DWR_ORG_ITEM_SLNG_PRICE
ORGANIZATION LEVEL (page 2-118)	DWR_ORG_LVL
ORGANIZATION LEVEL ATTRIBUTE VALUE (page 2-118)	DWR_ORG_LVL_ATRIB_VAL
ORGANIZATION LEVEL ATTRIBUTES (page 2-118)	DWR_ORG_LVL_ATTR
ORGANIZATION MARKET DATA (page 2-118)	DWR_ORG_MKT_DATA
ORGANIZATION NAME (page 2-118)	DWR_ORG_NAME
ORGANIZATION REGION (page 2-118)	DWR_ORG_RGN
ORGANIZATION SERVICE WEBSITE (page 2-118)	DWR_ORG_SRVC_WBSITE
ORGANIZATION TYPE (page 2-118)	DWL_ORG_TYP
ORGANIZATION WAREHOUSE (page 2-118)	DWR_ORG_WRHS
ORGANIZATIONAL DEMOGRAPHY VALUE (page 2-119)	DWR_ORGNTL_DEMOG_VAL
OS LICENSE ASSIGNMENT (page 2-119)	DWR_OS_LICNS_ASGN
OTHER INDIVIDUAL (page 2-119)	DWR_OTHR_INDVL
P LOGICAL DEVICE ROLE (page 2-119)	DWR_P_LGICL_DVC_RL
PACKET CONTROL UNIT OUTAGE REASON (page 2-119)	DWL_PCU_OUTAGE_RSN
PAGE (page 2-119)	DWR_PG
PARTNER PAYMENT (page 2-119)	DWB_PRTNR_PYMT
PARTNER PAYMENT TYPE (page 2-119)	DWL_PRTNR_PYMT_TYP
PARTNER PROMOTION PROGRAM (page 2-119)	DWR_PRTNR_PRMTN_PROG

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
PARTNER SETTLEMENT DRVD (page 2-119)	DWD_PRTNR_STLMNT
PARTNER SETTLEMENT MONTH AGGR (page 2-119)	DWA_PRTNR_STLMNT_MO
PARTNER SETTLEMENT REASON (page 2-119)	DWL_PRTNR_STLMNT_RSN
PARTY (page 2-120)	DWR_PRTY
PARTY ACCOUNT ASSIGNMENT (page 2-120)	DWR_PRTY_ACCT_ASGN
PARTY ACCOUNT ASSIGNMENT TYPE (page 2-120)	DWL_PRTY_ACCT_ASGN_TYP
PARTY ADDRESS LOCATION ASSIGNMENT (page 2-120)	DWR_PRTY_ADDR_LOC_ASGN
PARTY AGREEMENT ASSIGNMENT (page 2-120)	DWR_PRTY_AGRMNT_ASGN
PARTY AGREEMENT ASSIGNMENT ROLE (page 2-120)	DWL_PRTY_AGRMNT_ASGN_RL
PARTY AGREEMENT ASSIGNMENT TYPE (page 2-120)	DWL_PRTY_AGRMNT_ASGN_TYP
PARTY AM PRODUCT OFFERING ASSIGNMENT HISTORY (page 2-121)	DWB_PRTY_AM_PROD_OFR_ASGN_HIST
PARTY AM PRODUCT OFFERING ASSIGNMENT STATUS (page 2-121)	DWB_PRTY_AM_PROD_OFR_ASGN_STAT
PARTY ASSIGNMENT (page 2-121)	DWR_PRTY_ASGN
PARTY ASSIGNMENT REASON (page 2-121)	DWL_PRTY_ASGN_RSN
PARTY ASSIGNMENT TYPE (page 2-121)	DWL_PRTY_ASGN_TYP
PARTY BUSINESS INTERACTION ROLE (page 2-121)	DWR_PRTY_BSNS_INTRACN_RL
PARTY CONTACT INFORMATION (page 2-121)	DWR_PRTY_CNCT_INFO
PARTY CONTACT INFORMATION TYPE (page 2-121)	DWL_PRTY_CNCT_INFO_TYP
PARTY CONTACT LIST PARTICIPATION (page 2-121)	DWL_PRTY_CNCT_LST_PRTCPTN
PARTY CONTACT LIST ROLE (page 2-121)	DWL_PRTY_CNCT_LST_RL
PARTY COST ASSIGNMENT (page 2-122)	DWB_PRTY_COST_ASGN
PARTY DEMOGRAPHIC (page 2-122)	DWR_PRTY_DEMOG
PARTY DEMOGRAPHIC ASSIGNMENT (page 2-122)	DWR_PRTY_DEMOG_ASGN
PARTY DEMOGRAPHIC VALUE (page 2-122)	DWR_PRTY_DEMOG_VAL
PARTY EVENT TYPE (page 2-122)	DWL_PRTY_EVT_TYP
PARTY GEOGRAPHY ENTITY ASSIGNMENT (page 2-122)	DWR_PRTY_GEO_ENT_ASGN
PARTY IDENTIFICATION (page 2-122)	DWR_PRTY_ID

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
PARTY IDENTIFICATION TYPE (page 2-122)	DWL_PRTY_IDNT_TYP
PARTY LANGUAGE CAPABILITY (page 2-122)	DWR_PRTY_LANG_CAPBLTY
PARTY LOCATION REASON (page 2-122)	DWL_PRTY_LOC_RSN
PARTY LOCATION TYPE (page 2-122)	DWL_PRTY_LOC_TYP
PARTY MANAGEMENT ROLE (page 2-122)	DWL_PRTY_MGMT_RL
PARTY MARKET SEGMENT ASSIGNMENT (page 2-122)	DWR_PRTY_MKT_SGMNT_ASGN
PARTY NAME (page 2-123)	DWR_PRTY_NAME
PARTY ORDER ASSIGNMENT (page 2-123)	DWB_PRTY_ORDR_ASGN
PARTY ORDER ASSIGNMENT TYPE (page 2-123)	DWL_PRTY_ORDR_ASGN_TYP
PARTY PARTY PROFILE ASSIGNMENT (page 2-123)	DWR_PRTY_PRTY_PRFL_ASGN
PARTY PARTY PROFILE VALUE USE (page 2-123)	DWR_PRTY_PRTY_PRFL_VAL_USE
PARTY PRODUCT SUBSCRIPTION ASSIGNMENT (page 2-123)	DWR_PRTY_PROD_SBRP_ASGN
PARTY PRODUCT SUBSCRIPTION ROLE (page 2-123)	DWL_PRTY_PROD_SBRP_RL
PARTY PROFILE (page 2-123)	DWR_PRTY_PRFL
PARTY PROFILE CHARACTERISTIC ASSIGNMENT (page 2-123)	DWR_PRTY_PRFL_CHAR_ASGN
PARTY PROFILE TYPE (page 2-123)	DWL_PRTY_PRFL_TYP
PARTY PROFILE TYPE CHARACTERISTIC (page 2-123)	DWR_PRTY_PRFL_TYP_CHAR
PARTY PROFILE TYPE CHARACTERISTIC ASSIGNMENT (page 2-123)	DWR_PRTY_PRFL_TYP_CHAR_ASGN
PARTY PROFILE TYPE CHARACTERISTIC RELATIONSHIP (page 2-124)	DWR_PRTY_PRFL_TYP_CHAR_RLTN
PARTY PROFILE TYPE CHARACTERISTIC VALUE (page 2-124)	DWR_PRTY_PRFL_TYP_CHAR_VAL
PARTY PROFILE TYPE CHARACTERISTIC VALUE ASSIGNMENT (page 2-124)	DWR_PRTY_PRFL_TYP_CHAR_VALASGN
PARTY PROMOTION RESPONSE (page 2-124)	DWB_PRTY_PRMTN_RESPN
PARTY ROLE (page 2-124)	DWR_PRTY_RL
PARTY ROLE (page 2-124)	DWL_PRTY_RL
PARTY ROLE ASSIGNMENT (page 2-124)	DWR_PRTY_RL_ASGN
PARTY ROLE CATEGORY (page 2-124)	DWL_PRTY_RL_CTGRY

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
PARTY ROLE CATEGORY ASSIGNMENT (page 2-124)	DWR_PRTY_RL_CTGRY_ASGN
PARTY ROLE OS PROCESS ASSIGNMENT (page 2-124)	DWR_PRTY_RL_OS_PRCS_ASGN
PARTY ROLE PROFILE ASSIGNMENT (page 2-124)	DWR_PRTY_RL_PRFL_ASGN
PARTY ROLE STATUS (page 2-124)	DWR_PRTY_RL_STAT
PARTY ROLE TYPE (page 2-124)	DWL_PRTY_RL_TYP
PARTY SEGMENTATION METHOD (page 2-125)	DWL_PRTY_SGMNT_MTHD
PARTY SERVICE ASSIGNMENT (page 2-125)	DWR_PRTY_SRVC_ASGN
PARTY SERVICE ASSIGNMENT REASON (page 2-125)	DWL_PRTY_SRVC_ASGN_RSN
PARTY SERVICE ASSIGNMENT ROLE (page 2-125)	DWL_PRTY_SRVC_ASGN_RL
PARTY SIM CARD ASSIGNMENT (page 2-125)	DWR_PRTY_SIM_CARD_ASGN
PARTY SIM CARD ROLE (page 2-125)	DWL_PRTY_SIM_CARD_RL
PARTY SKILL (page 2-125)	DWR_PRTY_SKILL
PARTY STATUS CATEGORY (page 2-125)	DWL_PRTY_STAT_CTGRY
PARTY STATUS CHANGE REASON (page 2-125)	DWL_PRTY_STAT_CHNG_RSN
PARTY STATUS HISTORY (page 2-125)	DWB_PRTY_STAT_HIST
PARTY STATUS TYPE (page 2-126)	DWL_PRTY_STAT_TYP
PARTY TYPE (page 2-126)	DWL_PRTY_TYP
PASSPORT (page 2-126)	DWR_PASPRT
PAY CATEGORY (page 2-126)	DWL_PAY_CTGRY
PAY TV SERVICE (page 2-126)	DWR_PYTV_SRVC
PAY TYPE (page 2-126)	DWL_PAY_TYP
PAYMENT AGING CLASS (page 2-126)	DWL_PYMT_AGNG_CLASS
PAYMENT CHANNEL (page 2-127)	DWR_PYMT_CHNL
PAYMENT METHOD TYPE (page 2-127)	DWL_PYMT_MTHD_TYP
PAYMENT PLAN (page 2-127)	DWR_PYMT_PLN
PAYMENT TRANSACTION TYPE (page 2-127)	DWL_PYMT_TRX_TYP
PE LOGICAL DEVICE ROLE (page 2-127)	DWR_PE_LGICL_DVC_RL
PEAK OFFPEAK TIME (page 2-127)	DWL_PK_OFPK_TIME
No value	DWB_PER_EVT

Table 5-2 (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
__TODEL_PER EVENT SUBSCRIBER (page 2-216)	DWB_PER_EVT_SBCRBR
PERFORMANCE (page 2-127)	DWB_PRFMNC
PERFORMANCE ALARM SPECIFICATION (page 2-128)	DWR_PRFMNC_ALARM_SPECFTN
PERFORMANCE APPLICABILITY (page 2-128)	DWR_PRFMNC_APLBLETY
PERFORMANCE CAT CHARACTERISTIC VALUE (page 2-128)	DWR_PRFMNC_CAT_CHAR_VAL
PERFORMANCE CAT SPECIFICATION (page 2-128)	DWR_PRFMNC_CAT_SPEC
PERFORMANCE CAT SPECIFICATION RELATIONSHIP (page 2-128)	DWR_PRFMNC_CAT_SPEC_RLTN
PERFORMANCE CATEGORY (page 2-128)	DWR_PRFMNC_CTGRY
PERFORMANCE CATEGORY RELATIONSHIP (page 2-128)	DWR_PRFMNC_CTGRY_RLTN
PERFORMANCE CHARACTERISTIC VALUE (page 2-128)	DWR_PRFMNC_CHAR_VAL
PERFORMANCE CONSEQUENCE (page 2-128)	DWB_PRFMNC_CNSEQ
PERFORMANCE INDICATOR (page 2-128)	DWB_PRFMNC_IND
PERFORMANCE INDICATOR DERIVATION PARAMETER (page 2-128)	DWR_PRFMNC_IND_DRVTN_PRMTR
PERFORMANCE INDICATOR GROUP (page 2-128)	DWB_PRFMNC_IND_GRP
PERFORMANCE INDICATOR GROUP SPECIFICATION (page 2-128)	DWL_PRFMNC_IND_GRP_SPEC
PERFORMANCE INDICATOR RELATIONSHIP (page 2-129)	DWR_PRFMNC_IND_RLTN
PERFORMANCE INDICATOR SPECIFICATION (page 2-129)	DWR_PRFMNC_IND_SPEC
PERFORMANCE INDICATOR SPECIFICATION RELATIONSHIP (page 2-129)	DWR_PRFMNC_IND_SPEC_RLTN
PERFORMANCE IP ADDRESS (page 2-129)	DWR_PRFMNC_IP_ADDR
PERFORMANCE IP ADDRESS (page 2-129)	DWR_PRFMNC_MBL_ADDR
PERFORMANCE NETWORK ADDRESS (page 2-129)	DWR_PRFMNC_NTWK_ADDR
PERFORMANCE NOTIFICATION (page 2-129)	DWB_PRFMNC_NTFCTN
PERFORMANCE NOTIFICATION SPECIFICATION (page 2-129)	DWR_PRFMNC_NTFCTN_SPEC
PERFORMANCE OBJECTIVE (page 2-129)	DWR_PRFMNC_OBJCTV

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
PERFORMANCE OBJECTIVE APPLICABILITY (page 2-129)	DWR_PRFMNC_OBJCTV_APLBLETY
PERFORMANCE OBJECTIVE APPLICABILITY CONSEQUENCE (page 2-129)	DWR_PRFMNC_OBJ_APLBLETY_CNSEQ
PERFORMANCE POINT CODE (page 2-129)	DWR_PRFMNC_PNT_CD
PERFORMANCE SPECIFICATION (page 2-129)	DWR_PRFMNC_SPEC
PERFORMANCE SPECIFICATION INTERVAL (page 2-130)	DWR_PRFMNC_SPEC_INTRVL
PERFORMANCE SPECIFICATION INTERVAL CONVERSION (page 2-130)	DWR_PRFMNC_SPEC_INTRVL_CNVRSN
PERFORMANCE THRESHOLD (page 2-130)	DWR_PRFMNC_THRSHLD
PERFORMANCE THRESHOLD APPLICABILITY (page 2-130)	DWR_PRFMNC_THRSHLD_APLBLETY
PERFORMANCE THRESHOLD APPLICABILITY CONSEQUENCE (page 2-130)	DWR_PRFMNC_THRSHLD_APLBLTY_CSQ
PERFORMANCE THRESHOLD RULE (page 2-130)	DWR_PRFMNC_THRSHLD_RULE
PERFORMANCE THRESHOLD RULE DEFINITION (page 2-130)	DWR_PRFMNC_THRSHLD_RULE_DEF
PERFORMANCE THRESHOLD RULE PREDEF PARAM (page 2-130)	DWR_PRFMNC_THRSH_RLE_PREDE_PRM
PERIOD TO DATE TRANSFORMATION (page 2-130)	DWR_PRD_TODATE_TRANS
PERIOD TRANSFORMATION (page 2-130)	DWR_PRD_TRANS
PERSONAL ID REQUIRED TYPE (page 2-130)	DWL_PRSNL_ID_REQD_TYP
PHASE (page 2-130)	DWR_PHS
PHONE NUMBER (page 2-130)	DWR_PHONE_NBR
PHONE NUMBER POOL (page 2-130)	DWR_PHONE_NBR_POOL
PHYSICAL CAPACITY (page 2-130)	DWR_PHY_CPCTY
PHYSICAL CAPACITY DETAIL (page 2-131)	DWR_PHY_CPCTY_DTL
PHYSICAL COMPONENT (page 2-131)	DWR_PHY_CMPNT
PHYSICAL CONNECTOR (page 2-131)	DWR_PHY_CNCTR
PHYSICAL CONTAINER (page 2-131)	DWR_PHY_CONTNR
PHYSICAL COUNT DOCUMENT (page 2-131)	DWB_PHY_CNT_DOC

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
PHYSICAL COUNT DOCUMENT LINE ITEM (page 2-131)	DWB_PHY_CNT_DOC_LI
PHYSICAL DEVICE (page 2-131)	DWR_PHY_DVC
PHYSICAL DEVICE ATOMIC (page 2-132)	DWR_PHY_DVC_ATMC
PHYSICAL DEVICE COMPOSITE (page 2-132)	DWR_PHY_DVC_CMPST
PHYSICAL DEVICE ROLE SPECIFICATION (page 2-132)	DWR_PHY_DVC_RL_SPEC
PHYSICAL DEVICE ROLE SPECIFICATION DETAIL (page 2-132)	DWR_PHY_DVC_RL_SPEC_DTL
PHYSICAL DEVICE SPECIFICATION (page 2-132)	DWR_PHY_DVC_SPEC
PHYSICAL EQUIPMENT (page 2-132)	DWR_PHY_EQPMNT
PHYSICAL LINK (page 2-132)	DWR_PHY_LNK
PHYSICAL PORT (page 2-133)	DWR_PHY_PRT
PHYSICAL PORT RESOURCE PORT ASSIGNMENT (page 2-133)	DWR_PHY_PRT_RSCE_PRT_ASGN
PHYSICAL RESOURCE (page 2-133)	DWR_PHY_RSCE
PHYSICAL RESOURCE ADDRESS (page 2-133)	DWR_PHY_RSCE_ADDR
PHYSICAL RESOURCE CHARACTERISTIC (page 2-133)	DWR_PHY_RSCE_CHAR
PHYSICAL RESOURCE LOCAL ADDRESS ASSIGNMENT (page 2-133)	DWR_PHY_RSCE_LCL_ADDR_ASGN
PHYSICAL RESOURCE PRODUCT SUBSCRIPTION (page 2-133)	DWR_PHY_RSCE_PROD_SBRP
PHYSICAL RESOURCE ROLE (page 2-133)	DWR_PHY_RSCE_RL
PHYSICAL RESOURCE ROLE ASSIGNMENT (page 2-134)	DWR_PHY_RSCE_RL_ASGN
PHYSICAL RESOURCE ROLE SPECIFICATION (page 2-134)	DWR_PHY_RSCE_RL_SPEC
PHYSICAL RESOURCE ROLE SPECIFICATION DETAIL (page 2-134)	DWR_PHY_RSCE_RL_SPEC_DTL
PHYSICAL RESOURCE SPECIFICATION (page 2-134)	DWR_PHY_RSCE_SPEC
PHYSICAL RESOURCE SPECIFICATION ATOMIC (page 2-134)	DWR_PHY_RSCE_SPEC_ATMC
PHYSICAL RESOURCE SPECIFICATION COMPOSITE (page 2-134)	DWR_PHY_RSCE_SPEC_CMPST
PIPE (page 2-135)	DWR_PIPE

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
PIT CHARACTERISTIC (page 2-135)	DWR_PIT_CHAR
PIT CHARACTERISTIC TYPE (page 2-135)	DWL_PIT_CHAR_TYP
PLANNING PERIOD (page 2-135)	DWR_PLNG_PRD
PLANNING QUARTER (page 2-135)	DWR_PLNG_QTR
PLANNING SEASON (page 2-135)	DWR_PLNG_SEASON
PLANNING WEEK (page 2-135)	DWR_PLNG_WK
PLANNING YEAR (page 2-135)	DWR_PLNG_YR
PLATFORM (page 2-135)	DWR_PLTFRM
POINT BLOCK (page 2-135)	DWR_PNT_BLCK
POINT CODE (page 2-135)	DWR_PNT_CD
POINT OF SALE DEPARTMENT (page 2-135)	DWR_POS_DEPT
POINT OF SALE IDENTITY TYPE (page 2-135)	DWL_POS_IDNT_TYP
POINT OF SALE TENDER FLOW DRVD (page 2-135)	DWD_POS_TNDR_FLOW
POINT OF SALE TYPE (page 2-135)	DWL_POS_TYP
POINTS EXPIRY BASIS (page 2-135)	DWR_PTS_EXPRY_BASIS
POLICIER SERVICE (page 2-135)	DWR_PLCIR_SRVC
POLICY (page 2-135)	DWR_PLCY
POLICY ACTION (page 2-136)	DWR_PLCY_ACTN
POLICY ACTION ASSIGNMENT (page 2-136)	DWR_PLCY_ACTN_ASGN
POLICY ACTION ATOMIC (page 2-136)	DWR_PLCY_ACTN_ATMC
POLICY ACTION COMPOSITE (page 2-136)	DWR_PLCY_ACTN_CMPST
POLICY ACTION RULE ASSIGNMENT (page 2-136)	DWR_PLCY_ACTN_RULE_ASGN
POLICY ACTION SPECIFICATION (page 2-137)	DWR_PLCY_ACTN_SPEC
POLICY ACTION VENDOR (page 2-137)	DWR_PLCY_ACTN_VNDR
POLICY APPLICATION (page 2-137)	DWR_PLCY_APPLN
POLICY APPLICATION ASSIGNMENT (page 2-137)	DWR_PLCY_APPLN_ASGN
POLICY CONDITION (page 2-138)	DWR_PLCY_CNDTN
POLICY CONDITION ASSIGNMENT (page 2-138)	DWR_PLCY_CNDTN_ASGN
POLICY CONDITION ATOMIC (page 2-138)	DWR_PLCY_CNDTN_ATMC

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
POLICY CONDITION COMPOSITE (page 2-139)	DWR_PLCY_CNDTN_CMPST
POLICY CONDITION RULE ASSIGNMENT (page 2-139)	DWR_PLCY_CNDTN_RULE_ASGN
POLICY CONDITION SPECIFICATION (page 2-139)	DWR_PLCY_CNDTN_SPEC
POLICY CONDITION TIME PERIOD (page 2-139)	DWR_PLCY_CNDTN_TIME_PRD
POLICY CONDITION VENDOR (page 2-139)	DWR_PLCY_CNDTN_VNDR
POLICY DOMAIN (page 2-142)	DWR_PLCY_DMN
POLICY EVENT (page 2-143)	DWB_PLCY_EVT
POLICY EVENT ASSIGNMENT (page 2-143)	DWB_PLCY_EVT_ASGN
POLICY EVENT SPECIFICATION (page 2-143)	DWR_PLCY_EVT_SPEC
POLICY EVENT SPECIFICATION TYPE (page 2-143)	DWL_PLCY_EVT_SPEC_TYP
POLICY EVENT TRIGGER MASK (page 2-143)	DWL_PLCY_EVT_TRGR_MSK
POLICY GROUP (page 2-144)	DWR_PLCY_GRP
POLICY GROUP EXECUTION DETAIL (page 2-144)	DWR_PLCY_GRP_EXEC_DTL
POLICY OPERATOR (page 2-144)	DWR_PLCY_OPRTR
POLICY OPERATOR VARIABLE ASSIGNMENT (page 2-144)	DWR_PLCY_OPRTR_VARBLE_ASGN
POLICY POLICY ACTION ASSIGNMENT (page 2-145)	DWR_PLCY_PLCY_ACTN_ASGN
No value	DWB_PLCY_QTA_UPDT
No value	DWB_PLCY_QTA_USG
POLICY ROLE (page 2-145)	DWR_PLCY_RL
POLICY RULE (page 2-145)	DWR_PLCY_RULE
POLICY RULE ASSIGNMENT (page 2-145)	DWR_PLCY_RULE_ASGN
POLICY RULE SPECIFICATION (page 2-146)	DWR_PLCY_RULE_SPEC
POLICY SET (page 2-146)	DWR_PLCY_SET
POLICY SET ASSIGNMENT (page 2-146)	DWR_PLCY_SET_ASGN
POLICY SET ASSIGNMENT (page 2-146)	DWR_PLCY_SET_SPEC
POLICY STATEMENT (page 2-147)	DWR_PLCY_STMT
POLICY TABLE (page 2-147)	DWR_PLCY_TBL
POLICY VALUE (page 2-147)	DWR_PLCY_VAL
POLICY VARIABLE (page 2-147)	DWR_PLCY_VARBLE

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
POLICY VARIABLE VALUE ASSIGNMENT (page 2-147)	DWR_PLCY_VARBLE_VAL_ASGN
POSTAL SERVICE TYPE (page 2-147)	DWL_POSTL_SRVC_TYP
POSTCODE (page 2-147)	DWR_POSTCD
PPA CATEGORY (page 2-148)	DWL_PPA_CTGRY
PPA DEDUCTION TYPE (page 2-148)	DWL_PPA_DEDCTN_TYP
PREAMBLE MARKER SERVICE (page 2-148)	DWR_PRAMBL_MRKR_SRVC
PREAMBLE MARKING DETAILS ASSIGNMENT (page 2-148)	DWR_PRAMBL_MRKNG_DTLS_ASGN
PREFERENCE TYPE (page 2-148)	DWL_PREF_TYP
PREPAID ACCOUNT STATISTIC DRVD (page 2-148)	DWD_PRPD_ACCT_STTSTC_DAY
PREPAID ALLOWANCE MONTH AGGR (page 2-148)	DWA_PRPD_ALWNCE_MO
PREPAID MOBILE EVENT TYPE (page 2-148)	DWL_PRPD_MBL_EVT_TYP
PREPAID RECHARGE (page 2-148)	DWB_PRPD_RCHRG
PREPAID VOUCHER (page 2-148)	DWR_PRPD_VCHR
PREPAID VOUCHER BATCH (page 2-148)	DWR_PRPD_VCHR_BTCH
PREPAID VOUCHER RECHARGE OPTION (page 2-149)	DWR_PRPD_VCHR_RCHRG_OPTN
PREPAID VOUCHER SPECIFICATION (page 2-149)	DWR_PRPD_VCHR_SPEC
PRICE DERIVATION RULE (page 2-149)	DWR_PRICE_DRVTN_RULE
PRICE EVENT (page 2-149)	DWB_PRICE_EVT
PRICE REASON (page 2-149)	DWL_PRICE_RSN
PRICE TYPE (page 2-149)	DWL_PRICE_TYP
PRICE TYPE RELATION REASON (page 2-149)	DWL_PRICE_TYPE_RLTN_RSN
PRICE TYPE RELATIONSHIP (page 2-149)	DWR_PRICE_TYP_RLTN
PRIORITY QUEUING SERVICE (page 2-150)	DWR_PRIORITY_QUENG_SRVC
PROBLEM (page 2-150)	DWB_PRBLM
PROBLEM COMMENTS (page 2-150)	DWB_PRBLM_CMNTS
PROBLEM ESCALATION LEVEL (page 2-150)	DWL_PRBLM_ESCALATN_LVL
PROBLEM LOCATION ASSIGNMENT (page 2-150)	DWB_PRBLM_LOC_ASGN
PROBLEM RELATIONSHIP (page 2-150)	DWB_PRBLM_RLTN
PROBLEM RESOURCE ASSIGNMENT (page 2-150)	DWB_PRBLM_RSCE_ASGN

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
PROBLEM SERVICE ASSIGNMENT (page 2-150)	DWB_PRBLM_SRVC_ASGN
PROBLEM STATUS HISTORY (page 2-150)	DWB_PRBLM_STAT_HIST
PROBLEM TRACKING RECORD ASSIGNMENT (page 2-150)	DWB_PRBLM_TRKNG_REC_ASGN
PROBLEM TROUBLE TICKET ASSIGNMENT (page 2-150)	DWR_PRBLM_TRBLE_TCKT_ASGN
PROCESS (page 2-150)	DWR_PRCS
PROCESS COST (page 2-151)	DWB_PRCS_COST
PROCESS EVENT (page 2-151)	DWB_PRCS_EVT
PROCESS EVENT ASSIGNMENT (page 2-151)	DWR_PRCS_EVT_ASGN
PROCESS EVENT PARAMETER VALUE OPERATOR ASSIGNMENT (page 2-151)	DWB_PRCSEVT_PRMTRVAL_OPRTR_ASG
PROCESS EVENT PRODUCT OFFER PRICE ASSIGNMENT (page 2-151)	DWR_PRCE_EVT_PRODOFR_PRCE_ASGN
PROCESS INVOICE DAY DRVD (page 2-151)	DWD_PRCS_INVC_DAY
PROCESS INVOICE DISPATCHING EVENT (page 2-151)	DWB_PRCS_INVC_DSPTCHG_EVT
PROCESS INVOICE GENERATION EVENT (page 2-151)	DWB_PRCS_INVC_GNRTN_EVT
PROCESS INVOICE ISSUING EVENT (page 2-151)	DWB_PRCS_INVC_ISSNG_EVT
PROCESS PARAMETER (page 2-151)	DWR_PRCS_PRMTR
PROCESS PARAMETER ASSIGNMENT (page 2-151)	DWR_PRCS_PRMTR_ASGN
PROCESS PARAMETER OPERATOR (page 2-152)	DWL_PRCS_PRMTR_OPRTR
PROCESS PARAMETER VALUE (page 2-152)	DWR_PRCS_PRMTR_VAL
PROCESS RELATIONSHIP (page 2-152)	DWR_PRCS_RLTN
PROCESS RELATIONSHIP TYPE (page 2-152)	DWL_PRCS_RLTN_TYP
PROCESS SPECIFICATION (page 2-152)	DWR_PRCS_SPEC
PROCESS SPECIFICATION RELATIONSHIP (page 2-152)	DWR_PRCS_SPEC_RLTN
PROCESS STATUS (page 2-152)	DWL_PRCS_STAT
PROCESS TYPE (page 2-152)	DWL_PRCS_TYP
PRODUCT (page 2-152)	DWR_PROD
PRODUCT CAPABILITY (page 2-152)	DWR_PROD_CAPBLTY
PRODUCT CAPABILITY TYPE (page 2-152)	DWL_PROD_CAPBLTY_TYP

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
PRODUCT CAPABILITY VALUE (page 2-152)	DWR_PROD_CAPBLTY_VAL
PRODUCT CATALOG (page 2-152)	DWR_PROD_CTLG
PRODUCT CATALOG CHARACTERISTIC (page 2-153)	DWR_PROD_CTLG_CHAR
PRODUCT CATALOG CHARACTERISTIC ASSIGNMENT (page 2-153)	DWR_PROD_CTLG_CHAR_ASGN
PRODUCT CATALOG CHARACTERISTIC RELATIONSHIP (page 2-153)	DWR_PROD_CTLG_CHAR_RLTN
PRODUCT CATALOG CHARACTERISTIC VALUE (page 2-153)	DWR_PROD_CTLG_CHAR_VAL
PRODUCT CATALOG CHARACTERISTIC VALUE ASSIGNMENT (page 2-153)	DWR_PROD_CTLG_CHAR_VAL_ASGN
PRODUCT CATALOG CHARACTERISTIC VALUE RELATIONSHIP (page 2-153)	DWR_PROD_CTLG_CHAR_VAL_RLTN
PRODUCT CATALOG GEOGRAPHY ASSIGNMENT (page 2-153)	DWR_PROD_CTLG_GEO_ASGN
PRODUCT CATALOG PRESENTATION TYPE (page 2-153)	DWL_PROD_CTLG_PRSNT_TYP
PRODUCT CATALOG PRODUCT OFFERING ASSIGNMENT (page 2-153)	DWR_PROD_CTLG_PROD_OFR_ASGN
PRODUCT CATALOG SALES CHANNEL ASSIGNMENT (page 2-153)	DWR_PROD_CTLG_SL_CHNL_ASGN
PRODUCT CATALOG SPECIFICATION (page 2-153)	DWR_PROD_CTLG_SPEC
PRODUCT CATALOG TYPE (page 2-153)	DWL_PROD_CTLG_TYP
PRODUCT CHARACTERISTIC TYPE (page 2-153)	DWL_PROD_CHAR_TYP
PRODUCT CHARACTERISTIC VALUE (page 2-153)	DWR_PROD_CHAR_VAL
PRODUCT COVERAGE AREA (page 2-154)	DWR_PROD_COVRG_AREA
PRODUCT FUNCTIONALITY DEPENDENCY (page 2-154)	DWR_PROD_FNCTNLTY_DPNDNTCY
PRODUCT GEOGRAPHY ASSIGNMENT (page 2-154)	DWR_PROD_GEO_ASGN
PRODUCT LINE (page 2-154)	DWL_PROD_LN
PRODUCT OFFERING (page 2-154)	DWR_PROD_OFR
PRODUCT OFFERING ASSIGNMENT TYPE (page 2-154)	DWL_PROD_OFR_ASGN_TYP
PRODUCT OFFERING AVAILABILITY (page 2-154)	DWR_PROD_OFR_AVLBLTY
PRODUCT OFFERING COST (page 2-154)	DWB_PROD_OFR_COST

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
PRODUCT OFFERING DOCUMENT REQUIREMENT (page 2-154)	DWR_PROD_OFR_DOC_REQRMNT
PRODUCT OFFERING GEOGRAPHY ASSIGNMENT (page 2-154)	DWR_PROD_OFR_GEO_ASGN
PRODUCT OFFERING GROUP (page 2-155)	DWR_PROD_OFR_GRP
PRODUCT OFFERING GROUP ASSIGNMENT (page 2-155)	DWR_PROD_OFR_GRP_ASGN
PRODUCT OFFERING GROUP TYPE (page 2-155)	DWL_PROD_OFR_GRP_TYP
PRODUCT OFFERING MANAGEMENT (page 2-155)	DWB_PROD_OFR_MGMT
PRODUCT OFFERING MARKET SEGMENT AVAILABILITY (page 2-155)	DWR_PROD_OFR_MKT_SGMNT_AVLBLTY
PRODUCT OFFERING ORGANIZATION AVAILABILITY (page 2-155)	DWR_PROD_OFR_ORG_AVLBLTY
PRODUCT OFFERING PRICE (page 2-155)	DWR_PROD_OFR_PRICE
PRODUCT OFFERING PRICE COMPONENT (page 2-155)	DWR_PROD_OFR_PRICE_CMPNT
PRODUCT OFFERING PRICE COMPOSITE (page 2-155)	DWR_PROD_OFR_PRICE_CMPST
PRODUCT OFFERING PRICE POLICY ACTION (page 2-155)	DWR_PROD_OFR_PRICE_PLCY_ACTN
PRODUCT OFFERING PRICE POLICY CONDITION (page 2-155)	DWR_PROD_OFR_PRICE_PLCY_CNDTN
PRODUCT OFFERING PRICE POLICY VALUE (page 2-155)	DWR_PROD_OFR_PRICE_PLCY_VAL
PRODUCT OFFERING PRICE POLICY VARIABLE (page 2-156)	DWR_PROD_OFR_PRICE_PLCY_VAR
PRODUCT OFFERING PRICE RECURRING (page 2-156)	DWR_PROD_OFR_PRICE_RCRNG
PRODUCT OFFERING PRICE RELATIONSHIP (page 2-156)	DWR_PROD_OFR_PRICE_RLTN
PRODUCT OFFERING PRICE RELATIONSHIP TYPE (page 2-156)	DWL_PROD_OFR_PRICE_RLTN_TYP
PRODUCT OFFERING PRICE TYPE (page 2-156)	DWL_PROD_OFR_PRICE_TYP
PRODUCT OFFERING PRODUCT ASSIGNMENT (page 2-156)	DWR_PROD_OFR_PROD_ASGN
PRODUCT OFFERING PRODUCT OFFERING PRICE ASSIGNMENT (page 2-156)	DWR_PRODOFR_PRODOFR_PRICE_ASGN
PRODUCT OFFERING PRODUCT SPECIFICATION ASSIGNMENT (page 2-156)	DWR_PROD_OFR_PROD_SPEC_ASGN

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
PRODUCT OFFERING RATING PLAN (page 2-156)	DWR_PROD_OFR_RTNG_PLN
PRODUCT OFFERING RATING PLAN DETAIL (page 2-156)	DWR_PROD_OFR_RTNG_PLN_DTL
PRODUCT OFFERING RELATIONSHIP (page 2-156)	DWR_PROD_OFR_RLTN
PRODUCT OFFERING RELATIONSHIP TYPE (page 2-157)	DWL_PROD_OFR_RLTN_TYP
PRODUCT OFFERING SUBSTITUTE BY DOC (page 2-157)	DWR_PROD_OFR_SUB_BY_DOC
PRODUCT OFFERING TERM (page 2-157)	DWR_PROD_OFR_TERM
PRODUCT OFFERING TYPE (page 2-157)	DWL_PROD_OFR_TYP
PRODUCT PRICE ALTERATION (page 2-157)	DWR_PROD_PRICE_ALTRTN
PRODUCT PRICE COMPONENT (page 2-157)	DWR_PROD_PRICE_CMPNT
PRODUCT PRICE PARTY ROLE (page 2-157)	DWR_PROD_PRICE_PRTY_RL
PRODUCT PRODUCT CAPABILITY VALUE ASSIGNMENT (page 2-157)	DWR_PROD_PROD_CAPBLTY_VAL_ASGN
PRODUCT RELATIONSHIP (page 2-157)	DWR_PROD_RLTN
PRODUCT RELATIONSHIP TYPE (page 2-157)	DWL_PROD_RLTN_TYP
PRODUCT SPECIFICATION (page 2-158)	DWR_PROD_SPEC
PRODUCT SPECIFICATION ADDITIONAL TEXT (page 2-158)	DWR_PROD_SPEC_ADTNL_TXT
PRODUCT SPECIFICATION ASSIGNMENT REASON (page 2-158)	DWL_PROD_SPEC_ASGN_RSN
PRODUCT SPECIFICATION CATEGORY (page 2-158)	DWL_PROD_SPEC_CTGRY
PRODUCT SPECIFICATION CHARACTERISTIC (page 2-158)	DWR_PROD_SPEC_CHAR
PRODUCT SPECIFICATION CHARACTERISTIC CONFIGURABLE ASSIGNMENT (page 2-158)	DWR_PROD_SPEC_CHAR_CFG_ASGN
PRODUCT SPECIFICATION CHARACTERISTIC RELATIONSHIP (page 2-158)	DWR_PROD_SPEC_CHAR_RLTN
PRODUCT SPECIFICATION CHARACTERISTIC RESOURCE SPECIFICATION CHARACTERISTIC ASSIGNMENT (page 2-158)	DWR_PRDSPC_CHR_RSCESPC_CHR_AGN
PRODUCT SPECIFICATION CHARACTERISTIC USE (page 2-158)	DWR_PROD_SPEC_CHAR_USE

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
PRODUCT SPECIFICATION CHARACTERISTIC VAL RESOURCE CHARACTERISTIC VAL ASSIGNMENT (page 2-158)	DWR_PDSPC_CHRVL_RESPC_CHRVL_AN
PRODUCT SPECIFICATION CHARACTERISTIC VALUE (page 2-159)	DWR_PROD_SPEC_CHAR_VAL
PRODUCT SPECIFICATION CHARACTERISTIC VALUE RELATIONSHIP (page 2-159)	DWR_PROD_SPEC_CHAR_VAL_RLTN
PRODUCT SPECIFICATION CHARACTERISTIC VALUE USE (page 2-159)	DWR_PROD_SPEC_CHAR_VAL_USE
PRODUCT SPECIFICATION COST (page 2-159)	DWB_PROD_SPEC_COST
PRODUCT SPECIFICATION COVERAGE AREA TYPE (page 2-159)	DWL_PROD_SPEC_COVRG_AREA_TYP
PRODUCT SPECIFICATION COVERAGE GEO DETAIL (page 2-159)	DWR_PROD_COVRG_GEO_DTL
PRODUCT SPECIFICATION GROUP (page 2-159)	DWL_PROD_SPEC_GRP
PRODUCT SPECIFICATION GROUP ASSIGNMENT (page 2-159)	DWR_PROD_SPEC_GRP_ASGN
PRODUCT SPECIFICATION GROUP TYPE (page 2-159)	DWL_PROD_SPEC_GRP_TYP
PRODUCT SPECIFICATION HISTORY (page 2-160)	DWR_PROD_SPEC_HIST
PRODUCT SPECIFICATION MANAGEMENT HISTORY (page 2-160)	DWB_PROD_SPEC_MGMT_HIST
PRODUCT SPECIFICATION MANAGEMENT REASON (page 2-160)	DWL_PROD_SPEC_MGMT_RSN
PRODUCT SPECIFICATION MANAGEMENT ROLE (page 2-160)	DWL_PROD_SPEC_MGMT_RL
PRODUCT SPECIFICATION NETWORK ASSIGNMENT (page 2-160)	DWR_PROD_SPEC_NTWK_ASGN
PRODUCT SPECIFICATION RELATIONSHIP (page 2-160)	DWR_PROD_SPEC_RLTN
PRODUCT SPECIFICATION STATUS HISTORY (page 2-160)	DWB_PROD_SPEC_STAT_HIST
PRODUCT SPECIFICATION STATUS TYPE (page 2-160)	DWL_PROD_SPEC_STAT_TYP
PRODUCT SPECIFICATION TYPE (page 2-160)	DWL_PROD_SPEC_TYP
PRODUCT SPECIFICATION VERSION (page 2-161)	DWR_PROD_SPEC_VRSN
PRODUCT STATUS HISTORY (page 2-161)	DWB_PROD_STAT_HIST
PRODUCT STATUS TYPE (page 2-161)	DWL_PROD_STAT_TYP

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
PRODUCT SUBSCRIPTION (page 2-161)	DWR_PROD_SBRP
PRODUCT SUBSCRIPTION ASSIGNMENT (page 2-161)	DWR_PROD_SBRP_ASGN
PRODUCT SUBSCRIPTION ASSIGNMENT TYPE (page 2-161)	DWL_PROD_SBRP_ASGN_TYP
PRODUCT SUBSCRIPTION EVENT TYPE (page 2-161)	DWL_PROD_SBRP_EVT_TYP
PRODUCT SUBSCRIPTION PRICE (page 2-161)	DWR_PROD_SBRP_PRICE
PRODUCT SUBSCRIPTION PRICE RELATIONSHIP (page 2-161)	DWR_PROD_SBRP_PRICE_RLTN
PRODUCT SUBSCRIPTION PRODUCT OFFERING PRICE ASSIGNMENT (page 2-161)	DWR_PROD_SBRP_PRODOFRPRIE_ASGN
PRODUCT SUBSCRIPTION STATUS (page 2-161)	DWL_PROD_SBRP_STAT
PRODUCT SUBSCRIPTION STATUS CATEGORY (page 2-162)	DWL_PROD_SBRP_STAT_CTGRY
PRODUCT SUBSCRIPTION STATUS HISTORY (page 2-162)	DWB_PROD_SBRP_STAT_HIST
PRODUCT SUBSCRIPTION STATUS REASON (page 2-162)	DWL_PROD_SBRP_STAT_RSN
PRODUCT SUBSCRIPTION STATUS TYPE (page 2-162)	DWL_PROD_SBRP_STAT_TYP
PRODUCT SUBSCRIPTION TERM TYPE (page 2-162)	DWL_PROD_SBRP_TERM_TYP
PRODUCT SUBSCRIPTION TYPE (page 2-162)	DWL_PROD_SBRP_TYP
PRODUCT USERNAME (page 2-162)	DWR_PROD_USRNM
PROJECT (page 2-162)	DWR_PROJ
PROJECT ELEMENT (page 2-163)	DWR_PROJ_ELMNT
PROMOTION (page 2-163)	DWR_PRMTN
PROMOTION CLUSTER USAGE (page 2-163)	DWB_PRMTN_CLSTR_USG
PROMOTION CONTACT LIST UTILIZATION (page 2-163)	DWB_PRMTN_CNCT_LST_UTLZTN
PROMOTION COST (page 2-163)	DWB_PRMTN_COST
PROMOTION MANAGEMENT HISTORY (page 2-163)	DWB_PRMTN_MGMT_HIST
PROMOTION MESSAGE RENDERING (page 2-163)	DWR_PRMTN_MSG_RNDRNG
PROMOTION PRODUCT CATALOG ASSIGNMENT (page 2-163)	DWR_PRMTN_PROD_CTLG_ASGN

Table 5-2 (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
PROMOTION PRODUCT OFFERING ASSIGNMENT (page 2-163)	DWR_PRMTN_PROD_OFR_ASGN
PROMOTION RELATIONSHIP (page 2-163)	DWR_PRMTN_RLTN
PROMOTION RESULT TYPE (page 2-163)	DWL_PRMTN_RSLT_TYP
PROMOTION SALES CHANNEL ASSIGNMENT (page 2-163)	DWR_PRMTN_SL_CHNL_ASGN
PROMOTION TERM TYPE (page 2-164)	DWL_PRMTN_TERM_TYP
PROMOTION TERM VALUE (page 2-164)	DWB_PRMTN_TERM_VAL
PROMOTION TYPE (page 2-164)	DWL_PRMTN_TYP
PROPERTY (page 2-164)	DWR_PRPTY
PROPERTY ADDRESS LOCATION ASSIGNMENT (page 2-164)	DWR_PRPTY_ADDR_LOC_ASGN
PROPOSAL (page 2-164)	DWR_PROPOSAL
PROPOSAL RELATIONSHIP (page 2-164)	DWR_PROPOSAL_RLTN
PROSPECT (page 2-165)	DWR_PRSPCT
PROSPECT INDIVIDUAL (page 2-165)	DWR_PRSPCT_INDVL
PROSPECT ORGANIZATION (page 2-165)	DWR_PRSPCT_ORG
PROSPECT PRIORITY TYPE (page 2-165)	DWL_PRSPCT_PRIORITY_TYP
PROSPECT QUALITY SCORE TYPE (page 2-165)	DWL_PRSPCT_QLTY_SCR_TYP
PROSPECT QUALITY SCORE VALUE (page 2-165)	DWR_PRSPCT_QLTY_SCR_VAL
PROSPECT REJECT REASON (page 2-165)	DWL_PRSPCT_REJECT_RSN
PROSPECT RESTRICTED INFORMATION (page 2-165)	DWR_PRSPCT_RSTRCT_INFO
PROTOCOL (page 2-165)	DWR_PROTCL
PTV FULL CHANNEL ACTIVATION (page 2-165)	DWB_PTV_FULL_CHNL_ACTVTN
PTV QPI SERVICE EVENT (page 2-165)	DWB_PTV_QPI_SRVC_EVT
PTV USAGE EVENT (page 2-165)	DWB_PTV_USG_EVT
PUBLICATION (page 2-165)	DWR_PBLCTN
PUBLICATION TYPE (page 2-165)	DWL_PBLCTN_TYP
PURCHASE ORDER (page 2-166)	DWB_PCHSE_ORDR
PURCHASE ORDER LINE ITEM (page 2-166)	DWB_PCHSE_ORDR_LN_ITEM

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
PURCHASE ORDER LINE ITEM STATE (page 2-166)	DWB_PCHSE_ORDR_LN_ITEM_STATE
PURCHASE ORDER STATE (page 2-166)	DWB_PCHSE_ORDR_STATE
PURCHASE ORDER STATE TYPE (page 2-166)	DWL_PCHSE_ORDR_STATE_TYP
PV BIT STRING VALUE (page 2-166)	DWR_PV_BIT_STRING_VAL
PV BOOLEAN VALUE (page 2-166)	DWR_PV_BOLEN_VAL
PV INTEGER VALUE (page 2-166)	DWR_PV_INTEGER_VAL
PV IP ADDRESS VALUE (page 2-166)	DWR_PV_IP_ADDR_VAL
PV MAC ADDRESS VALUE (page 2-166)	DWR_PV_MAC_ADDR_VAL
PV STRING VALUE (page 2-166)	DWR_PV_STRING_VAL
PVAR 1QCOS VARIABLE (page 2-166)	DWR_PVAR_1QCOS_VARBLE
PVAR BIT STRING VARIABLE (page 2-166)	DWR_PVAR_BIT_STRING_VARBLE
PVAR DN VARIABLE (page 2-167)	DWR_PVAR_DN_VARBLE
PVAR DSCP VARIABLE (page 2-167)	DWR_PVAR_DSCP_VARBLE
PVAR ETHER TYPE VARIABLE (page 2-167)	DWR_PVAR_ETHER_TYP_VARBLE
PVAR IP PROTOCOL VARIABLE (page 2-167)	DWR_PVAR_IP_PROTCL_VARBLE
PVAR IPTOS VARIABLE (page 2-167)	DWR_PVAR_IPTOS_VARBLE
PVAR IPV4 VARIABLE (page 2-167)	DWR_PVAR_IPV4_VARBLE
PVAR IPV6 FLOW VARIABLE (page 2-167)	DWR_PVAR_IPV6_FLOW_ID_VARBLE
PVAR IPV6 VARIABLE (page 2-167)	DWR_PVAR_IPV6_VARBLE
PVAR IPVERSION VARIABLE (page 2-167)	DWR_PVAR_IPVRSN_VARBLE
PVAR MAC VARIABLE (page 2-167)	DWR_PVAR_MAC_VARBLE
PVAR PORT VARIABLE (page 2-167)	DWR_PVAR_PRT_VARBLE
PVAR STRING VARIABLE (page 2-167)	DWR_PVAR_STRING_VARBLE
PVAR VLAN VARIABLE (page 2-167)	DWR_PVAR_VLAN_VARBLE
QOS SERVICE (page 2-168)	DWR_QOS_SRVC
QOS SERVICE RELATIONSHIP (page 2-168)	DWR_QOS_SRVC_RLTN
QOS SERVICE SPECIFICATION TYPE (page 2-168)	DWL_QOS_SRVC_SPEC_TYP
QUARTER HOUR (page 2-168)	DWR_QTR_HR
QUARTER TO DATE TRANSFORMATION (page 2-168)	DWR_QTR_TODATE_TRANS

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
QUARTER TRANSFORMATION (page 2-168)	DWR_QTR_TRANS
QUEUE SERVICE (page 2-168)	DWR_QUE_SRVC
QUOTA USAGE BAND (page 2-168)	DWL_QTA_USG_BND
RACK (page 2-169)	DWR_RACK
RAT TYPE (page 2-169)	DWL_RAT_TYP
RATABLE UNIT MEASUREMENT (page 2-169)	DWL_RATABLE_UNIT_MEASUREMENT
RATED UDR EVENT (page 2-169)	DWB_RTD_UDR_EVT
RATING METHOD TYPE (page 2-169)	DWL_RTNG_MTHD_TYP
RAW MMS EVENT (page 2-169)	DWB_RAW_MMS_EVT
RAW WIRELESS CALL EVENT (page 2-169)	DWB_RAW_WRLS_CALL_EVT
REASON (page 2-169)	DWL_RSN
REASON CATEGORY (page 2-169)	DWL_RSN_CTGRY
RECHARGE REVENUE SLAB (page 2-170)	DWL_RECHRG_RVN_SLB
RED DROPPER SERVICE (page 2-170)	DWR_RED_DRPPR_SRVC
RED SERVICE ELEMENT (page 2-170)	DWR_RED_SRVC_ELMNT
REDEMPTION EVENT (page 2-170)	DWB_REDEM_EVT
REDEMPTION MO AGGR (page 2-170)	DWA_RDMPTN_MO
REDEMPTION TYPE (page 2-170)	DWL_RDMPTN_TYP
REFERRING CATEGORY (page 2-170)	DWR_REFERRING_CTGRY
REFERRING CATEGORY LEVEL (page 2-170)	DWR_REFERRING_CTGRY_LVL
REFERRING SITE (page 2-170)	DWR_REFERRING_SITE
REFERRING URL (page 2-170)	DWR_REFERRING_URL
RELATION TYPE (page 2-170)	DWL_RLTN_TYP
RELIGION (page 2-170)	DWL_RELGN
RELIGIOUS AFFILIATION (page 2-170)	DWL_RELIGIOUS_AFFLTN
REPLACEMENT SET (page 2-171)	DWR_RPLCMT_SET
RESOURCE (page 2-171)	DWR_RSCE
RESOURCE ALARM (page 2-171)	DWB_RSCE_ALRM
RESOURCE ALARM COMMENT (page 2-171)	DWB_RSCE_ALRM_CMNT

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
RESOURCE ALARM RELATIONSHIP (page 2-171)	DWB_RSCE_ALRM_RLTN
RESOURCE ALARM RESOURCE ASSIGNMENT (page 2-171)	DWB_RSCE_ALRM_RSCE_ASGN
RESOURCE ALARM TRACKING RECORD ASSIGNMENT (page 2-171)	DWB_RSCE_ALRM_TRKNG_REC_ASGN
RESOURCE BUSINESS INTERACTION ROLE (page 2-171)	DWB_RSCE_BSNS_INTRACN_RL
RESOURCE CANDIDATE (page 2-171)	DWR_RSCE_CANDIDATE
RESOURCE CATALOG (page 2-171)	DWR_RSCE_CTLG
RESOURCE CATALOG CANDIDATE ASSIGNMENT (page 2-171)	DWR_RSCE_CTLG_CANDIDATE_ASGN
RESOURCE CATALOG SPECIFICATION (page 2-171)	DWR_RSCE_CTLG_SPEC
RESOURCE CHARACTERISTIC (page 2-172)	DWR_RSCE_CHAR
RESOURCE CHARACTERISTIC ASSIGNMENT (page 2-172)	DWR_RSCE_CHAR_ASGN
RESOURCE CHARACTERISTIC RELATIONSHIP (page 2-172)	DWR_RSCE_CHAR_RLTN
RESOURCE CHARACTERISTIC VALUE (page 2-172)	DWR_RSCE_CHAR_VAL
RESOURCE CHARACTERISTIC VALUE ASSIGNMENT (page 2-172)	DWR_RSCE_CHAR_VAL_ASGN
RESOURCE CHARACTERISTIC VALUE RELATIONSHIP (page 2-172)	DWR_RSCE_CHAR_VAL_RLTN
RESOURCE COST (page 2-172)	DWB_RSCE_COST
RESOURCE CROSS REFERENCE (page 2-172)	DWR_RSCE_XREF
RESOURCE FACING SERVICE (page 2-173)	DWR_RSCE_FCNG_SRVC
RESOURCE FACING SERVICE ROLE (page 2-173)	DWR_RSCE_FCNG_SRVC_RL
RESOURCE FACING SERVICE SPECIFICATION (page 2-173)	DWR_RSCE_FCNG_SRVC_SPEC
RESOURCE FACING SERVICE SPECIFICATION ATOMIC (page 2-173)	DWR_RSCE_FCNG_SRVC_SPEC_ATMC
RESOURCE FACING SERVICE SPECIFICATION COMPOSITE (page 2-174)	DWR_RSCE_FCNG_SRVC_SPEC_CMPST
RESOURCE FACING SERVICE SPECIFICATION ROLE (page 2-174)	DWR_RSCE_FCNG_SRVC_SPEC_RL
RESOURCE FACING SERVICE SPECIFICATION VERSION (page 2-174)	DWR_RSCE_FCNG_SRVC_SPEC_VRSN

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
RESOURCE FAULT ASSIGNMENT (page 2-174)	DWB_RSCE_FLT_ASGN
RESOURCE HISTORY (page 2-174)	DWB_RSCE_HIST
RESOURCE INVOLVEMENT ROLE (page 2-174)	DWR_RSCE_INVLMNT_RL
RESOURCE MANAGEMENT POLICY (page 2-174)	DWR_RSCE_MGMT_PLCY
RESOURCE NOTE (page 2-174)	DWR_RSCE_NOTE
RESOURCE ORDER (page 2-175)	DWB_RSCE_ORDR
RESOURCE ORDER LINE ITEM (page 2-175)	DWB_RSCE_ORDR_LN_ITEM
RESOURCE PARTY ASSOCIATION (page 2-175)	DWR_RSCE_PRTY_ASSOCTN
RESOURCE PARTY MANAGEMENT (page 2-175)	DWR_RSCE_PRTY_MGMT
RESOURCE PARTY POLICY MANAGEMENT ASSIGNMENT (page 2-175)	DWR_RSCE_PRTY_PLCY_MGMT_ASGN
RESOURCE PERFORMANCE (page 2-175)	DWB_RSCE_PRFMNC
RESOURCE PERFORMANCE SPEC (page 2-175)	DWR_RSCE_PRFMNC_SPEC
RESOURCE PORT (page 2-175)	DWR_RSCE_PRT
RESOURCE RELATIONSHIP (page 2-175)	DWR_RSCE_RLTN
RESOURCE RELATIONSHIP TYPE (page 2-175)	DWL_RSCE_RLTN_TYP
RESOURCE ROLE (page 2-175)	DWR_RSCE_RL
RESOURCE ROLE ASSIGNMENT (page 2-175)	DWR_RSCE_RL_ASGN
RESOURCE ROLE PARTY ASSIGNMENT (page 2-175)	DWR_RSCE_RL_PRTY_ASGN
RESOURCE ROLE PARTY ROLE ASSIGNMENT (page 2-176)	DWR_RSCE_RL_PRTY_RL_ASGN
RESOURCE ROLE PARTY ROLE DETAILS (page 2-176)	DWR_RSCE_RL_PRTY_RL_DTLS
RESOURCE ROLE SPECIFICATION (page 2-176)	DWR_RSCE_RL_SPEC
RESOURCE SPECIFICATION (page 2-176)	DWR_RSCE_SPEC
RESOURCE SPECIFICATION CATEGORY (page 2-176)	DWL_RSCE_SPEC_CTGRY
RESOURCE SPECIFICATION CHARACTERISTIC (page 2-176)	DWR_RSCE_SPEC_CHAR
RESOURCE SPECIFICATION CHARACTERISTIC ASSIGNMENT (page 2-176)	DWR_RSCE_SPEC_CHAR_ASGN
RESOURCE SPECIFICATION CHARACTERISTIC RELATIONSHIP (page 2-176)	DWR_RSCE_SPEC_CHAR_RLTN

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
RESOURCE SPECIFICATION CHARACTERISTIC VALUE (page 2-176)	DWR_RSCE_SPEC_CHAR_VAL
RESOURCE SPECIFICATION CHARACTERISTIC VALUE ASSIGNMENT (page 2-176)	DWR_RSCE_SPEC_CHAR_VAL_ASGN
RESOURCE SPECIFICATION CHARACTERISTIC VALUE RELATIONSHIP (page 2-177)	DWR_RSCE_SPEC_CHAR_VAL_RLTN
RESOURCE SPECIFICATION PERF ROLE (page 2-177)	DWR_RSCE_SPEC_PERF_RL
RESOURCE SPECIFICATION TYPE (page 2-177)	DWL_RSCE_SPEC_TYP
RESOURCE SPECIFICATION VERSION (page 2-177)	DWR_RSCE_SPEC_VRSN
RESOURCE SPECIFICATION VERSION USAGE (page 2-177)	DWR_RSCE_SPEC_VRSN_USG
RESOURCE STATE (page 2-177)	DWL_RSCE_STATE
RESOURCE STATE HISTORY (page 2-177)	DWB_RSCE_STATE_HIST
RESOURCE STATE REASON (page 2-177)	DWL_RSCE_STATE_RSN
RESOURCE STATE TYPE (page 2-177)	DWL_RSCE_STATE_TYP
RESOURCE USAGE EVENT TYPE (page 2-177)	DWL_RSCE_USG_EVT_TYP
RETAIL SALES RETURN ITEM DAY DRVD (page 2-177)	DWD_RTL_SL_RETRN_ITEM_DAY
RETAIL SALES RETURN LINE ITEM (page 2-177)	DWB_RTL_SL_RTRN_LI
RETAIL STORE (page 2-178)	DWR_RTL_STORE
RETAIL TENDER LINE ITEM (page 2-178)	DWB_RTL_TNDR_LI
RETAIL TERMINAL STATUS (page 2-178)	DWL_RTL_TRML_STAT
RETAIL TOUCHPOINT (page 2-178)	DWR_RTL_TCHPNT
RETAIL TRANSACTION (page 2-178)	DWB_RTL_TRX
RETAIL TRANSACTION LINE ITEM (page 2-178)	DWB_RTL_TRX_LN_ITEM
RETAIL TRANSACTION LINE ITEM TYPE (page 2-178)	DWL_RTL_TRX_LI_TYP
RETAIL TYPE (page 2-178)	DWL_RTL_TYP
REVENUE DAY DRVD (page 2-178)	DWD_RVN_DAY
REVENUE MONTH AGGR (page 2-179)	DWA_RVN_MO
RF CARRIER (page 2-179)	DWR_RF_CARRIER
RF NETWORK CAPACITY DAY DRVD (page 2-179)	DWD_RF_NTWK_CPCTY_DAY
RF NETWORK CAPACITY MONTH AGGR (page 2-179)	DWA_RF_NTWK_CPCTY_MO

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
RFMP METHOD (page 2-179)	DWL_RFMP_MTHD
RFS SPECIFICATION VERSION DETAIL (page 2-179)	DWR_RFS_SPEC_VRSN_DTL
RINGTONE (page 2-179)	DWR_RNGTN
ROAMING TYPE (page 2-179)	DWL_RMNG_TYP
ROLE (page 2-179)	DWR_RL
ROLES HIERARCHY (page 2-179)	DWR_RLS_HRCHY
ROOT ENTITY (page 2-179)	DWR_ROOT_ENT
ROOT ENTITY TYPE (page 2-179)	DWL_ROOT_ENT_TYP
ROUND ROBIN SCHEDULING SERVICE (page 2-179)	DWR_RND_RBIN_SCHDLNG_SRVC
ROUTED PROTOCOL (page 2-180)	DWR_ROUTED_PROTCL
ROUTER (page 2-180)	DWR_ROUTER
ROUTING DEVICE (page 2-180)	DWR_RUTNG_DVC
ROUTING PROTOCOL (page 2-180)	DWR_RUTNG_PROTCL
ROUTING ROLE (page 2-180)	DWR_RUTNG_RL
SALE OR RETURN ACTION (page 2-180)	DWL_SL_OR_RETRN_ACTN
SALES CAMPAIGN SUMMARY MONTH AGGR (page 2-180)	DWA_SL_CMPGN_SUMM_MO
SALES CHANNEL (page 2-181)	DWR_SL_CHNL
SALES CHANNEL COMMISSION PLAN ASSIGNMENT (page 2-181)	DWB_SL_CHNL_CMISN_PLN_ASGN
SALES CHANNEL REPRESENTATIVE (page 2-181)	DWR_SL_CHNL_RPRSTV
SALES COMMISSION DETAIL (page 2-181)	DWB_SL_CMISN_DTL
SALES COMMISSION PAYROLL (page 2-181)	DWB_SL_CMISN_PYRL
SALES COMMISSION PLAN (page 2-181)	DWR_SL_CMISN_PLN
SALES COMMISSION PLAN DETAIL (page 2-181)	DWR_SL_CMISN_PLN_DTL
SALES REPRESENTATIVE STATISTICS DRVD (page 2-181)	DWD_SL_RPRSTV_STTSTC
SCHEDULING SERVICE (page 2-181)	DWR_SCHDLNG_SRVC
SCHEDULING SERVICE ATOMIC (page 2-182)	DWR_SCHDLNG_SRVC_ATMC
SCHEDULING SERVICE COMPOSITE (page 2-182)	DWR_SCHDLNG_SRVC_CMPST

Table 5-2 (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
SCRIPT (page 2-182)	DWR_SCRPT
SCRIPT QUESTION (page 2-182)	DWR_SCRPT_QUES
SCRIPT QUESTION TYPE (page 2-182)	DWL_SCRPT_QUES_TYP
SEARCH (page 2-182)	DWR_SEARCH
SEASON (page 2-182)	DWL_SEASON
SECOND (page 2-182)	DWR_SCND
SECURE HOLDER (page 2-182)	DWR_SECURE_HLDR
SECURITY REQUIRED TYPE (page 2-182)	DWL_SCRTY_REQD_TYP
SEGMENT CRITERIA (page 2-183)	DWR_SGMNT_CRTRA
SEGMENT TYPE (page 2-183)	DWL_SGMNT_TYP
SELLING LOCATION (page 2-183)	DWR_SLNG_LOC
SELLING LOCATION TYPE (page 2-183)	DWL_SLNG_LOC_TYP
SERVER (page 2-183)	DWR_SERVER
SERVER FARM (page 2-183)	DWR_SERVER_FARM
SERVER STATUS (page 2-183)	DWL_SERVER_STAT
SERVICE (page 2-183)	DWR_SRVC
SERVICE ADDRESS LOCATION ASSIGNMENT (page 2-183)	DWR_SRVC_ADDR_LOC_ASGN
SERVICE BUNDLE (page 2-184)	DWR_SRVC_BNDL
SERVICE BUNDLE SPECIFICATION (page 2-184)	DWR_SRVC_BNDL_SPEC
SERVICE BUNDLE SPECIFICATION ATOMIC (page 2-185)	DWR_SRVC_BNDL_SPEC_ATMC
SERVICE BUNDLE SPECIFICATION COMPOSITE (page 2-185)	DWR_SRVC_BNDL_SPEC_CMPST
SERVICE BUSINESS ACTOR (page 2-186)	DWR_SRVC_BSNS_ACTOR
SERVICE CATEGORY (page 2-186)	DWL_SRVC_CTGRY
SERVICE CHARACTERISTIC VALUE (page 2-186)	DWR_SRVC_CHAR_VAL
SERVICE CHARACTERISTIC VALUE PRODUCT CHARACTERISTIC VALUE ASSIGNMENT (page 2-186)	DWR_SRVC_CHRVL_PROD_CHRVL_ASGN
SERVICE CHARACTERISTIC VALUE RELATIONSHIP (page 2-186)	DWR_SRVC_CHAR_VAL_RLTN

Table 5-2 (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
SERVICE CLASS (page 2-186)	DWL_SRVC_CLASS
SERVICE CLASS TYPE (page 2-186)	DWL_SRVC_CLASS_TYP
SERVICE COVERAGE AREA (page 2-186)	DWR_SRVC_COVRG_AREA
SERVICE COVERAGE AREA TYPE (page 2-186)	DWL_SRVC_COVRG_AREA_TYP
SERVICE COVERAGE GEO DETAIL (page 2-187)	DWR_SRVC_COVRG_GEO_DTL
SERVICE DEPENDENCY (page 2-187)	DWR_SRVC_DPNDCY
SERVICE DEVICE INTERFACE ASSIGNMENT (page 2-187)	DWR_SRVC_DVC_INTRFC_ASGN
SERVICE EQUIPMENT ASSIGNMENT (page 2-187)	DWR_SRVC_EQPMNT_ASGN
SERVICE LEVEL AGREEMENT (page 2-187)	DWR_SRVC_LVL_AGRMNT
SERVICE LEVEL AGREEMENT ITEM (page 2-187)	DWR_SRVC_LVL_AGRMNT_ITEM
SERVICE LEVEL AGREEMENT RELATIONSHIP (page 2-187)	DWR_SRVC_LVL_AGRMNT_RLTN
SERVICE LEVEL AGREEMENT TYPE (page 2-187)	DWL_SRVC_LVL_AGRMNT_TYP
SERVICE LEVEL AGREEMENT VIOLATION (page 2-187)	DWB_SRVC_LVL_AGRMNT_VILTN
SERVICE LEVEL OBJECTIVE (page 2-187)	DWR_SRVC_LVL_OBJCTV
SERVICE LEVEL SPECIFICATION (page 2-187)	DWL_SRVC_LVL_SPEC
SERVICE LEVEL SPECIFICATION APPLICABILITY (page 2-187)	DWR_SRVC_LVL_SPEC_APLCBLTY
SERVICE LEVEL SPECIFICATION CONSEQUENCE (page 2-188)	DWR_SRVC_LVL_SPEC_CNSEQ
SERVICE LEVEL SPECIFICATION PARAMETER (page 2-188)	DWR_SRVC_LVL_SPEC_PRMTR
SERVICE LEVEL UNMET CONSEQUENCE TYPE (page 2-188)	DWL_SRVC_LVL_UNMET_CNSEQ_TYP
SERVICE LR DEPENDENCY (page 2-188)	DWR_SRVC_LR_DPNDCY
SERVICE MANAGEMENT POLICY (page 2-188)	DWR_SRVC_MGMT_PLCY
SERVICE ORDER (page 2-188)	DWB_SRVC_ORDR
SERVICE ORDER LINE ITEM (page 2-188)	DWB_SRVC_ORDR_LN_ITEM
SERVICE PACKAGE (page 2-188)	DWR_SRVC_PKG
SERVICE PACKAGE BUNDLE DETAIL (page 2-188)	DWR_SRVC_PKG_BNDL_DTL
SERVICE PACKAGE SPECIFICATION (page 2-189)	DWR_SRVC_PKG_SPEC

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
SERVICE PACKAGE SPECIFICATION ATOMIC (page 2-189)	DWR_SRVC_PKG_SPEC_ATMC
SERVICE PACKAGE SPECIFICATION COMPOSITE (page 2-189)	DWR_SRVC_PKG_SPEC_CMPST
SERVICE PARTY MANAGEMENT HISTORY (page 2-189)	DWR_SRVC_PRTY_MGMT_HIST
SERVICE PARTY POLICY MANAGEMENT ASSIGNMENT (page 2-189)	DWR_SRVC_PRTY_PLCY_MGMT_ASGN
SERVICE PERFORMANCE (page 2-189)	DWB_SRVC_PRFMNC
SERVICE PERFORMANCE SPEC (page 2-189)	DWR_SRVC_PRFMNC_SPEC
SERVICE PR DEPENDENCY (page 2-190)	DWR_SRVC_PR_DPNDCY
SERVICE PROBLEM (page 2-190)	DWB_SRVC_PRBLM
SERVICE PROBLEM CHARACTERISTIC (page 2-190)	DWR_SRVC_PRBLM_CHAR
SERVICE PROBLEM CHARACTERISTIC TYPE (page 2-190)	DWL_SRVC_PRBLM_CHAR_TYP
SERVICE PROBLEM CHARACTERISTIC VALUE (page 2-190)	DWR_SRVC_PRBLM_CHAR_VAL
SERVICE PROBLEM DAY DRVD (page 2-190)	DWD_SRVC_PRBLM_DAY
SERVICE PROBLEM RESOURCE ALARM ASSIGNMENT (page 2-190)	DWB_SRVC_PRBLM_RSCE_ALRM_ASGN
SERVICE PROBLEM SERVICE ASSIGNMENT (page 2-190)	DWB_SRVC_PRBLM_SRVC_ASGN
SERVICE PROBLEM SUBSCRIPTION ASSIGNMENT (page 2-190)	DWB_SRVC_PRBLM_SBRP_ASGN
SERVICE REQUEST (page 2-190)	DWB_SRVC_RQST
SERVICE REQUEST LINE ITEM (page 2-190)	DWB_SRVC_RQST_LN_ITEM
SERVICE RESOURCE ASSIGNMENT (page 2-190)	DWR_SRVC_RSCE_ASGN
SERVICE ROLE (page 2-191)	DWR_SRVC_RL
SERVICE SPECIFICATION (page 2-191)	DWR_SRVC_SPEC
SERVICE SPECIFICATION ATOMIC (page 2-191)	DWR_SRVC_SPEC_ATMC
SERVICE SPECIFICATION CHAR RESOURCE SPECIFICATION CHARACTERISTIC ASSIGNMENT (page 2-193)	DWR_SRVSPC_CHR_RSCESPC_CHR_AGN
SERVICE SPECIFICATION CHARACTERISTIC (page 2-191)	DWR_SRVC_SPEC_CHAR

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
SERVICE SPECIFICATION CHARACTERISTIC RELATIONSHIP (page 2-191)	DWR_SRVC_SPEC_CHAR_RLTN
SERVICE SPECIFICATION CHARACTERISTIC USE (page 2-192)	DWR_SRVC_SPEC_CHAR_USE
SERVICE SPECIFICATION CHARACTERISTIC VAL RESOURCE SPECIFICATION CHARACTERISTIC VAL ASSIGNMENT (page 2-192)	DWR_SRSPC_CHRVL_RESPC_CHRVL_AN
SERVICE SPECIFICATION CHARACTERISTIC VALUE (page 2-192)	DWR_SRVC_SPEC_CHAR_VAL
SERVICE SPECIFICATION CHARACTERISTIC VALUE ASSIGNMENT (page 2-192)	DWR_SRVC_SPEC_CHAR_VAL_ASGN
SERVICE SPECIFICATION CHARACTERISTIC VALUE RELATIONSHIP (page 2-192)	DWR_SRVC_SPEC_CHAR_VAL_RLTN
SERVICE SPECIFICATION CHARACTERISTIC VALUE USE (page 2-192)	DWR_SRVC_SPEC_CHAR_VAL_USE
SERVICE SPECIFICATION COMPOSITE (page 2-193)	DWR_SRVC_SPEC_CMPST
SERVICE SPECIFICATION PRODUCT SPECIFICATION RELATIONSHIP (page 2-193)	DWR_SRVC_SPEC_PROD_SPEC_RLTN
SERVICE SPECIFICATION RELATIONSHIP (page 2-193)	DWR_SRVC_SPEC_RLTN
SERVICE SPECIFICATION RESOURCE SPECIFICATION RELATIONSHIP (page 2-193)	DWR_SRVC_SPEC_RSCE_SPEC_RLTN
SERVICE SPECIFICATION ROLE (page 2-193)	DWR_SRVC_SPEC_RL
SERVICE SPECIFICATION TYPE (page 2-193)	DWL_SRVC_SPEC_TYP
SERVICE SPECIFICATION VERSION (page 2-194)	DWR_SRVC_SPEC_VRSN
SERVICE STATUS (page 2-194)	DWL_SRVC_STAT
SERVICE STATUS CATEGORY (page 2-194)	DWL_SRVC_STAT_CTGRY
SERVICE STATUS HISTORY (page 2-194)	DWB_SRVC_STAT_HIST
SERVICE STATUS REASON (page 2-194)	DWL_SRVC_STAT_RSN
SERVICE TYPE (page 2-194)	DWL_SRVC_TYP
SERVICE USAGE TYPE (page 2-194)	DWL_SRVC_USG_TYP
SERVICE UTILIZATION DETAIL (page 2-194)	DWR_SRVC_UTLZTN_DTL
SESSION (page 2-194)	DWB_SESSION
SESSION TYPE (page 2-194)	DWL_SESSION_TYP
SET TOP BOX (page 2-194)	DWR_SET_TOP_BOX

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
SET TOP BOX MODEL (page 2-194)	DWR_SET_TOP_BOX_MDL
SHAPER SERVICE (page 2-195)	DWR_SHPR_SRVC
SHELF (page 2-195)	DWR_SHELF
SIC ASSIGNMENT (page 2-195)	DWR_SIC_ASGN
SIC ASSIGNMENT REASON (page 2-195)	DWL_SIC_ASGN_RSN
SIC CLASSIFICATION (page 2-196)	DWL_SIC_CLSFCTN
SIC DIVISION (page 2-196)	DWR_SIC_DIV
SIC INDUSTRY GROUP (page 2-196)	DWL_SIC_INDSTRY_GRP
SIGNALING PROTOCOL (page 2-196)	DWR_SGNLNG_PROTCL
SIM CARD (page 2-196)	DWR_SIM_CARD
SIM CARD ACCESS METHOD ASSIGNMENT (page 2-196)	DWR_SIM_CARD_ACCS_MTHD_ASGN
SIM CARD ACCESS METHOD REASON (page 2-196)	DWL_SIM_CARD_ACCS_MTHD_RSN
SIM CARD ACTIVATION REASON (page 2-196)	DWL_SIM_CARD_ACTVTN_RSN
SIM CARD ACTIVATION TYPE (page 2-196)	DWL_SIM_CARD_ACTVTN_TYP
SIM CARD HANDSET ASSIGNMENT (page 2-196)	DWR_SIM_CARD_HNDST_ASGN
SIM CARD PRODUCT SUBSCRIPTION ASSIGNMENT (page 2-196)	DWR_SIM_CARD_PROD_SBRP_ASGN
SIM CARD PRODUCT SUBSCRIPTION REASON (page 2-196)	DWL_SIM_CARD_PROD_SBRP_RSN
SIM CARD TYPE (page 2-197)	DWL_SIM_CARD_TYP
SITE (page 2-197)	DWR_SITE
SITE INTERFACE ROLE (page 2-197)	DWR_SITE_INTRFC_RL
SITE ROLE (page 2-197)	DWR_SITE_RL
SITE TYPE (page 2-197)	DWL_SITE_TYP
SITE TYPE CATEGORY (page 2-197)	DWL_SITE_TYP_CTGRY
SKILL TYPE (page 2-197)	DWL_SKILL_TYP
SKU ITEM (page 2-197)	DWR_SKU_ITEM
SKU TYPE (page 2-198)	DWL_SKU_TYP
SLOT (page 2-198)	DWR_SLT

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
SLOT RELATIONSHIP (page 2-198)	DWR_SLT_RLTN
SMS EVENT (page 2-198)	DWB_SMS_EVT
SMS RATING PLAN (page 2-198)	DWR_SMS_RTNG_PLN
SMS SERVICE (page 2-198)	DWR_SMS_SRVC
SOC JOB (page 2-199)	DWR_SOC_JB
SOC JOB CATEGORY (page 2-199)	DWR_SOC_JB_CTGRY
SOC JOB GROUP (page 2-199)	DWR_SOC_JB_GRP
SOC JOB MAJOR GROUP (page 2-199)	DWR_SOC_JB_MJR_GRP
SOFTWARE (page 2-200)	DWR_SOFTWARE
SOFTWARE ATOMIC (page 2-200)	DWR_SOFTWARE_ATMC
SOFTWARE COMMAND (page 2-200)	DWR_SOFTWARE_CMND
SOFTWARE COMPOSITE (page 2-201)	DWR_SOFTWARE_CMPST
SOFTWARE FEATURE SETS (page 2-201)	DWR_SOFTWARE_FTR_SETS
SOFTWARE OS RELATIONSHIP (page 2-201)	DWR_SOFTWARE_OS_RLTN
SOURCE DESTINATION TYPE (page 2-201)	DWL_SRC_DSTN_TYP
SOURCE SYSTEM (page 2-201)	DWR_SRC_SYS
SOURCE SYSTEM KEY MAPPING (page 2-201)	DWR_SRC_SYS_KEY_MAPPING
SOURCE SYSTEM TYPE (page 2-202)	DWL_SRC_SYS_TYP
SPECIFICATION (page 2-202)	DWR_SPEC
SPECIFICATION ROLE (page 2-202)	DWR_SPEC_RL
SPECTRUM COVERAGE AREA (page 2-202)	DWR_SPTRUM_COVRG_AREA
SPNM (page 2-202)	DWL_SPNM
SPNM OTHER PARTY NUMBER (page 2-202)	DWR_SPNM_OTHR_PRTY_NBR
STANDARD MARKER SERVICE (page 2-202)	DWR_STNDRD_MRKR_SRVC
STATISTICAL ENTITY (page 2-202)	DWR_STTSTCL_ENT
STORE EFFICIENCY DAY DRVD (page 2-202)	DWD_STORE_EFFNCY_DAY
STORE EFFICIENCY MONTH AGGR (page 2-202)	DWA_STORE_EFFNCY_MO
STREET NAME (page 2-202)	DWR_STRT_NAME
STREET SEGMENT (page 2-202)	DWR_STRT_SGMNT

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
STREET SEGMENT ADDRESS ASSIGNMENT (page 2-202)	DWR_STRT_SGMNT_ADDR_ASGN
STRICT SCHEDULING SERVICE (page 2-202)	DWR_STRCT_SCHDLNG_SRVC
SUB NETWORK (page 2-203)	DWR_SB_NTWK
SUBSCRIBER ACTIVATION REASON (page 2-203)	DWL_SBSCRP_ACTVTN_RSN
SUBSCRIPTION RESOURCE ROLE ASSIGNMENT (page 2-203)	DWR_SBRP_RSCE_RL_ASGN
SUBSCRIPTION SERVICE ASSIGNMENT (page 2-203)	DWR_SBRP_SRVC_ASGN
SUBSCRIPTION SERVICE CLASS ASSIGNMENT (page 2-203)	DWR_SBRP_SRVC_CLASS_ASGN
SUBSCRIPTION STATISTIC MONTH AGGR (page 2-203)	DWA_SBSCBR_STTSTC_MO
SUBSCRIPTION TERM VALUE (page 2-203)	DWB_SBRP_TERM_VAL
SUBSIDY TYPE (page 2-203)	DWL_SUBSDY_TYP
SUPPLEMENTARY SERVICE (page 2-203)	DWR_SPLMNTR_SRVC
SUPPLEMENTARY SERVICE USAGE DRVD (page 2-204)	DWD_SPLMNTR_SRVC_USG
SURVEY (page 2-204)	DWR_SURVEY
SWITCH (page 2-204)	DWR_SWTCH
SWITCH CAPABILITY (page 2-204)	DWR_SWTCH_CAPBLTY
SWITCH CAPABILITY TYPE (page 2-204)	DWL_SWTCH_CAPBLTY_TYP
SWITCH COMMAND (page 2-204)	DWR_SWTCH_CMMND
SWITCH ROUTING DEVICE ASSIGNMENT (page 2-204)	DWR_SWTCH_RUTNG_DVC_ASGN
SWITCH TYPE (page 2-204)	DWL_SWTCH_TYP
SWITCHING PROTOCOL (page 2-204)	DWR_SWTCHNG_PROTCL
SWITCHING ROLE (page 2-204)	DWR_SWTCHNG_RL
SWOT TYPE (page 2-205)	DWL_SWOT_TYP
SYMBOLOGY (page 2-205)	DWR_SYMBLGY
TAP IN WIRELESS ROAMING EVENT (page 2-205)	DWB_TAP_IN_WRLS_RMNG_EVT
TAP OUT WIRELESS ROAMING EVENT (page 2-205)	DWB_TAP_OUT_WRLS_RMNG_EVT
TARGET ACCESS METHOD (page 2-205)	DWR_TRGT_ACCS_MTHD
TARGET ACCOUNT (page 2-205)	DWR_TRGT_ACCT
TARGET AGREEMENT (page 2-205)	DWR_TRGT_AGRMNT

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
TARGET GEOGRAPHY AREA (page 2-205)	DWR_TRGT_GEO_AREA
TARGET MARKET SEGMENT (page 2-205)	DWR_TRGT_MKT_SGMNT
TARGET TYPE (page 2-205)	DWL_TRGT_TYP
TASK (page 2-205)	DWR_TASK
TAX AUTHORITY (page 2-205)	DWR_TAX_AUTH
TAX CATEGORY (page 2-205)	DWL_TAX_CTGRY
TAX EXEMPT (page 2-205)	DWR_TAX_EXMPT
TCH TYPE (page 2-206)	DWL_TCH_TYP
TECHNOLOGY (page 2-206)	DWL_TECH
TECHNOLOGY TYPE (page 2-206)	DWL_TECH_TYP
TEMPLATE SERVICE LEVEL SPEC (page 2-206)	DWR_TEMPLATE_SRVC_LVL_SPEC
TENDER (page 2-206)	DWR_TNDR
TENDER CLASS (page 2-206)	DWL_TNDR_CLASS
TENDER CONTROL TRANSACTION (page 2-206)	DWB_TNDR_CNTRL_TRX
TERMINATION POINT (page 2-206)	DWR_TMNT_PNT
TIER CARD TYPE (page 2-206)	DWL_TIER_CARD_TYP
TIME SLOT (page 2-206)	DWR_TIME_SLT
TIME STANDARD BY DAY (page 2-206)	DWR_TIME_STNDRD_BY_DAY
TIME STANDARD BY WEEK (page 2-206)	DWR_TIME_STNDRD_BY_WK
TIME TOTAL (page 2-207)	DWR_TIME_TOT
TIME ZONE (page 2-207)	DWL_TIME_ZN
TOKEN BUCKET (page 2-207)	DWR_TOKN_BCKT
TOS SERVICE (page 2-207)	DWR_TOS_SRVC
TRACKING RECORD (page 2-207)	DWB_TRKNG_REC
TRAFFIC CONDITIONING SERVICE (page 2-207)	DWR_TRFC_CNDITNNG_SRVC
TRAFFIC IDENTIFICATION SERVICE (page 2-207)	DWR_TRFC_ID_SRVC
TRAFFIC MATCH CRITERIA (page 2-207)	DWR_TRFC_MTCH_CRTRA
TRAIL (page 2-208)	DWR_TRAIL
TRAIL TERMINATION POINT (page 2-208)	DWR_TRAIL_TMNT_PNT

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
TRANSACTION CATEGORY (page 2-208)	DWL_TRX_CTGRY
TRANSACTION TYPE (page 2-208)	DWL_TRX_TYP
TRANSFER TYPE (page 2-208)	DWL_TRNSFR_TYP
TROUBLE TICKET (page 2-208)	DWB_TRBLE_TCKT
TROUBLE TICKET FIELD SUPPORT ASSIGNMENT (page 2-208)	DWB_TRBLE_TCKT_FLD_SPPRT_ASGN
TROUBLE TICKET ITEM (page 2-208)	DWB_TRBLE_TCKT_ITEM
TRUNK GROUP (page 2-208)	DWL_TRNK_GRP
TV CHANNEL (page 2-208)	DWR_TV_CHNL
UDR EVENT (page 2-208)	DWB_UDR_EVT
UDR EVENT ASSIGNMENT (page 2-208)	DWB_UDR_EVT_ASGN
UDR EVENT CHARACTERISTIC (page 2-208)	DWR_UDR_EVT_CHAR
UDR EVENT CHARACTERISTIC TYPE (page 2-209)	DWL_UDR_EVT_CHAR_TYP
UDR EVENT CHARACTERISTIC VALUE (page 2-209)	DWR_UDR_EVT_CHAR_VAL
UDR EVENT SPECIFICATION (page 2-209)	DWR_UDR_EVT_SPEC
UDR EVENT SPECIFICATION CHARACTERISTIC (page 2-209)	DWR_UDR_EVT_SPEC_CHAR
UDR EVENT SPECIFICATION CHARACTERISTIC RELATIONSHIP (page 2-209)	DWR_UDR_EVT_CHAR_RLTN
UDR EVENT SPECIFICATION CHARACTERISTIC RELATIONSHIP (page 2-209)	DWR_UDR_EVT_SPEC_CHAR_RLTN
UDR EVENT SPECIFICATION CHARACTERISTIC USE (page 2-209)	DWR_UDR_EVT_SPEC_CHAR_USE
UDR EVENT SPECIFICATION CHARACTERISTIC VALUE (page 2-209)	DWR_UDR_EVT_SPEC_CHAR_VAL
UDR EVENT SPECIFICATION CHARACTERISTIC VALUE RELATIONSHIP (page 2-209)	DWR_UDR_EVT_SPEC_CHAR_VAL_RLTN
UDR EVENT SPECIFICATION CHARACTERISTIC VALUE USE (page 2-209)	DWR_UDR_EVT_SPEC_CHAR_VAL_USE
UDR EVENT SPECIFICATION RELATIONSHIP (page 2-209)	DWR_UDR_EVT_SPEC_RLTN
UDR EVENT SPECIFICATION TYPE (page 2-209)	DWL_UDR_EVT_SPEC_TYP
UDR EVENT SPECIFICATION VERSION (page 2-210)	DWR_UDR_EVT_SPEC_VRSN

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
UDR EVENT STATUS (page 2-210)	DWL_UDR_EVT_STAT
UDR EVENT TYPE (page 2-210)	DWL_UDR_EVT_TYP
UDR EVENT TYPE VERSION (page 2-210)	DWR_UDR_EVT_TYP_VRSN
UMS ACCESS TYPE (page 2-210)	DWL_UMS_ACCS_TYP
UMS EVENT (page 2-210)	DWB_UMS_EVT
UMS EVENT TYPE (page 2-210)	DWL_UMS_EVT_TYP
UNIT ALLOWANCE (page 2-210)	DWB_UNIT_ALWNCE
UNIT OF MEASURE (page 2-211)	DWL_UOM
URBAN PROPERTY ADDRESS (page 2-211)	DWR_URBN_PRPTY_ADDR
USAGE TYPE (page 2-211)	DWL_USG_TYP
USER (page 2-211)	DWR_USER
VALUE ADDED SERVICE (page 2-211)	DWR_VAL_ADD_SRVC
VALUE CUSTOM (page 2-211)	DWR_VAL_CSTM
VALUE STANDARD (page 2-212)	DWR_VAL_STNDRD
VALUE TYPE (page 2-212)	DWL_VAL_TYP
VARIABLE CUSTOM (page 2-212)	DWR_VARBLE_CSTM
VARIABLE STANDARD (page 2-212)	DWR_VARBLE_STNDRD
VAS SUBSCRIPTION (page 2-212)	DWR_VAS_SBRP
VAS SUBSCRIPTION QUICK SUMMARY DRVD (page 2-212)	DWD_VAS_SBRP_QCK_SUMM
VAS SUBSCRIPTION QUICK SUMMARY MO AGGR (page 2-212)	DWA_VAS_SBRP_QCK_SUMM_MO
VAS USAGE DAY DRVD (page 2-212)	DWD_VAS_USG_DAY
VAS USAGE MONTH AGGR (page 2-212)	DWA_VAS_USG_MO
VEHICLE (page 2-212)	DWR_VHCL
VENDOR (page 2-212)	DWR_VNDR
VENDOR AGREEMENT (page 2-212)	DWR_VNDR_AGRMNT
VENDOR APPOINTMENT (page 2-213)	DWB_VNDR_APNMNT
VENDOR CLASS (page 2-213)	DWL_VNDR_CLASS

Table 5-2   (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
VENDOR FACTOR COMPANY ASSIGNMENT (page 2-213)	DWR_VNDR_FCTR_CMPNY_ASGN
VENDOR RATING (page 2-213)	DWR_VNDR_RTNG
VENDOR RATING TYPE (page 2-213)	DWL_VNDR_RTNG_TYP
VENDOR SITE (page 2-213)	DWR_VNDR_SITE
VENDOR SITE COURIER ASSIGNMENT (page 2-213)	DWR_VNDR_SITE_COURIER_ASGN
VENDOR SITE TYPE (page 2-213)	DWL_VNDR_SITE_TYP
VIRTUAL TEAM (page 2-214)	DWR_VRTL_TEAM
VISITOR (page 2-214)	DWR_VISITOR
VISITOR TYPE (page 2-214)	DWL_VISITOR_TYP
VOICE CALL DAY DRVD (page 2-214)	DWD_VOI_CALL_DAY
VOICE CALL MONTH AGGR (page 2-214)	DWA_VOI_CALL_MO
VOICE MESSAGE SERVICE (page 2-214)	DWR_VOI_MSG_SRVC
VOIP CALL EVENT (page 2-214)	DWB_VOIP_CALL_EVT
VOLUME BAND (page 2-214)	DWL_VOL_BND
VPN LOGICAL DEVICE ROLE (page 2-214)	DWR_VPN_LGICL_DVC_RL
VPN SERVICE (page 2-214)	DWR_VPN_SRVC
WAN PROTOCOL (page 2-215)	DWR_WAN_PROTCL
WEATHER CONDITION (page 2-215)	DWR_WEATHR_CNDTN
WEB INTERACTION NAVIGATION HISTORY (page 2-215)	DWB_WEB_INTRACN_NAVGTN_HIST
WEB PAGE (page 2-215)	DWR_WEB_PG
WEB PAGE CONTENT (page 2-215)	DWR_WEB_PG_CNTNT
WEB PAGE RENDERING TYPE (page 2-215)	DWL_WEB_PG_RNDRNG_TYP
WEB PAGE TYPE (page 2-215)	DWL_WEB_PG_TYP
WEBSITE (page 2-215)	DWR_WBSITE
WEBSITE USER (page 2-215)	DWR_WBSITE_USER
WEEK TODATE TRANSFORMATION (page 2-215)	DWR_WK_TODATE_TRANS
WEEK TRANSFORMATION (page 2-215)	DWR_WK_TRANS
WEEKDAY (page 2-215)	DWR_WKDAY

Table 5-2 (Cont.) Entity Mapping Table: Logical to Physical Mapping: N to Z

Entity	Table or View
WEIGHTED FAIR QUEUING SERVICE (page 2-215)	DWR_WTD_FAIR_QUENG_SRVC
WEIGHTED ROUND ROBIN SCHEDULING SERVICE (page 2-216)	DWR_WTD_RND_RBIN_SCHDLNG_SRVC
WIRELESS CALL EVENT (page 2-216)	DWB_WRLS_CALL_EVT
WIRELESS CONTENT DOWNLOADING EVENT (page 2-216)	DWB_WRLS_CNTNT_DNLDG_EVT
WIRELESS RESOURCE (page 2-216)	DWR_WRLS_RSCE
WIRELESS ROAMING EVENT (page 2-216)	DWB_WRLS_RMNG_EVT
WIRELESS ROAMING EVENT BATCH (page 2-216)	DWB_WRLS_RMNG_EVT_BTCH
WIRELESS SERVICE (page 2-216)	DWR_WRLS_SRVC
WIRELESS SPECTRUM (page 2-216)	DWR_WRLS_SPTRUM
WORK QUEUE (page 2-216)	DWB_WRK_QUE
No value	DWR_YR_TRANS
PARTY PROFILE TYPE CHARACTERISTIC ASSIGNMENT (page 2-123)	DWR_PRTY_PRFL_TYP_CHAR_ASGN
MEASUREMENT THRESHOLD JOB (page 2-107)	DWB_MSRMNT_THRSHLD_JB

6

Oracle Communications Data Model Partitioning

Provides the partitioning strategy for the Oracle Communications Data Model physical base, derived, and aggregate tables.

About Oracle Communications Data Model Partitioning, Compression, and Parallelism (page 6-1)
>
> All base, derived, and aggregate tables are partitioned, with the (standard) compression and parallel option activated by default. These tables are partitioned due to their nature (size) for performance and scalability and to improve performance. The default partition method used is INTERVAL partitioning, which creates automatically equi-sized partitions as data arrives. For partitioning, usually, a column of data type DATE is used (DAY or MONTH level).

Partitioning Strategy for Oracle Communications Data Model (page 6-1)
>
> Describes the partitioning strategy for the Oracle Communications Data Model physical base, derived, and aggregate tables

6.1 About Oracle Communications Data Model Partitioning, Compression, and Parallelism

All base, derived, and aggregate tables are partitioned, with the (standard) compression and parallel option activated by default. These tables are partitioned due to their nature (size) for performance and scalability and to improve performance. The default partition method used is INTERVAL partitioning, which creates automatically equi-sized partitions as data arrives. For partitioning, usually, a column of data type DATE is used (DAY or MONTH level).

> **See Also:**
>
> *Oracle Communications Data Model Implementation and Operations Guide*

6.2 Partitioning Strategy for Oracle Communications Data Model

Describes the partitioning strategy for the Oracle Communications Data Model physical base, derived, and aggregate tables

Table 6-1   Physical Data Model Partitioning

Physical Table Name	Partitioning Type	Partition Key Column	Partition Level	Default Tablespace Name
DWA_ACCT_DEBT_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_ACCT_PYMT_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_ACCT_STTSTC_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_ARPU_BASE_CUST_TYP	RANGE	MO_KEY	MONTH	TBS_MV
DWA_BER_FER_ERR_RATIO_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_CALL_CNTR_CALL_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_CALL_CNTR_CASE_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_CELL_STTSTC_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_CMISN_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_CNT_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_COST_CNTR_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_CUST_ACQSTN_SUMM_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_CUST_CHRN_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_CUST_COST_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_CUST_DEBT_COLLCTN_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_CUST_EQPMNT_INSTLTN_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_CUST_GROSS_ORDRS_QTR	RANGE	MO_KEY	MONTH	TBS_MV
DWA_CUST_ORDR_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_DATA_USG_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_INVC_ADJ_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_INVC_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_INV_POSN_DEPT_DAY	RANGE	MO_KEY	MONTH	TBS_MV
DWA_INV_POSN_SBC_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_IN_PLTFRM_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_LYLTY_PROG_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_MKT_SHARE	RANGE	MO_KEY	MONTH	TBS_MV
DWA_MSC_TRFC_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_NBR_PRT_MO	RANGE	MO_KEY	MONTH	TBS_MV

Table 6-1   (Cont.) Physical Data Model Partitioning

Physical Table Name	Partitioning Type	Partition Key Column	Partition Level	Default Tablespace Name
DWA_NTWK_AVLBLTY_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_NTWK_TCHPNT_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_PRPD_ALWNCE_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_PRTNR_STLMNT_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_RDMPTN_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_RF_NTWK_CPCTY_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_RVN_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_SBSCBR_STTSTC_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_SL_CMPGN_SUMM_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_SPLMNTR_SRVC_USG_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_STORE_EFFNCY_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_VAS_SBRP_QCK_SUMM_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_VAS_USG_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWA_VOI_CALL_MO	RANGE	MO_KEY	MONTH	TBS_MV
DWB_ACCS_MTHD_PORT_HIST	RANGE	ACT_CTVR_DT	QUARTER	TBS_BASE
DWB_ACCS_MTHD_STAT_HIST	RANGE	EFF_FROM_DT	QUARTER	TBS_BASE
DWB_ACCT_ACCTNG_CYCL_HIST	RANGE	EFF_FROM_DT	QUARTER	TBS_BASE
DWB_ACCT_BAL_IMPC	RANGE	IMPC_DT	MONTH	TBS_BASE
DWB_ACCT_BLLG_OCCRNCE	RANGE	BLLG_DT	QUARTER	TBS_BASE
DWB_ACCT_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_ACCT_CRDT_LMT	RANGE	CRDT_RTNG_DT	MONTH	TBS_BASE
DWB_ACCT_MNGMNT_HIST	RANGE	ASGN_STRT_DT	MONTH	TBS_BASE
DWB_ACCT_PROD_OFR_PRTCPTN_HIST	RANGE	RLTN_STRT_DT	MONTH	TBS_BASE
DWB_ACCT_PYMT	RANGE	PYMT_DT	MONTH	TBS_BASE
DWB_ACCT_PYMT_MTHD_STAT	RANGE	EFF_FROM_DT	MONTH	TBS_BASE
DWB_ACCT_STAT_HIST	RANGE	EFF_FROM_DT	MONTH	TBS_BASE
DWB_ADDR_STAT_HIST	RANGE	EFF_FROM_DT	QUARTER	TBS_BASE

Table 6-1 (Cont.) Physical Data Model Partitioning

Physical Table Name	Partitioning Type	Partition Key Column	Partition Level	Default Tablespace Name
DWB_AGRMNT_APRVL	RANGE	AGRMNT_APRVL_DT	MONTH	TBS_BASE
DWB_AGRMNT_STAT	RANGE	EFF_FROM_DT	MONTH	TBS_BASE
DWB_AGRMNT_TERM	HASH	AGRMNT_KEY	N/A	TBS_BASE
DWB_APNMNT_CLNDR	RANGE	DAY_KEY	DAY	TBS_BASE
DWB_BLK_LST_HIST	RANGE	EFF_FROM_DT	MONTH	TBS_BASE
DWB_BRDBND_USG_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_BSNS_INTRACN	RANGE	STRT_DT	QUARTER	TBS_BASE
DWB_BSNS_INTRACN_HIST	RANGE	TRX_DT	QUARTER	TBS_BASE
DWB_BSNS_UNIT_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_CELL_SITE_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_CHNL_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_CMPGN_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_CMPGN_MSG_CRTVE	RANGE	CRTN_DT	MONTH	TBS_BASE
DWB_CNCT_LST_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_CNTNT_DLVRY_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_COST_CNTR_BDGT	RANGE	EFF_FROM_DT	MONTH	TBS_BASE
DWB_COURIER_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_CRCUT_RNTL	RANGE	EFF_FROM_DT	MONTH	TBS_BASE
DWB_CRCUT_TRFC	RANGE	EFF_STRT_DT	MONTH	TBS_BASE
DWB_CRNCY_EXCHNG_RATE	RANGE	EXCHNG_RATE_DT	MONTH	TBS_BASE
DWB_CUST_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_CUST_FLD_SRVC_ACTVTY	RANGE	FLD_ACTVTY_STRT_DT	MONTH	TBS_BASE
DWB_CUST_FLD_SRVC_DTL	RANGE	ACTN_STRT_DT	MONTH	TBS_BASE
DWB_CUST_ORDR	RANGE	ORGNL_ORDR_DT	MONTH	TBS_BASE
DWB_CUST_ORDR_LN_ITEM	RANGE	ORGNL_ORDR_DT	MONTH	TBS_BASE
DWB_CUST_ORDR_LN_ITEM_ST_ASGN	RANGE	ORDR_LN_ITEM_STATE_BEGIN_DT	MONTH	TBS_BASE

Table 6-1   (Cont.) Physical Data Model Partitioning

Physical Table Name	Partitioning Type	Partition Key Column	Partition Level	Default Tablespace Name
DWB_CUST_ORDR_PYMT	RANGE	PYMT_DT	MONTH	TBS_BASE
DWB_CUST_ORDR_STATE_ASGN	RANGE	ORDR_STATE_BEGIN_DT	MONTH	TBS_BASE
DWB_DATA_SRVC_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_DISC_LI	RANGE	DAY_KEY	MONTH	TBS_BASE
DWB_EMP_ACT_LBR_HRLY	RANGE	DAY_KEY	DAY	TBS_BASE
DWB_EMP_ACT_LBR_SALARIED	RANGE	DAY_KEY	DAY	TBS_BASE
DWB_EMP_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_EMP_EXP_RPT	RANGE	STRT_DT	MONTH	TBS_BASE
DWB_EMP_TRNG_REC	RANGE	TRNG_STRT_DT	MONTH	TBS_BASE
DWB_EQPMNT_CNTR_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_ERRD_MDTD_CALL_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_ERRD_RAW_WRLS_CALL_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_ERRD_RTD_WRLS_CALL_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_EVT	RANGE	STRT_DT	DAY	TBS_BASE
DWB_EVT_ACCS_MTHD_ACTVTY	RANGE	STRT_DT	DAY	TBS_BASE
DWB_EVT_ACCT	RANGE	STRT_DT	MONTH	TBS_BASE
DWB_EVT_AGRMNT	RANGE	STRT_DT	DAY	TBS_BASE
DWB_EVT_ASGN	RANGE	EFF_FROM_DT	DAY	TBS_BASE
DWB_EVT_CMPST_PROD_SPEC	RANGE	STRT_DT	MONTH	TBS_BASE
DWB_EVT_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_EVT_CRCUT_RNTL	RANGE	STRT_DT	MONTH	TBS_BASE
DWB_EVT_EMP_PYRL	RANGE	STRT_DT	MONTH	TBS_BASE
DWB_EVT_EQPMNT_INSTNC	RANGE	STRT_DT	MONTH	TBS_BASE
DWB_EVT_FINCL	RANGE	STRT_DT	MONTH	TBS_BASE
DWB_EVT_GEO	RANGE	STRT_DT	MONTH	TBS_BASE
DWB_EVT_LYLTY_PROG	RANGE	TRX_DT	MONTH	TBS_BASE
DWB_EVT_PROD_SBRP_WRLS	RANGE	STRT_DT	MONTH	TBS_BASE

Table 6-1   (Cont.) Physical Data Model Partitioning

Physical Table Name	Partitioning Type	Partition Key Column	Partition Level	Default Tablespace Name
DWB_EVT_PRPD_MBL	RANGE	STRT_DT	MONTH	TBS_BASE
DWB_EVT_PRTY_ASGN	RANGE	EFF_DT	DAY	TBS_BASE
DWB_EVT_PRTY_INTRACN	RANGE	STRT_DT	MONTH	TBS_BASE
DWB_EVT_PRTY_PRFL	RANGE	STRT_DT	MONTH	TBS_BASE
DWB_EVT_SBRP_CHNG	RANGE	STRT_DT	MONTH	TBS_BASE
DWB_EVT_SIM_CARD	RANGE	STRT_DT	MONTH	TBS_BASE
DWB_EVT_STAT	RANGE	EFF_FROM_DT	DAY	TBS_BASE
DWB_EXP_RPT_PRTY_ASGN	RANGE	EFF_DT	DAY	TBS_BASE
DWB_FIXED_LN_CALL_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_GPRS_USG_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_IDD_CALL_EVT	RANGE	EVT_BEGIN_DT	MONTH	TBS_BASE
DWB_INTRACN_QUES_RESPN	RANGE	RESPN_DT	QUARTER	TBS_BASE
DWB_INTRNT_ACCS_EVT	RANGE	EVT_BEGIN_DT	MONTH	TBS_BASE
DWB_INVC	RANGE	BLLG_DT	MONTH	TBS_BASE
DWB_INVC_ADJ	RANGE	STRT_DT	MONTH	TBS_BASE
DWB_INVC_DISC	RANGE	BLLG_DT	MONTH	TBS_BASE
DWB_INVC_ITEM	RANGE	BLLG_DT	MONTH	TBS_BASE
DWB_INVC_ITEM_DTL	RANGE	BLLG_DT	MONTH	TBS_BASE
DWB_INVC_PYMT_ASGN	RANGE	EFF_FROM_DT	MONTH	TBS_BASE
DWB_INVC_PYMT_TERM	RANGE	BLLG_DT	MONTH	TBS_BASE
DWB_INVC_STAT_HIST	RANGE	EFF_FROM_DT	MONTH	TBS_BASE
DWB_INV_ADJ_DOC_LI	RANGE	INV_ADJ_DOC_DT	MONTH	TBS_BASE
DWB_INV_CNTRL_DOC	RANGE	INV_CNTRL_DOC_DT	MONTH	TBS_BASE
DWB_INV_CNTRL_DOC_LI	RANGE	INV_CNTRL_DOC_DT	MONTH	TBS_BASE
DWB_INV_ITEM_STATE	RANGE	EFF_FROM_DT	DAY	TBS_BASE
DWB_ISP_USG_EVT	RANGE	EVT_BEGIN_DT	MONTH	TBS_BASE
DWB_MDTD_CALL_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_MEDIA_OBJ_COST	RANGE	INCURR_DT	MONTH	TBS_BASE

Table 6-1   (Cont.) Physical Data Model Partitioning

Physical Table Name	Partitioning Type	Partition Key Column	Partition Level	Default Tablespace Name
DWB_MMS_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_NP_RQST_HDR	RANGE	APLCTN_DT	MONTH	TBS_BASE
DWB_NP_RQST_LN_ITEM	RANGE	NP_STEP_STRT_DT	MONTH	TBS_BASE
DWB_NP_RQST_LN_ITEM_STATE_HIST	RANGE	EFF_FROM_DT	MONTH	TBS_BASE
DWB_NP_RQST_STATE_HIST	RANGE	EFF_FROM_DT	MONTH	TBS_BASE
DWB_PHY_CNT_DOC	RANGE	PHY_CNT_BEGIN_DT	YEAR	TBS_BASE
DWB_PHY_CNT_DOC_LI	RANGE	PHY_CNT_BEGIN_DT	YEAR	TBS_BASE
DWB_PRCS_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_PRICE_EVT	RANGE	STRT_DT	DAY	TBS_BASE
DWB_PRMTN_CLSTR_USG	RANGE	USG_DT	HALF YEAR	TBS_BASE
DWB_PRMTN_CNCT_LST_UTLZTN	RANGE	USG_DT	HALF YEAR	TBS_BASE
DWB_PRMTN_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_PRMTN_MGMT_HIST	RANGE	EFF_FROM_DT	MONTH	TBS_BASE
DWB_PRMTN_TERM_VAL	RANGE	TERM_PRD_STRT	MONTH	TBS_BASE
DWB_PROD_OFR_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_PROD_OFR_MGMT	RANGE	MNG_ACTN_DT	MONTH	TBS_BASE
DWB_PROD_SBRP_STAT_HIST	RANGE	EFF_FROM_DT	MONTH	TBS_BASE
DWB_PROD_SPEC_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_PROD_SPEC_MGMT_HIST	RANGE	EFF_FROM_DT	QUARTER	TBS_BASE
DWB_PROD_SPEC_STAT_HIST	RANGE	EFF_FROM_DT	QUARTER	TBS_BASE
DWB_PRPD_RCHRG	RANGE	PYMT_DT	MONTH	TBS_BASE
DWB_PRTNR_PYMT	RANGE	PYMT_DT	MONTH	TBS_BASE
DWB_PRTY_AM_PROD_OFR_ASGN_HIST	RANGE	ASGN_BEGIN_DT	MONTH	TBS_BASE
DWB_PRTY_AM_PROD_OFR_ASGN_STAT	RANGE	ASGN_BEGIN_DT	MONTH	TBS_BASE
DWB_PRTY_COST_ASGN	RANGE	ASGN_DT	MONTH	TBS_BASE
DWB_PRTY_ORDR_ASGN	RANGE	EFF_FROM_DT	MONTH	TBS_BASE

Table 6-1 (Cont.) Physical Data Model Partitioning

Physical Table Name	Partitioning Type	Partition Key Column	Partition Level	Default Tablespace Name
DWB_PRTY_PRMTN_RESPN	RANGE	RESPN_DT	MONTH	TBS_BASE
DWB_PRTY_STAT_HIST	RANGE	EFF_FROM_DT	MONTH	TBS_BASE
DWB_PTV_FULL_CHNL_ACTVTN	RANGE	EVT_BEGIN_DT	MONTH	TBS_BASE
DWB_PTV_QPI_SRVC_EVT	RANGE	EVT_BEGIN_DT	MONTH	TBS_BASE
DWB_PTV_USG_EVT	RANGE	EVT_BEGIN_DT	MONTH	TBS_BASE
DWB_RAW_MMS_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_RSCE_COST	RANGE	INCURR_DT	MONTH	TBS_BASE
DWB_RSCE_HIST	RANGE	EFF_BEGIN_DT	MONTH	TBS_BASE
DWB_RSCE_ORDR	RANGE	STRT_DT	QUARTER	TBS_BASE
DWB_RTD_UDR_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_RTL_SL_RTRN_LI	RANGE	DAY_KEY	MONTH	TBS_BASE
DWB_RTL_TNDR_LI	RANGE	DAY_KEY	MONTH	TBS_BASE
DWB_RTL_TRX	RANGE	DAY_KEY	MONTH	TBS_BASE
DWB_SBRP_TERM_VAL	RANGE	TERM_PRD_STRT_DT	MONTH	TBS_BASE
DWB_SL_CMISN_DTL	RANGE	PYMT_DT	MONTH	TBS_BASE
DWB_SL_CMISN_PYRL	RANGE	PAY_DT	MONTH	TBS_BASE
DWB_SMS_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_SRVC_LVL_AGRMNT_VILTN	RANGE	INTRACN_THRD_STRT_DT	MONTH	TBS_BASE
DWB_SRVC_ORDR	RANGE	STRT_DT	QUARTER	TBS_BASE
DWB_SRVC_RQST	RANGE	INTRACN_THRD_STRT_DT	MONTH	TBS_BASE
DWB_TAP_IN_WRLS_RMNG_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_TAP_OUT_WRLS_RMNG_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_TNDR_CNTRL_TRX	RANGE	DAY_KEY	MONTH	TBS_BASE
DWB_TRBLE_TCKT	RANGE	STRT_DT	QUARTER	TBS_BASE
DWB_UDR_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_UDR_EVT_ASGN	RANGE	FROM_EVT_BEGIN_DT	DAY	TBS_BASE

Table 6-1   (Cont.) Physical Data Model Partitioning

Physical Table Name	Partitioning Type	Partition Key Column	Partition Level	Default Tablespace Name
DWB_UMS_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_UNIT_ALWNCE	RANGE	BAL_DT	MONTH	TBS_BASE
DWB_VNDR_APNMNT	RANGE	VNDR_APNMNT_DT	MONTH	TBS_BASE
DWB_VOIP_CALL_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_WRLS_CALL_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWB_WRLS_CNTNT_DNLDG_EVT	RANGE	EVT_BEGIN_DT	MONTH	TBS_BASE
DWB_WRLS_RMNG_EVT	RANGE	EVT_BEGIN_DT	DAY	TBS_BASE
DWD_ACCT_BAL_MO	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_ACCT_DEBT_MO	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_ACCT_PYMT_DAY	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_ACCT_PYMT_MTHD_STAT_HIST	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_AGRMNT	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_AGRMNT_CHNG	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_AGRMNT_RVN_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_CANBLZTN_DTL_DAY	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_CMISN	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_CMPGN_HIST_DAY	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_CNTCT_CNTR_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_CNT_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_COST_CNTR	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_CUST_COST	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_CUST_DNA	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_CUST_EQPMNT_INSTLTN_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_CUST_ORDR_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_CUST_ORDR_LN_ITEM_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_CUST_RFMP_SCR	RANGE	MO_KEY	DAY	TBS_DERIVED
DWD_CUST_SKU_SL_RETRN_DAY	RANGE	DAY_KEY	MONTH	TBS_DERIVED

Table 6-1   (Cont.) Physical Data Model Partitioning

Physical Table Name	Partitioning Type	Partition Key Column	Partition Level	Default Tablespace Name
DWD_DATA_USG_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_GIVE_AWAY_ITEM_DAY	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_INVC_AGNG_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_INVC_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_INV_ADJ_ITEM_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_INV_POSN_ITEM_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_INV_RCPT_ITEM_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_INV_UNAVL_ITEM_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_INV_VNDR_CMPLNC_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_INV_XFER_ITEM_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_IN_PLTFRM_DAY	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_LYLTY_MBR_PNT_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_MKT_SHARE	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_MSC_TRFC_DAY	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_NBR_PRT_DAY	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_NTWK_AVLBLTY_DAY	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_NTWK_TCHPNT	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_ORG_BSNS_UNT_HRS_DAY	RANGE	DAY_KEY	MONTH	TBS_DERIVED
DWD_POS_TNDR_FLOW	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_PRCS_INVC_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_PRPD_ACCT_STTSTC_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_PRPD_ALWNCE_DAY	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_PRTNR_STLMNT	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_RF_NTWK_CPCTY_DAY	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_RTL_SL_RETRN_ITEM_DAY	RANGE	DAY_KEY	MONTH	TBS_DERIVED
DWD_RVN_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_SL_RPRSTV_STTSTC	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_SPLMNTR_SRVC_USG	RANGE	MO_KEY	MONTH	TBS_DERIVED

Table 6-1   (Cont.) Physical Data Model Partitioning

Physical Table Name	Partitioning Type	Partition Key Column	Partition Level	Default Tablespace Name
DWD_SRVC_PRBLM_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_STORE_EFFNCY_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_VAS_SBRP_QCK_SUMM	RANGE	MO_KEY	MONTH	TBS_DERIVED
DWD_VAS_USG_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWD_VOI_CALL_DAY	RANGE	DAY_KEY	DAY	TBS_DERIVED
DWR_ACCS_MTHD	HASH	ACCS_MTHD_KEY	N/A	TBS_REFERENCE
DWR_ACCT	HASH	ACCT_KEY	N/A	TBS_REFERENCE
DWR_AGRMNT	HASH	AGRMNT_KEY	N/A	TBS_REFERENCE
DWR_CUST	HASH	CUST_KEY	N/A	TBS_REFERENCE
DWR_ORG_BSNS_UNIT	HASH	ORG_BSNS_UNIT_KEY	N/A	TBS_REFERENCE

Part II

Intra-ETL, OLAP, Data Mining, and Utility Scripts

This part provides information on Oracle Communications Data Model Intra-ETL Mapping, OLAP, Data Mining, and Utility Scripts.

Part II contains the following chapters:

7

Oracle Communications Data Model Intra-ETL

This chapter includes the following sections:

About Oracle Communications Data Model Intra-ETL (page 7-1)
> In Oracle Communications Data Model, reference and lookup tables
> store master, reference, and dimensional data; and the base, derived, and
> aggregate tables store transaction and fact data at different granularities.

Intra-ETL PL/SQL Packages Business Rules and Source Tables (page 7-2)
> Lists the PL/SQL mapping packages to populate the derived tables.

7.1 About Oracle Communications Data Model Intra-ETL

In Oracle Communications Data Model, reference and lookup tables store master,
reference, and dimensional data; and the base, derived, and aggregate tables store
transaction and fact data at different granularities.

The base tables store the transaction data at the lowest level of granularity, while the
derived and aggregate tables store consolidated and summary transaction data.

Two types of Extract, Transform, and Load (ETL) operations populate the tables with
data. The source-ETL operations populate the reference, lookup, and base tables with
data from the source On-Line Transaction Processing (OTLP) applications. Additional
Intra-ETL operations populate the derived and aggregate tables with the data in the
base, reference, and lookup tables. While the source ETL operations are not a part of
Oracle Communications Data Model, the Intra-ETL operations are.

There are two categories of Intra-ETL operations (scripts):

- Derived Population: A database package containing scripts that populate the
  derived tables based on the content of the base, reference, and lookup tables.

- Aggregate Population: A database package containing scripts to refresh the Oracle
  Communications Data Model aggregate tables, mostly Materialized Views, based
  on the content of the derived tables and some reference tables.

Derived tables are implemented using Oracle tables. Some of the Aggregate tables
Oracle tables and others are implemented using Materialized Views.

> **Note:**
>
> Changes to intra-ETL cannot be supported. But it is expected that if the
> business needs require a change in the business logic of the intra-ETLs some
> customer adaptations could be necessary even if they are not be supported.

7.2 Intra-ETL PL/SQL Packages Business Rules and Source Tables

Lists the PL/SQL mapping packages to populate the derived tables.

The naming convention by default is "`PKG_`" plus the physical name of the target table.

PKG_DWD_ACCT_BAL_MO Package (page 7-4)
> Describes details to populate target table `DWD_ACCT_BAL_MO`.

PKG_DWD_ACCT_DEBT_MO Package (page 7-7)
> Describes details to populate target table `DWD_ACCT_DEBT_MO`.

PKG_DWD_ACCT_FRST_ACTVTY Package (page 7-14)
> Describes details to populate target table `DWD_ACCT_FRST_ACTVTY`.

PKG_DWD_ACCT_LAST_ACTVTY Package (page 7-15)
> Describes details to populate target table `DWD_ACCT_LAST_ACTVTY`.

PKG_DWD_ACCT_PMT_MTD_STAT_HST Package (page 7-17)
> Describes details to populate target table `DWD_ACCT_PYMT_MTHD_STAT_HIST`.

PKG_DWD_ACCT_PYMT_DAY Package (page 7-17)
> Describes details to populate target table `DWD_ACCT_PYMT_DAY`.

PKG_DWD_AGRMNT Package (page 7-18)
> List details to populate target table `DWD_AGRMNT`.

PKG_DWD_AGRMNT_CHG Package (page 7-19)
> Lists details to populate target table `DWD_AGRMNT_CHNG`.

PKG_DWD_AGRMNT_RVN_DAY Package (page 7-21)
> Lists details to populate target table `DWD_AGRMNT_RVN_DAY`.

PKG_DWD_CANBLZTN_DTL_DAY Package (page 7-32)
> Lists details to populate target table `DWD_CANBLZTN_DTL_DAY`.

PKG_DWD_CMPGN_HIST_DAY Package (page 7-32)
> Lists details to populate target table `DWD_CMPGN_HIST_DAY`.

PKG_DWD_CNT_DAY Package (page 7-35)
> Lists details to populate target table `DWD_CNT_DAY`.

PKG_DWD_CNTCT_CNTR_DAY Package (page 7-41)
> Lists details to populate target table `DWD_CNTCT_CNTR_DAY`.

PKG_DWD_CUST_DNA Package (page 7-44)
> Lists details to populate the target table `DWD_CUST_DNA`.

PKG_DWD_CUST_EQPMNT_INSTLTN_DAY Package (page 7-45)
> Lists details to populate the target table `DWD_CUST_EQPMNT_INSTLTN_DAY`.

PKG_DWD_CUST_ORDR_DAY Package (page 7-46)
> Lists details to populate target table `DWD_CUST_ORDR_DAY`.

PKG_DWD_CUST_ORDR_LN_ITEM_DAY Package (page 7-46)
> Lists details to populate target table `DWD_CUST_ORDR_LN_ITEM_DAY`.

> Lists the details to populate target table `DWD_VAS_USG_DAY`.

> Lists details to populate target table `DWD_VOI_CALL_DAY`.

7.2.1 PKG_DWD_ACCT_BAL_MO Package

Describes details to populate target table `DWD_ACCT_BAL_MO`.

For more information, see ACCOUNT BALANCE MONTH DRVD (page 2-26).

PKG_DWD_ACCT_BAL_MO Package Source Tables

DWB_ACCT_BAL
DWB_ACCT_BAL_IMPC
DWB_UNIT_ALLWNC
DWL_ACCT_BAL_TYP
DWR_ACCT
DWR_PROD_OFR

Table 7-1   PKG_DWD_ACCT_BAL_MO Business Rules

Rule ID	Description	Comments
ACCT_BAL0	Time window: All columns shall represent the status at the end of the period considered (End of the last possible day already passed of current month in which the Intra-ETL is running).	If you run the Intra-ETL on November 15th. It shall take the sum of all bucket amounts with the status of the 14th End of day (and store it in month November) overwriting whatever was already there from the previous run in month November.
ACCT_BAL1	The "Balance Amount" is defined as what will appear directly in Bucket_amount at the time considered by ACCT_BAL0 rule. It assumes that all snapshots of all balances for any buckets of a given account occur at the same time (within the same second).	SUM(DWB_ACCT_BAL.BAL_AMT) where BAL_DT =MAX(BAL_DT) for this account, account balance type, product offering, product spec and bucket code (if defined)
ACCT_BAL2	MAX_BAL_DT - Maximum date possible at which all balances of this type (of any buckets) from this account will expire.	max(DWB_ACCT_BAL.BAL_DT)
ACCT_BAL3	ACCOUNT BALANCE is filled such that EITHER every bucket is defined and filled OR the BUCKET CODE is always undefined (for a given account). It is mutually exclusive for a given account.	This means in DWB_ACCT_BAL, for a given account and for a given account balance type, either BUCKET_CD = '-5000', OR BUCKET_CD is always defined (not unknown). See base data assumptions.
ACCT_BAL4	Whenever a balance goes to 0 or expires, this balance (Status) is still taken into account and stored in Oracle Communications Data Model.	See base data assumptions.

Table 7-1   (Cont.) PKG_DWD_ACCT_BAL_MO Business Rules

Rule ID	Description	Comments
ACCT_BAL5	Product Offering Code and Product Specification Code have to be present in the base table (ACCOUNT BALANCE). If not, the default value shall be used. (reporting purpose only)	Default Value is "-5000".
ACCT_BAL6 Obsolete	ACCT_BAL_TYP_CD - Types of Account Balance. No restriction on it.	Restrictions could be added as customization.
ACCT_BAL7	Account Balance Impact whose impact date is greater (AFTER) than the latest ACCOUNT BALANCE snapshot (balance date) shall be ignored in the current run but shall be taken into account in the following run. It is therefore expected from an ETL perspective to make sure that account balance impact and account balance are synchronized.	No value
ACCT_BAL8	Due Amount is meant in any direction (from the CSP to the customer or vice versa). Defined as the maximum between Balance amount and Minimum required Amount. It is not necessarily related to a specific invoice.	No value
ACCT_BAL9	The base table Unit Allowance shall contain the Effective Prepaid Allowance (PPA) associated with a given offering and product specification, adding all eventual bonus and promotion. In case Product Spec and Product Offer Key are undefined in ACCOUNT BALANCE, one shall sum ALL PPA of any product offering and specification whose subscription has been active at least one day within the period concerned.	No value
ACCT_BAL10	PPA Category Code associated with the derived will be the biggest (in alphanumeric sense) of all available.	No value
ACCT_BAL11	Balance Begin Date is the minimum balance begin date of any valid (active) balances of this type for this account within the time period.	No value
ACCT_BAL12	Disputed Amount is only considered if it is related to an Balance Impact (with reason like '%DSPT%'). It is not checking into INVOICE ADJUSTMENT for performance reason.	No value

Table 7-1 (Cont.) PKG_DWD_ACCT_BAL_MO Business Rules

Rule ID	Description	Comments
ACCT_BAL13	There will be no restriction in time (except that it is within the month considered) for the balance impact. Hence, any balance impact of the month shall be considered, independently of the fact that it has already impacted the balance snapshot or not. This assumption is important to be sure that no impacts are lost between the last balance date available and the end of the month.	It also means that the content of the table for a given month will be overwritten every time it runs within the month.

Table 7-2 PKG_DWD_ACCT_BAL_MO Lookup Values

Table	Row	Code	Meaning
DWB_ACCT_BAL_IMPC	ACCT_BAL_IMPC_RSN_CD	'ADJ'	An adjustment takes place
DWB_ACCT_BAL_IMPC	ACCT_BAL_IMPC_RSN_CD	'PYMT'	A payment is the source of the impact
DWB_ACCT_BAL_IMPC	ACCT_BAL_IMPC_RSN_CD	'RCHRG	A Recharge is the source of the impact (subtype of payment).
DWB_ACCT_BAL_IMPC	ACCT_BAL_IMPC_RSN_CD	'TRNSFR IN'	Transfer Incoming
DWB_ACCT_BAL_IMPC	ACCT_BAL_IMPC_RSN_CD	'TRNSFR OUT'	Transfer Outgoing
DWB_ACCT_BAL_IMPC	ACCT_BAL_IMPC_RSN_CD	'RFND'	Refund
DWB_ACCT_BAL_IMPC	ACCT_BAL_IMPC_RSN_CD	'WRTOFF	Write-Off (specific type of adjustment).
DWB_ACCT_BAL_IMPC	ACCT_BAL_IMPC_RSN_CD	'%DSPT%'	Dispute - reduce the account balance normally. Any reason with "DSPT" in it will be taken into account.
DWB_ACCT_BAL_IMPC	ACCT_BAL_IMPC_RSN_CD	'USG'	Calls or service usage triggers the impact
DWB_ACCT_BAL_IMPC	ACCT_BAL_IMPC_RSN_CD	'PRMTN'	A Promotion is the reason for this Impact (usually with loyalty points)
DWB_ACCT_BAL_IMPC	ACCT_BAL_IMPC_RSN_CD	'NBR LN'	The Number of lines is the trigger for this Impact (usually with loyalty points)

Table 7-2   (Cont.) PKG_DWD_ACCT_BAL_MO Lookup Values

Table	Row	Code	Meaning
DWB_ACCT_BAL_IMPC	ACCT_BAL_IMPC_RSN_CD	'SBRP AGE'	The Age On Net of this subscription or customer is the trigger for this Impact (usually with loyalty points)
DWB_ACCT_BAL_IMPC	ACCT_BAL_IMPC_RSN_CD	'DRCT DEBIT'	The fact to move to Direct Debit is the trigger for this Impact (usually with loyalty points)
DWB_ACCT_BAL_TYP	ACCT_BAL_TYP_CD	'%LYTY%'	A balance of type Loyalty[1]
DWB_ACCT_BAL_TYP	ACCT_BAL_TYP_CD	'%LYTY BONUS%'	A balance of type Bonus associated with Loyalty balance
DWB_ACCT_BAL_TYP	ACCT_BAL_TYP_CD	'%BONUS%'	Any balance of type Bonus

[1]   Loyalty balance should normally be stored in the specific subject area, to allow the LOYALTY derived to work. Nothing prevents storing loyalty account balance type in ACCOUNT BALANCE when the Loyalty Account and the Account are the same. But it will not be taken into account by the other derived.

7.2.2 PKG_DWD_ACCT_DEBT_MO Package

Describes details to populate target table `DWD_ACCT_DEBT_MO`.

For more information, see ACCOUNT DEBT MONTH DERIVED (page 2-27).

PKG_DWD_ACCT_DEBT_MO Package Source Tables

DWB_ACCT_BAL_IMPC
DWB_ACCT_DEBT
DWB_ACCT_PYMNT
DWB_COST
DWB_EVT_PRTY_INTRACN
DWB_INVC
DWB_INVC_ADJ
DWB_INVC_PYMT_ASGN
DWD_STG_ACCT_DEBT_DAY_DRVD
DWD_ACCT_DEBT_DAY_DRVD
DWL_DEBT_AGNG_BND
DWR_ACCT
DWR_ACCT_DEBT
DWR_ADDR_LOC
DWR_COLLCTN_AGNCY
DWR_CUST
DWR_DAY
DWR_GEO_CNTY
DWR_ORG_BUS_UNIT

Table 7-3 PKG_DWD_ACCT_DEBT_MO Business Rules

Rule ID	Description	Comment
DEBTMO1	The debt is only considered whenever it is present in ACCOUNT DEBT and debt is set within any day in the current month.	There must be a row in DWB_ACCT_DEBT with Month (date considered) between MONTH(DEBT_STRT_DT) and MONTH(DEBT_END:DT) - boarder included.
DEBTMO2	Even if the account has multiple contracts and invoices with different due-dates, it is considered in debt as long as at least one of these invoices is not settled. It is therefore independent of the total amount due, or the number of in-debt invoices.	As a consequence, a given account can only have one debt - not several.
DEBTMO3	Any Payment of any type (standard, transfer…) made during a Debt period is considered as payment to the debt until the debt is ended.	No value
DEBTMO4	Debt Age is calculated based on the day the 1st time the customer was in debt - whatever the amount, whenever it was. Example: Assuming 2 invoices over 2 months were sent and the customer finally paid the 1st one but the 2nd one is still due (and the debt flag was not set back either because it was forgotten or because the 2nd bill is also over-due), the debt age will be still considered to be with respect to the due date of 1st invoice!	The reason of this limitation is due to the fact that the DUE DATE is not part of the Account Debt (it is also not the goal nor would it make sense because the current balance might cover multiple bills as shown in the example). A customization could be added a OLDEST DUE DATE or DEBT_START_DATE column which would need to be updated when a payment occurs. This could be however complex from an ETL perspective (source to Oracle Communications Data Model).

Table 7-3 (Cont.) PKG_DWD_ACCT_DEBT_MO Business Rules

Rule ID	Description	Comment
DEBTMO5	Balance Adjustment taken into account around debt are of 3 types by default: 91% = Penalty = Fee for late payment. 3% = Waiving = Penalty Fee reduction or closing dispute (and only these). 4%= Write-off = Amount that the CSP agrees to write-off. Write off should only apply to churned or suspended customers you cannot reach anymore. It does not cancel the debt as such. It only considers you will never get the debt back, so you need to write it off from your profit. It is an accounting process. These are stored as Adjustment Reason Code in their respective views (ACCT BAL ADJ and ACCT DEBT WRT OFF). They must be done by an employee during a business interaction (Party thread interaction).	See default Lookup values tables. The Employee information that did the adjustment is not stored in the target table as it is not its goal. The employee used is the target table is the one showing up in the ACCOUNT DEBT table.
DEBTMO6	Account Status Code stored is by default the ACCOUNT STATUS TYPE CODE of the ACCOUNT Table. If it is null, STATUS CODE of the same table is used.	nvl(DWR_ACCT.ACCT_STAT_TYP _CD, DWR_ACCT.STAT_CD)
DEBTMO7	Credit Category: The Credit category stored is by default the one currently associated to the Account in ACCOUNT table. If it is not defined, one shall take the ones in ACCOUNT CREDIT LIMIT associated to this account. Since however, the credit limit is per subscription, the highest internal code will be taken, which is assumed to be the latest one. This is an approximation which could be wrong.	Concretely: nvl(DWR_ACCT.CRDT_CTGRY_K EY, max(DWB_ACCT_CRDT_LMT. CRDT_CTGRY_KEY))

Table 7-3   (Cont.) PKG_DWD_ACCT_DEBT_MO Business Rules

Rule ID	Description	Comment
DEBTMO8	A debt agreement is a formal or informal agreement with the customer or account in debt to pay the bill within a certain time. It might be associated to the standard agreement (contract) as AGREEMENT TERM, whose type could be 'Max Debt Age' or any Debt related term. The status of this agreement Term should be valid. It may also be associated with a PAYMENT PLAN (see SID 12.5) but it is not considered here. For simplification and performance, Oracle Communications Data Model assumes that a DEBT agreement is in place if the field EXTENDED DUE DATE of Invoice is not null. A successful debt agreement is defined with a full payment received with extended due date not null while an unsuccessful debt agreement has the full payment received indicator not set.	Concretely: For current agreement the invoice status is open and nvl(ext_due_Dt, to_date('1970','yyyy')) >Date Considered For all agreement success
DEBTMO9	The organization business unit defined in ACCOUNT DEBT MONTH should be the one associated with the debt. If it is not defined, one shall use the one currently associated with the account (usually equal to the one through which the account was created). Current default is the one associated with the Account.	Be aware that currently, only the one associated with the account is used.
DEBTMO10	The unit of measure associated with the debt is in fact the currency of the debt amount.	No value

Table 7-3   (Cont.) PKG_DWD_ACCT_DEBT_MO Business Rules

Rule ID	Description	Comment
DEBTMO11	The number of invoice in debt (see column INVC_IN_DEBT_CNT) is read by default in ACCOUNT DEBT. Hence, it should be calculated by the ETL that populates it. Nevertheless, if this information is not defined, the definition of invoice in debt is the number of invoices whose Full payment Received Indicator is not set and whose DUE DATE is passed. There may be multiple invoices from the same "billing unit" (that is, a same agreement with a given billing cycle over several months, hence including several unpaid bills) and from different billing units (different agreement, with different subscriptions and access numbers and possibly different billing cycles).	No value
DEBTMO12	Disputed Amount is the sum of all invoices of the account that are in dispute, that is, whose status is open and whose dispute amount is not null. It is assumed that each invoice can be independently under dispute and that the dispute amount of the last invoice does NOT contain any amount of previous dispute (and still open) and the billing date of the invoice must be up to 90 days before the debt starting date.	SUM(DISPTE_AMT) where invc_stat_cd not like '5%' bllng_dt Must be >= debt-strt_dt-90 days
DEBTMO13	The current invoice balance amount and current due date is based on the biggest billing date of any open invoices associated with this account. If several invoices are billed the same day, their amount will be summed. If a given invoice comes later than all others, only this invoice will be counted!	No value

Table 7-3   (Cont.) PKG_DWD_ACCT_DEBT_MO Business Rules

Rule ID	Description	Comment
DEBTMO14	The employee associated is either the latest one directly involved in the debt collection (employee code) or the call center agent (call center agent). It is therefore assumed that employee code and call center agent code correspond if they are the same party.	No value
DEBTMO15	The debt escalation level corresponds to the Priority code type of a given interaction. If the account debt has no debt escalation level code associated, the priority code type of the latest interaction around debt collection will be taken (Code 6% -see lookup).	No value
DEBTMO16	Invoice debt age is based on DUE DATE, not on extended due date.	No value
DEBTMO17	The definition of an "invoice in debt" is the latest invoice which has been sent to the customer, is closed from a billing cycle perspective but open from the balance point of view, has not been fully paid on due time.	Hence, only count one invoice in debt per "bill or billing unit" (group of related invoices created or to be created under a certain agreement for a certain service with a determined billing cycle). Only the latest completed billing cycle shall be considered, whether the due amount is carried forward or not into the next invoice.
DEBTMO18	It is assumed that all information in ACCOUNT DEBT is correctly stored as a cumulative amount in each AMT columns until all money is recovered, adjusted or written-off, including the day it closes.	See also DEBTMO19
DEBTMO19	In the target table, Organization Business Unit should be fed with the part of the CSP Organization that deals with the DEBT of this account. COLLECTION AGENCY should be fed with the external collection agency engaged to collect the debt if any. If COLLECTION TYPE is filled with "External", COLLECTION AGENCY is expected to be filled (and not being "-5000" or "unknown") and reciprocally.	No value

Table 7-3 (Cont.) PKG_DWD_ACCT_DEBT_MO Business Rules

Rule ID	Description	Comment
DEBTMO20	Adjusted amount are only those associated with any invoice and whose adjustment date is greater or equal the Debt Start date. If this information is null, ACCOUNT BALANCE IMPACT will be checked with similar conditions.	No value
DEBTMO21	The Total work duration of a debt is defined as the number of days between the debt assignment to someone and the date considered (or the end of debt). if HOLD_DT is null, nvl(ACCMPLSH_DT, DayConsidered) -ASGN_DT if HOLD_DT not null but RESUME_DT is null, HOLD_DT-ASGN_DT if HOLD_DT & RESUME_DT not null, nvl(ACCMPLSH_DT, DayConsidered) -ASGN_DT-(RESUME_DT-HOLD_DT)	No value

Table 7-4 PKG_DWD_ACCT_DEBT_MO Lookup Values

Table	Row	Code	Description
DWL_ACCT_ADJ_RSN	ACCT_ADJ_RSN_CD	'PNLTY', 'WVNG', 'RFND', 'DSPT', 'WRTOFF'	Penalty, Waiving, Refund, Dispute, Write-Off Distribution of details of adjustment when not already present.
DWB_INVC	FULL_PAY_RCVD_IND	'Y', 'N' or NULL	Fully paid, Not fully paid Only to count the number of invoices still to be paid (or in-debts)
DWR_AGRMNT	STAT_CD	'c', 'f' 'p'	'Closed' (not active anymore) 'future activation', 'pending activation'. Any other mark would mean active. Optionally needed.
DWD_ACCT_DEBT_DAY	COLLCTN_TYP	'Internal', 'External'	Whether the Collection is done internally (default) or given to a collection agency ('External').

7.2.3 PKG_DWD_ACCT_FRST_ACTVTY Package

Describes details to populate target table DWD_ACCT_FRST_ACTVTY.

For more information, see ACCOUNT FIRST ACTIVITY DERIVED (page 2-27).

PKG_DWD_ACCT_FRST_ACTVTY Package Source Tables

DWB_ACCT_PYMT
DWB_UDR_EVT
DWB_UDR_EVT
DWB_DATA_SRVC_EVT
DWB_WRLS_CALL_EVT
DWR_ACCT
DWB_FIXED_LN_CALL_EVT
DWB_SMS_EVT

Table 7-5   PKG_DWD_ACCT_FRST_ACTVTY Business Rules

Rule ID	Description	Comment
ACCT_1ST_ACTVTY_1	For every account existing at any point in type, this table must be filled. There must be at least 1 row per account even if subscriptions and offerings are not known.	No value
ACCT_1ST_ACTVTY_2	Information about Activity is about USAGE. Any usage of any type must be taken into account.	No value
ACCT_1ST_ACTVTY_3	One needs to distinguish between "Terminating" (or Incoming) usage from "Originating" (or Outgoing) Usage through the Call direction.	CALL_DRCTN = 'T' for terminating or 'O' for Originating. "-5000" or Unknown is not acceptable.
ACCT_1ST_ACTVTY_4	The Payment considered is any payment AFTER the first activation. Hence, for Prepaid, it is the 1st recharge. For postpaid, it is the 1st payment after invoice has been issued.	No value
ACCT_1ST_ACTVTY_5	Links to Product Specification and Product Offering is done through Subscription.	No value
ACCT_1ST_ACTVTY_6	In case of multiple access methods, the access Method considered shall be the Main one associated with the offer.	No value
ACCT_1ST_ACTVTY_7	Once all columns have been filled, a given row will not be updated anymore. Update shall run/be tried as long as one column is empty (null).	No value

Table 7-5   (Cont.) PKG_DWD_ACCT_FRST_ACTVTY Business Rules

Rule ID	Description	Comment
ACCT_1ST_ACTVTY_8	It is suggested to leverage the DERIVED layer of VOICE, VAS and DATA to get the 1st account activity instead of running at BASE layer.	This assumes however that these DERIVED have been filled upfront!
ACCT_1ST_ACTVTY_9	VAS usage assumes it is always end-user originating call.	Set call direction Code to be 'O' by default
ACCT_1ST_ACTVTY_10	Day level is enough as approximation. We are not interested to know the exact time.	No value

Table 7-6   PKG_DWD_FRST_ACTVTY Lookup Values

Table	Row	Code	Description
DWL_CALL_DRCTN	CALL_DRCTN_CD INTRACN_DRCTN_CD	**T,** **O,** **U**	Terminating, Originating Unknown (default)

7.2.4 PKG_DWD_ACCT_LAST_ACTVTY Package

Describes details to populate target table DWD_ACCT_LAST_ACTVTY.

For more information, see ACCOUNT LAST ACTIVITY DERIVED (page 2-27).

PKG_DWD_ACCT_LAST_ACTVTY Package Source Tables

DWB_ACCT_PYMT
DWB_UDR_EVT
DWB_FIXED_LN_CALL_EVT
DWB_SMS_EVT
DWB_DATA_SRVC_EVT
DWB_WRLS_CALL_EVT
DWR_ACCS_MTHD
DWR_ACCT

Table 7-7   PKG_DWD_ACCT_LAST_ACTVTY Business Rules

Rule ID	Description	Comment
ACCT_LAST_ ACTVTY_1	For every account existing at any point in type, this table must be filled. There must be at least 1 row per account even if subscriptions and offerings are not known. With Payment (of any type like standard payment or recharge or refund or transfer), one shall associate the unknown product offering and unknown product specification. It shall be stored independently from the usage activity itself.	In clear, it means that, per account, there must be 1 row for 1st payment information, and 1 row per product Offering / product Spec combination associated with 1st usage.
ACCT_LAST_ ACTVTY_2	Information about Activity is about USAGE. Any usage of any type must be taken into account.	No value
ACCT_LAST_ ACTVTY_3	One needs to distinguish between "Terminating" (or Incoming) usage from "Originating" (or Outgoing) Usage through the Call direction.	CALL_DRCTN = 'T' for terminating or 'O' for Originating. "-5000" or Unknown is not acceptable.
ACCT_LAST_ ACTVTY_4	The Payment considered is any payment AFTER the first activation. Hence, for Prepaid, it is the last recharge. For postpaid, it is the last payment after invoice has been issued.	No value
ACCT_LAST_ ACTVTY_5	Links to Product Specification and Product Offering is done through CDR information a priori or Subscription otherwise. This does not apply to payment.	No value
ACCT_LAST_ ACTVTY_6	In case of multiple access methods, the access Method considered shall be the Main one associated with the offer.	Currently, every used access method will be considered, if they are defined in the CDRs with a product offering and a product specification.
ACCT_LAST_ ACTVTY_7	For a given account, all columns shall be updated each run until the account is fully deactivated or terminated within the period considered by the intra-etl. The accounts to consider are any not terminated. Basically, this means one runs over any activity (usage) of any account, whether declared or not, and insert or update the corresponding row in the derived table.	That is when account stat_cd like '4%' or '5%' before L_START_TIME and never active in-between.

Table 7-7   (Cont.) PKG_DWD_ACCT_LAST_ACTVTY Business Rules

Rule ID	Description	Comment
ACCT_LAST_ ACTVTY_8		No value
ACCT_LAST_ ACTVTY_9	VAS usage assumes it is always end-user originating call.	Set call direction Code to be 'O' by default
ACCT_LAST_ ACTVTY_10	Day level is enough as approximation.	No value
ACCT_LAST_ ACTVTY_11	This rule is obsolete.	No value

Table 7-8   PKG_DWD_ACCT_LAST_ACTVTY Lookup Values

Table	Row	Code	Description
DWL_CALL_DRCTN	CALL_DRCTN_CD	**T,**	Terminating,
	INTRACN_DRCTN_CD	**O,**	Originating
		U	Unknown (default)

7.2.5 PKG_DWD_ACCT_PMT_MTD_STAT_HST Package

Describes details to populate target table `DWD_ACCT_PYMT_MTHD_STAT_HIST`.

For more information, see ACCOUNT PAYMENT METHOD STATUS HIST DRVD (page 2-27).

PKG_DWD_ACCT_PYMT_MTHD_STAT_HIST Source Tables

DWB_ACCT_CRDT_LMT
DWB_ACCT_PYMT_MTHD_STAT
DWL_AGE_ON_NET_BND
DWR_ACCT
DWR_ACCT_PYMT_MTHD
DWR_BSNS_MO
DWR_CUST

7.2.6 PKG_DWD_ACCT_PYMT_DAY Package

Describes details to populate target table `DWD_ACCT_PYMT_DAY`.

For more information, see ACCOUNT PAYMENT DAY DRVD (page 2-27).

PKG_DWD_ACCT_PYMT_DAY Package Source Tables

DWB_ACCT_PYMT
DWB_INVC
DWB_INVC_PYMT_ASGN
DWR_ACCT
DWR_ACCT_PYMT_MTHD
DWV_AGRMNT_ACCT_SBRP_PROD

Table 7-9   PKG_DWD_ACCT_PYMT_DAY Lookup Values

Table	Row	Description
DWL_PYMT_MTHD_TYP	PYMT_MTHD_TYP_CD	Lookup for type of payment For example:
		0 PRPD
		1 INVC
		2 TRNSFR
		3 CC
		5 DD
		6 DC
		11 CASH
		12 CHQ
		13 WTRNSFR
		14 PAYORDR
		15 PSTORDR
		16 VCHR
		17 DRCTDPST
		55 BNK
		20 POINTS
		99 OTHR
		-5000 UNKNOWN
DWL_ACCT_RFND_RSN	ACCT_RFND_RSN_CD	PRSNT
		INVCADJ
		-5000

7.2.7 PKG_DWD_AGRMNT Package

List details to populate target table `DWD_AGRMNT`.

For more information, see AGREEMENT DRVD (page 2-34).

PKG_DWD_AGRMNT Package Source Tables

DWB_AGRMNT_TERM
DWB_INVC
DWB_INVC_ITEM
DWL_AGE_ON_NET_BND
DWR_ADDR_LOC
DWR_AGRMNT
DWR_CLNDR_MO
DWR_CMPGN
DWR_CUST
DWR_PRMTN

Table 7-10   PKG_DWD_AGRMNT Business Rules

Rule ID	Description
AGRMNT1	The Time Window for this table is the month.
	This table contains the status for the month as of that date.
	Start date should always be the 1st day of the current month (at 00:00).
	End date should change every day (included).
	For a given run, it will take the last day available within the time period given.
AGRMNT2	The leading table is AGREEMENT TERM (base) whose validity period contains the first of the month considered.
	The associated AGREEMENT ITEM and AGREEMENTs will be then taken into account.
AGRMNT3	The Product Offering dimension used in this table originates from AGREEMENT and not from AGREEMENT ITEM. Hence, it is assumed that only the "main" product offering will be looked at and will be stored in the AGREEMENT table.
AGRMNT4	A change in Customer (Customer Key) implies a change in Agreement (Agreement Key changes because Customer Key it is associated to changes) and all the Agreement Item and Agreement terms associated.
AGRMNT5	Cumulated Term Value (used for AMORTIZED ARPU AMOUNT) and Remaining Agreement Value are calculated based only on Agreement Term that are associated with monthly fees and whose Unit of Measure is the month).
AGRMNT6	Due to the complexity of the calculation of Agreement Value Loss if one has to consider the true usage and revenue associated with a given agreement, Oracle Communications Data Model will restrict its definition of AGREEMENT LOSS AMOUNT by the CONTRACT VALUE (defined by CSP) in agreement term associated to this agreement at ANY TIME during the life cycle of this agreement. One assumes however that it will come only once at agreement starting date.

7.2.8 PKG_DWD_AGRMNT_CHG Package

Lists details to populate target table `DWD_AGRMNT_CHNG`.

For more information, see AGREEMENT CHANGED DRVD (page 2-34).

Table 7-11   PKG_DWD_AGRMNT_CHG Package Source Tables

Source Table Name	Alias
DWB_AGRMNT_TERM	None
DWR_AGRMNT	DWR_AGRMNT_OLD
DWR_AGRMNT	DWR_AGRMNT_NEW
DWR_AGRMNT_ITEM	None
DWR_CHNL	DWR_CHNL
DWR_DAY	DWR_DAY
DWR_PROD_OFR	DWR_PROD_OFR2
DWR_PROD_OFR	DWR_PROD_OFR1

Table 7-11   (Cont.) PKG_DWD_AGRMNT_CHG Package Source Tables

Source Table Name	Alias
DWR_PROD_SBRP	None

Table 7-12   PKG_DWD_AGRMNT_CHG Business Rules

Rule ID	Description	Comment
AGRMNT_CHG1	Old and New agreement must be linked within the reference table through a "PREVIOUS AGREEMENT KEY" field (associated with the new agreement), to be considered as Agreement change. There is no direct condition on the elapsed time between the closure of the old agreement and the start of the new one, as long as they are linked with one another (see also AGRMNT_CHG5). There is no limitation in the type of offering (Prepaid, Postpaid and migration between the 2) in the code. A simple surrogate key change is sufficient to feed this table (as long as the required link is present). The date of the change considered is the date at which the new agreement starts.	DWR_AGRMNT.PREV_AGRMNT_KEY is not null. This means that one could easily limit the number of entries in the target tables by limiting the cases when the PREVIOUS AGREEMENT KEY is filled or by simply adding custom conditions on "CHANGE REASON CODE".
AGRMNT_CHG2	Win and loss amount correspond to the "Contract Value" that the Communications Service Provider decided to associate with the old (resp. new) agreement.	No value
AGRMNT_CHG3	For the Count of Subscription Old and new, one wants to count the number of active subscriptions that ends exactly on the day the OLD agreement ends. Similarly, one counts all the subscriptions that start on the day the new agreement start	This number of subscriptions does NOT yet appear in the target table but could be easily added.
AGRMNT_CHG4	Currently, the customer shall stay identical. The FROM (old) and TO (new) customer key in agreement (old/new) shall be identical	If one wants to remove this condition, one just needs to add a "FROM_CUST_KEY" to the table and feed it with the customer key of the OLD agreement, and remove the where condition "Agreement_old.cust_key= agreement_new.cust_key"

Table 7-12   (Cont.) PKG_DWD_AGRMNT_CHG Business Rules

Rule ID	Description	Comment
AGRMNT_CHG5	The old agreement must end within the time period considered (Intra ETL parameter).The new agreement must start within the time period considered.	This condition could be loosened by removing the condition that the OLD agreement must end within the time period considered. It could be required that it ends anytime before the end of the period or between the end of the period and a certain amount of days before that.
		With this change, one remove any constraint on the time elapsed between the old and the new contract but one takes the risk to deteriorate performance (because one might take all ended agreements before this time in the sub-query if one does set any window!).
CANBLZTN_1	Cannibalization is defined by an agreement change with the same customer (same surrogate key!) and with the change happening within a day. Cannibalization has become obsolete	OBSOLETE

7.2.9 PKG_DWD_AGRMNT_RVN_DAY Package

Lists details to populate target table `DWD_AGRMNT_RVN_DAY`.

For more information, see AGREEMENT REVENUE DAY DRVD (page 2-34).

PKG_DWD_AGRMNT_RVN_DAY Package Source Tables

DWB_ACCT_BAL
DWB_INVC
DWB_INVC_ITEM
DWR_ADDR_LOC
DWR_CUST
DWR_PROD
DWR_PROD_OFR
DWR_SL_CHNL_RPRSTV

Table 7-13   PKG_DWD_AGRMNT_RVN_DAY Business Rules

Rule ID	Description	Comment
AGRMNT_ RVN_DAY0	Time window: All fact columns shall represent the status from the beginning until the end of the period considered (here: last passed day). It is NEVER a status or a balance at the end of the period. Hence, to have the revenue of a given combination or Product Offering and Product Spec, one shall sum each day of the period considered. Since Revenue Day has to do with Usage (hence CDRs), it is very important to consider the Business Rule RVN_DAY11 for LATE CDRs.	No value
AGRMNT_ RVN_DAY1	Content of DWD_RVN_DAY: stores all information according to all the dimensions for a given day. In particular, any combination of PRODUCT OFFERING and PRODUCT SPEC can be added wherever needed. Typically, when there is more than one default composite Product Spec to a given Product Offering, or when one wants to have the details of say the handset model chosen depending on various options associated with a given Product Offering. Since all revenue columns are sum-able, it contain the statistics around any PRODUCT OFFERING alone (whatever the Product Spec), or any PRODUCT SPEC. See also RVN_DAY10 and CNT_DAY2 rules.	No value

Table 7-13 (Cont.) PKG_DWD_AGRMNT_RVN_DAY Business Rules

Rule ID	Description	Comment
AGRMNT_ RVN_DAY2	Definition of the Revenue Types. There are seven types of Revenue:	Corresponding SQL Statement
	Billed: Any amounts appearing either on a bill sent (postpaid) OR (prepaid) when they already paid for their use of a service OR the monetary amount left expired (.	Any Prepaid Usage or Expired Monetary Balance shall be considered as "Billed".
	Unbilled: all the other cases. Ignored (that is, columns not fed) in Oracle Communications Data Model.	For Postpaid, "Billed" is when DWB_INVC.STAT_CD ='OPEN' or 'CLOSED';
	Billed earned: normal case where customer has been billed for the services/usage he has used.	Unbilled will be all other cases. Because the rule is depending on the billing system itself, and the internal processing, Unbilled revenue will be ignored (present as column but NOT FILLED).
	Unbilled earned: customer is billed upfront; future cycles fall under unearned revenue.	
	Billed unearned: this is the case when customer has performed some usage (that is, made a call), but has not yet been billed for that usage.	
	Unbilled unearned: an example here is a payment a customer may make upfront, but future services to be rendered are canceled (or simply overpayments they may have made).	
	Previously billed earned: Billed earned from previous period considered.	
	For more information, see *Oracle® Communications Billing and Revenue Management Collecting General Ledger Data*.	
	Oracle Communications Data Model deals only with billed and unbilled revenue, which includes earned and unearned revenue as follows:	
	Billed = billed earned + billed unearned + previously billed earned.	
	Unbilled = unbilled earned + unbilled unearned	
	"Billed" means it appears on an invoice sent to customer ('OPEN')	
	Oracle Communications Data Model includes:	
	UNEARNED will be ignored and set to 0. One assumes immediate revenue recognition.	

Table 7-13   (Cont.) PKG_DWD_AGRMNT_RVN_DAY Business Rules

Rule ID	Description	Comment
	UNBILLED will also be set to 0 by default as it would require quite complex and costly calculation.	
	Note: if the Billing status code is kept in the usage calculation, one could add the unbilled usage to the target table.	
	Recurring Forward Fees are in general set to 0 unless they are invoiced (and they will be considered as earned).	
	Additional definitions:	
	Gross Revenue: reports the total of net and discounted revenue.	
	Discount or Discounted Revenue: reports the balance impacts of discounted revenue.	
	Net Revenue: reports the amount of revenue that remains after applying discounts.	
	Tax: reports the amount of taxes calculated. This data is used for collecting G/L data based on tax codes. Tax is assumed to never be applied in any amounts except on Invoices.	

Table 7-13   (Cont.) PKG_DWD_AGRMNT_RVN_DAY Business Rules

Rule ID	Description	Comment
AGRMNT_ RVN_DAY3	More Definitions around Revenue:	
	Prepaid Services Revenue (Excluded): this should count all prepaid usage revenue for the period + any expired prepaid revenue even if not used.	
	Billed or unbilled is not relevant in this case since that is not applicable to prepaid. It is always considered as "billed".	
	Postpaid Services Revenue (billed): billed postpaid usage revenue (all services) + billed cycle fees (for example, monthly) + recurring equipment rental (for example, CPE rental).	
	Equipment Revenue (billed): revenue associated with sale of any devices (for example, handsets) and accessories.	
	Other Revenue (billed): this should include other non-recurring customer revenue such as one-time purchase or activation fees, late payment fees, cancellation fees, and so on.	
	Total Gross Revenue (billed): prepaid services revenue + postpaid services revenue + equipment revenue + other revenue.	
	Total Net Revenue (billed): total gross revenue - deductions (for example, taxes, refunds, write-offs).	

Table 7-13   (Cont.) PKG_DWD_AGRMNT_RVN_DAY Business Rules

Rule ID	Description	Comment
AGRMNT_ RVN_DAY4	Condition Definitions:	No value
	Usage Revenue: Revenue coming from service usage (pay per use) and calls (pay on event, duration and/or volume). The sources will be VOICE CALL DAY, DATA USAGE DAY, VAS USAGE DAY (and not SUPPLEMENTARY SERVICE USAGE DAY).:	
	The field TOT_BLLD_AMT or BLLD_AMT shall be used when PLN_TYP='Prepaid' (and day corresponds).	
	The postpaid Revenue shall come from	
	DWD_INVC_DAY: USG_RVN_BLLD when it is independent of Product Offering and Product Spec (or this number could be used as X-check). It shall come from DWB_INVC_ITEM when the product Offering and/or the Product Spec is required.	
	Expired Revenue (excluded): Revenue that comes from prepaid expired amount.	
AGRMNT_ RVN_DAY5	Roaming Revenue:	No value
	Roaming Revenue is considered for Roaming events on CSP's network, whose paying party is an external operator. It assumes that any event from WIRELESS ROAMING EVENT only contain such events.	
	It is also expected RMNG_EXTRNL_OPRTR_KEY or EXTRNL_OPRTR_KEY cannot be both null.	
	For Billed Revenue, Invoices must be of Type "RMNG STTLMT" (Roaming Settlement).	
	Roaming domestically (MVNO) is allowed.	

Table 7-13   (Cont.) PKG_DWD_AGRMNT_RVN_DAY Business Rules

Rule ID	Description	Comment
AGRMNT_ RVN_DAY6	Transfer: A transfer (Account, Agreement, Product Subscription) is a change of ownership and is recognized as such if and only if: The "Code" of the entity is not changed The Agreement and its term are not changed. The Product Offering associated is not immediately changed. Only the ownership changes The Status Reason Code is associated with Transfer. There is no time without ownership.	STAT_CD like '2%' (New) and SUBSTR(STAT_CD,1,1) in ('1','2') (old) and new.eff_from_dt - old.eff_to_dt<=1s
AGRMNT_ RVN_DAY7	Geographic County corresponds to the County of the Primary Address of the Customer when defined.	No value
AGRMNT_ RVN_DAY8	Organization Business Unit, Sales Channel and Sales Rep : correspond to the respective Sales Channel and Sales Rep directly associated with the Product Offering and Product Spec of the corresponding product subscription. If unclear or undefined, one shall take the last one associated with the corresponding Customer (in the customer table).	No value
AGRMNT_ RVN_DAY9	Cost Center is the Cost Center associated with the Organization Business Unit considered (if uniquely defined). Keep it 'UNKNOWN' otherwise.	Not used

Table 7-13   (Cont.) PKG_DWD_AGRMNT_RVN_DAY Business Rules

Rule ID	Description	Comment
AGRMNT_ RVN_DAY10	Product Offering Level and Product Spec Level: (follow-up of RVN_DAY1)	OBSOLETE since the facts are sumable.
	When both set to 0, both PRODUCT SPEC and PRODUCT OFFERING should be defined (normally not unknown, although unknown will be accepted).	
	If one of the level is set to 1 and the other to 0, it collects the statistics according to the entity whose level is set to 0, independently of the other. The other will be forced to be 'unknown'.	
	If both levels are set to 1, it collects the global statistics independently of Product Offering or Product Spec. Both are forced to be 'unknown'.	
	This is necessary to allow the calculation of some KPIs.	
	See also CNT_DAY10 rule.	
AGRMNT_ RVN_DAY11	Late Usage or Late CDRs:	No value
	Usage that come later shall be taken into account. Hence, the LOAD DATE should be used as part of the criteria to consider a row or not.	
	But the REVENUE associated shall be attributed to the right day, corresponding to the Start Day of the event.	
	This rule could be changed for very late delay (> 3 full months). Those revenues should be excluded.	
RVN_DAY12	For Prepaid, the calculation assume that the Sale Channel and Sales Rep information are associated with the Prepaid subscription. These two fields will be then used.	Not relevant for Agreement Revenue Day
RVN_DAY13	Due to the way to feed DWD_AGRMNT_RVN_DAY (for performance), there will be 1 row per combination of key columns: 1 for postpaid and 3 for Prepaid.	The prepaid columns will stay empty.
	As a consequence,	
	- Empty revenue columns shall be filled with 0 and not with null.	

Table 7-13   (Cont.) PKG_DWD_AGRMNT_RVN_DAY Business Rules

Rule ID	Description	Comment
AGRMNT_ RVN_DAY14	Most Key columns will come from the information out of the Product Subscription. In particular, it is expected that the following columns of PRODUCT SUBSCRIPTION are filled (in bold, those critical): Organization Business Unit Code Channel Code (preferred, priority) or Campaign Channel Code Product Offering Code (!) Product Spec Code (!) Customer Code (or at least Account Code). Additionally, it is expected that every PRODUCT SUBSCRIPTION has got an associated AGREEMENT ITEM that points to it.	In DWR_PROD_SBRP, check that the following columns are filled: ORG_BUS_UNIT_KEY CHNL_KEY or CMPGN_CHNL_KEY PROD_OFR_KEY PROD_SPEC_KEY CUST_KEY or ACCT_KEY. Check also that any rows in DWR_PROD_SBRP are pointed at by some rows in DWB_AGRMNT_ITEM. This should be particularly true for the options that impact rating but are not always.
AGRMNT_ RVN_DAY15	Plan Type is only 'Postpaid'. Hybrid product offering cannot be considered and will be ignored (at least for billed usage).	If PLN_TYP <> 'Postpaid', all billed usage related columns will be ignored.
AGRMNT_ RVN_DAY16	Roaming Revenue concerns only revenue that comes from Roaming TAP OUT file. TAP IN file are NOT considered as part of Roaming Revenue.	This is for RMNG_RVN_UBLLD.
AGRMNT_ RVN_DAY17	Interconnect Revenue only concerns revenue from passing traffic. The A & B numbers (if defined at all) are NOT belonging to the Service Provider. Interconnect Traffic will be recognized by a non null revenue associated with INTERCONNECTION field. Cost will be ignored here. It is assumed that all interconnection traffic will be stored in FIXED LINE CALL EVENT (whatever the type of call).	INTCONN_RVN>0 is sufficient as criteria.
AGRMNT_ RVN_DAY18	SALES REPRESENTATIVE and COST CENTER columns are currently ignored.	The exact formula used is: nvl(nvl (AGRMNT.SL_CHNL_KEY, AGRMNT.CHNL_KEY), CUST.CHNL_KEY) for SL_CHNL_KEY and nvl(AGRMNT.SL_CHNL_RPRSTV_ KEY, -5000) for SL_CHNL_RPRSTV_KEY

Table 7-13   (Cont.) PKG_DWD_AGRMNT_RVN_DAY Business Rules

Rule ID	Description	Comment
AGRMNT_ RVN_DAY19	For all USAGE, Billing Status Type code successful (that is, BILLED) is explicitly required.	BLLG_STAT_TYP_CD='SUCC' is expected. The "CASE WHEN" conditions could be all removed (to win time) if one assumes that all usage events stored at the derived layer will always have the same BILLING STATUS TYPE CODE (assumed to be 'SUCC' only).
AGRMNT_ RVN_DAY20	It is assumed that the ORGANIZATION BUSINESS UNIT (as well as others like GEO COUNTY CODE or CUSTOMER TYPE CODE) stored in the derived USAGE tables (VOICE CALL DAY; DATA USAGE DAY and VAS USAGE DAY) are identical to the one set in the invoice. One could add that it should be equal to the one in AGREEMENT to be coherent but that would add another constraint which is not obvious and not strictly necessary. Hence, it is NOT required today.	There is an explicit full join with these conditions between invoice and the usage tables. If this is not the case, the USAGE related statement must be modified to force the ORGANIZATION BUSINESS UNIT there to be equal to one of the invoice
AGRMNT_ RVN_DAY21	It is assumed that a PRODUCT SUBSCRIPTION is UNIQUELY associated to a given AGREEMENT ITEM.	We assume that PROD_SBRP_KEY exists only once in any rows of DWR_AGRMNT_ITEM. Any repeat will lead to multiple lines for the same product subscription, multiplying the same revenue as the number of rows in AGREEMENT ITEM with a given PROD_SBRP_KEY. This business rule is different from RVN_DAY21

Table 7-13   (Cont.) PKG_DWD_AGRMNT_RVN_DAY Business Rules

Rule ID	Description	Comment
AGRMNT_ RVN_DAY22	Information out of the invoice will only be considered when the billing date of the invoice is between the ETL (Time) Parameters. The status of the invoice is ignored. This implies two approximations: The invoice is complete at billing date and will NOT be corrected or updated after that date (or this update will not be considered - like the invoice status change, the partial or full payment after billing date, and so on). Past invoices added at a later time in Oracle Communications Data Model will not be considered. Note: The status of the invoice is ignored only for the selection of the invoice and invoice items. However, the association to an INVOICED (BILLED) or UNBILLED column is based on the status invoice: INVOICED when the 1st 2 characters of Invoice Status Code is between 20 and 59 (both limits included) Unbilled in all other cases.	As customization, one could deal with LOAD DATE and INVOICE CODE to find whether an invoice has already been considered or not. But this could be a heavy job to do it correctly.
AGRMNT_ RVN_DAY23	Discount Revenue: On top of being positive (and to be subtracted from all revenues), it is assumed that only DISC_AMT and related columns have to be considered. This also mean that if an invoice item is of type DISCOUNT (INVOICE ITEM TYP CD like 6%), only DISC_AMT (and related) should then be filled, and not CHRG_AMT.	No value
AGRMNT_ RVN_DAY24	Invoice items associated with recurring fees will be associated with only price type code for forward fees (Price_TYP_CD like '11%') or arrear fees ((Price_TYP_CD like '12%'). Any other combination is currently excluded from the REVENUE DAY derived table.	No value

Table 7-13   (Cont.) PKG_DWD_AGRMNT_RVN_DAY Business Rules

Rule ID	Description	Comment
AGRMNT_ RVN_DAY25	In this Oracle Communications Data Model, CUST3MO_IND and SBRP1MO_IND are currently not in use.	A minor modification of the code could allow end-users to leverage them.

7.2.10 PKG_DWD_CANBLZTN_DTL_DAY Package

Lists details to populate target table `DWD_CANBLZTN_DTL_DAY`.

For more information, see CANNIBALIZATION DETAIL DAY DRVD (page 2-46).

PKG_DWD_CANBLZTN_DTL_DAY Package Source Tables

DWR_AGRMNT
DWR_CHNL
DWR_DAY
DWR_PROD_OFR

Table 7-14   PKG_DWD_CANBLZTN_DTL_DAY Business Rules

Rule ID	Description
CANBLZTN_1	Cannibalization is defined by an agreement change with the same customer (same surrogate key!) and with the change happening within a day.

7.2.11 PKG_DWD_CMPGN_HIST_DAY Package

Lists details to populate target table `DWD_CMPGN_HIST_DAY`.

For more information, see CAMPAIGN HISTORY DAY DRVD (page 2-45).

PKG_DWD_CMPGN_HIST_DAY Package Source Tables

DWB_ACCT_PYMT
DWB_EVT_ACCT
DWB_EVT_PRTY_INTRACN
DWB_PRTY_PRMTN_RESPN
DWR_DAY
DWR_PROD_OFR
DWR_PROD_SBRP

Table 7-15   DWD_CMPGN_HIST_DAY Business Rules

Rule ID	Description	Comment
CMPGN1	Any response to any promotion and campaign shall be taken into account. Campaign run over phone (SMS or direct call) without entry in promotion response shall also be considered. It could be easily extended to any type of interaction for a campaign (shop, and so on).	Limit search to DWB_PRTY_PRMTN_RESPN and DWB_EVT_PRTY_INTRACN
CMPGN2	In case more than one campaign channel are used for a given campaign associated with a response, the campaign channel will be chosen to be UNKNOWN	if only 1 Campaign Channel available for the campaign, take it. Otherwise, put -5000
CMPGN3	Contact Lists and scripts may not be defined when a campaign is run. In such case, they will be set to unknown.	Use -5000
CMPGN4	The number of contact is independent on the success of the contact (answered or not). For EVENT PARTY INTERACTION CALL, it will be similar to CALL COUNT.	No value
CMPGN5	The number of activations is based on the effective activation of the customer within a day of the interaction. The status of the subscription determines the activation. A customer order is NOT an activation.	For promotion response, you shall look into subscription with the offer to find out when it was activated.
CMPGN6	There is no difference between an SMS campaign and a campaign over the Phone.	In both case, MEDIA OBJECT shall be 'PHONE'.
CMPGN7	When there is no row in PARTY PROMOTION RESPONSE associated to a campaign (over the phone in our case), the PROMOTION RESULT CODE shall contain the OVERAL RESULT CODE of the Interaction.	No value

Table 7-15   (Cont.) DWD_CMPGN_HIST_DAY Business Rules

Rule ID	Description	Comment
CMPGN8	Reactivation Count is based on EVENT ACCOUNT table. When the event type code is 'RECNCT', it will be counted whether it was suspended or full deactivated. The time span between the reactivation and the call should be less than a month.	No value
CMPGN9	For Recharge count, the calculation assumes that any existing customer who accepts a Prepaid offer is a recharge.	When DWR_PROD_OFR.PLN_TYP= 'PREPAID' then count 1.
CMPGN10	A successful recharge is defined by the above + a row in ACCOUNT PAYMENT (associated with recharge) and a successful transaction.	No value
CMPGN11	The total response time is calculated as such: For a promotion response, the time between the campaign start date and the positive or negative response date. (no response means null). For a call, the time between the call (call start date) and the final response (accepted/refused). For a letter, it should be the time between the letter was sent and the final response (accepted/refused).	No value

Table 7-16   DWD_CMPGN_HIST_DAY Lookup Values

Table	Description
DWL_INTRACN_RSLT_TYP	Lookup for available types of Interaction Relation: 1000 RSLVD 2000 OFRACCEPT 3000 INTEREST 5000 PENDING 6000 DROP 7000 ABDN 8000 RFSD 9000 NEVERCALL -5000 UNKNOWN

Table 7-16   (Cont.) DWD_CMPGN_HIST_DAY Lookup Values

Table	Description
DWL_PRMTN_RSLT_TYP	Lookup for available type of Promotion Relation: OFACCPTD Offer Accepted ATRPRVNT Attribution Prevented -5000 Unknown
DWL_PROD_SBRP_STAT_TYP	No value
DWL_ACCT_EVT_TYP	Lookup for available type of Account Event.: • TMNATMPT Termination Attempted • TMNT Termination • CRT Create • ACTVTN Activation • DISCNCTN Disconnection • INDEACT Involuntary Deactivation • VOLDEACT Voluntary Deactivation • INSUSP Involuntary Suspend • INSUSP Involuntary Suspend • VOLSUSP Voluntary Suspend • RECNCT Reconnect • RFIS Reactivation From Involuntary Suspend • -5000 Unknown

7.2.12 PKG_DWD_CNT_DAY Package

Lists details to populate target table DWD_CNT_DAY.

For more information, see .

PKG_DWD_CNT_DAY Package Source Tables

DWR_ACCT
DWR_ADDR_LOC
DWR_AGRMNT
DWR_DAY
DWR_PROD_SBRP
DWR_PROD_OFR

Table 7-17   DWD_CNT_DAY Business Rules

Rule ID	Description
CNT_DAY0	Time window: Count represents the status (could be a sum or "as of" depending on the nature of the things that is being counted) for the primary keys combination.
	In general, all columns whose names finish by "COUNT" represent the status at the end of the period considered (here: last passed day) and of the other primary keys used as well. It is not sum-able.
	For example, on April 27th in the morning, the COUNT of active customer of Month of April would be # as of April 26th".
	All columns finishing by "COUNT THIS PERIOD" correspond to a delta between the time period key and the previous time period key (whether win or loss) of the considered period (a day in this case). It is always a positive number and the column meaning will tell whether win or loss. It is sum-able across a time period greater than a day.
CNT_DAY1	Entity Definition:
	Household: A Building if it belong to one customer only, 1 level or 1 flat otherwise:
	Customer: A party that has a customer role with respect to the Service Provider
	Account: The financial vision of the customer for the service provider.
	Agreement: A tacit or explicit relationship between a customer and the service provider. It is typically for postpaid only (that is, Agreement = contract), although agreements can also be defined for Prepaid if required. SLA are not explicitly counted here.
	Main or Prime Subscription: A critical Product Subscription that may carry other and without which there is no access to the network or service.
	Subscription: Any product subscription
	Access Method: how a customer accesses or utilizes a service from the Service Provider.
	User: Custom - User Defined Field - not used.
	Line: Custom - User Defined Field - not used.
	Please note: None of these definition requires a specific Status of the corresponding entity.
CNT_DAY2	Content of DWD_CNT_DAY:
	It shall store all information according to all the dimensions for a given day.
	In particular, any combination of PRODUCT OFFERING and PRODUCT SPEC can be added wherever needed. Typically, when there is more than one default composite Product Spec to a given Product Offering, or when one wants to have the details of say the handset model chosen depending on various options associated with a given Product Offering.
	On top of the above, it shall contain statistics around any PRODUCT OFFERING alone (whatever the Product Spec), or any PRODUCT SPEC alone. (see business rule CNT_DAY10 with PRODUCT OFFERING LEVEL and PRODUCT SPEC LEVEL).
	Same remark with PRODUCT SPEC TYPE
	Finally, it shall contain Statistics independently of any PRODUCT OFFERING and PRODUCT SPEC.

Table 7-17   (Cont.) DWD_CNT_DAY Business Rules

Rule ID	Description
CNT_DAY3	Status Definition:
	Various statuses are used in DWD_CNT_DAY. Their definitions differ slightly from the usual definition associated with an entity.
	Pending Activation: Not active yet but a process is on-going. Pre-Activated Prepaid Cards or Future Activation (with signed contract) are in such state.
	Pre-Activated: Only for off-the-shelf products (typically cards) with immediate use possible. It is a sub-type of Pending Activation.
	Active: A status that is neither Pending Activation nor Deactivated or Terminated. Hence, reactivated, suspended or dormant statuses are considered as active.
	Inactive: Cancelled, Deactivated or Terminated.
	Suspended: A specific status in which customer can receive calls but cannot actively calls except emergency or free numbers.
	Reactivated: A previously Suspended or Deactivated Entity that is back to active.
	Cancelled: The (approved) cancellation of a given request of entity within a given timeframe. The canceled entity could have been activated or Pre-Activated. It is considered as Inactive but not as Deactivated.
CNT_DAY4	Condition Definitions:
	Customer with SLA: Customer which has got at least 1 currently valid SLA associated.
	Account with SLA: As Customer for Account.
	Agreement with SLA: Agreement which has got at least 1 SLA associated: necessarily >= SLA count since an SLA is a type of agreement!
	Main Subscription under SLA: Subscriptions with Essential Indicator set that are under an active SLA.
	New (Status) Count: Number of Entities with Status with Entity Activation is within last X months.
	Churned Count: Number of Deactivated Entities (household, Customer, Account).
	Transferred: Entity "deactivated" for a given Customer and immediately "reactivated" under another, while keeping all the same. It can apply to Account and lower. Please see specific business rule CNT_DAY. It only counts the outgoing entities.
	New <Entity> due to Agreement or Account Transfer: Counts the Entity that needed to be created following a transfer. (for example: I give my contract to my daughter who was not defined originally).
	Newly Activated and Cancelled: The entity has been activated AND canceled within the period considered (Day!).
	Future <Entity> Cancelled: The entity has an activation date sometimes in the future and AND has been canceled before it started.
	Active Entity Count for Month/Quarter/Year: it counts ANY distinct entity that has been active at anytime within the period considered. A minimum of 1 second is currently considered.
	Voluntary Suspension: Customer triggered to stop service (theft, holidays…). Temporary state ('suspended')
	Involuntary Suspension: Service Provider triggered (non-payment, fraud…)
	Voluntary Termination: Customer triggered (relocation, contract ends - no renewal…). Permanent State (Deactivated). Specific Claw-back actions are allowed.
	Involuntary Termination: Service Provider triggered (death, fraud, debt …). Permanent State (Deactivated). No claw-back actions allowed.

Table 7-17   (Cont.) DWD_CNT_DAY Business Rules

Rule ID	Description
CNT_DAY5	Services: This is only for the SPECIAL VIEW on DWD_CNT_DAY.
	Broadband: The Product Offering or Product Spec combination contains or applies to Broadband Service.
	Wireless: as above for Wireless (2-4G).
	Hometel: as above for simple PSTN Wireline service (no VoIP).
	PayTV: As above for PayTV (whatever the deliver channel: wireless, broadband,…).
	With <Service>: The Product Offering and Product Spec combination contains <Service>.
	With <Service> in Convergent Package: The Product Offering and Product Spec combination contains <Service> as part of a multi-play offering.
	Product Subscription Related to <Service >: the corresponding Product Subscription only applies if a <Service> is up & running.
CNT_DAY6	Transfer: A transfer (Account, Agreement, Product Subscription) is a change of ownership and is recognized as such if and only if:
	The "Code" of the entity is not changed
	The Agreement and its term are not changed. The Product Offering associated is not immediately changed.
	Only the ownership changes
	The Status Reason Code is associated with Transfer.
	There is no time without ownership.
CNT_DAY7	Geographic County corresponds to the County of the Primary Address of the Customer when defined.
CNT_DAY8	Organization Business Unit, Sales Channel and Sales Rep: correspond to the respective Sales Channel and Sales Rep directly associated with the Product Offering and Product Spec of the corresponding customer.
	If unclear or undefined, one shall take the last one associated with the corresponding Customer (in the customer table).
CNT_DAY9	Cost Center is the Cost Center associated with the Organization Business Unit considered (if uniquely defined). Keep it 'UNKNOWN' otherwise.

Table 7-17   (Cont.) DWD_CNT_DAY Business Rules

Rule ID	Description
CNT_DAY10	Product Offering Level and Product Spec Level: (follow-up of CNT_DAY2) • For PROD_OFR hierarchy: 3 levels only: TPRO_OFR, PLN_TYP and PROD_OFR_CD: Possible values are: • 'TPROD_OFR' (total PROD_OFR) or • 'PLN_TYP' • 'PROD_OFR_KEY' for the lower lvl. In PROD_OFR_KEY column, the content will be respectively: • '-5000' for highest level • 'Prepaid' or 'Postpaid' (only) • The PROD_OFR_KEY (number) For PROD_SPEC_LVL: the 3 levels would be • 'TPROD_SPEC' for highest level, or • 'PROD_SPEC_TYP_CD' for middle level • 'PROD_SPEC_KEY', for lowest level In PROD_SPEC_KEY column, you would have respectively: • '-5000' for highest level • The PROD_SPEC_TYP_CD for middle level (so the PROD_SPEC TYP on which you aggregate all sub-PROD_SPEC_KEYs), or • 'PROD_SPEC_KEY', for lowest level When both set to lowest level, both PRODUCT SPEC and PRODUCT OFFERING should be defined (normally not unknown, although unknown will be accepted). If one of the level is set to a higher level and the other to lowest, it collects the statistics according to the entity whose level is set to the lowest, aggregated up to the level of the other. If both levels are set to highest level, it collects the global statistics independently of Product Offering or Product Spec. Both are forced to be '-5000'. This is necessary to allow the calculation of some KPIs.
CNT_DAY11	Household and County: Households and Counties hardly change. Hence, the Surrogate Key will be assumed not to change for a given Household or County.

Table 7-18   DWD_CNT_DAY Lookup Values

Table	Row	Code	Description
DWR_CUST DWR_ACCT DWR_AGRMNT DWR_PROD_SBRP DWR_ACCS_MTHD	STAT_CD	'1%'	Pending Activation
DWR_AGRMNT DWR_CUST DWR_ACCT DWR_PROD_SBRP DWR_ACCS_MTHD	STAT_CD	'15%'	Pre-Activated

Table 7-18 (Cont.) DWD_CNT_DAY Lookup Values

Table	Row	Code	Description
DWR_CUST DWR_ACCT DWR_AGRMNT DWR_PROD_SBRP DWR_ACCS_MTHD	STAT_CD	'2%'	Active
DWR_ACCT DWR_PROD_SBRP	STAT_CD	'29%'	Suspended
DWR_CUST DWR_ACCT DWR_AGRMNT DWR_PROD_SBRP DWR_ACCS_MTHD	STAT_CD	'4%'	Deactivated / Terminated
DWR_CUST DWR_ACCT DWR_AGRMNT DWR_PROD_SBRP DWR_ACCS_MTHD	STAT_CD	'5%'	Cancelled
DWR_CUST DWR_ACCT DWB_AGRMNT_STA DWR_PROD_SBRP DWB_ACCS_MTHD_STAT_HIST	PRMRY_STAT_RSN_CD ACCT_STAT_RSN_CD AGRMNT_STAT_RSN_CD PROD_SBRP_STAT_RSN_CD ACCS_MTHD_STAT_RSN_CD	No value	No value
DWR_CUST DWR_ACCT DWB_AGRMNT_STA DWR_PROD_SBRP DWB_ACCS_MTHD_STAT_HIST	XXX_RSN_CD	'3%'	Suspension: 37% or 38% for Involuntary Suspension only, all others are Voluntary.
DWR_CUST DWR_ACCT DWB_AGRMNT_STA DWR_PROD_SBRP DWB_ACCS_MTHD_STAT_HIST	XXX_RSN_CD	'4%'	Voluntary Status Change: Termination Voluntary

Table 7-18   (Cont.) DWD_CNT_DAY Lookup Values

Table	Row	Code	Description
DWR_CUST DWR_ACCT DWB_AGRMNT_STA DWR_PROD_SBRP DWB_ACCS_MTHD_STA T_HIST	XXX_RSN_CD	'8%'	Involuntary Status Change: Termination Involuntary

7.2.13 PKG_DWD_CNTCT_CNTR_DAY Package

Lists details to populate target table `DWD_CNTCT_CNTR_DAY`.

For more information, see .

PKG_DWD_CNTCT_CNTR_DAY Package Source Tables

DWB_EVT_PRTY_INTRACN
DWR_CALL_CNTR
DWR_CHNL
DWR_DAY
DWR_ORG_BSNS_UNIT
DWR_PROD_SBRP
DWR_TIME_SLT
DWV_PRTY_INTRACN_THRD

Table 7-19   DWD_CNTCT_CNTR Business Rules

Rule ID	Description	Comment
CNTCT_CNTR _CALL1	Timeslot definition is supposed to be true for any day of the week. It corresponds to quarter of hours.	No value
CNTCT_CNTR _CALL2	The CALL CENTER should be understood as a general CONTACT CENTER. Contact can be done through Email, Chat, Letter, or visit. Important is that it does not take place at customer's site and it is measurable (call/time in - time out). In this specific intra-ETL, limit to calls only. Hence, only consider the logical entities EVENT PARTY INTERACTION CALL (DWB_EVT_ PRTY_INTRACN_CALL).	No value
CNTCT_CNTR _CALL3	Call Transfer will be treated as another event related to the first call in the same party interaction thread. It is assumed that it deals with the same problem (see otherwise CNTCNTR_CALL6). Hence, the number of contacts (calls) is increased by the number of Transfers.	No value

Table 7-19   (Cont.) DWD_CNTCT_CNTR Business Rules

Rule ID	Description	Comment
CNTCT_CNTR _CALL4	By interaction occurring through the web portal of the CSP, the **party interactionis not considered** to start when the customer enters the web portal but when the **chat session starts**. Click stream analysis is to be treated elsewhere.	No value
CNTCT_CNTR _CALL5	Waiting, Hold, Queue time shall only be considered for Phone calls.	No value
CNTCT_CNTR _CALL6	In case of multiple reasons for a call, a separate case (hence, interaction thread) has to be created.	No value
CNTCT_CNTR _CALL7	The call direction is with respect to the call center view (inbound "**I**", customer calling, or outbound "**O**", when the agent calls). It is defined by who is starting the call or the chat.	No value
CNTCT_CNTR _CALL8	Dropped calls or chat is assumed to be generated by the customer only.	Interaction Result Type Code = 'DROP'
CNTCT_CNTR _CALL9	Complaints are only counted when the original reason of the call was the complain itself and from a customer. Otherwise, complaints during a call for another reason will not be considered.	Interaction Reason Code = 'CUSTCOMP'.
CNTCT_CNTR _CALL10	Abandoned call is defined to be either when recognized as such or when the customer drops while in the queue.	Hence, the conditions is an interaction result type of "Abandoned" ('ABDN') or interaction result type as "Dropped Call" ('DROP') and 0 talk time.
CNTCT_CNTR _CALL11	Hangup call is defined when the customer drops while talking to the contact center agent.	Hence, the conditions is interaction result type as "Dropped Call" ('DROP') and talk time>0.
CNTCT_CNTR _CALL12	Released call is defined when the contact agent center stops the call. It is neither dropped nor abandoned.	Hence, the conditions is interaction result type is not "Dropped Call" ('DROP') nor "Abandoned" ('ABND') and talk time>0.
CNTCT_CNTR _CALL13	Handling Time is defined by addition of the queue time and the hold time and the talk time.	No value

Table 7-20   DWD_CNTCT_CNTR Lookup Values

Table	Description
DWL_INTRACN_RSLT_TYP	Lookup for available types of Interaction Relation: 1000 RSLVD 2000 OF RACCEPT 3000 INTEREST 5000 PENDING 6000 DROP 7000 ABDN 8000 RFSD 9000 NEVERCALL -5000 UNKNOWN
DWL_INTRACN_RSN	Lookup for available type of Interaction Reason.: 1000 MKTG QOT-OFR 1100 MKTG INBOND 1200 MKTG OUTBOND 2000 CUST INQ 2100 OFR INQ 2700 TECH INQ 2300 BILL INQ 2200 OFR INQ RESP 2400 BILL INQ RESP 2800 TECH INQ RESP 6000 DBCOLL 6100 DBCOLL CNTCT RETRN 6200 DBCOLL OUTBOND 7000 DSPT 8000 CMPLN 9000 SRVC CNTCT 9100 TECH TRBL REP INBOND 9180 TECH TRBL REP INBOND CMPLN 9200 TECH TRBL CNTCT OUTBOND AFT REP 9210 TECH TRBL CNTCT OUTBOND PROACT 9400 SRVC NOTFCTN -5000 UNKNOWN
DWL_PROD_SBRP_STAT_TYP	

Table 7-20   (Cont.) DWD_CNTCT_CNTR Lookup Values

Table	Description
DWL_ACCT_EVT_TYP	Lookup for available type of Account Event.:
	TMNATMPT Termination Attempted
	TMNT Termination
	CRT Create
	ACTVTN Activation
	DISCNCTN Disconnection
	INDEACT Involuntary Deactivation
	VOLDEACT Voluntary Deactivation
	INSUSP Involuntary Suspend
	VOLSUSP Voluntary Suspend
	RECNCT Reconnect
	RFIS Reactivation From Involuntary Suspend
	-5000 Unknown

7.2.14 PKG_DWD_CUST_DNA Package

Lists details to populate the target table `DWD_CUST_DNA`.

For more information, see .

DWD_CUST_DNA Package Source Tables

DWB_ACCT_STAT_HIST
DWB_BRDBND_USG_EVT
DWB_FIXED_LN_CALL_EVT
DWB_ISP_USG_EVT
DWB_NP_RQST_HDR
DWB_NP_RQSWR_EXTRNL_OPRTR
DWB_MMS_EVT
DWB_SMS_EVT
DWB_WRLS_CALL_EVT
DWB_WRLS_CNTNT_DNLDG_EVT
DWD_ACCT_DEBT_MO
DWD_ACCT_PYMT_DAY
DWD_AGRMNT
DWD_CNTCT_CNTR_DAY
DWD_PRPD_ACCT_STTSTC_DAY
DWL_AGE_BND
DWL_AGE_ON_NET_BND
DWL_DEBT_AGNG_BND
DWR_ACCT
DWR_ADDR_LOC
DWR_AGRMNT
DWR_CUST
DWR_CUST_SCR
DWR_DEMOG_ATRIB
DWR_EXTRNL_OPRTR
DWR_HH
DWR_INDVL_DEMOG_VAL

DWR_JB
DWR_SOC_JB

7.2.15 PKG_DWD_CUST_EQPMNT_INSTLTN_DAY Package

Lists details to populate the target table `DWD_CUST_EQPMNT_INSTLTN_DAY`.

For more information, see CUSTOMER EQUIPMENT INSTALLATION DAY DRVD (page 2-64).

DWD_CUST_EQPMNT_INSTLTN_DAY Package Source Tables

DWB_CUST_FLD_SRVC_ACTVTY
DWB_CUST_FLD_SRVC_DTL
DWB_CUST_ORDR_LN_ITEM
DWR_ADDR_LOC
DWR_CUST
DWR_PROD_SPEC

Table 7-21   DWD_CUST_EQPMNT_INSTLTN_DAY Business Rules

Rule ID	Description	Comment
FLDACT1	Time Window is the day. It is the status of all activities at the end of the given day. The starting date defines the day.	No value
FLDACT2	By "Activity", it is meant each sequential activity (so the details) and not the global activity. This is required due to the Product Specification dimension, which is only available at this level. The exception to this rule is for INSTALLATION. The Installation-related activities are looking only at the customer support field activity (header) and overall result.	No value
FLDACT3	One assumes that the CUSTOMER information is stored in the SERVICE FIELD ACTIVITY.	In DWB_CUST_FLD_SRVC_ACTVTY, CUST_KEY is non filled.
FLDACT4	The County associated with this table does correspond to the county of the location of the activity. It is assumed that the address location of the activity is stored directly into the customer field service detail, and not through Business Interaction Location.	No value
FLDACT5	Leading information is the Customer Field Service Detail. The header (Customer Field Service Activity) and the related customer line item give additional information.	No value

Table 7-21   (Cont.) DWD_CUST_EQPMNT_INSTLTN_DAY Business Rules

Rule ID	Description	Comment
FLDACT6	Returned items shall be identify through customer order line item status.	No value
FLDACT7	For detailed activity (sub-activity), a PENDING status is also considered as FAILED (since it is not successful). This rule could be easily modified by either creating a new column or by considering only the overall activity status. For overall activity (header), in the case of installation, one considers each status (Successful, Pending, failed) independently on one another.	No value

Table 7-22   DWD_CUST_EQPMNT_INSTLTN_DAY Lookup Values

Table	Code	Description
DWL_FLD_ACTVTY_RSLT_TYP	ACTVTY_RSLT_TYP	FIELD ACTIVITY RESULT TYPE (page 2-81)

7.2.16 PKG_DWD_CUST_ORDR_DAY Package

Lists details to populate target table `DWD_CUST_ORDR_DAY`.

For more information, see CUSTOMER ORDER DAY DERIVED (page 2-66).

DWD_CUST_ORDR_DAY Package Source Tables

DWB_CUST_ORDR
DWB_CUST_ORDR_STATE_ASGN
DWL_ORDR_STATE
DWR_ADDR_LOC
DWR_DAY
DWR_CUST

7.2.17 PKG_DWD_CUST_ORDR_LN_ITEM_DAY Package

Lists details to populate target table `DWD_CUST_ORDR_LN_ITEM_DAY`.

For more information, see CUSTOMER ORDER LINE ITEM DAY DERIVED (page 2-66).

DWD_CUST_ORDR_LN_ITEM_DAY Package Source Tables

DWB_CUST_ORDR
DWB_CUST_ORDR_LN_ITEM
DWB_CUST_ORDR_LN_ITEM_STATE_ASGN
DWB_RTL_SL_RTRN_LI
DWB_DISC_LI

DWR_ADDR_LOC
DWR_CUST
DWR_DAY

7.2.18 PKG_DWD_CUST_RFMP_SCR Package

Lists details to populate target table `DWD_CUST_RFMP_SCR`.

PKG_DWD_CUST_RFMP_SCR Source Tables

DWB_RTL_SL_RTRN_LI
DWR_CUST
DWR_BSNS_MO

7.2.19 PKG_DWD_CUST_SKU_SL_RETRN_DAY Package

Lists details to populate target table `DWD_CUST_SKU_SL_RETRN_DAY`.

For more information, see

PKG_DWD_CUST_SKU_SL_RETRN_DAY Package Source Tables

DWB_DISC_LI
DWB_RTL_SL_RTRN_LI
DWR_CUST
DWR_DAY

7.2.20 PKG_DWD_DATA_USG_DAY Package

Lists details to populate target table `DWD_DATA_USG_DAY`.

For more information, see

PKG_DWD_DATA_USG_DAY Package Source Tables

DWB_CNTNT_DLVRY_EVT
DWB_WRLS_CNTNT_DNLDG_EVT
DWR_ACCT
DWR_ADDR_LOC
DWR_BASE_TRNSCVR_STN
DWR_CNTNT
DWR_CUST
DWR_DAY
DWR_PROD_OFR
DWR_SRVC

Table 7-23   DWD_DATA_USG_DAY Business Rules

Rule ID	Description
DATAUSG1	The main sources for this table are the CONTENT DELIVERY EVENT and WIRELESS CONTENT DOWNLOAD EVENT and GPRS USAGE EVENT for PCU related facts.
	It is assumed that there is no duplicates between Events of any tables (a given event - with a specific event code - is in only one the tables).
DATAUSG2	When a wireless download event is considered, the resource associated to the CDR is supposed to be the BTS, from which a CELL SITE can be obtained.

Table 7-23   (Cont.) DWD_DATA_USG_DAY Business Rules

Rule ID	Description
DATAUSG3	The number of subscribers concerns only GPRS calls. It counts one per Customer using GPRS.
DATAUSG4	The fields: GPRS_DNLD_VOL, DATA_SZ and BYTES_RCVD are mutually exclusive. Similarly with the fields: GPRS_UPLD_VOL, DATA_SZ and BYTES_SENT
DATAUSG5	Channel Request Received and Rejected are currently not filled by Oracle Communications Data Model. Those should be made available upon request by implementation team out of the events.

7.2.21 PKG_DWD_GIVE_AWAY_ITEM_DAY Package

Lists details to populate target table DWD_GIVE_AWAY_ITEM_DAY.

For more information see .

PKG_DWD_GIVE_AWAY_ITEM_DAY Package

DWB_CUST_ORDR
DWB_CUST_ORDR_LN_ITEM
DWB_RTL_SL_RTRN_LI
DWR_ITEM_SPEC
DWR_SKU_ITEM

Table 7-24   PKG_DWD_GIVE_AWAY_ITEM_DAY Business Rules

Rule ID	Description	Comment
GIVEAWAY1	The Time Window for this table is the day. This table contains the status for the day as of that date. It shall select any transactions For a given run, it will take the last full day available within the time period given.	No value
GIVEAWAY2	For the Retail transaction, it is assume that the promotion code corresponds 1:1 to the product offering code AND that the retail type shall be a promotion ('PROMOTION'). For a customer order, the GIVE_AWAY TYPE CODE should not be null.	PRMTN_KEY = PROD_OFR_KEY in DWB_RTL_SL_RTRN_LI DWB_RTL_SL_RTRN_LI.RTL_TYP_CD = 'PROMOTIONTYPE' For DWB_CUST_ORDR, use the GIVE_AWAY_TYP_CD is not null.
GIVEAWAY3	The Product Offering dimension used in this table originates from AGREEMENT and not from AGREEMENT ITEM. Hence, it is assumed that only the "main" product offering will be looked at and will be stored in the AGREEMENT table.	No value

Table 7-24 (Cont.) PKG_DWD_GIVE_AWAY_ITEM_DAY Business Rules

Rule ID	Description	Comment
GIVEAWAY4	In order for the give-away item to be considered, there must be a Component Product Offering Price of the main PRODUCT OFFERING PRICE of the agreement of a given customer order, with a PRODUCT SPECIFICATION associated with the ITEM SPECIFICATION which corresponds 1:1.	The conditions are: DWR_AGRMNT.PROD_OFR_KEY = DWR_PROD_OFR.PROD_OFR_KEY AND XXX.PROD_SPEC_KEY = DWR_CMPNT_PROD_OFR_PRICE.PROD_SPEC_KEY AND DWR_PROD_OFR.PROD_OFR_PRICE_KEY = DWR_CMPNT_PROD_OFR_PRICE. PROD_OFR_PRICE_KEY Assume that the redeemed object is ALWAYS defined in DWR_CMPNT_PROD_OFR_PRICE AND DWR_ITEM_SPEC.ITEM_SPEC_KEY = XXX.ITEM_KEY
GIVEAWAY5	The number of units to consider are either: The redeemed units The shipped units (and if null, the ordered units) The effective units sold Cancellation shall be considered as a negative number in units.	No value
GIVEAWAY6	The giveaway price (as apparent value to the customer) is the maximum price per unit available in any list corresponding to this product offering.	A Max will be used.
GIVEAWAY7	The actual cost or ITEM COST are the total cost and includes the number of units times the cost per unit for the given transaction (loyalty redemption or retail or customer order).	No value
GIVEAWAY8	Similar to GIVEAWAY5 with the EXTENDED AMOUNT (retail and customer order).	No value
GIVEAWAY9	For a Retail transaction, the sales channel is the organization Business Unit associated with it.	ORG_BUS_UNIT_KEY shall be mapped to SL_CHNL_KEY.

Table 7-25 PKG_DWD_GIVE_AWAY_ITEM_DAY Lookup Values

Table	Row	Description
DWL_RTL_TYP	RTL_TYP_CD	Lookup for type of retail. For example: Clearancetype Promotiontype Regulartype -5000 (Unknown)

7.2.22 PKG_DWD_INV_ADJ_ITEM_DAY Package

Lists details to populate target table DWD_INV_ADJ_ITEM_DAY.

For more information, see INVENTORY ADJUSTMENT ITEM DAY DRVD (page 2-91).

PKG_DWD_INV_ADJ_ITEM_DAY Package

DWB_INV_ADJ_DOC_LI
DWL_ENV_TYP
DWR_INV_LOC
DWR_SKU_ITEM
DWR_DAY

7.2.23 PKG_DWD_INV_POSN_ITEM_DAY Package

Lists details to populate target table DWD_INV_POSN_ITEM_DAY.

For more information, see INVENTORY POSITION ITEM DAY DRVD (page 2-92).

PKG_DWD_INV_POSN_ITEM_DAY Package

DWB_INV_ITEM_STATE
DWB_PHY_CNT_DOC_LI
DWC_ETL_PARAMETER
DWR_ACCT
DWR_DAY
DWR_SKU_ITEM

7.2.24 PKG_DWD_INV_RCPT_ITEM_DAY Package

Lists details to ppulate target table DWD_INV_RCPT_ITEM_DAY.

For more information, see INVENTORY RECEIPT ITEM DAY DRVD (page 2-92).

PKG_DWD_INV_RCPT_ITEM_DAY Package

DWB_INV_CNTRL_DOC
DWB_INV_CNTRL_DOC_LI
DWR_DAY

Table 7-26   PKG_DWD_INV_RCPT_ITEM_DAY Business Rules

Rule ID	Description
DWL_INV_DOC_TYP_CD	RECEIVINGDOCUMENT

7.2.25 PKG_DWD_INV_UNAVL_ITEM_DAY Package

Lists details to populate target table DWD_INV_UNAVL_ITEM_DAY.

For more information, see INVENTORY UNAVAILABLE ITEM DAY DRVD (page 2-92).

PKG_DWD_INV_UNAVL_ITEM_DAY Package

DWB_INV_ITEM_STATE
DWR_DAY

Table 7-27   PKG_DWD_INV_UNAVL_ITEM_DAY Business Rules

Rule ID	Description
Rule 1	All inventory items are listed in DWB_INV_ITEM_STATE. DWB_INV_ITEM_STATE is updated when an inventory transaction occurs in the source system. All items that are in-stock but unavailable to sell are accounted for in DWB_INV_INTEM_STATE with State_code as one of the listed lookup values.

Table 7-28   PKG_DWD_INV_UNAVL_ITEM_DAY Lookup Values

Table	Row	Description
DWL_INV_ST ATE	ONHAND	On Hand
DWL_INV_ST ATE	ONORDER	On Order
DWL_INV_ST ATE	ONLAYAWAY	On Layaway
DWL_INV_ST ATE	DAMAGED	Damaged
DWL_INV_ST ATE	TOBERETURNED	To Be Returned
DWL_INV_ST ATE	INTRANSIT	In Transit
DWL_INV_ST ATE	ALLOCATEDRESER VED	Allocated Reserved
DWL_INV_ST ATE	TRANSFERRESERVE D	Transfer Reserved
DWL_INV_ST ATE	AVAILABLETOSELL	Available to Sell
DWL_INV_ST ATE	PASTUSEBYDATE	Past Use by Date

7.2.26 PKG_DWD_INV_XFER_ITEM_DAY Package

Lists details to populate target table DWD_INV_XFER_ITEM_DAY.

For more information, see

PKG_DWD_INV_XFER_ITEM_DAY Package

DWB_INV_CNTRL_DOC
DWB_INV_CNTRL_DOC_LI
DWR_DAY

Table 7-29   PKG_DWD_INV_XFER_ITEM_DAY Lookup Values

Table	Row	Description
DWL_INV_DOC_TYP_CD	TRANSFERIN	Doc for transfer in goods.
	TRANSFEROUT	Doc for transfer out goods.

7.2.27 PKG_DWD_INVC Package

Lists details to populate target table `DWD_INVC_DAY`.

For more information, see .

PKG_DWD_INVC Package

DWB_ACCT_CRDT_LMT
DWB_INVC
DWB_INVC_ADJ
DWB_INVC_ITEM
DWL_AGE_ON_NET_BND
DWR_ACCT
DWR_ADDR_LOC
DWR_BSNS_MO
DWR_CNRT
DWR_CUST
DWR_SBRP

7.2.28 PKG_DWD_INVC_AGNG_DAY Package

Lists details to populate target table `DWD_INVC_AGNG_DAY`.

PKG_DWD_INVC_AGNG_DAY Package

DWB_INVC
DWR_ACCT
DWR_CUST
DWR_DAY

Table 7-30   PKG_DWD_INVC_AGNG_DAY Business Rules

Rule ID	Description
INVCAG1	Invoice Aging applies only on OPEN Invoices, dispatched to the customers, hence of customers who have at least one Postpaid contract (agreement).The Invoices must have been sent to customer and still be in open state (that is, not fully paid).
INVCAG2	Late Payment Fees are counted in the DUE AMOUNT of the unpaid invoice.
	Otherwise, if they appear on the next invoice only, they need to be added explicitly to the still unpaid invoice leveraging INVOICE ADJUSTMENT.
	Consequently, the LATE PAYMENT FEE related fields should be filled leveraging the "Deferred Payment Charge Amount" of the INVOICE table

7.2.29 PKG_DWD_NBR_PRT_DAY Package

Lists details to populate target table `DWD_NBR_PRT_DAY`.

PKG_DWD_NBR_PRT_DAY Package

DWB_NP_RQST_HDR
DWB_NP_RQST_STATE_HIST
DWR_DAY

7.2.30 PKG_DWD_POS_TNDR_FLOW Package

Lists details to populate target table DWD_POS_TNDR_FLOW.

PKG_DWD_POS_TNDR_FLOW Package

DWB_RTL_TNDR_LI
DWB_NP_RQST_STATE_HIST
DWR_DAY
DWR_USER

7.2.31 PKG_DWD_PRCS_INVC_DAY Package

Lists details to populate target table DWD_PRCS_INVC_DAY.

PKG_DWD_PRCS_INVC_DAY Package

DWB_PRCS_INVC_DSPTCHG_EVT
DWB_PRCS_INVC_GNRTN_EVT
DWB_PRCS_INVC_ISSNG_EVT
DWR_DAY
DWR_EMP
DWR_INVC_PRCS_ASGN
DWR_PRCS
DWR_PRCS_EVT_ASGN

Table 7-31   PKG_DWD_PRCS_INVC_DAY Business Rules

Rule ID	Description	Comment
PRCSINVC1	All processes related to billing will be available, whether manual or automatic. The **effective** sequential relationship between processes is also available: this means that I could have 2 or 3 invoice generation processes (1 normal, 1 being automatic recycling and 1 being manual recycling), that are linked with the same Invoice issuing process. This assumption is critical in order to calculate correctly the KPIs	The table PROCESS EVENT ASSIGNMENT should be filled at least for those invoice generation processes. Note that it does not matter how many processes have run, whether the 3 of them or only 1 or 2. Whatever is available will be filled.

Table 7-31   (Cont.) PKG_DWD_PRCS_INVC_DAY Business Rules

Rule ID	Description	Comment
PRCSINVC2	Only successful **dispatching** processes ended on the day under observation are considered (process status like '4%') to feed non-0 results into the derived table. The other processes can have failed and be restarted.	PRCS_STAT_CD like '4%' for each type of Process event.
PRCSINVC3	It is assumed that only one billing cycle at a time is processed, and for only one type of customer.	Billing cycle and Customer Type code stored will be the one associated with the FROM parameter of the Invoice process (if filled): Hence, if one goes over all customer type for a given billing cycle, the result or reports will currently be wrong (that is: the dimension CUSTOMER TYPE will be wrongly filled. The total (counts and amounts) will be have ALL customer types).
PRCSINVC4	In the count of "Outstanding Invoices", one considers only the dispatching processes. Invoices in error in previous processes are currently NOT considered. Outstanding invoice count is the addition of invoice in error during the dispatching processes AND returned invoices. In the Amount of Outstanding invoice, only the **due amount** of **successfully dispatched** invoices is considered.	Hence, the INVC_OUTSTDNG_CNT and TOT_INVC_OUTSTDNG_AMT does NOT represent the same variable (same way of calculation). If one wants the average invoice amount outstanding, one needs to link with INVOICE table and check there.
PRCSINVC5	Error, automatically or manually recycled, or recycled more than once Counts consider **all errors at any level of the end-to-end process**. Hence, even if a given invoice has been in error once and then successfully recycled, and then to be dispatched successfully with the others, this invoice will be considered when counting the invoice in error.	INVC_WITH_ERROR_CNT = SUM(DWB_PRCS_INVC_GNRTN_EVT.UNIT_ERR_CNT + DWB_PRCS_INVC_ISSNG_EVT.UNIT_ERR_CNT + DWB_PRCS_INVC_DSPTCHG_EVT.UNIT_ERR_CNT);
PRCSINVC6	The organization unit considered is from the employee responsible for the invoice issuing process (printing) only.	No value
PRCSINVC7	Most amounts related to invoices considered in the final target tables are only the ones associated with successfully dispatched invoices. The process must have ended successfully (Process status code like '4%').	No value
PRCSINVC8	An exceptional invoice end-to-end process is considered as such if and only if the generation process is "exceptional". The other processes are automatically assumed to also be "exceptional"	This applies to SUCC_EXCEP_INVC_CNT.

Table 7-31 (Cont.) PKG_DWD_PRCS_INVC_DAY Business Rules

Rule ID	Description	Comment
PRCSINVC9	Successfully recycled at least once measure is only based on the **dispatching process**, not on the end to end process.	This applies to SUCC_RCYCLD_AT_LEAST_1_CNT
PRCSINVC10	The process counts are based on the process event code. Process without error counts are based on the same but with the condition that process status code is successfully run (PRCS_STAT_CD like '4%') and there is no unit in error.	Note that the dispatching process is ALWAYS successful (except if UNIT_IN_ERR_CNT is not 0 or null) since the selection criteria of the dispatching process requires this condition.
PRCSINVC11	Process Duration considers the time elapsed between the start of the first process and the end of the last process of the same type (invoice generation, issuing or dispatching). **It is the not the sum of each process duration!**	If the sum of each process duration is required, it shall be added as a customization.
PRCSINVC12	The time elapsed between the beginning of the invoice generation process and ending of the invoice dispatching process shall NOT exceed 2 months or it will be ignored. The time elapsed between the beginning of the invoice issuing and ending of the invoice dispatching process shall NOT exceed 2 months or it will be ignored.	These parameters are for performance only. They could be removed.
PRCSINVC13	MEDIA OBJECT TYPE CODE	ignored (Fixed to be '-5000')

7.2.32 PKG_DWD_PRPD_ACCT_STTSTC_DAY Package

Lists details to populate target table `DWD_PRPD_ACCT_STTSTC_DAY`.

For more information, see PREPAID ACCOUNT STATISTIC DRVD (page 2-148).

PKG_DWD_PRPD_ACCT_STTSTC Package Source Tables

DWB_ACCT_BAL
DWB_ACCT_PYMT
DWB_EVT_PRTY_INTRCTN
DWL_INTRACTN_RSN
DWR_ACCT
DWR_AGRMNT
DWR_CUST
DWR_DAY
DWR_PROD_OFR

7.2.33 PKG_DWD_RTL_SL_RETRN_ITEM_DAY Package

Lists details to populate target table `DWD_RTL_SL_RETRN_ITEM_DAY`.

For more information see RETAIL SALES RETURN ITEM DAY DRVD (page 2-177).

PKG_DWD_RTL_SL_RETRN_ITEM_DAY Package

DWB_DISC_LI
DWB_RTL_SL_RTRN_LI
DWR_DAY

7.2.34 PKG_DWD_RVN_DAY Package

Lists details to populate target table DWD_RVN_DAY.

For more information, see .

PKG_DWD_RVN_DAY Package

DWB_ACCT_BAL
DWB_INVC
DWB_INVC_ITEM
DWD_DATA_USG_DAY
DWD_VAS_USG_DAY
DWD_VOI_CALL_DAY
DWR_ADDR_LOC
DWR_CUST
DWR_PROD_OFR
DWR_PROD_SBRP
DWR_SL_CHNL_RPRSTV

Table 7-32   PKG_DWD_RVN_DAY Business Rules

Rule ID	Description	Comment
RVN_DAY0	Time window: All fact columns shall represent the status from the beginning until the end of the period considered (here: last passed day). It is NEVER a status or a balance at the end of the period. Hence, to have the revenue of a given combination or Product Offering and Product Spec, one shall sum each day of the period considered. Since Revenue Day has to do with Usage (hence CDRs), it is very important to consider the Business Rule RVN_DAY11 for LATE CDRs.	No value

Table 7-32   (Cont.) PKG_DWD_RVN_DAY Business Rules

Rule ID	Description	Comment
RVN_DAY1	Content of DWD_RVN_DAY:	No value
	It shall store all information according to all the dimensions for a given day.	
	In particular, any combination of PRODUCT OFFERING and PRODUCT SPEC can be added wherever needed. Typically, when there is more than one default composite Product Spec to a given Product Offering, or when one wants to have the details of say the handset model chosen depending on various options associated with a given Product Offering.	
	Since all revenue columns are sum-able, it contain automatically the statistics around any PRODUCT OFFERING alone (whatever the Product Spec), or any PRODUCT SPEC alone. Hence, the use of PRODUCT OFFERING LEVEL and PRODUCT SPEC LEVEL is not necessary.	
	See also RVN_DAY10 and CNT_DAY2 rule	

Table 7-32 (Cont.) PKG_DWD_RVN_DAY Business Rules

Rule ID	Description	Comment
RVN_DAY2	Definition of the Revenue Types:	Corresponding SQL Statement
	There are 7 types of Revenue:	Any Prepaid Usage or Expired Monetary Balance shall be considered as "Billed".
	Billed: Any amounts appearing either on a bill sent (postpaid) OR (prepaid) when they already paid for their use of a service OR the monetary amount left expired (.	For Postpaid, "Billed" is when DWB_INVC.STAT_CD ='OPEN' or 'CLOSED';
	Unbilled: all the other cases. **Ignored** (that is columns not fed) in Oracle Communications Data Model.	Unbilled will be all other cases. Because the rule is depending on the billing system itself, and the internal processing, **Unbilled revenue** will be ignored (present as column but NOT FILLED).
	Billed earned: normal case where customer has been billed for the services/usage he has used.	
	Unbilled earned: customer is billed upfront; future cycles fall under unearned revenue.	
	Billed unearned: this is the case when customer has performed some usage (that is, made a call), but has not yet been billed for that usage.	
	Unbilled unearned: an example here is a payment a customer may make upfront, but future services to be rendered are canceled (or simply overpayments they may have made).	
	Previously billed earned: Billed earned from previous period considered.	
	For more information, see *Oracle® Communications Billing and Revenue Management Collecting General Ledger Data*.	
	Oracle Communications Data Model deals only with billed and unbilled revenue, which includes earned and unearned revenue as follows:	
	Billed = billed earned + billed unearned + previously billed earned.	
	Unbilled = unbilled earned + unbilled unearned	
	"Billed" means it appears on an **invoice** sent to customer ('OPEN')	
	Additional definitions:	
	Gross Revenue: reports the total of net and discounted revenue.	
	Discount or Discounted Revenue: reports the balance impacts of discounted revenue.	
	Net Revenue: reports the amount of revenue that remains after applying discounts.	
	Tax: reports the amount of taxes calculated. This data is used for collecting G/L data based on tax codes.	
	Tax is assumed to never be applied in any amounts except on Invoices.	

Table 7-32   (Cont.) PKG_DWD_RVN_DAY Business Rules

Rule ID	Description	Comment
RVN_DAY3	**More Definitions around Revenue:** **Prepaid Services Revenue**: this should count all prepaid usage revenue for the period + any expired prepaid revenue even if not used. Billed or unbilled is not relevant in this case since that is not applicable to prepaid. It is always considered as **"billed"**. **Postpaid Services Revenue** (billed): billed postpaid usage revenue (all services) + billed cycle fees (for example: monthly) + recurring equipment rental (for example: CPE rental). **Equipment Revenue (billed)**: revenue associated with sale of any devices (for example: handsets) and accessories. **Other Revenue (billed)**: this should include other non-recurring customer revenue such as one-time purchase or activation fees, late payment fees, cancellation fees, and so on… **Total Gross Revenue (billed)**: prepaid services revenue + postpaid services revenue + equipment revenue + other revenue. **Total Net Revenue (billed):** total gross revenue - deductions (for example: taxes, refunds, write-offs)	

Table 7-32   (Cont.) PKG_DWD_RVN_DAY Business Rules

Rule ID	Description	Comment
RVN_DAY4	**Condition Definitions**:	No value
	Usage Revenue: Revenue coming from service usage (pay per use) and calls (pay on event, duration and/or volume). The sources will be VOICE CALL DAY, DATA USAGE DAY, VAS USAGE DAY (and not *SUPPLEMENTARY SERVICE USAGE DAY*).:	
	The field TOT_BLLD_AMT or BLLD_AMT shall be used when PLN_TYP='Prepaid' (and day corresponds).	
	The postpaid Revenue shall come from	
	DWD_INVC_DAY: USG_RVN_BLLD when it is independent of Product Offering and Product Spec (or this number could be used as X-check). It shall come from DWB_INVC_ITEM when the product Offering and/or the Product Spec is required.	
	Expired Revenue: Revenue that comes from prepaid expired amount.	
	It comes from either DWB_EVT_BAL_IMPC. Or DWD_ACCT_BAL_MO.EXPRD_AMT (sum) where ACCT_BAL_TYP_CD is associated with a monetary UOM (for the same product offering and product spec). One also needs to subtract all the expired amounts of DWD_RVN_DAY of the previous DAY of the current month.	
RVN_DAY5	**Roaming Revenue**:	No value
	Roaming Revenue is considered for Roaming events on CSP's network, whose paying party is an external operator. It assumes that any event from WIRELESS ROAMING EVENT **only contain such events**.	
	It is also expected RMNG_EXTRNL_OPRTR_KEY or EXTRNL_OPRTR_KEY cannot be both null.	
	For Billed Revenue, Invoices must be of Type "RMNG STTLMT" (Roaming Settlement).	
	Roaming domestically (MVNO) is allowed.	

Table 7-32   (Cont.) PKG_DWD_RVN_DAY Business Rules

Rule ID	Description	Comment
RVN_DAY6	**Transfer**: A transfer (Account, Agreement, Product Subscription) is a change of ownership and is recognized as such **if and only if**: The "Code" of the entity is not changed The Agreement and its term are not changed. The Product Offering associated is not immediately changed. Only the ownership changes The Status Reason Code is associated with Transfer. There is no time without ownership.	STAT_CD like '2%' (New) and SUBSTR(STAT_CD,1,1) in ('1','2') (old) and new.eff_from_dt -old.eff_to_dt<=1s
RVN_DAY7	**Geographic County** corresponds to the County of the Primary Address of the Customer when defined.	No value
RVN_DAY8	**Organization Business Unit, Sales Channel and Sales Rep** : correspond to the respective Sales Channel and Sales Rep directly associated with the Product Offering and Product Spec of the corresponding product subscription. If unclear or undefined, one shall take the last one associated with the corresponding **Customer** (in the customer table).	No value
RVN_DAY9	**Cost Center** is the Cost Center associated with the Organization Business Unit considered (if uniquely defined). Keep it 'UNKNOWN' otherwise.	No value
RVN_DAY10	**Product Offering Level and Product Spec Level:** (follow-up of **RVN_DAY1**) When both set to 0, both PRODUCT SPEC and PRODUCT OFFERING should be defined (normally not unknown, although unknown will be accepted). If one of the level is set to 1 and the other to 0, it collects the statistics according to the entity whose level is set to 0, independently of the other. The other will be forced to be 'unknown'. If both levels are set to 1, it collects the global statistics independently of Product Offering or Product Spec. Both are forced to be 'unknown'. This is necessary to allow the calculation of some KPIs. See also *CNT_DAY10* rule.	OBSOLETE since the facts are sum-able.

Table 7-32 (Cont.) PKG_DWD_RVN_DAY Business Rules

Rule ID	Description	Comment
RVN_DAY11	**Late Usage or Late CDRs**: Usage that come later shall be taken into account. Hence, the LOAD DATE should be used as part of the criteria to consider a row or not. But the REVENUE associated shall be attributed to the right day, corresponding to the Start Day of the event. This rule could be changed for very late delay (> 3 full months). **Those revenues should be excluded**.	No value
RVN_DAY12	For Prepaid, we assume that the Sale Channel and Sales Rep information are associated with the Prepaid subscription. These 2 fields will be then used.	No value
RVN_DAY13	Due to the way to feed DWD_RVN_DAY (for performance), there will be 4 rows per combination of key columns: 1 for postpaid and 3 for Prepaid. As a consequence, - **Empty revenue columns shall be filled with 0 and not with null**. - One always needs to **sum those 4 rows** (per fact) to have the final numbers for a given key combination.	No value
RVN_DAY14	Most Key columns will come from the information out of the Product Subscription. In particular, it is expected that the following columns of PRODUCT SUBSCRIPTION are filled (in bold, those critical): Organization Business Unit Code Channel Code (preferred, priority) or Campaign Channel Code **Product Offering Code (!)** **Product Spec Code (!)** **Customer Code** (or at least Account Code).	In DWR_PROD_SBRP, check that the following columns are filled: ORG_BUS_UNIT_KEY CHNL_KEY or CMPGN_CHNL_KEY PROD_OFR_KEY PROD_SPEC_KEY CUST_KEY or ACCT_KEY.
RVN_DAY15	Plan Type is either 'Postpaid' or 'Prepaid'. Hybrid product offering cannot be considered and will be ignored (at least for billed usage).	If PLN_TYP not in ('Prepaid', 'Postpaid'), all billed usage related columns will be 0.
RVN_DAY16	Roaming Revenue concerns only revenue that comes from Roaming TAP OUT file. TAP IN file are NOT considered as part of Roaming Revenue (since they are rather a cost as such - and they should appear in DWD_VOI_CALL_DAY with the final billed amount to the customer).	This is for RMNG_RVN_UBLLD.

Table 7-32   (Cont.) PKG_DWD_RVN_DAY Business Rules

Rule ID	Description	Comment
RVN_DAY17	Interconnect Revenue only concerns revenue from passing traffic. The A & B numbers (if defined at all) are NOT belonging to the Service Provider. Interconnect Traffic will be recognized by a non null revenue associated with INTERCONNECTION field. **Cost will be ignored here.** It is assumed that **all interconnection traffic will be stored into VOICE CALL DAY (whatever the type of call).**	INTCONN_RVN>0 is sufficient as criteria.
RVN_DAY18	SALES REPRESENTATIVE and COST CENTER columns are currently ignored.	They could be filled as customization if one adds this column in DWD_VOI_CALL_DAY, DWD_DATA_USG_DAY and DWD_VAS_USG_DAY.
RVN_DAY19	For all USAGE, Billing Status Type code successful (that is, BILLED) is explicitly required.	BLLG_STAT_TYP_CD='SUCC' is expected. The "CASE WHEN" conditions could be all removed (to win time) if one assumes that all usage events stored at the derived layer will always have the same BILLING STATUS TYPE CODE (assumed to be 'SUCC' only).
RVN_DAY20	It is assumed that the ORGANIZATION BUSINESS UNIT (as well as others like GEO COUNTY CODE or CUSTOMER TYPE CODE) stored in the derived USAGE tables (VOICE CALL DAY; DATA USAGE DAY and VAS USAGE DAY) are identical to the one set in the invoice.	There is an explicit full join with these conditions between invoice and the usage tables. If this is not the case, the USAGE related statement must be modified to force the ORGANIZATION BUSINESS UNIT there to be equal to one of the invoice
RVN_DAY21	For Prepaid, it is assumed that an individual CUSTOMER (dummy or not) is defined for each prepaid account. This customer information should contain a dummy customer type (the one associated with the targeted customer for this product offer maybe) and address (maybe the one of the Organization Business Unit where it was bought). The organization business unit comes from the account.	This information shall be used to join with the usage information.

Table 7-32   (Cont.) PKG_DWD_RVN_DAY Business Rules

Rule ID	Description	Comment
RVN_DAY22	Information out of the invoice will only be considered when the billing date of the invoice is between the ETL (Time) Parameters. The status of the invoice is ignored. This implies two approximations: -The invoice is complete at billing date and will NOT be corrected or updated after that date (or this update will not be considered such as the invoice status change, the partial or full payment after billing date, and so on), -Past invoices added at a later time in Oracle Communications Data Model will NOT be considered Note: The status of the invoice is ignored only for the selection of the invoice and invoice items. However, the association to an INVOICED (BILLED) or UNBILLED column is based on the status invoice: -INVOICED when the 1st character of Invoice Status Code is between 2 and 5 (both limits included) -Unbilled in all other cases	As customization, one could deal with LOAD DATE and INVOICE CODE to find whether an invoice has already been considered or not. But this could be a heavy job to do it correctly
RVN_DAY23	Discount Revenue: On top of being positive (and to be subtracted from all revenues), it is assumed that only DISC_AMT and related columns have to be considered. This also mean that if an invoice item is of type DISCOUNT (INVOICE ITEM TYP CD like 6%), only DISC_AMT (and related) should then be filled, and not CHRG_AMT.	No value
RVN_DAY24	Invoice items associated with recurring fees will be associated with only price type code for forward fees (Price_TYP_CD like '11%') or arrear fees ((Price_TYP_CD like '12%'). Any other combination is currently excluded from the REVENUE DAY derived table.	No value
RVN_DAY25	Amounts will only be considered out of Account Balances that are of type "REGULAR" ("RGLR").	No value

RVN_DAY_IMPC_RSN_CD can have the values and meaning shown in Table 7-33 (page 7-65).

Table 7-33   DWD_RVN_DAY Lookup Values

Table	Row	Code	Description
DWR_CUST DWR_ACCT DWR_AGRMNT DWR_PROD_SBRP DWR_ACCS_MTHD	STAT_CD	'1%'	Pending Activation
DWR_CUSTDWR_ACCT DWR_AGRMNTDWR_PR OD_SBRPDWR_ACCS_M THD	STAT_CD	'15%'	Pre-Activated
DWR_CUST DWR_ACCT DWR_AGRMNT DWR_PROD_SBRP DWR_ACCS_MTHD	STAT_CD	'2%'	Active
DWR_CUST DWR_ACCT DWR_AGRMNT DWR_PROD_SBRP DWR_ACCS_MTHD	STAT_CD	'3%'	Suspended
DWR_CUST DWR_ACCT DWR_AGRMNT DWR_PROD_SBRP DWR_ACCS_MTHD	STAT_CD	'4%'	Deactivated / Terminated
DWR_CUST DWR_ACCT DWR_AGRMNT DWR_PROD_SBRP DWR_ACCS_MTHD	STAT_CD	'5%'	Cancelled
DWR_CUST DWR_ACCT DWB_AGRMNT_STAT DWR_PROD_SBRP DWB_ACCS_MTHD_STA T_HIST	PRMRY_STAT_RSN_CD ACCT_STAT_RSN_CD AGRMNT_STAT_RSN_C D PROD_SBRP_STAT_RSN_ CD ACCS_MTHD_STAT_RS N_CD	'%'	No value

Table 7-33   (Cont.) DWD_RVN_DAY Lookup Values

Table	Row	Code	Description
DWR_CUST DWR_ACCT DWB_AGRMNT_STAT DWR_PROD_SBRP DWB_ACCS_MTHD_STAT_HIST	PRMRY_STAT_RSN_CD ACCT_STAT_RSN_CD AGRMNT_STAT_RSN_CD PROD_SBRP_STAT_RSN_CD ACCS_MTHD_STAT_RSN_CD	'%'	Voluntary Status Change
DWR_CUST DWR_ACCT DWB_AGRMNT_STAT DWR_PROD_SBRP DWB_ACCS_MTHD_STAT_HIST	PRMRY_STAT_RSN_CD ACCT_STAT_RSN_CD AGRMNT_STAT_RSN_CD PROD_SBRP_STAT_RSN_CD ACCS_MTHD_STAT_RSN_CD	'%'	Involuntary Status Change

7.2.35 PKG_DWD_SPLMNTR_SRVC_USG Package

Lists details to populate the table DWD_SPLMNTR_SRVC_USG.

For more information, see SUPPLEMENTARY SERVICE USAGE DRVD (page 2-204).

PKG_DWD_SPLMNTR_SRVC_USG Package

DWB_INVC
DWB_INVC_ITEM
DWR_ACCS_MTHD
DWR_BSNS_MO
DWR_CUST
DWR_DAY
DWR_PROD_OFR
DWR_SPLMNTR_SRVC

7.2.36 PKG_DWD_SRVC_PRBLM_DAY Package

Lists details to populate target table DWD_SRVC_PB_DAY.

For more information, see SERVICE PROBLEM DAY DRVD (page 2-190).

PKG_DWD_SRVC_PBRLM_DAY Package Source Tables

DWB_CUST_FLD_SRVC_ACTVTY
DWB_EVT_PRTY_INTRACN
DWB_PRBLM_LOC
DWB_SVRC_PRBLM
DWR_ACCT
DWR_CUST
DWR_DAY
DWR_PROD_SBRP

Table 7-34   PKG_DWD_SRVC_PBRLM_DAY Business Rules

Rule ID	Description	Comment
SRVCPB1	Customers appearing in this table are only customers where an SLA has been specifically signed. Customers without SLA shall NOT be considered, even if they are impacted by an outage	Only check Customers from table DWR_SRVC_LVL_AGRMNT. All others will be ignored (set as 'Unknown')
SRVC_PB2	Authorized Outage Time is to be stored is assumed to one of the Term/Condition associated with an SLA. In case of absence of "Authorized Outage Time" as condition of the SLA, the default should be the 5 9's (99,999% of time). That is 31536 seconds (8h 45Mns, 36 s) per year (365 days). Default Period is considered to be the current year	AGRMNT_TERM_TYP_CD = "AUTH_OUTG_TIME";
SRVC_PB3	The link between the SLA and the condition "Authorized Outage Time" assumes that the PROD_SPEC_KEY is defined in both the SLA item and the Agreement Term entities.	No value
SRVC_PB4	For SLA, only current rows will be considered. There will not be any other "time" or "Status" constraint.	CURR_IND='Y' for SLA Item
SRVC_PB5	The Intra ETL runs once a day only. (Otherwise, the SLA_BRK_IND may not be reliable - it needs specific adaptation of the code and some assumptions or known (fixed) period value for SLA time outage condition). In any case, the SLA_BRK_IND indicates whether a given problem breaks by itself an SLA. It does not mean that the sum of Problems may not break the SLA	No value
SRVC_PB6	When summary is for the month, the derived table holds the updated statistic and status of the current month up to the previous full day. Otherwise (daily), it holds the latest statistic of the given day.	No value
SRVC_PB7	It is assumed that all services linked to a subscription are defined (or reachable) in DWR_SRVC only	This is critical to make the link. One cannot really use Customer Facing service or Resource Facing Service (as anyway both are usually affected simultaneously).
SRVC_PB8	Remote Customer Support is only considered through calls. It could be extended to include emails, chats or web portal interaction (to the online help)	Only DWB_EVT_PRTY_INTRACN_CALL will be used

Table 7-34   (Cont.) PKG_DWD_SRVC_PBRLM_DAY Business Rules

Rule ID	Description	Comment
SRVC_PB9	On Site Support is not necessarily at customer site. It counts the number of activities at any site during the time period concerned independently on the status of the activity. On Site Customer Support must occur at the customer address available in the CUSTOMER entity	No value
SRVC_PB10	The time spent onsite is by default read directly from the CUSTOMER FIELD SERVICE ACTIVITY table. It is either the Total Time Spent On Site field (default) or the total activity duration (End-Start).	No value
SRVC_PB11	The SLA Unit of Measure corresponds to the period on which the SLA is to be measured. Even if there is an agreement on the maximum number of outages, only terms related to duration shall be considered here. In case several agreement terms of type duration apply, the lowest Agreement Term code shall be taken.	It excludes the case Agreement Term = '91%', but consider any '90%'. If both are present, use '9000' by default (or MIN (Agreement term type Code).

7.2.37 PKG_DWD_STORE_EFFNCY_DAY Package

Lists details to populate target table `DWD_STORE_EFFNCY_DAY`.

For more information, see .

PKG_DWD_STORE_EFFNCY_DAY Package Source Tables

DWB_EVT
DWB_EVT_ASGN
DWB_EVT_PRTY_INTRACN
DWR_ADDR_LOC
DWR_DAY
DWR_ORG_BSNS_UNIT

Table 7-35   PKG_DWD_STORE_EFFNCY_DAY Business Rules

Rule ID	Description
STORE1	One shall limit the analysis to STOREs. This means that event Party Interaction Visit will only be considered if the Organization Business Unit corresponds to a store. The fact that one links explicitly with ORGANIZATION BUSINESS UNIT HOURS DAY (which is assumed to be filled for each store and for each day any of the store opens) applies automatically this constraint.
STORE2	A transaction is assumed to occur when the EVENT PARTY INTERACTION VISIT is linked to any other Event through EVENT ASSIGNMENT. It is independent of the reason of this assignment. It simply means something must have occurred.

Table 7-35   (Cont.) PKG_DWD_STORE_EFFNCY_DAY Business Rules

Rule ID	Description
STORE3	Customer waiting time is the duration between the time the customer enters the shop/queue until the time he is attended by any of the shop representative.
	Note that it cannot be recorded if one does not know when the customer enters the shop
STORE4	The time the customer enters the queue and is attended by any shop representative and his entry is closed is called as the transaction time.
	The average transaction time is calculated on all transaction times over a given period.
STORE5	Numbers of customers who enter the queue but do not wait for long and disappear are also counted along with the number of employees in the shop.
STORE6	By default the Sale amount shall correspond to the General Ledger Revenue associated to this visit.

Table 7-36   DWD_STORE_EFFNCY_DAY Lookup Values

Table	Code
DWL_ORG_BUS_UNIT_TYP	STORE

7.2.38 PKG_DWD_VAS_SBRP_QCK_SUMM Package

Lists details to populate target table `DWD_VAS_SBRP_QCK_SUMM`.

For more information, see VAS SUBSCRIPTION QUICK SUMMARY DRVD (page 2-212).

PKG_DWD_VAS_SBRP_QCK_SUMM Package Source Tables

DWR_BSNS_MO
DWR_CUST
DWR_PROD_SBRP
DWR_PROD_SPEC

7.2.39 PKG_DWD_VAS_USG_DAY Package

Lists the details to populate target table `DWD_VAS_USG_DAY`.

For more information, see VAS USAGE DAY DRVD (page 2-212).

PKG_DWD_VAS_USG_DAY Package Source Tables

DWB_ISP_USG_EVT
DWB_MMS_EVT
DWB_SMS_EVT
DWB_UDR_EVT
DWB_UMS_EVT
DWB_WRLS_CALL_EVT
DWR_ACCT
DWR_ADDR_LOC
DWR_CUST
DWR_DAY

DWR_PROD_OFR
DWR_VAL_ADD_SRVC

Table 7-37   DWD_VAS_USG_DAY Business Rules

Rule ID	Description
VASUSG1	The main sources for this table are the reference table VAS (and mailbox) and • ISP Event • UMS Event • Wireless Call event (just in case) • Rated UDR EVENT (if all else fails) It is assumed that there is no duplicates between Events of any tables (a given event - with a specific event code - is in only one the tables).
VASUSG2	When any wireless event is considered, the resource associated to the CDR is supposed to be the BTS, from which a CELL SITE can be obtained.
VASUSG3	Free Data Size and Free duration is only counted if the event is totally free (Charged Amount is 0).

Table 7-38   DWD_VAS_USG_DAY Lookup Values

Table	Description
DWL_DVRT_RTRV_TYP	-5000 DVRT RTRV

7.2.40 PKG_DWD_VOI_CALL_DAY Package

Lists details to populate target table DWD_VOI_CALL_DAY.

For more information, see .

DWD_VOI_CALL_DAY Package Source Tables

DWB_FIXED_LN_CALL_EVT
DWB_WRLS_CALL_EVT
DWR_ACCT
DWR_ADDR_LOC
DWR_CUST
DWR_DAY
DWR_PROD_OFR
DWR_SRVC

Table 7-39   DWD_VOI_CALL_DAY Business Rules

Rule ID	Description
VOICE1	The CDRs taken into account have to be present from: • Wireless Call Event • Fixed Line Call Event All other tables are excluded.
VOICE2	The Domestic Indicator cannot be set when Local Indicator is set. Those are mutually exclusive.

8

Oracle Communications Data Model OLAP Model Dimensions

This chapter of Oracle Communications Data Model Reference describes the Data Flow between fact tables and dimension tables of Oracle Communications Data Model relational part to target materialize views and cubes to support the module Oracle Communications Data Model OLAP.

This chapter includes the following sections:

For more information, see Oracle Communications Data Model OLAP Model Cubes (page 9-1).

8.1 Introduction to OLAP Architecture

Oracle Data Warehouse for Communications (Oracle Communications Data Model Relational) contains the lowest level CDR details, low level combination of base tables and the summary, average, and so on, of Base and Derived data. Oracle Communications Data Model Relational was developed in a relational database.

8.1.1 General Process to Populate the OLAP Module in Oracle Communications Data Model

Oracle Communications Data Model `ocdm_sys` schema does the following:

- Directly maps the leaf level data from the relational table/mv into the OLAP cube.

- Cube organized materialized views represent the cube to SQL-based applications as materialized views that you can use for both refresh and query rewrite. With Query Re-write enabled, Oracle will automatically re-write SQL queries targeted against relational tables. to use the Cube-Organized Materialized View. To use this feature the OLAP cubes and relational components are in a single schema (`ocdm_sys`).

- All cubes are available for the end user SQL based Query Tool access through CUBE_TABLE based SQL Views, which are created and maintained automatically during the cube build/update process.

- Cubes are built from level 0 DWA materialized views or DWB/DWD tables (which, when a date is present, usually means at the month level).

Using SQL to access the cubes and dimensions is a significant feature of Oracle OLAP because it enables reporting tools that only generate SQL to use all of the powerful features of the analytic workspace. In Oracle Database 11g this is achieved by the use of the CUBE_TABLE function that extracts multidimensional data from a cube in an analytic workspace and presents it to the relational SQL engine in the form of a two dimensional table, such as, a set of rows and columns. It provides a mapping between the cube in the analytic workspace and the rows and columns that the SQL sees.

8.1.2 Query Rewrite to Cube Organized Materialized Views

Oracle Communications Data Model uses SQL to query the relational base tables and the optimizer transparently translates the SQL to access either the table materialized views or the cube materialized views (and hence the analytic workspace cubes and dimensions) depending upon which provides the better performance. This allows all of the benefits of the analytic workspace to be easily available to any product using regular SQL.

8.2 Oracle Communications Data Model OLAP Dimensions

The dimensions section describes the detail information for all the dimensions. Each dimension includes the following information:

- Levels

- Hierarchies

- Attributes and Attribute mappings

8.2.1 Account Refund Reason: ARRSN

This dimension keeps all the information for the reason why this refund occurs.

Table 8-1   Account Refund Reason (ARRSN) Levels and Hierarchies

Level	Description	Account Refund Reason Hierarchy (HARRSN)
TARRSN	Total Account Refund Reason	TARRSN
ARRSN	Account Refund Reason	ARRSN

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-2   Account Refund Reason Long Description Attribute Mapping

Level	Mapping (Physical Column)
TARRSN	"Total Account Refund Reason"
ARRSN	DWL_ACCT_RFND_RSN.ACCT_RFND_RSN_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-3   Account Refund Reason Short Description Attribute Mapping

Level	Mapping (Physical Column)
TARRSN	"Total Account Refund Reason"

Table 8-3 (Cont.) Account Refund Reason Short Description Attribute Mapping

Level	Mapping (Physical Column)
ARRSN	DWL_ACCT_RFND_RSN.ACCT_RFND_RSN_CD

8.2.2 Bank Direct Debit Channel: MOBJTYP

This dimension keeps all the information of media object type.

Table 8-4 Bank Direct Debit Channel (MOBJTYP) Levels and Hierarchies

Level	Description	Bank Direct Debit Channel Hierarchy (HMOBJTYP)
TMOBJTYP	Total bank direct debit channel	TMOBJTYP
MOBJTYP	Bank direct debit channel	MOBJTYP

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-5 Bank Direct Debit Channel Long Description Attribute Mapping

Level	Mapping (Physical Column)
TMOBJTYP	"Total Bank Direct Debit Channel"
MOBJTYP	DWL_MEDIA_OBJ_TYP.MEDIA_OBJ_TYP_DSCR

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-6 Bank Direct Debit Channel Long Description Attribute Mapping

Level	Mapping (Physical Column)
TMOBJTYP	"Total Bank Direct Debit Channel"
MOBJTYP	DWL_MEDIA_OBJ_TYP.MEDIA_OBJ_TYP_NAME

8.2.3 Billing Cycle: BCYCL

This dimension keeps all the information of the billing cycle.

Table 8-7 Billing Cycle (BCYCL) Levels and Hierarchies

Level	Description	Billing Cycle Hierarchy (HBCYCL)
TBCYCL	Totalbilling cycle	TBCYCL
BCYCL	Billing cycle	BCYCL

This dimension keeps all the information of the billing cycle.

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-8   Billing Cycle Long Description Attribute Mapping

Level	Mapping (Physical Column)
1	"Total Billing Cycle"
1	DWR_BLLG_CYCL.BLLG_CYCL_DSCR

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-9   Billing Cycle Long Description Attribute Mapping

Level	Mapping (Physical Column)
1	" Billing Cycle Name"
1	DWR_BLLG_CYCL.BLLG_CYCL_NAME

8.2.4 Churn Reason: CRNRSN

This dimension keeps all the information of the Churn Reason. This dimension stores information regarding the reason for subscriber churn. This information is required for churn analysis.

Table 8-10   Churn Reason (CRNRSN) Levels and Hierarchies

Level	Description	Churn Reason Hierarchy (HCRNRSN)
TCRNRSN	Total Churn Reason	TCRNRSN
CRNRSN	Churn Reason	CRNRSN

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-11   Churn Reason Long Description Attribute Mapping

Level	Mapping (Physical Column)
TCRNRSN	"Total Churn Reason"
CRNRSN	DWL_CHRN_RSN.CHRN_RSN_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-12   Churn Reason Short Description Attribute Mapping

Level	Mapping (Physical Column)
TCRNRSN	"Total Churn Reason"
CRNRSN	DWL_CHRN_RSN.CHRN_RSN_CD

8.2.5 Collection Agency: CAGNCY

This dimension keeps all the information of the collection agency. Commission type is all type of commissions to the sales representatives.

Table 8-13   Collection Agency (CAGNCY) Levels and Hierarchies

Level	Description	Collection Agency Hierarchy (HCAGNCY)
TCAGNCY	Total Collection Agency	TCAGNCY
CAGNCY	Collection Agency	CAGNCY

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-14   Collection Agency Long Description Attribute Mapping

Level	Mapping (Physical Column)
TCAGNCY	"Total Collection Agency"
CAGNCY	DWR_COLLCTN_AGNCY.PRTY_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-15   Collection Agency Short Description Attribute Mapping

Level	Mapping (Physical Column)
TCAGNCY	"Total Collection Agency"
CAGNCY	DWR_COLLCTN_AGNCY.COLLCTN_AGNCY_CD

Attribute Name: Agency Manager(MGR_NAME)

Table 8-16   Collection Agency Agency Manager Attribute Mapping

Level	Mapping (Physical Column)
TCAGNCY	
CAGNCY	DWR_COLLCTN_AGNCY.MGR_NAME

Attribute Name: Domestic Indicator(DMSTC_IND)

Table 8-17   Collection Agency Domestic Indicator Attribute Mapping

Level	Mapping (Physical Column)
TCAGNCY	
CAGNCY	DWR_COLLCTN_AGNCY.DMSTC_IND

8.2.6 Commission Type: CMTYP

This dimension keeps all the information of the commission type. Commission type is all type of commissions to the sales representatives.

Table 8-18 Commission Type (CMTYP) Levels and Hierarchies

Level	Description	Commission Type Hierarchy (HCMTYP)
TCMTYP	Total Commission Type	TCMTYP
CMTYP	Commission Type	CMTYP

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-19 Commission Type Long Description Attribute Mapping

Level	Mapping (Physical Column)
TCMTYP	"Total Commission Type"
CMTYP	DWL_CMISN_TYP.CMISN_TYP_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-20 Commission Type Short Description Attribute Mapping

Level	Mapping (Physical Column)
TCMTYP	"Total Commission Type"
CMTYP	DWL_CMISN_TYP.CMISN_TYP_NAME

8.2.7 Cost Center: CCK

This dimension keeps all the information of the cost center.

Table 8-21 Cost Center (CCK) Levels and Hierarchies

Level	Description	Customer Hierarchy (HCCK)
TCCK	Totalcost center	TCCK
CCK	Cost center	CCK

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-22 Cost Center Long Description Attribute Mapping

Level	Mapping (Physical Column)
TCCK	"TotalCost Center
CCK	DWR_COST_CNTR.COST_CNTR_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-23 Cost Center Short Description Attribute Mapping

Level	Mapping (Physical Column)
TCCK	"TotalCost Center"
CCK	DWR_COST_CNTR.COST_CNTR_CD

8.2.8 Currency: CRNCY

This dimension keeps all the information of the different currencies.

Table 8-24 Currency (CRNCY) Levels and Hierarchies

Level	Description	Currency Hierarchy (HCRNCY)
TCRNCY	Total currency	TCRNCY
CRNCY	Currency	CRNCY

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-25 Currency Long Description Attribute Mapping

Level	Mapping (Physical Column)
TCRNCY	"Total Currency"
CRNCY	DWL_CRNCY.CRNCY_DSCR

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-26 Currency Type Short Description Attribute Mapping

Level	Mapping (Physical Column)
TCRNCY	"Total Currency"
CRNCY	DWL_CRNCY.CRNCY_NAME

8.2.9 Customer: CUST

This dimension keeps all the information of individual customers.

Table 8-27 Customer (CUST) Levels and Hierarchies

Level	Description	Customer Hierarchy (HCUST)
TCUST	Total customer	TCUST
CUSTYP	Customer Type	CUSTYP
ICUST	Individual Customer	ICUST

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-28   Customer Long Description Attribute Mapping

Level	Mapping (Physical Column)
TCUST	"Total Customer"
CUSTYP	DWL_CUST_TYP.CUST_TYP_NAME
ICUST	DWR_CUST.NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-29   Customer Short Description Attribute Mapping

Level	Mapping (Physical Column)
TCUST	"Total Customer"
CUSTYP	DWL_CUST_TYP.CUST_TYP_CD
ICUST	DWR_CUST.CUST_CD

8.2.10 Customer Segment: CSGMNT

This dimension keeps all the information of the Customer Segment. The Segments table holds details of all marketing segments. A segment identifies distinct groupings of customers or accounts with similar characteristics. The segments are typically used in marketing campaigns.

Table 8-30   Customer Segment (CSGMNT) Levels and Hierarchies

Level	Description	Customer Segment Hierarchy (HCSGMNT)
TCSGMNT	Total Customer Segment	TCSGMNT
CSGMNT	Customer Segment	CSGMNT

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-31   Customer Segment Long Description Attribute Mapping

Level	Mapping (Physical Column)
TCSGMNT	"Total Customer Segment"
CSGMNT	DWR_CUST_SGMNT.CUST_SGMNT_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-32   Customer Segment Short Description Attribute Mapping

Level	Mapping (Physical Column)
TCSGMNT	"Total Customer Segment"
CSGMNT	DWR_CUST_SGMNT.CUST_SGMNT_CD

8.2.11 Customer Type: CUSTYP

This dimension keeps all the information of customer type

Table 8-33   Customer Type (CUSTYP) Levels and Hierarchies

Level	Description	Customer Type Hierarchy (HCUSTYP)
TCUSTYP	Total Customer Type	TCUSTYP
CUSTYP	Customer Type	CUSTYP

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-34   Customer Type Long Description Attribute Mapping

Level	Mapping (Physical Column)
TCUSTYP	"Total Customer Type"
CUSTYP	DWL_CUST_TYP.CUST_TYP_DESC

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-35   Customer Type Short Description Attribute Mapping

Level	Mapping (Physical Column)
TCUSTYP	"Total Customer Type"
CUSTYP	DWL_CUST_TYP.CUST_TYP_NAME

8.2.12 Debt Aging Band: DAB

This dimension keeps all the information of debt aging band. There are customers who have not paid or partially paid one or more bills. This is called as Aging for the bill payment. Based on the age of unpaid or partial paid bill those amounts are put into different buckets for each customer.

Table 8-36   Debt Aging Band (DAB) Levels and Hierarchies

Level	Description	Debt Aging Band Hierarchy (HDAB)
TDAB	Total Aging Band	TDAB
DAB	Aging Band	DAB

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-37   Debt Aging Band Long Description Attribute Mapping

Level	Mapping (Physical Column)
TDAB	"Total Aging Band"
DAB	DWL_DEBT_AGNG_BND.DEBT_AGNG_BND_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-38   Debt Aging Band Short Description Attribute Mapping

Level	Mapping (Physical Column)
TDAB	"Total Aging Band"
DAB	DWL_DEBT_AGNG_BND.DEBT_AGNG_BND_CD

8.2.13 Geography: GEO

This dimension keeps all the geography information.

Table 8-39   Geography (GEO) Levels and Hierarchies

Level	Description	Geography Hierarchy (HGEO)
TGEO	Total Geography	TGEO
WORLD	World	WORLD
REGION	Region	REGION
SUB_REGION	Sub Region	SUB_REGION
COUNTRY	Country	COUNTRY
STATE	State	STATE
CITY	City	CITY
COUNTY	County	COUNTY

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-40   Geography Long Description Attribute Mapping

Level	Mapping (Physical Column)
TGEO	"Total Geography"
WORLD	DWR_GEO_WORLD.WORLD_NAME
REGION	DWR_GEO_RGN.RGN_NAME
SUB_REGION	DWR_GEO_SBRGN.SB_RGN_NAME
COUNTRY	DWR_GEO_CNTRY.CNTRY_NAME
STATE	DWR_GEO_STATE.STATE_NAME
CITY	DWR_GEO_CITY.CITY_NAME
COUNTY	DWR_GEO_CNTY.CNTY_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-41   Geography Short Description Attribute Mapping

Level	Mapping (Physical Column)
TGEO	"Total Geography"
WORLD	DWR_GEO_WORLD.WORLD_CD
REGION	DWR_GEO_RGN.RGN_CD
SUB_REGION	DWR_GEO_SBRGN.SB_RGN_CD
COUNTRY	DWR_GEO_CNTRY.CNTRY_CD
STATE	DWR_GEO_STATE.STATE_CD
CITY	DWR_GEO_CITY.CITY_CD
COUNTY	DWR_GEO_CNTY.CNTY_CD

Attribute Name: County Name(CNTY_NAME)

Table 8-42   Geography County Name Attribute Mapping

Level	Mapping (Physical Column)
TGEO	No value
WORLD	No value
REGION	No value
SUB_REGION	No value
COUNTRY	No value
STATE	No value
CITY	No value
COUNTY	DWR_GEO_CNTY.CNTY_NAME

Attribute Name: County Code(CNTY_CD)

Table 8-43   Geography County Code Attribute Mapping

Level	Mapping (Physical Column)
TGEO	No value
WORLD	No value
REGION	No value
SUB_REGION	No value
COUNTRY	No value
STATE	No value

Table 8-43 (Cont.) Geography County Code Attribute Mapping

Level	Mapping (Physical Column)
CITY	No value
COUNTY	DWR_GEO_CNTY.CNTY_CD

8.2.14 Handset Model: HSMDL

This dimension keeps all the information about models of handsets.

Table 8-44 Handset Model (HSMDL) Levels and Hierarchies

Level	Description	Handset Model Hierarchy (HHSMDL)
THSMDL	Total Handset Model	THSMDL
HSMDL	Handset Model	HSMDL

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-45 Handset Model Long Description Attribute Mapping

Level	Mapping (Physical Column)
THSMDL	"Total Handset Model"
HSMDL	DWR_HNDST_MDL.HNDST_MDL_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-46 Handset Model Short Description Attribute Mapping

Level	Mapping (Physical Column)
THSMDL	"Total Handset Model"
HSMDL	DWR_HNDST_MDL.HNDST_MDL_CD

8.2.15 Invoice Adjustment Reason: IARSN

This dimension keeps all the information of invoice adjustment reason. The reason why the adjustment was put on the invoice.

Table 8-47 Invoice Adjustment Reason (IARSN) Levels and Hierarchies

Level	Description	Invoice Adjustment Reason Hierarchy (HIARSN)
TIARSN	Total Invoice Adjustment Reason	TIARSN
IARSN	Invoice Adjustment Reason	IARSN

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-48   Invoice Adjustment Reason Long Description Attribute Mapping

Level	Mapping (Physical Column)
TIARSN	"Total Invoice Adjustment Reason"
IARSN	DWL_INVC_ADJ_RSN.INVC_ADJ_RSN_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-49   Invoice Adjustment Reason Short Description Attribute Mapping

Level	Mapping (Physical Column)
TIARSN	"Total Invoice Adjustment Reason"
IARSN	DWL_INVC_ADJ_RSN.INVC_ADJ_RSN_CD

8.2.16 Invoice Adjustment Type: IATYP

This dimension keeps all the information of invoice adjustment type. The categories of adjustment applied to a Customer Invoices.

Table 8-50   Invoice Adjustment Type (IATYP) Levels and Hierarchies

Level	Description	Invoice Adjustment Type Hierarchy (HIATYP)
TIATYP	Total invoice adjustment type	TIATYP
IATYP	Invoice adjustment type	IATYP

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-51   Invoice Adjustment Type Long Description Attribute Mapping

Level	Mapping (Physical Column)
TIATYP	"Total Invoice Adjustment Type"
IATYP	DWL_INVC_ADJ_TYP.INVC_ADJ_TYP_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-52   Invoice Adjustment Type Short Description Attribute Mapping

Level	Mapping (Physical Column)
TIATYP	"Total Invoice Adjustment Type"
IATYP	DWL_INVC_ADJ_TYP.INVC_ADJ_TYP_CD

8.2.17 Organization: ORG

This dimension keeps all the information of organization

Default Hierarchy: HCHAIN

Table 8-53   Organization (ORG) Levels and Hierarchies

Level	Description	Corporation Hierarchy (HCORPORATE)	Banner Hierarchy (HBANNER)	Chain Hierarchy (HCHAIN)
TORG	Organization Total	TORG	TORG	TORG
CORPORATION	Head Office or Parent Company.	CORPORATION	CORPORATION	CORPORATION
COMPANY	Company, it includes branch company or subsidiary company.			COMPANY
DIVISION	The parent level of business unit. It is to organize the organization business units according to their functional role, for example, call center, warehouse, and so on.	DIVISION		
BANNER	Holds the information about different organization banners under which product or service are sold.		BANNER	
CHAIN	Chain of outlets through which the organization conducts business.			CHAIN
AREA	Areas within a organization chain.			AREA
REGION	Holds region within a company, chain area.			REGION
DISTRICT	Holds districts within a company, chain, area, region.			DISTRICT
BU	Organization Business Unit contains 2 kinds of information - store and branch company. In the higher level is branch company.Some customer cannot belong to a particular store, in that case, they are associated with a branch company. So branch company are put in organization business unit level.	BU	BU	BU

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-54   Organization Long Description Attribute Mapping

Level	Mapping (Physical Column)
TORG	'Total Organization'
CORPORATION	DWR_ORG_RGN.RGN_NAME
COMPANY	DWR_ORG_CMPNY.CMPNY_NAME
DIVISION	DWR_ORG_DIV.DIV_NAME

Table 8-54   (Cont.) Organization Long Description Attribute Mapping

Level	Mapping (Physical Column)
BANNER	DWR_ORG_BNR.BNR_NAME
CHAIN	DWR_ORG_CHAIN.CHAIN_NAME
AREA	DWR_ORG_AREA.AREA_NAME
REGION	DWR_ORG_RGN.RGN_NAME
DISTRICT	DWR_ORG_RGN.RGN_NAME
BU	DWR_ORG_BSNS_UNIT.PRTY_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-55   Organization Short Description Attribute Mapping

Level	Mapping (Physical Column)
TORG	
CORPORATION	DWR_ORG_CRPRT.CRPRT_CD
COMPANY	DWR_ORG_CMPNY.CMPNY_CD
DIVISION	DWR_ORG_DIV.DIV_CD
BANNER	DWR_ORG_BNR.BNR_CD
CHAIN	DWR_ORG_CHAIN.CHAIN_CD
AREA	DWR_ORG_AREA.AREA_CD
REGION	DWR_ORG_RGN.RGN_CD
DISTRICT	DWR_ORG_DSTRCT.DSTRCT_CD
BU	DWR_ORG_BSNS_UNIT.PRTY_CD

Attribute Name: Store Name (STORE_NAME)

Table 8-56   Organization Store Name Attribute Mapping

Level	Mapping (Physical Column)
TORG	No value
CORPORATION	No value
COMPANY	No value
DIVISION	No value
BANNER	No value
CHAIN	No value

Table 8-56   (Cont.) Organization Store Name Attribute Mapping

Level	Mapping (Physical Column)
AREA	No value
REGION	No value
DISTRICT	No value
BU	DWR_ORG_BSNS_UNIT.PRTY_NAME

Attribute Name: Store Description (STORE_DESC)

Table 8-57   Organization Store Description Attribute Mapping

Level	Mapping (Physical Column)
TORG	No value
CORPORATION	No value
COMPANY	No value
DIVISION	No value
BANNER	No value
CHAIN	No value
AREA	No value
REGION	No value
DISTRICT	No value
BU	DWR_ORG_BSNS_UNIT.PRTY_DSCR

Attribute Name: Store Manager (STORE_MANAGER)

Table 8-58   Organization Store Manager Attribute Mapping

Level	Mapping (Physical Column)
TORG	No value
CORPORATION	No value
COMPANY	No value
DIVISION	No value
BANNER	No value
CHAIN	No value
AREA	No value
REGION	No value

Table 8-58   (Cont.) Organization Store Manager Attribute Mapping

Level	Mapping (Physical Column)
DISTRICT	No value
BU	DWR_ORG_BSNS_UNIT.MGR_NAME

Attribute Name: Store Open Date (STORE_OPEN_DT)

Table 8-59   Organization Store Open Date Attribute Mapping

Level	Mapping (Physical Column)
TORG	No value
CORPORATION	No value
COMPANY	No value
DIVISION	No value
BANNER	No value
CHAIN	No value
AREA	No value
REGION	No value
DISTRICT	No value
BU	DWR_ORG_BSNS_UNIT.VALID_STRT_DT

Attribute Name: Store Close Date (STORE_CLOSE_DT)

Table 8-60   Organization Store Close Date Attribute Mapping

Level	Mapping (Physical Column)
TORG	No value
CORPORATION	No value
COMPANY	No value
DIVISION	No value
BANNER	No value
CHAIN	No value
AREA	No value
REGION	No value
DISTRICT	No value
BU	DWR_ORG_BSNS_UNIT.VALID_END_DT

8.2.18 Payment Channel: PCK

This dimension keeps all the information all the information of the payment channel.

Table 8-61   Payment Channel (PCK) Levels and Hierarchies

Level	Description	Payment Channel Hierarchy (HPCK)
TPCK	Totalpayment channel	TPCK
PCK	Payment channel	PCK

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-62   Payment Channel Long Description Attribute Mapping

Level	Mapping (Physical Column)
TPCK	"TotalPayment Channel"
PCK	DWR_PYMT_CHNL.CHNL_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-63   Payment Channel Short Description Attribute Mapping

Level	Mapping (Physical Column)
TPCK	"TotalPayment Channel"
PCK	DWR_PYMT_CHNL.CHNL_KEY

8.2.19 Payment Method Type: PMTYP

This dimension keeps all the information of the payment method type. Payment method type describes the different methods by which payments may be made. Customers can pay their bills, deposits, other charges by different modes of payment such as: Cash, Check, Inter-bank transfer, Postal order, Wire transfer, Voucher.

Table 8-64   Payment Method Type (PMTYP) Levels and Hierarchies

Level	Description	Payment Method Type Hierarchy (HPMTYP)
TPMTYP	Total Payment Method Type	TPMTYP
PMTYP	Payment Method Type	PMTYP

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-65   Payment Method Type Long Description Attribute Mapping

Level	Mapping (Physical Column)
TPMTYP	"Total Payment Method Type"

Table 8-65   (Cont.) Payment Method Type Long Description Attribute Mapping

Level	Mapping (Physical Column)
PMTYP	DWL_PYMT_MTHD_TYP.PYMT_MTHD_TYP_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-66   Payment Method Type Short Description Attribute Mapping

Level	Mapping (Physical Column)
TPMTYP	"Total Account Payment Method Status Type"
PMTYP	DWL_PYMT_MTHD_TYP.PYMT_MTHD_TYP_CD

8.2.20 Payment Transaction Type: PTTYP

This dimension keeps all the information of the type of transaction.

Table 8-67   Payment Transaction Type (PTTYP) Levels and Hierarchies

Level	Description	Payment Transaction Type Hierarchy (HPTTYP)
TPTTYP	Total Payment Transaction Type	TPTTYP
PTTYP	Payment transaction type	PTTYP

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-68   Payment Transaction Type Long Description Attribute Mapping

Level	Mapping (Physical Column)
TPTTYP	"Total Payment Transaction Type"
PTTYP	DWL_PYMT_TRX_TYP.PYMT_TRX_TYP_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-69   Payment Transaction Type Short Description Attribute Mapping

Level	Mapping (Physical Column)
TPTTYP	"Total Payment Transaction Type"
PTTYP	DWL_PYMT_TRX_TYP. PYMT_TRX_TYP_CD

8.2.21 Peak Offpeak Time: POPT

This dimension keeps all the information of the peak and offpeak time. Based on the usage or traffic on the network each day is divided into various time slots such as the time when the usage is highest is called as the peak time slot

Table 8-70   Peak Offpeak Time (POPT) Levels and Hierarchies

Level	Description	Peak Offpeak Time Hierarchy (HPOPT)
TPOPT	Total Peak Offpeak Time	TPOPT
POPT	Peak Offpeak Time	POPT

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-71   Peak Offpeak Time Long Description Attribute Mapping

Level	Mapping (Physical Column)
TPOPT	"Total Peak Offpeak Time"
POPT	DWL_PK_OFPK_TIME.PK_OFPK_TIME_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-72   Peak Offpeak Time Short Description Attribute Mapping

Level	Mapping (Physical Column)
TPOPT	"Total Peak Offpeak Time"
POPT	DWL_PK_OFPK_TIME.PK_OFPK_TIME_CD

Attribute Name: Peak Offpeak Start Time(PK_OFPK_STRT)

Table 8-73   Peak Offpeak Time Peak Offpeak Start Time Attribute Mapping

Level	Mapping (Physical Column)
TPOPT	
POPT	DWL_PK_OFPK_TIME.PK_OFPK_STRT

Attribute Name: Peak Offpeak End Time(PK_OFPK_END)

Table 8-74   Peak Offpeak Time Peak Offpeak End Time Attribute Mapping

Level	Mapping (Physical Column)
TPOPT	
POPT	DWL_PK_OFPK_TIME.PK_OFPK_END

Attribute Name: Holiday Indicator (HOLIDY_IND)

Table 8-75   Peak Offpeak Time Holiday Indicator Attribute Mapping

Level	Mapping (Physical Column)
TPOPT	

Table 8-75   (Cont.) Peak Offpeak Time Holiday Indicator Attribute Mapping

Level	Mapping (Physical Column)
POPT	DWL_PK_OFPK_TIME.HOLIDY_IND

Attribute Name: Weekend Indicator (WEEKEND_IND)

Table 8-76   Peak Offpeak Time Weekend Indicator Attribute Mapping

Level	Mapping (Physical Column)
TPOPT	
POPT	DWL_PK_OFPK_TIME.WKEND_IND

8.2.22 Product: PROD

This dimension keeps all the information of products, services and value added features offering by the telecommunication company.

Table 8-77   Product (PROD) Levels and Hierarchies

Level	Description	Product Hierarchy (HPROD)
TPROD	Total Product	TPROD
PRODTYP	Type of the product	PRODTYP
PROD	The product provided by the carrier.	PROD

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-78   Product Long Description Attribute Mapping

Level	Mapping (Physical Column)
TPROD	"Total Product"
PRODTYP	DWL_PROD_SPEC_TYP.PROD_SPEC_TYP_NAME
PROD	DWR_PROD_SPEC.PROD_SPEC_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-79   Product Short Description Attribute Mapping

Level	Mapping (Physical Column)
TPROD	"Total Product"
PRODTYP	DWL_PROD_SPEC_TYP.PROD_SPEC_TYP_CD
PROD	DWR_PROD_SPEC.PROD_SPEC_CD

Attribute Name: IN Platform Key(IN_PLTFRM_KEY)

Id for IN Platform

Table 8-80   Product IN Platform Key Attribute Mapping

Level	Mapping (Physical Column)
TPROD	No value
PRODTYP	No value
PROD	DWR_PROD_SPEC.IN_PLTFRM_KEY

8.2.23 Product Offer: POFR

This dimension keeps all the information of the product offer.

Table 8-81   Product Offer (ARRSN) Levels and Hierarchies

Level	Description	Product Hierarchy (HPOFR)
TPOFR	Totalproduct offer	TPOFR
POFRTYPE	Product offer type	POFRTYPE
POFR	Product offer	POFR

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-82   Product Offer Long Description Attribute Mapping

Level	Mapping (Physical Column)
TPOFR	Total Product Offer
POFRTYPE	DWL_PROD_OFR_TYP.PROD_OFR_TYP_NAME
POFR	DWL_PROD_OFR_TYP.PROD_OFR_TYP_CD

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-83   Product Offer Short Description Attribute Mapping

Level	Mapping (Physical Column)
TPOFR	Total Product Offer'
POFRTYPE	DWR_CALL_CNTR. CALL_CNTR_CD
POFR	DWR_PROD_OFR.PROD_OFR_CD

Attribute Name: Joint Program Indicator (JP_IND)

Table 8-84   Product Offer Joint Program Indicator Attribute Mapping

Level	Mapping (Physical Column)
TPOFR	

Table 8-84   (Cont.) Product Offer Joint Program Indicator Attribute Mapping

Level	Mapping (Physical Column)
POFRTYPE	
POFR	DWR_PROD_OFR.JNT_PROG_IND

Attribute Name: Loyalty Program Indicator (LP_IND)

Table 8-85   Product Offer Loyalty Program Indicator Attribute Mapping

Level	Mapping (Physical Column)
TPOFR	
POFRTYPE	
POFR	DWR_PROD_OFR.LYLTY_PROG_IND

Attribute Name: New Customer Only Indicator (NC_IND)

Table 8-86   Product Offer New Customer Only Indicator Attribute Mapping

Level	Mapping (Physical Column)
TPOFR	
POFRTYPE	
POFR	DWR_PROD_OFR.NEW_CUST_ONLY_IND

Attribute Name: VAS Indicator (VAS_IND)

Table 8-87   Product Offer VAS Indicator Attribute Mapping

Level	Mapping (Physical Column)
TCCNTR	
CCNTR	
CCAT	DWR_PROD_OFR.VAS_IND

8.2.24 Promotion: PRMTN

This dimension keeps all the information of the promotion.

Table 8-88   Promotion (PRMTN) Levels and Hierarchies

Level	Description	Promotion Hierarchy (HPRMTN)
TPRMTN	Total promotion	TPRMTN
PRMTNTYP	Promotion type	PRMTNTYP
CCCSTYP	Promotion	CCCSTYP

Table 8-89   Promotion (HCMPGN) Levels and Hierarchies

Level	Description	Promotion Hierarchy (HCMPGN)
TPRMTN	Total promotion	TPRMTN
CMPGN	Campaign	CMPGN
PRMTN	Promotion	PRMTN

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-90   Promotion Long Description Attribute Mapping

Level	Mapping (Physical Column)
TCCC	"Total Promotion"
PRMTNTYP	DWL_PRMTN_TYP.PRMTN_TYP_NAME
CMPGN	DWR_CMPGN.CMPGN_DSCR
PRMTN	DWR_PRMTN.PRMTN_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-91   Promotion Short Description Attribute Mapping

Level	Mapping (Physical Column)
TCCC	"Total Promotion"
PRMTNTYP	DWL_PRMTN_TYP.PRMTN_TYP_CD
CMPGN	DWR_CMPGN.CMPGN_CD
PRMTN	DWR_PRMTN.PRMTN_CD

8.2.25 Resource: RSCEK

This dimension keeps all the information for resources.

Table 8-92   Resource (RSCEK) Levels and Hierarchies

Level	Description	Resource Hierarchy (HRSCEK)
TRSCEK	Total resource	TRSCEK
RSCEK	Resource	RSCEK

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-93   Resource Long Description Attribute Mapping

Level	Mapping (Physical Column)
TRSCEK	"Total Resourc"

Table 8–93 (Cont.) Resource Long Description Attribute Mapping

Level	Mapping (Physical Column)
RSCEK	DWR_RSCE.RSCE_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8–94 Resource Short Description Attribute Mapping

Level	Mapping (Physical Column)
TRSCEK	"Total Resource"
RSCEK	DWR_RSCE.RSCE_CD

8.2.26 Sales Channel: SLCHNL

This dimension keeps all the information of Sales Channel.

Table 8–95 Sales Channel (SLCHNL) Levels and Hierarchies

Level	Description	Sales Channel Hierarchy (HSLCHNL)
TSLCHNL	Total Sales Channel	TSLCHNL
SLCHNL	Sales Channel	SLCHNL

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8–96 Sales Channel Long Description Attribute Mapping

Level	Mapping (Physical Column)
TSLCHNL	"Total Sales Channel"
SLCHNL	DWR_SL_CHNL.CHNL_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8–97 Sales Channel Short Description Attribute Mapping

Level	Mapping (Physical Column)
TSLCHNL	"Total Sales Channel"
SLCHNL	DWR_SL_CHNL.CHNL_CD

Attribute Name: Capacity Quantity (CPCTY_QTY):

The number of transaction that a Channel can handle, at a point of time.

Table 8-98   Sales Channel Capacity Quantity Attribute Mapping

Level	Mapping (Physical Column)
TSLCHNL	
SLCHNL	DWR_SL_CHNL.CPCTY_QTY

8.2.27 Sales Channel Representative: SLR

This dimension keeps all the information for the sales channel representative.

Table 8-99   Sales Channel Representative (SLR) Levels and Hierarchies

Level	Description	Sales Channel Representative Hierarchy (HRSCEK)
TSLR	Total sales channelrepresentative	TSLR
SLR	Sales channelrepresentive	SLR

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-100   Sales Channel Representative Long Description Attribute Mapping

Level	Mapping (Physical Column)
TSLR	Total Sale Channel Representative'
SLR	DWR_SL_CHNL_RPRSTV.SL_CHNL_RPRSTV_CD

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-101   Sales Channel Representative Short Description Attribute Mapping

Level	Mapping (Physical Column)
TSLR	Total Sale Channel Representative'
SLR	DWR_SL_CHNL_RPRSTV.SL_CHNL_RPRSTV_CD

8.2.28 SKU Item: SKUITEM

This dimension stores the products as SKU items used in Oracle Communications Data Model.

Default Hierarchy:

Table 8-102   Product Hierarchy and Cluster Hierarchy

Level	Description	Product Hierarchy (HPROD)	Product Cluster Hierarchy (HPCLUSTER)
TPROD	Total Product	TPROD	TPROD
PCLUSTER	Product Cluster	No value	PCLUSTER

Table 8-102   (Cont.) Product Hierarchy and Cluster Hierarchy

Level	Description	Product Hierarchy (HPROD)	Product Cluster Hierarchy (HPCLUSTER)
COMPANY	Company	COMPANY	No value
DIVISION	Division	DIVISION	No value
GROUP[1]	Group	GROUP	No value
DEPT	Department	DEPT	No value
CLASS	Class	CLASS	No value
SUBCLASS	Sub Class	SUBCLASS	No value
ITEM	Item	ITEM	ITEM
SKU	SKU Item	SKU	SKU

[1] For Oracle Communications Data Model for OLAP 11g, this level is named GROUP. However, since GROUP is a restricted keyword for Oracle OLAP 11g metadata, in Oracle Communications Data Model for OLAP 11g, this level has been renamed to GROUP1. The Level Description continues to be Group in both versions.

Attribute Name: Long Description (LONG_DESCRIPTION)

Table 8-103   Product Long Description Attribute Mapping

Level	Mapping (Physical Column)
TPROD	'Total Product'
PCLUSTER	DWR_ITEM_CLSTR.ITEM_CLSTR_DESC
COMPANY	DWR_ITEM_CMPNY.ITEM_CMPNY_NAME
DIVISION	DWR_ITEM_DIV.ITEM_DIV_NAME
GROUP	DWR_ITEM_GRP.ITEM_GRP_NAME
DEPT	DWR_ITEM_DEPT.ITEM_DEPT_NAME
CLASS	DWR_ITEM_CLASS.ITEM_CLASS_NAME
SUBCLASS	DWR_ITEM_SBC.SBC_NAME
ITEM	DWR_ITEM.ITEM_DESC
SKU	DWR_SKU_ITEM.SKU_ITEM_DESC

Attribute Name: Short Description (SHORT_DESCRIPTION)

Table 8-104   Product Short Description Attribute Mapping

Level	Mapping (Physical Column)
TPROD	'Total Product'
PCLUSTER	DWR_ITEM_CLSTR.ITEM_CLSTR_CD

Table 8-104   (Cont.) Product Short Description Attribute Mapping

Level	Mapping (Physical Column)
COMPANY	DWR_ITEM_CMPNY.ITEM_CMPNY_CD
DIVISION	DWR_ITEM_DIV.ITEM_DIV_CD
GROUP	DWR_ITEM_GRP.ITEM_GRP_CD
DEPT	DWR_ITEM_DEPT.ITEM_DEPT_CD
CLASS	DWR_ITEM_CLASS.ITEM_CLASS_CD
SUBCLASS	DWR_ITEM_SBC.SBC_CD
ITEM	DWR_ITEM.ITEM_NAME
SKU	DWR_SKU_ITEM.SKU_ITEM_NAME

Attribute Name: Buyer Code (BUYER_CODE)

Table 8-105   Product Buyer Code Attribute Mapping

Level	Mapping (Physical Column)
TPROD	No value
PCLUSTER	No value
COMPANY	No value
DIVISION	DWR_ITEM_DIV.ITEM_DIV_BYR_CD
GROUP	DWR_ITEM_GRP.ITEM_GRP_BYR_CD
DEPT	DWR_ITEM_DEPT.ITEM_DEPT_BYR_CD
CLASS	DWR_ITEM_CLASS.ITEM_CLASS_BYR_CD
SUBCLASS	DWR_ITEM_SBC.SBC_BYR_CD
ITEM	No value
SKU	No value

Attribute Name: Buyer Name (BUYER_NAME)

Table 8-106   Product Buyer Name Attribute Mapping

Level	Mapping (Physical Column)
TPROD	No value
PCLUSTER	No value
COMPANY	No value
DIVISION	DWR_ITEM_DIV.ITEM_DIV_BYR_NAME

Table 8-106   (Cont.) Product Buyer Name Attribute Mapping

Level	Mapping (Physical Column)
GROUP	DWR_ITEM_GRP.ITEM_GRP_BYR_NAME
DEPT	DWR_ITEM_DEPT.ITEM_DEPT_BYR_NAME
CLASS	DWR_ITEM_CLASS.ITEM_CLASS_BYR_NAME
SUBCLASS	DWR_ITEM_SBC.SBC_BYR_NAME
ITEM	No value
SKU	No value

Attribute Name: Item Conv Type Code (ITEM_CONV_TYPE_CD)

Table 8-107   Product Item Conv Type Code Attribute Mapping

Level	Mapping (Physical Column)
TPROD	No value
PCLUSTER	No value
COMPANY	No value
DIVISION	No value
GROUP	No value
DEPT	No value
CLASS	No value
SUBCLASS	No value
ITEM	DWR_ITEM.CONVBL_TYP_CD
SKU	No value

Attribute Name: Item Discount Indicator (ITEM_DISC_IND)

Table 8-108   Product Item Discount Indicator Attribute Mapping

Level	Mapping (Physical Column)
TPROD	No value
PCLUSTER	No value
COMPANY	No value
DIVISION	No value
GROUP	No value
DEPT	No value

Table 8-108   (Cont.) Product Item Discount Indicator Attribute Mapping

Level	Mapping (Physical Column)
CLASS	No value
SUBCLASS	No value
ITEM	DWR_ITEM.DISC_IND
SKU	No value

Attribute Name: Item Display Unit Type Code (ITEM_DISP_UNIT_TYP_CD)

Table 8-109   Product Item Display Unit Type Code Attribute Mapping

Level	Mapping (Physical Column)
TPROD	No value
PCLUSTER	No value
COMPANY	No value
DIVISION	No value
GROUP	No value
DEPT	No value
CLASS	No value
SUBCLASS	No value
ITEM	DWR_ITEM.DSPLY_UNIT_TYP_CD
SKU	No value

Attribute Name: Item Number (ITEM_NBR)

Table 8-110   Product Item Number Attribute Mapping

Level	Mapping (Physical Column)
TPROD	No value
PCLUSTER	No value
COMPANY	No value
DIVISION	No value
GROUP	No value
DEPT	No value
CLASS	No value
SUBCLASS	No value

Table 8-110 (Cont.) Product Item Number Attribute Mapping

Level	Mapping (Physical Column)
ITEM	DWR_ITEM.ITEM_NBR
SKU	No value

Attribute Name: Merchandiser Code (MERC_CODE)

Table 8-111 Product Merchandiser Code Attribute Mapping

Level	Mapping (Physical Column)
TPROD	No value
PCLUSTER	No value
COMPANY	No value
DIVISION	DWR_ITEM_DIV.ITEM_DIV_MRCHNDSR_CD
GROUP	DWR_ITEM_GRP.ITEM_GRP_MRCHNDSR_CD
DEPT	DWR_ITEM_DEPT.DEPT_MRCHNDSR_CD
CLASS	DWR_ITEM_CLASS.ITEM_CLASS_MRCHNDSR_CD
SUBCLASS	DWR_ITEM_SBC.SBC_MRCHNDSR_CD
ITEM	
SKU	

Attribute Name: Merchandiser Name (MERC_NAME)

Table 8-112 Product Merchandiser Name Attribute Mapping

Level	Mapping (Physical Column)
TPROD	No value
PCLUSTER	No value
COMPANY	No value
DIVISION	DWR_ITEM_DIV.ITEM_DIV_MRCHNDSR_NAME
GROUP	DWR_ITEM_GRP.ITEM_GRP_MRCHNDSR_NAME
DEPT	DWR_ITEM_DEPT.DEPT_MRCHNDSR_NAME
CLASS	DWR_ITEM_CLASS.ITEM_CLASS_MRCHNDSR_NAME
SUBCLASS	DWR_ITEM_SBC.SBC_MRCHNDSR_NAME
ITEM	No value
SKU	No value

Attribute Name: SKU Item Number (SKU_ITEM_NBR)

Table 8-113   Product SKU Item Number Attribute Mapping

Level	Mapping (Physical Column)
TPROD	No value
PCLUSTER	No value
COMPANY	No value
DIVISION	No value
GROUP	No value
DEPT	No value
CLASS	No value
SUBCLASS	No value
ITEM	No value
SKU	DWR_SKU_ITEM.SKU_ITEM_NBR

8.2.29 Time: TIME

This dimension keeps all the information of time.

Table 8-114   Time (TIME) Levels and Hierarchies

Level	Description	Time Business Hierarchy (HTBSNS)
TTIME	Time Total	TTIME
BSNS_YR	Business Year	BSNS_YR
BSNS_HLF_YR	Business Half Year	BSNS_HLF_YR
BSNS_QTR	Business Quarter	BSNS_QTR
BSNS_MO	Business Month	BSNS_MO

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-115   Time Long Description Attribute Mapping

Level	Mapping (Physical Column)
TTIME	DWR_TIME_TOT.TOT_DSCR
BSNS_YR	DWR_BSNS_YR.BSNS_YR_DSCR
BSNS_HLF_YR	DWR_BSNS_HLF_YR.BSNS_HLF_YR_DSCR
BSNS_QTR	DWR_BSNS_QTR.BSNS_QTR_DSCR
BSNS_MO	DWR_BSNS_MO.BSNS_MO_DSCR

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-116   Time Short Description Attribute Mapping

Level	Mapping (Physical Column)
TTIME	DWR_TIME_TOT.TOT_CD
BSNS_YR	DWR_BSNS_YR.BSNS_YR_CD
BSNS_HLF_YR	DWR_BSNS_HLF_YR.BSNS_HLF_YR_CD
BSNS_QTR	DWR_BSNS_QTR.BSNS_QTR_CD
BSNS_MO	DWR_BSNS_MO.BSNS_MO_CD

Attribute Name: Time Number(TIME_NBR)

Table 8-117   Time Time Number Attribute Mapping

Level	Mapping (Physical Column)
TTIME	DWR_TIME_TOT.TOT_NBR
BSNS_YR	DWR_BSNS_YR.BSNS_YR_NBR
BSNS_HLF_YR	DWR_BSNS_HLF_YR.BSNS_HLF_YR_NBR
BSNS_QTR	DWR_BSNS_QTR.BSNS_QTR_NBR
BSNS_MO	DWR_BSNS_MO.BSNS_MO_NBR

Attribute Name: Time Span(TIME_SPAN)

Table 8-118   Time Time Span Attribute Mapping

Level	Mapping (Physical Column)
TTIME	DWR_TIME_TOT.TOT_TIMESPN
BSNS_YR	DWR_BSNS_YR.BSNS_YR_TIMESPN
BSNS_HLF_YR	DWR_BSNS_HLF_YR.BSNS_HLF_YR_TIMESPN
BSNS_QTR	DWR_BSNS_QTR.BSNS_QTR_TIMESPN
BSNS_MO	DWR_BSNS_MO.BSNS_MO_TIMESPN

Attribute Name: Start Date(START_DATE)

Table 8-119   Time Start Date Attribute Mapping

Level	Mapping (Physical Column)
TTIME	DWR_TIME_TOT.TOT_STRT_DT
BSNS_YR	DWR_BSNS_YR.BSNS_YR_STRT_DT
BSNS_HLF_YR	DWR_BSNS_HLF_YR.BSNS_HLF_YR_STRT_DT

Table 8-119   (Cont.) Time Start Date Attribute Mapping

Level	Mapping (Physical Column)
BSNS_QTR	DWR_BSNS_QTR.BSNS_QTR_ STRT_DT
BSNS_MO	DWR_BSNS_MO.BSNS_MO_STRT_DT

Attribute Name: End Date(END_DATE)

Table 8-120   Time End Date Attribute Mapping

Level	Mapping (Physical Column)
TTIME	DWR_TIME_TOT.TOT_END_DT
BSNS_YR	DWR_BSNS_YR.BSNS_YR_END_DT
BSNS_HLF_YR	DWR_BSNS_HLF_YR.BSNS_HLF_YR_END_DT
BSNS_QTR	DWR_BSNS_QTR.BSNS_QTR_END_DT
BSNS_MO	DWR_BSNS_MO.BSNS_MO_END_DT

8.2.30 Time Day: TIME_DAY

This dimension stores Time related data used in Oracle Communications Data Model.

Default Hierarchy: HTBSNS

Table 8-121   Time Levels and Hierarchies

Level	Description	Time Business Hierarchy (HTBSNS)	Time Calendar Hierarchy (HTCLNDR)	Time Calendar Week Hierarchy (HTCLNDRWK)
TTIME	Total Time	TTIME	TTIME	TTIME
CLNDR_YR	Calendar Year		CLNDR_YR	
CLNDR_HLF_YR	Calendar Half Year		CLNDR_HLF_YR	
CLNDR_QTR	Calendar Quarter		CLNDR_QTR	
CLNDR_MO	Calendar Month		CLNDR_MO	
CLNDR_HLF_MO	Calendar Half Month		CLNDR_HLF_MO	
CLNDR_WK	Calendar Week		CLNDR_WK	CLNDR_WK
BSNS_YR	Business Year	BSNS_YR		
BSNS_HLF_YR	Business Half Year	BSNS_HLF_YR		
BSNS_QTR	Business Quarter	BSNS_QTR		
BSNS_MO	Business Month	BSNS_MO		

Table 8-121   (Cont.) Time Levels and Hierarchies

Level	Description	Time Business Hierarchy (HTBSNS)	Time Calendar Hierarchy (HTCLNDR)	Time Calendar Week Hierarchy (HTCLNDRWK)
BSNS_HLF_MO	Business Half Month	BSNS_HLF_MO		
BSNS_WK	Business Week	BSNS_WK		
DAY	Day	DAY	DAY	DAY

Attribute Name: Long Description (LONG_DESCRIPTION)

Table 8-122   Time Long Description Attribute Mapping

Level	Mapping (Physical Column)
TTIME	DWR_TOT_TIME.TOT_DSCR
CLNDR_YR	DWR_CLNDR_YR.YR_DSCR
CLNDR_HLF_YR	DWR_CLNDR_HLF_YR.HLF_YR_DSCR
CLNDR_QTR	DWR_CLNDR_QTR.QTR_DSCR
CLNDR_MO	DWR_CLNDR_MO.MO_DSCR
CLNDR_HLF_MO	DWR_CLNDR_HLF_MO.HLF_MO_DSCR
CLNDR_WK	DWR_CLNDR_WK.WK_DSCR
BSNS_YR	DWR_BSNS_YR.YR_DSCR
BSNS_HLF_YR	DWR_BSNS_HLF_YR.HLF_YR_DSCR
BSNS_QTR	DWR_BSNS_QTR.QTR_DSCR
BSNS_MO	DWR_BSNS_MO.MO_DSCR
BSNS_HLF_MO	DWR_BSNS_HLF_MO.HLF_MO_DSCR
BSNS_WK	DWR_BSNS_WK.WK_DSCR
DAY	DWR_DAY.BSNS_DT_DSCR

Attribute Name: Short Description (SHORT_DESCRIPTION)

Table 8-123   Time Short Description Attribute Mapping

Level	Mapping (Physical Column)
TTIME	DWR_TOT_TIME.TOT_CD
CLNDR_YR	DWR_CLNDR_YR.YR_CD
CLNDR_HLF_YR	DWR_CLNDR_HLF_YR.HLF_YR_CD
CLNDR_QTR	DWR_CLNDR_QTR.QTR_CD

Table 8-123   (Cont.) Time Short Description Attribute Mapping

Level	Mapping (Physical Column)
CLNDR_MO	DWR_CLNDR_MO.MO_CD
CLNDR_HLF_MO	DWR_CLNDR_HLF_MO.HLF_MO_CD
CLNDR_WK	DWR_CLNDR_WK.WK_CD
BSNS_YR	DWR_BSNS_YR.YR_CD
BSNS_HLF_YR	DWR_BSNS_HLF_YR.HLF_YR_CD
BSNS_QTR	DWR_BSNS_QTR.QTR_CD
BSNS_MO	DWR_BSNS_MO.MO_CD
BSNS_HLF_MO	DWR_BSNS_HLF_MO.HLF_MO_CD
BSNS_WK	DWR_BSNS_WK.WK_CD
DAY	DWR_DAY.BSNS_DT_DSCR

Attribute Name: End Date (END_DATE)

Table 8-124   Time End Date Attribute Mapping

Level	Mapping (Physical Column)
TTIME	DWR_TOT_TIME.END_DATE
CLNDR_YR	DWR_CLNDR_YR.YR_END_DT
CLNDR_HLF_YR	DWR_CLNDR_HLF_YR.HLF_YR_END_DT
CLNDR_QTR	DWR_CLNDR_QTR.QTR_END_DT
CLNDR_MO	DWR_CLNDR_MO.MO_END_DT
CLNDR_HLF_MO	DWR_CLNDR_HLF_MO.HLF_MO_END_DT
CLNDR_WK	DWR_CLNDR_WK.WK_END_DT
BSNS_YR	DWR_BSNS_YR.YR_END_DT
BSNS_HLF_YR	DWR_BSNS_HLF_YR.HLF_YR_END_DT
BSNS_QTR	DWR_BSNS_QTR.QTR_END_DT
BSNS_MO	DWR_BSNS_MO.MO_END_DT
BSNS_HLF_MO	DWR_BSNS_HLF_MO.HLF_MO_END_DT
BSNS_WK	DWR_BSNS_WK.WK_END_DT
DAY	DWR_DAY.BSNS_END_DT

Attribute Name: Time Span (TIME_SPAN)

Table 8-125   Time Time Span Attribute Mapping

Level	Mapping (Physical Column)
TTIME	DWR_TOT_TIME.TOT_TIME_SPAN
CLNDR_YR	DWR_CLNDR_YR.YR_TIMESPN
CLNDR_HLF_YR	DWR_CLNDR_HLF_YR.HLF_YR_TIMESPN
CLNDR_QTR	DWR_CLNDR_QTR.QTR_TIMESPN
CLNDR_MO	DWR_CLNDR_MO.MO_TIMESPN
CLNDR_HLF_MO	DWR_CLNDR_HLF_MO.HLF_MO_TIMESPN
CLNDR_WK	DWR_CLNDR_WK.WK_TIMESPN
BSNS_YR	DWR_BSNS_YR.YR_TIMESPN
BSNS_HLF_YR	DWR_BSNS_HLF_YR.HLF_YR_TIMESPN
BSNS_QTR	DWR_BSNS_QTR.QTR_TIMESPN
BSNS_MO	DWR_BSNS_MO.MO_TIMESPN
BSNS_HLF_MO	DWR_BSNS_HLF_MO.HLF_MO_TIMESPN
BSNS_WK	DWR_BSNS_WK.WK_TIMESPN
DAY	DWR_DAY.BSNS_DAY_TIMESPAN

Attribute Name: Business Holiday Indicator (BSNS_HLDY_IND)

Table 8-126   Time Business Holiday Indicator Attribute Mapping

Level	Mapping (Physical Column)
TTIME	No value
CLNDR_YR	No value
CLNDR_HLF_YR	No value
CLNDR_QTR	No value
CLNDR_MO	No value
CLNDR_HLF_MO	No value
CLNDR_WK	No value
BSNS_YR	No value
BSNS_HLF_YR	No value
BSNS_QTR	No value
BSNS_MO	No value
BSNS_HLF_MO	No value

Table 8-126   (Cont.) Time Business Holiday Indicator Attribute Mapping

Level	Mapping (Physical Column)
BSNS_WK	No value
DAY	DWR_DAY.BSNS_HOLIDY_IND

Attribute Name: Business Weekend Indicator (BSNS_WEND_IND)

Table 8-127   Time Business Weekend Indicator Attribute Mapping

Level	Mapping (Physical Column)
TTIME	No value
CLNDR_YR	No value
CLNDR_HLF_YR	No value
CLNDR_QTR	No value
CLNDR_MO	No value
CLNDR_HLF_MO	No value
CLNDR_WK	No value
BSNS_YR	No value
BSNS_HLF_YR	No value
BSNS_QTR	No value
BSNS_MO	No value
BSNS_HLF_MO	No value
BSNS_WK	No value
DAY	DWR_DAY.BSNS_WEEKEND_IND

Attribute Name: Business Working Day Indicator (BSNS_WRK_IND)

Table 8-128   Time Business Working Day Indicator Attribute Mapping

Level	Mapping (Physical Column)
TTIME	No value
CLNDR_YR	No value
CLNDR_HLF_YR	No value
CLNDR_QTR	No value
CLNDR_MO	No value
CLNDR_HLF_MO	No value

Table 8-128   (Cont.) Time Business Working Day Indicator Attribute Mapping

Level	Mapping (Physical Column)
CLNDR_WK	No value
BSNS_YR	No value
BSNS_HLF_YR	No value
BSNS_QTR	No value
BSNS_MO	No value
BSNS_HLF_MO	No value
BSNS_WK	No value
DAY	DWR_DAY.BSNS_WRKING_DAY_IND

Attribute Name: Number (NBR)

Table 8-129   Time Number Attribute Mapping

Level	Mapping (Physical Column)
TTIME	No value
CLNDR_YR	TO_NUMBER(DWR_CLNDR_YR.YR_NBR)
CLNDR_HLF_YR	TO_NUMBER(DWR_CLNDR_HLF_YR.HLF_YR_NBR)
CLNDR_QTR	TO_NUMBER(DWR_CLNDR_QTR.QTR_NBR)
CLNDR_MO	TO_NUMBER(DWR_CLNDR_MO.MO_NBR)
CLNDR_HLF_MO	TO_NUMBER(DWR_CLNDR_HLF_MO.HLF_MO_NBR)
CLNDR_WK	TO_NUMBER(DWR_CLNDR_WK.WK_NBR)
BSNS_YR	TO_NUMBER(DWR_BSNS_YR.YR_NBR)
BSNS_HLF_YR	TO_NUMBER(DWR_BSNS_HLF_YR.HLF_YR_NBR)
BSNS_QTR	TO_NUMBER(DWR_BSNS_QTR.QTR_NBR)
BSNS_MO	TO_NUMBER(DWR_BSNS_MO.MO_NBR)
BSNS_HLF_MO	TO_NUMBER(DWR_BSNS_HLF_MO.HLF_MO_NBR)
BSNS_WK	TO_NUMBER(DWR_BSNS_WK.WK_NBR)
DAY	TO_NUMBER(DWR_DAY.BSNS_DAY_OF_YR)

Attribute Name: Calendar Holiday Indicator (CLNDR_HLDY_IND)

Table 8-130   Time Calendar Holiday Indicator Attribute Mapping

Level	Mapping (Physical Column)
TTIME	No value
CLNDR_YR	No value
CLNDR_HLF_YR	No value
CLNDR_QTR	No value
CLNDR_MO	No value
CLNDR_HLF_MO	No value
CLNDR_WK	No value
BSNS_YR	No value
BSNS_HLF_YR	No value
BSNS_QTR	No value
BSNS_MO	No value
BSNS_HLF_MO	No value
BSNS_WK	No value
DAY	DWR_DAY.CLNDR_HOLIDY_IND

Attribute Name: Calendar Weekend Indicator (CLNDR_WEND_IND)

Table 8-131   Time Calendar Weekend Indicator Attribute Mapping

Level	Mapping (Physical Column)
TTIME	No value
CLNDR_YR	No value
CLNDR_HLF_YR	No value
CLNDR_QTR	No value
CLNDR_MO	No value
CLNDR_HLF_MO	No value
CLNDR_WK	No value
BSNS_YR	No value
BSNS_HLF_YR	No value
BSNS_QTR	No value
BSNS_MO	No value
BSNS_HLF_MO	No value

Table 8-131   (Cont.) Time Calendar Weekend Indicator Attribute Mapping

Level	Mapping (Physical Column)
BSNS_WK	No value
DAY	DWR_DAY.CLNDR_WEEKEND_IND

Attribute Name: Calendar Working Day Indicator (CLNDR_WRK_IND)

Table 8-132   Time Calendar Working Day Indicator Attribute Mapping

Level	Mapping (Physical Column)
TTIME	No value
CLNDR_YR	No value
CLNDR_HLF_YR	No value
CLNDR_QTR	No value
CLNDR_MO	No value
CLNDR_HLF_MO	No value
CLNDR_WK	No value
BSNS_YR	No value
BSNS_HLF_YR	No value
BSNS_QTR	No value
BSNS_MO	No value
BSNS_HLF_MO	No value
BSNS_WK	No value
DAY	DWR_DAY.CLNDR_WRKING_DAY_IND

Attribute Name: Identifier (ID)

Table 8-133   Time Identifier Attribute Mapping

Level	Mapping (Physical Column)
TTIME	DWR_TOT_TIME.TOT_KEY
CLNDR_YR	DWR_CLNDR_YR.CLNDR_YR_KEY
CLNDR_HLF_YR	DWR_CLNDR_HLF_YR.CLNDR_HLF_YR_KEY
CLNDR_QTR	DWR_CLNDR_QTR.CLNDR_QTR_KEY
CLNDR_MO	DWR_CLNDR_MO.CLNDR_MO_KEY
CLNDR_HLF_MO	DWR_CLNDR_HLF_MO.CLNDR_HLF_MO_KEY

Table 8-133   (Cont.) Time Identifier Attribute Mapping

Level	Mapping (Physical Column)
CLNDR_WK	DWR_CLNDR_WK.CLNDR_WK_KEY
BSNS_YR	DWR_BSNS_YR.BSNS_YR_KEY
BSNS_HLF_YR	DWR_BSNS_HLF_YR.HLF_YR_KEY
BSNS_QTR	DWR_BSNS_QTR.QTR_KEY
BSNS_MO	DWR_BSNS_MO.MO_KEY
BSNS_HLF_MO	DWR_BSNS_HLF_MO.HLF_MO_KEY
BSNS_WK	DWR_BSNS_WK.WK_KEY
DAY	DWR_DAY.DAY_KEY

Attribute Name: Start Date (START_DATE)

Table 8-134   Time Start Date Attribute Mapping

Level	Mapping (Physical Column)
TTIME	
CLNDR_YR	DWR_CLNDR_YR.YR_STRT_DT
CLNDR_HLF_YR	DWR_CLNDR_HLF_YR.HLF_YR_STRT_DT
CLNDR_QTR	DWR_CLNDR_QTR.QTR_STRT_DT
CLNDR_MO	DWR_CLNDR_MO.MO_STRT_DT
CLNDR_HLF_MO	DWR_CLNDR_HLF_MO.HLF_MO_STRT_DT
CLNDR_WK	DWR_CLNDR_WK.WK_STRT_DT
BSNS_YR	DWR_BSNS_YR.YR_STRT_DT
BSNS_HLF_YR	DWR_BSNS_HLF_YR.HLF_YR_STRT_DT
BSNS_QTR	DWR_BSNS_QTR.QTR_STRT_DT
BSNS_MO	DWR_BSNS_MO.MO_STRT_DT
BSNS_HLF_MO	DWR_BSNS_HLF_MO.HLF_MO_STRT_DT
BSNS_WK	DWR_BSNS_WK.WK_STRT_DT
DAY	DWR_DAY.BSNS_STRT_DT

8.2.31 Time Slot: TSLT

This dimension keeps information for Time Slot.

Default Hierarchy: HTSLT

Table 8-135   Time Slot (TSLT) Levels and Hierarchies

Level	Description	Time Slot Hierarchy (HTSLT)
TTSLT	Total Time Slot	TTSLT
TSLT	Time Slot	TSLT

Attribute Name: Long Description(LONG_DESCRIPTION)

Table 8-136   Time Slot Long Description Attribute Mapping

Level	Mapping (Physical Column)
TTSLT	"Total Time Slot"
TSLT	DWR_TIME_SLT.TIME_SLT_NAME

Attribute Name: Short Description(SHORT_DESCRIPTION)

Table 8-137   Time Slot Short Description Attribute Mapping

Level	Mapping (Physical Column)
TTSLT	"Total Time Slot"
TSLT	DWR_TIME_SLT.TIME_SLT_CD

9

Oracle Communications Data Model OLAP Model Cubes

This chapter of Oracle Communications Data Model Reference describes the Data Flow between fact tables and dimension tables of Oracle Communications Data Model relational part to target materialize views and cubes to support the module Oracle Communications Data Model OLAP.

Note:

All materialized views underlying the OLAP cubes are disabled by default. To enable the cube materialized views, you must follow the steps outlined in *Oracle Communications Data Model Implementation and Operations Guide*.

Oracle Communications Data Model OLAP Cubes (page 9-1)

Related Topics:

Oracle Communications Data Model OLAP Model Dimensions (page 8-1)

9.1 Oracle Communications Data Model OLAP Cubes

For each cube, each section includes the following cube information:

- Description

- Dimensions (leaf load level and load sequence)

- Base Measures with Physical Mapping and Description

- Derived Measure with the Logical Name and the Calculations

Note:

Oracle Communications Data Model includes base measures with format such as, *XXXX*1. These base measures are intended for internal; Oracle Communications Data Model uses these base measures to calculate `EOP_`*XXXX* (end of period value). Do not uses these measures for reporting.

Account Debt Cube: ADM (page 9-2)

Account Payment Cube: APM (page 9-7)

Agreement Cube: AGRMNT (page 9-11)

9.1.1 Account Debt Cube: ADM

The summarized daily status of customer debt for each customer type.

Physical Name: ADM

Dimensions and Load Level

The fact data of Account Debt Cube will be loaded from the relational schema at these dimension levels (leaf level).

Table 9-1   Account Debt Cube Dimensions and Load Level

Dimension Name	Load level
Time	Business Month
Customer Type	Customer Type
Sales Channel	Sales Channel
Sales Channel Representative	Sales Channel Representative
Organization	Business Unit

Table 9-1 (Cont.) Account Debt Cube Dimensions and Load Level

Dimension Name	Load level
Geography	County
Product offer	product offer

Aggregation Order/Operator

The Account Debt Cube is aggregated by the order and operators on dimensions shown in Table 9-2 (page 9-3).

Table 9-2 Account Debt Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Time	Sum	1
Customer Type	Sum	2
Sales Channel	Sum	3
Sales Channel Representative	Sum	4
Product offer	Sum	5
Organization	Sum	6
Geography	Sum	7

Base Measures

Table 9-3 (page 9-3) shows the base measures.

Table 9-3 Account Debt Cube Base Measures

Physical Name	Logical Name	Physical Column
ADA	TOTAL DEBIT AGE	DWA_ACCT_DEBT_MO.AVG_DEBT_AGE
CIA	CURRENT INVOICE AMOUNT	DWA_ACCT_DEBT_MO.CURR_INVC_AMT
DC	DEBT COUNT	DWA_ACCT_DEBT_MO.DEBT_CNT
IIDC	INVOICE IN DEBT COUNT	DWA_ACCT_DEBT_MO.INVC_IN_DEBT_CNT
MIAID	MINIMUM INVOICE AMOUNT IN DEBIT	DWA_ACCT_DEBT_MO.MIN_INVC_AMT_IN_DEBT
NAC	NUMBER AGENT COMMENTS	DWA_ACCT_DEBT_MO.NB_AGNT_CMNTS
NCC	NEW CUSTOMER COUNT	DWA_ACCT_DEBT_MO.NEW_CUST_CNT
NOAF	NUMBER OF AGREEMENT FAILED	DWA_ACCT_DEBT_MO.NB_OF_AGRMNT_FAILED
NOAS	NUMBER OF AGREEMENT SUCCESS	DWA_ACCT_DEBT_MO.NB_OF_AGRMNT_SUCCESS

Table 9-3   (Cont.) Account Debt Cube Base Measures

Physical Name	Logical Name	Physical Column
NOC	NB OF CNTCT	DWA_ACCT_DEBT_MO.NB_OF_CNTCT
NOEI	NUMBER OF EMPLOYEE INVOLVED	DWA_ACCT_DEBT_MO.NB_OF_EMP_INVLVD
OD	OUTSTANDING DRTN	DWA_ACCT_DEBT_MO.OUTSTNDNG_DRTN
PCC	PAYMENT COLLECTED COUNT	DWA_ACCT_DEBT_MO.PYMT_COLCTD_CNT
PPC	PROMISE PAYMENT COUNT	DWA_ACCT_DEBT_MO.PRMS_PYMT_CNT
TAA	TOTAL ADJUSTED AMOUNT	DWA_ACCT_DEBT_MO.TOT_ADJD_AMT
TBC	TOTAL BILL UNIT COUNT	DWA_ACCT_DEBT_MO.TOT_BILLUNIT_CNT
TCD	TOTAL CONTACT DIRECTION	DWA_ACCT_DEBT_MO.TOT_CNTCT_DRTN
TDA	TOTAL DEBIT AMOUNT	DWA_ACCT_DEBT_MO.TOT_DEBT_AMT
TDSPTA	TOTAL DISPUTE AMOUNT	DWA_ACCT_DEBT_MO.TOT_DSPT_AMT
TFC	TOTAL FRAUD COST	DWA_ACCT_DEBT_MO.TOT_FRAUD_COST
TLPC	TOTAL LEGAL PROCESS COST	DWA_ACCT_DEBT_MO.TOT_LEGAL_PRCS_COST
TP	TOTAL PAYMENT	DWA_ACCT_DEBT_MO.TOT_PYMT
TPA	TOTAL PENALTY AMOUNT	DWA_ACCT_DEBT_MO.TOT_PNLTY_AMT
TPCA	TOTAL PAYMENT COLLECTED AMOUNT	DWA_ACCT_DEBT_MO.TOT_PYMT_COLCTD_AMT
TRA	TOTAL RECEIVED AMOUNT	DWA_ACCT_DEBT_MO.TOT_RCVD_AMT
TTA	TOTAL TRANSFERD AMOUNT	DWA_ACCT_DEBT_MO.TOT_TRNSFRD_AMT
TWA	TOTAL WAVING AMOUNT	DWA_ACCT_DEBT_MO.TOT_WVNG_AMT
TWD	TOTAL WORK DIRECTION	DWA_ACCT_DEBT_MO.TOT_WORK_DRTN
TWOA	TOTAL WRITE OFF AMOUNT	DWA_ACCT_DEBT_MO.TOT_WRT_OFF_AMT
WC	WAIVING COUNT	DWA_ACCT_DEBT_MO.WVNG_CNT

Derived Measures

Table 9-4 (page 9-5) shows the possible derived measures of this data cube.

Table 9-4   Account Debt Cube Derived Measures

Physical Name	Definition	Description
ADA_LY	LAG(ADM.ADA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Debit Age Last Year
CIA_LY	LAG(ADM.CIA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Current Invoice Amount Last Year
DC_LY	LAG(ADM.DC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Debt Count Last Year
EOP_DC	OLAP_DML_EXPRESSION('ADM_DC(time if time_levelrel eq ''BSNS_MO'' then time else statlast(limit(time to bottomdescendants using time_parentrel time(time time))))', NUMBER)	EOP Debt Count
EOP_DC_LY	LAG(ADM.EOP_DC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP Debt Count Last Year
EOP_TDA	OLAP_DML_EXPRESSION('ADM_TDA(time if time_levelrel eq ''BSNS_MO'' then time else statlast(limit(time to bottomdescendants using time_parentrel time(time time))))', NUMBER)	EOP Total Debt Amount
EOP_TDA_LY	LAG(ADM.EOP_TDA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP Total Debt Amount Last Year
IIDC_LY	LAG(ADM.IIDC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Invoice In Debit Count Last Year
MIAID_LY	LAG(ADM.MIAID, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Minimum Invoice Amount In Debit Last Year
NAC_LY	LAG(ADM.NAC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Agent Comments Last Year
NCC_LY	LAG(ADM.NCC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	New Customer Count Last Year
NOAF_LY	LAG(ADM.NOAF, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Of Agreement Failed Last Year
NOAS_LY	LAG(ADM.NOAS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Of Agreement Success Last Year
NOC_LY	LAG(ADM.NOC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Nb Of Cntct Last Year

Table 9-4   (Cont.) Account Debt Cube Derived Measures

Physical Name	Definition	Description
NOEI_LY	LAG(ADM.NOEI, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Of Employee Involved Last Year
OD_LY	LAG(ADM.OD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Outstanding Drtn Last Year
PCC_LY	LAG(ADM.PCC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Payment Collected Count Last Year
PPC_LY	LAG(ADM.PPC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Promise Payment Count Last Year
TAA_LY	LAG(ADM.TAA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Adjusted Amount Last Year
TBC_LY	LAG(ADM.TBC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Bill Unit Count Last Year
TCD_LY	LAG(ADM.TCD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Contact Direction Last Year
TDA_LY	LAG(ADM.TDA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Debt Amount Last Year
TDA_YTD	SUM(ADM.TDA) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Total Debt Amount YTD
TDA_YTD_LY	LAG(ADM.TDA_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Debt Amount YTD Last Year
TDSPTA_LY	LAG(ADM.TDSPTA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Dispute Amount Last Year
TFC_LY	LAG(ADM.TFC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Fraud Cost Last Year
TLPC_LY	LAG(ADM.TLPC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Legal Process Cost Last Year
TP_LY	LAG(ADM.TP, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Payment Last Year

Table 9-4   (Cont.) Account Debt Cube Derived Measures

Physical Name	Definition	Description
TPA_LY	LAG(ADM.TPA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Penalty Amount Last Year
TPCA_LY	LAG(ADM.TPCA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Payment Collected Amount Last Year
TRA_LY	LAG(ADM.TRA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Received Amount Last Year
TTA_LY	LAG(ADM.TTA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Transferred Amount Last Year
TWA_LY	LAG(ADM.TWA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Waving Amount Last Year
TWD_LY	LAG(ADM.TWD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Work Direction Last Year
TWOA_LY	LAG(ADM.TWOA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Write Off Amount Last Year
WC_LY	LAG(ADM.WC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Waiving Count Last Year

9.1.2 Account Payment Cube: APM

Once the bills are processed and invoices sent to the customers, customers pay the bill through different channels (shops/outlets) or through banks.

Customer payments are collected in shops by cash, check, or by credit cards. Customers can pay complete bill amount at once or in parts. Also customers can pay bill amount by one single method or by multiple methods like part by check and part by cash.

Product dimension is included in this aggregate table. In some business, like prepaid mobile, the product code can be identified for each payment, while for others, each payment might pay for several product usage. In later case, customer needs to divide the payment into different products during ETL.

Physical Name: APM

Dimensions and Load Level

The fact data of Account Payment Cube will be loaded from the relational schema at these dimension levels (leaf level).

Table 9-5   Account Payment Cube Dimensions and Load Level

Dimension Name	Load level
Time	Business Month
Customer Type	Customer Type
Payment Transaction Type	Payment Transaction Type
Payment Method Type	Payment Method Type
Payment Channel	Payment Channel
Organization	Organization Business Unit
Geography	Product Offering

Aggregation Order/Operator

The Account Payment Cube will be aggregated by the following order and operators on dimensions.

Table 9-6   Account Payment Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Time	Sum	1
Customer Type	Sum	2
Payment Transaction Type	Sum	3
Payment Method Type	Sum	4
Payment Channel	Sum	5
Organization	Sum	6
Geography	Sum	7

Base Measures

Table 9-7 (page 9-8) shows the base measures for this data cube.

Table 9-7   Account Payment Cube Base Measures

Physical Name	Logical Name	Physical Column
BCABB	BILL COLLECTION AMOUNT BY BANK	DWA_ACCT_PYMT_MO.BILL_COLLCTN_AMT_BY_BNK
BCALBB	BILL COLLECTION AMOUNT LOCAL BY BANK	DWA_ACCT_PYMT_MO.BILL_COLLCTN_AMT_LCL_BY_BNK
BCARBB	BILL COLLECTION AMOUNT REPORTING BY BANK	DWA_ACCT_PYMT_MO.BILL_COLLCTN_AMT_RPT_BY_BNK

Table 9-7 (Cont.) Account Payment Cube Base Measures

Physical Name	Logical Name	Physical Column
FPC	FAILED PAYMENT COUNT	DWA_ACCT_PYMT_MO.FAILD_PYMT_CNT
PA	PAYMENT AMOUNT	DWA_ACCT_PYMT_MO.PYMT_AMT
PAL	PAYMENT AMOUNT LOCAL	DWA_ACCT_PYMT_MO.PYMT_AMT_LCL
PAR	PAYMENT AMOUNT REPORT	DWA_ACCT_PYMT_MO.PYMT_AMT_RPT
PC	PAYMENT COUNT	DWA_ACCT_PYMT_MO.PYMT_CNT
RA	REFUND COUNT AMOUNT	DWA_ACCT_PYMT_MO.RFND_AMT
RAL	REFUND COUNT AMOUNT LOCAL	DWA_ACCT_PYMT_MO.RFND_AMT_LCL
RAR	REFUND COUNT AMOUNT REPORT	DWA_ACCT_PYMT_MO.RFND_AMT_RPT
RC	REFUND COUNT	DWA_ACCT_PYMT_MO.RFND_CNT

Derived Measures

Table 9-8 (page 9-9) shows the possible derived measure of this data cube.

Table 9-8 Account Payment Cube Derived Measures

Physical Name	Definition	Description
BCABB_LY	LAG(APM.BCABB, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Bill Collection Amount By Bank Last Year
BCALBB_LY	LAG(APM.BCALBB, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Bill Collection Amount Local By Bank Last Year
BCARBB_LY	LAG(APM.BCARBB, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Bill Collection Amount Reporting By Bank Last Year

Table 9-8   (Cont.) Account Payment Cube Derived Measures

Physical Name	Definition	Description
FPC_LY	LAG(APM.FPC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Failed Payment Count Last Year
PA_LY	LAG(APM.PA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Payment Amount Last Year
PAL_LY	LAG(APM.PAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Payment Amount Local Last Year
PAR_LY	LAG(APM.PAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Payment Amount Report Last Year
PC_LY	LAG(APM.PC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Payment Count Last Year
RA_LY	LAG(APM.RA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Refund Count Amount Last Year
RAL_LY	LAG(APM.RAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Refund Count Amount Local Last Year
RAR_LY	LAG(APM.RAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Refund Count Amount Report Last Year
RC_LY	LAG(APM.RC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Refund Count Last Year

9.1.3 Agreement Cube: AGRMNT

This cube stores derived information about customer's current/future agreement for analytical purposes. The entity only contains changed agreements (current or future).

Physical Name: AGRMNT

Dimensions and Load Level

The fact data for the Agreement Cube is loaded from the relational schema at these dimension levels(leaf level).

Table 9-9   Agreement Cube Dimensions and Load Level

Dimension Name	Load level
Time	Business Month
Customer Type	Customer Type
Product Offering	Product Offering
Organization	Organization Business Unit
Geography	Product Offering

Aggregation Order/Operator

The Agreement Cube will be aggregated by the following order and operators on dimensions

Table 9-10   Agreement Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Time	Sum	1
Customer Type	Sum	2
Product Offering	Sum	3
Organization	Sum	4
Geography	Sum	5

Base Measures

Table 9-11 (page 9-11) shows the base measure for this data cube.

Table 9-11   Agreement Cube Base Measures

Physical Name	Logical Name	Physical Column
AAC	AMORTIZED ACTUAL COST	DWD_AGRMNT.AMRTZD_ACT_COST
AACL	AMORTIZED ACTUAL COST LOCAL	DWD_AGRMNT.AMRTZD_ACT_COST_LCL

Table 9-11   (Cont.) Agreement Cube Base Measures

Physical Name	Logical Name	Physical Column
AACR	AMORTIZED ACTUAL COST REPORTING	DWD_AGRMNT.AMRTZD_ACT_COST_RPT
AAVMA	AMORTIZED AGREEMENT VALUE MONTH AMOUNT	DWD_AGRMNT.AMRTZD_AGRMNT_VAL_MO_AMT
AAVMAL	AMORTIZED AGREEMENT VALUE MONTH AMOUNT LOCAL	DWD_AGRMNT.AMRTZD_AGRMNT_VAL_MO_AMT_LCL
AAVMAR	AMORTIZED AGREEMENT VALUE MONTH AMOUNT REPORTING	DWD_AGRMNT.AMRTZD_AGRMNT_VAL_MO_AMT_RPT
AC	ACTUAL COST	DWD_AGRMNT.ACT_COST
ACL	ACTUAL COST LOCAL	DWD_AGRMNT.ACT_COST_LCL
ACR	ACTUAL COST REPORTING	DWD_AGRMNT.ACT_COST_RPT
ALA	AGREEMENT LOSS AMOUNT	DWD_AGRMNT.AGRMNT_LOSS_AMT
ALAL	AGREEMENT LOSS AMOUNT LOCAL	DWD_AGRMNT.AGRMNT_LOSS_AMT_LCL
ALAR	AGREEMENT LOSS AMOUNT REPORTING	DWD_AGRMNT.AGRMNT_LOSS_AMT_RPT
AMP	ACQUISITION MARKETING PREMIUM	DWD_AGRMNT.ACQSTN_MKTG_PRMM
AMPL	ACQUISITION MARKETING PREMIUM LOCAL	DWD_AGRMNT.ACQSTN_MKTG_PRMM_LCL
AMPR	ACQUISITION MARKETING PREMIUM REPORTING	DWD_AGRMNT.ACQSTN_MKTG_PRMM_RPT
ASC	AMORTIZED STANDARD COST	DWD_AGRMNT.AMRTZD_STNDRD_COST
ASCL	AMORTIZED STANDARD COST LOCAL	DWD_AGRMNT.AMRTZD_STNDRD_COST_LCL
ASCR	AMORTIZED STANDARD COST REPORTING	DWD_AGRMNT.AMRTZD_STNDRD_COST_RPT
CAS	CUSTOMER AGREEMENT SUM	DWD_AGRMNT.CUST_AGRMNT_SUM
CFAA	CANCELLED FUTURE AGREEMENT AMOUNT	DWD_AGRMNT.CNCL_FUTRE_AGRMNT_AMT
CFAAL	CANCELLED FUTURE AGREEMENT AMOUNT LOCAL	DWD_AGRMNT.CNCL_FUTRE_AGRMNT_AMT_LCL
CFAAR	CANCELLED FUTURE AGREEMENT AMT REPORTING	DWD_AGRMNT.CNCL_FUTRE_AGRMNT_AMT_RPT
IRRA	INVOICED REVENUE AMOUNT	DWD_AGRMNT.INVCD_RECFEE_RVN_AMT
IRRAL	INVOICED REVENUE AMOUNT LOCAL	DWD_AGRMNT.INVCD_RECFEE_RVN_AMT_LCL

Table 9-11   (Cont.) Agreement Cube Base Measures

Physical Name	Logical Name	Physical Column
IRRAR	INVOICED REVENUE AMOUNT REPORTING	DWD_AGRMNT.INVCD_RECFEE_RVN_AMT_RPT
LDC	LIQUIDATED DAMAGE CHARGE	DWD_AGRMNT.LQDTD_DMG_CHRG
LDCL	LIQUIDATED DAMAGE CHARGE LOCAL	DWD_AGRMNT.LQDTD_DMG_CHRG_LCL
LDCR	LIQUIDATED DAMAGE CHARGE REPORTING	DWD_AGRMNT.LQDTD_DMG_CHRG_RPT
NAAA	NEW ACQUISITION AGREEMENT AMOUNT	DWD_AGRMNT.NEW_ACQSTN_AGRMNT_AMT
NAAAL	NEW ACQUISITION AGREEMENT AMOUNT LOCAL	DWD_AGRMNT.NEW_ACQSTN_AGRMNT_AMT_LCL
NAAAR	NEW ACQUISITION AGREEMENT AMOUNT REPORTING	DWD_AGRMNT.NEW_ACQSTN_AGRMNT_AMT_RPT
NRAA	NEW RETENTION AGREEMENT AMOUNT	DWD_AGRMNT.NEW_RTNTN_AGRMNT_AMT
NRAAL	NEW RETENTION AGREEMENT AMOUNT LOCAL	DWD_AGRMNT.NEW_RTNTN_AGRMNT_AMT_LCL
NRAAR	NEW RETENTION AGREEMENT AMOUNT REPORTING	DWD_AGRMNT.NEW_RTNTN_AGRMNT_AMT_RPT
RAA	REMAINING AGREEMENT AMOUNT	DWD_AGRMNT.REMNG_AGRMNT_AMT
RAAL	REMAINING AGREEMENT AMOUNT LOCAL	DWD_AGRMNT.REMNG_AGRMNT_AMT_LCL
RAAR	REMAINING AGREEMENT AMOUNT REPORTING	DWD_AGRMNT.REMNG_AGRMNT_AMT_RPT
RMP	RETENTION MARKETING PREMIUM	DWD_AGRMNT.RTNTN_MKTG_PRMM
RMPL	RETENTION MARKETING PREMIUM LOCAL	DWD_AGRMNT.RTNTN_MKTG_PRMM_LCL
RMPR	RETENTION MARKETING PREMIUM REPORTING	DWD_AGRMNT.RTNTN_MKTG_PRMM_RPT
SC	STANDARD COST	DWD_AGRMNT.STNDRD_COST
SCL	STANDARD COST LOCAL	DWD_AGRMNT.STNDRD_COST_LCL
SCR	STANDARD COST REPORTING	DWD_AGRMNT.STNDRD_COST_RPT
TAAC	TOTAL AGREEMENT ACTIVE COUNT	DWD_AGRMNT.TOT_AGRMNT_ACTV_CNT
TACC	TOTAL AGREEMENT CHURNED COUNT	DWD_AGRMNT.TOT_AGRMNT_CHRN_CNT

Table 9-11   (Cont.) Agreement Cube Base Measures

Physical Name	Logical Name	Physical Column
TAPC	TOTAL AGREEMENT PENDING COUNT	DWD_AGRMNT.TOT_AGRMNT_PENDING_C NT
TASC	TOTAL AGREEMENT SUSPENDED COUNT	DWD_AGRMNT.TOT_AGRMNT_SUSP_CNT

Derived Measures

Table 9-12 (page 9-14) shows the possible derived measure of this data cube.

Table 9-12   Agreement Cube Derived Measures

Physical Name	Definition	Description
AAC_LY	LAG(AGRMNT.AAC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Amortized Actual Cost Last Year
AACL_LY	LAG(AGRMNT.AACL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Amortized Actual Cost Local Last Year
AACR_LY	LAG(AGRMNT.AACR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Amortized Actual Cost Reporting Last Year
AAVMA_LY	LAG(AGRMNT.AAVMA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Amortized Agreement Value Month Amount Last Year
AAVMAL_LY	LAG(AGRMNT.AAVMAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Amortized Agreement Value Month Amount Local Last Year
AAVMAR_LY	LAG(AGRMNT.AAVMAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Amortized Agreement Value Month Amount Reporting Last Year
AC_LY	LAG(AGRMNT.AC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Cost Last Year
ACL_LY	LAG(AGRMNT.ACL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Cost Local Last Year
ACR_LY	LAG(AGRMNT.ACR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Cost Reporting Last Year
ALA_LY	LAG(AGRMNT.ALA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Agreement Loss Amount Last Year

Table 9-12   (Cont.) Agreement Cube Derived Measures

Physical Name	Definition	Description
ALAL_LY	LAG(AGRMNT.ALAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Agreement Loss Amount Local Last Year
ALAR_LY	LAG(AGRMNT.ALAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Agreement Loss Amount Reporting Last Year
AMP_LY	LAG(AGRMNT.AMP, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Acquisition Marketing Premium Last Year
AMPL_LY	LAG(AGRMNT.AMPL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Acquisition Marketing Premium Local Last Year
AMPR_LY	LAG(AGRMNT.AMPR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Acquisition Marketing Premium Reporting Last Year
ASC_LY	LAG(AGRMNT."ASC", 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Amortized Standard Cost Last Year
ASCL_LY	LAG(AGRMNT.ASCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Amortized Standard Cost Local Last Year
ASCR_LY	LAG(AGRMNT.ASCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Amortized Standard Cost Reporting Last Year
CAS_LY	LAG(AGRMNT.CAS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Customer Agreement Sum Last Year
CFAA_LY	LAG(AGRMNT.CFAA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Cancelled Future Agreement Amount Last Year
CFAA_LY_PCT_CHG	LAG_VARIANCE_PERCENT(AGRMNT.CFAA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Cancelled Future Agreement Amount % Change LY
CFAAL_LY	LAG(AGRMNT.CFAAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Cancelled Future Agreement Amount Local Last Year
CFAAR_LY	LAG(AGRMNT.CFAAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Cancelled Future Agreement Amt Reporting Last Year
EOP_CAS	OLAP_DML_EXPRESSION('AGRMNT_CAS(time if time_levelrel eq ''BSNS_MO'' then time else statlast(limit(time to bottomdescendants using time_parentrel time(time time))))', NUMBER)	EOP CAS

Table 9-12   (Cont.) Agreement Cube Derived Measures

Physical Name	Definition	Description
EOP_CAS_LP	LAG(AGRMNT.EOP_CAS, 1) OVER HIERARCHY ("TIME".HTBSNS)	EOP Customer Agreement Sum Last Period
EOP_RAA	OLAP_DML_EXPRESSION('AGRMNT_RAA(time if time_levelrel eq ''BSNS_MO'' then time else statlast(limit(time to bottomdescendants using time_parentrel time(time time))))', NUMBER)	EOP Remaining Agreement Amount
EOP_RAA_LM	LAG(AGRMNT.EOP_RAA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_MO POSITION FROM BEGINNING)	EOP Remaining Agreement Amount Last Month
EOP_RAA_LM_PCT _CHG	LAG_VARIANCE_PERCENT(AGRMNT.EOP_RAA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_MO POSITION FROM BEGINNING)	EOP Remaining Agreement Amount % Chg Last Month
IRRA_LY	LAG(AGRMNT.IRRA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Invoiced Revenue Amount Last Year
IRRAL_LY	LAG(AGRMNT.IRRAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Invoiced Revenue Amount Local Last Year
IRRAR_LY	LAG(AGRMNT.IRRAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Invoiced Revenue Amount Reporting Last Year
LDC_LY	LAG(AGRMNT.LDC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Liquidated Damage Charge Last Year
LDCL_LY	LAG(AGRMNT.LDCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Liquidated Damage Charge Local Last Year
LDCR_LY	LAG(AGRMNT.LDCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Liquidated Damage Charge Reporting Last Year
NAAA_LY	LAG(AGRMNT.NAAA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	New Acquisition Agreement Amount Last Year
NAAAL_LY	LAG(AGRMNT.NAAAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	New Acquisition Agreement Amount Local Last Year
NAAAR_LY	LAG(AGRMNT.NAAAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	New Acquisition Agreement Amount Reporting Last Year

Table 9-12   (Cont.) Agreement Cube Derived Measures

Physical Name	Definition	Description
NRAA_LY	LAG(AGRMNT.NRAA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	New Retention Agreement Amount Last Year
NRAAL_LY	LAG(AGRMNT.NRAAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	New Retention Agreement Amount Local Last Year
NRAAR_LY	LAG(AGRMNT.NRAAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	New Retention Agreement Amount Reporting Last Year
RAA_LY	LAG(AGRMNT.RAA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Remaining Agreement Amount Last Year
RAAL_LY	LAG(AGRMNT.RAAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Remaining Agreement Amount Local Last Year
RAAR_LY	LAG(AGRMNT.RAAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Remaining Agreement Amount Reporting Last Year
RMP_LY	LAG(AGRMNT.RMP, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Retention Marketing Premium Last Year
RMPL_LY	LAG(AGRMNT.RMPL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Retention Marketing Premium Local Last Year
RMPR_LY	LAG(AGRMNT.RMPR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Retention Marketing Premium Reporting Last Year
SC_LY	LAG(AGRMNT.SC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Standard Cost Last Year
SCL_LY	LAG(AGRMNT.SCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Standard Cost Local Last Year
SCR_LY	LAG(AGRMNT.SCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Standard Cost Reporting Last Year
TAAC_LY	LAG(AGRMNT.TAAC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Agreement Active Count Last Year
TACC_LY	LAG(AGRMNT.TACC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Agreement Churned Count Last Year

Table 9-12   (Cont.) Agreement Cube Derived Measures

Physical Name	Definition	Description
TAPC_LY	LAG(AGRMNT.TAPC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Agreement Pending Count Last Year
TASC_LY	LAG(AGRMNT.TASC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Agreement Suspended Count Last Year

9.1.4 Cell Statistic Cube: CSM

Most of the network parameters are captured at the cell level and aggregating the cell level parameters can derive the network level parameters. Cell statistics cube will be used to collect most of the cell parameters. In addition, the Cell Statistic Cube could be adapted to work for other network elements than cell.

Physical Name: CSM

Dimensions and Load Level

The fact data of Cell statistics will be loaded from the relational schema at these dimension levels(leaf level).

Table 9-13   Cell Statistic Cube Dimensions and Load Level

Dimension Name	Load level
Time	Business Month
Peak Offpeak Time	Peak Offpeak Time
Network Element	Network Element
Time Slot	Time Slot
Geography	County

Aggregation Order/Operator

The Cell statistics Cube will be aggregated by the following order and operators on dimensions

Table 9-14   Cell Statistic Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Time	Sum	1
Peak Offpeak Time	Sum	2
Network Element	Sum	3
Time Slot	Sum	4

Table 9-14   (Cont.) Cell Statistic Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Geography	Sum	5

Base Measures

Table 9-15 (page 9-19) shos the base measures for this data cube.

Table 9-15   Cell Statistic Cube Base Measures

Physical Name	Logical Name	Physical Column
ACI	ADJACENT CHANNEL INTERFERENCE	DWA_CELL_STTSTC_MO.ADJ_CHNL_INTRFRNCE
ACM	AIR CALL MINUTES	DWA_CELL_STTSTC_MO.AIR_CALL_MNTS
ADDB	AIR DL DATA BLKS	DWA_CELL_STTSTC_MO.AIR_DL_DATA_BLKS
AR	ASSIGN REDIRECT	DWA_CELL_STTSTC_MO.ASGN_REDRCT
ASF	ALLOC SDCCH FAIL	DWA_CELL_STTSTC_MO.ALLOC_SDCCH_FAIL
ASM	AVAILABLE SDCCH MAX	DWA_CELL_STTSTC_MO.AVLBL_SDCCH_MAX
AT	ALLOC TCH	DWA_CELL_STTSTC_MO.ALLOC_TCH
ATF	ALLOC TCH FAIL	DWA_CELL_STTSTC_MO.ALLOC_TCH_FAIL
ATM	AVAILABLE TCH MAX	DWA_CELL_STTSTC_MO.AVLBL_TCH_MAX
AUDB	AIR UL DATA BLKS	DWA_CELL_STTSTC_MO.AIR_UL_DATA_BLKS
BSM	BUSY SDCCH MAX	DWA_CELL_STTSTC_MO.BUSY_SDCCH_MAX
BTM	BUSY TCH MAX	DWA_CELL_STTSTC_MO.BUSY_TCH_MAX
CCE	CELL CARRIED ERLANGS	DWA_CELL_STTSTC_MO.CELL_CARRIED_ERLNGS
CD	CALL DURATION	DWA_CELL_STTSTC_MO.CALL_DRTN
CHRR	CHANNEL REQS REC	DWA_CELL_STTSTC_MO.CHNL_REQS_REC

Table 9-15 (Cont.) Cell Statistic Cube Base Measures

Physical Name	Logical Name	Physical Column
CISC	CONGESTION IN SOURCE CELL	DWA_CELL_STTSTC_MO.CONGSTN_IN_SRC_CELL
CNNTS	CONNECTIONS	DWA_CELL_STTSTC_MO.CNCTNS
COE1	CELL OFFERED ERLANGS	DWA_CELL_STTSTC_MO.CELL_OFRD_ERLNGS
CONNR	CONNECTIONS REFUSE	DWA_CELL_STTSTC_MO.CNCTNS_REFUSE
CR	CM REESTABLISH	DWA_CELL_STTSTC_MO.CM_RESTBLSH
CRFR	CHAN REQ FAIL ROL	DWA_CELL_STTSTC_MO.CHAN_REQ_FAIL_ROL
CRMB	CHAN REQ MS BLK	DWA_CELL_STTSTC_MO.CHAN_REQ_MS_BLK
CRR	CHANNEL REQS REJECT	DWA_CELL_STTSTC_MO.CHNL_REQS_REJECT
CSRC	CM SERV REQ CALL	DWA_CELL_STTSTC_MO.CM_SERV_REQ_CALL
CSRE	CM SERV REQ EMRG	DWA_CELL_STTSTC_MO.CM_SERV_REQ_EMRG
CSRS	CM SERV REQ SMS	DWA_CELL_STTSTC_MO.CM_SERV_REQ_SMS
CSRSP	CM SERV REQ SUPP	DWA_CELL_STTSTC_MO.CM_SERV_REQ_SUPP
DSL	DOWNLINK SIGNAL LEVEL	DWA_CELL_STTSTC_MO.DNLNK_SGNL_LVL
DSQ	DOWNLINK SIGNAL QUALITY	DWA_CELL_STTSTC_MO.DNLNK_SGNL_QLTY
HU	HOUR USAGE	DWA_CELL_STTSTC_MO.HR_USG
ICHA	INTRA CELL HO ATM	DWA_CELL_STTSTC_MO.INTRA_CELL_HO_ATM
ICHL	INTRA CELL HO LOS	DWA_CELL_STTSTC_MO.INTRA_CELL_HO_LOS
ICHS	INTRA CELL HO SUC	DWA_CELL_STTSTC_MO.INTRA_CELL_HO_SUC
ID	IMSI DETACH	DWA_CELL_STTSTC_MO.IMSI_DETACH

Table 9-15   (Cont.) Cell Statistic Cube Base Measures

Physical Name	Logical Name	Physical Column
IECR	INV EST CAUSE RACH	DWA_CELL_STTSTC_MO.INV_EST_CAUSE_RACH
IERHS	I INTER BS HO SUC	DWA_CELL_STTSTC_MO.I_INTR_BS_HO_SUC
IRAHC	I INTRA BS HO SUC	DWA_CELL_STTSTC_MO.I_INTRA_BS_HO_SUC
LFRRN	LOC FLW REQ NRM	DWA_CELL_STTSTC_MO.LOC_FLW_REQ_NRM
LFRS	LOC FLW REQ NRM	DWA_CELL_STTSTC_MO.LOC_FLW_REQ_NRM
LS	LOCATION SERVICES	DWA_CELL_STTSTC_MO.LOC_SRVCS
LU	LOCATION UPDATE	DWA_CELL_STTSTC_MO.LOC_UPDT
MTLOS	MT LCS ON SDDCH	DWA_CELL_STTSTC_MO.MT_LCS_ON_SDDCH
NCA	NUMBER OF CALL ATTEMPTS	DWA_CELL_STTSTC_MO.NBR_OF_CALL_ATTMPTS
NCAWT	NUMBER OF CALL ATTEMPTS WO TRANSIT	DWA_CELL_STTSTC_MO.NBR_OF_CALL_ATTMPTS_WO_TRNST
NOC	NUMBER OF CALLS	DWA_CELL_STTSTC_MO.NBR_OF_CALLS
NOCE	NUMBER OF CELLS	DWA_CELL_STTSTC_MO.NBR_OF_CELLS
OAPSR	OK ACC PROC SUC R	DWA_CELL_STTSTC_MO.OK_ACC_PROC_SUC_R
OEREF	O INTER BS EQ FA	DWA_CELL_STTSTC_MO.O_INTR_BS_EQ_FA
OERHA	O INTER BS HO ATM	DWA_CELL_STTSTC_MO.O_INTR_BS_HO_ATM
OERHR	O INTER BS HO RET	DWA_CELL_STTSTC_MO.O_INTR_BS_HO_RET
OERHS	O INTER BS HO SUC	DWA_CELL_STTSTC_MO.O_INTR_BS_HO_SUC
OERRM	O INTER BS RQ MSC	DWA_CELL_STTSTC_MO.O_INTR_BS_RQ_MSC
OHCA	OUT HO CAUSE ATTEMPTS	DWA_CELL_STTSTC_MO.OUT_HO_CAUSE_ATTMPTS

Table 9-15   (Cont.) Cell Statistic Cube Base Measures

Physical Name	Logical Name	Physical Column
ORAHA	O INTRA BS HO ATM	DWA_CELL_STTSTC_MO.O_INTRA_BS_HO_ATM
ORAHC	O INTRA BS HO CLR	DWA_CELL_STTSTC_MO.O_INTRA_BS_HO_CLR
ORAHL	O INTRA BS HO LOS	DWA_CELL_STTSTC_MO.O_INTRA_BS_HO_LOS
ORAHS	O INTRA BS HO SUC	DWA_CELL_STTSTC_MO.O_INTRA_BS_HO_SUC
PBSS	POWER BUDGET SIGNAL STRENGTH	DWA_CELL_STTSTC_MO.POWR_BDGT_SGNL_STRNGTH
PR	PAGE RESPONSE	DWA_CELL_STTSTC_MO.PG_RESPN
PRFM	PAGE REQ FROM MSC	DWA_CELL_STTSTC_MO.PG_REQ_FROM_MSC
RLTR	RF LOSS TCH ROLL	DWA_CELL_STTSTC_MO.RF_LOSS_TCH_ROLL
SH	ALLOC SDCCH	DWA_CELL_STTSTC_MO.ALLOC_SDCCH
SIOS	SMS INIT ON SDCCH	DWA_CELL_STTSTC_MO.SMS_INIT_ON_SDCCH
SIOT	SMS INIT ON TCH	DWA_CELL_STTSTC_MO.SMS_INIT_ON_TCH
SPM	SPARE TCH MAX	DWA_CELL_STTSTC_MO.SPARE_TCH_MAX
SSD	SIGNAL SOURCE DISTANCE	DWA_CELL_STTSTC_MO.SGNL_SRC_DSTNC
SSM	SPARE SDCCH MAX	DWA_CELL_STTSTC_MO.SPARE_SDCCH_MAX
TCM	TOTAL CALL MINUTES	DWA_CELL_STTSTC_MO.TOT_CALL_MNTS
TQR	TCH Q REMOVED	DWA_CELL_STTSTC_MO.TCH_Q_REMVD
TT	TOTAL TRAFFIC	DWA_CELL_STTSTC_MO.TOT_TRFC
USL	UPLINK SIGNAL LEVEL	DWA_CELL_STTSTC_MO.UPLNK_SGNL_LVL
USQ	UPLINK SIGNAL QUALITY	DWA_CELL_STTSTC_MO.UPLNK_SGNL_QLTY

Derived Measures

Table 9-16 (page 9-23) shows the possible derived measure of this data cube.

Table 9-16   Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
ACI_LP	LAG(CSM.ACI, 1) OVER HIERARCHY ("TIME".HTBSNS)	Adjacent Channel Interference Last Period
ACI_LY	LAG(CSM.ACI, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Adjacent Channel Interference Last Year
ACI_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ACI, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Adjacent Channel Interference % Change Last Year
ACI_YTD	SUM(CSM.ACI) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Adjacent Channel Interference YTD
ACI_YTD_LY	LAG(CSM.ACI_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Adjacent Channel Interference YTD Last Year
ACI_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ACI_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Adjacent Channel Interference % Change Last Year
ACM_LP	LAG(CSM.ACM, 1) OVER HIERARCHY ("TIME".HTBSNS)	Air Call Minutes Last Period
ACM_LY	LAG(CSM.ACM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Air Call Minutes Last Year
ACM_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ACM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Air Call Minutes % Chnage Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
ACM_YTD	SUM(CSM.ACM) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Air Call Minutes YTD
ACM_YTD_LY	LAG(CSM.ACM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Air Call Minutes YTD Last Year
ACM_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ACM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Air Call Minutes YTD % Chnage Last Year
ADDB_LP	LAG(CSM.ADDB, 1) OVER HIERARCHY ("TIME".HTBSNS)	Air DL Data Blocks YTD Last Period
ADDB_LY	LAG(CSM.ADDB, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Air DL Data Blocks Last Year
ADDB_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ADDB, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Air DL Data Blocks % Change Last Year
ADDB_YTD	SUM(CSM.ADDB) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Air DL Data Blocks YTD
ADDB_YTD_LY	LAG(CSM.ADDB_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Air DL Data Blocks YTD Last Year
ADDB_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ADDB_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Air DL Data Blocks YTD % Change Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
AR_LP	LAG(CSM.AR, 1) OVER HIERARCHY ("TIME".HTBSNS)	Assign Redirect Last Period
AR_LY	LAG(CSM.AR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Assign Redirect Last Year
AR_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. AR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Assign Redirect % Change Last Year
AR_YTD	SUM(CSM.AR) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Assign Redirect YTD
AR_YTD_LY	LAG(CSM.AR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Assign Redirect YTD Last Year
AR_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. AR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Assign Redirect YTD % Change Last Year
ASF_LP	LAG(CSM.ASF, 1) OVER HIERARCHY ("TIME".HTBSNS)	Alloc SDCCH Fail Last Period
ASF_LY	LAG(CSM.ASF, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc SDCCH Fail Last Year
ASF_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ASF, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc SDCCH Fail % Change Last Year

Table 9-16 (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
ASF_YTD	SUM(CSM.ASF) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Alloc SDCCH Fail YTD
ASF_YTD_LY	LAG(CSM.ASF_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc SDCCH Fail YTD Last Year
ASF_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ASF_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc SDCCH Fail YTD % Change Last Year
ASM_LP	LAG(CSM.ASM, 1) OVER HIERARCHY ("TIME".HTBSNS)	Available SDCCH Max Last Period
ASM_LY	LAG(CSM.ASM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Available SDCCH Max Last Year
ASM_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ASM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Available SDCCH Max % Chnage Last Year
ASM_YTD	SUM(CSM.ASM) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Available SDCCH Max YTD
ASM_YTD_LY	LAG(CSM.ASM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Available SDCCH Max YTD Last Year
ASM_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ASM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Available SDCCH Max YTD % Chnage Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
AT_LP	LAG(CSM."AT", 1) OVER HIERARCHY ("TIME".HTBSNS)	Alloc TCH Last Period
AT_LY	LAG(CSM."AT", 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc TCH Last Year
AT_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. "AT", 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc TCH % Change Last Year
AT_YTD	SUM(CSM."AT") OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Alloc TCH YTD
AT_YTD_LY	LAG(CSM.AT_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc TCH YTD Last Year
AT_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. AT_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc TCH YTD % Change Last Year
ATF_LP	LAG(CSM.ATF, 1) OVER HIERARCHY ("TIME".HTBSNS)	Alloc TCH Fail Last Period
ATF_LY	LAG(CSM.ATF, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc TCH Fail Last Year
ATF_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ATF, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc TCH Fail % Chnage Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
ATF_YTD	SUM(CSM.ATF) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Alloc TCH Fail YTD
ATF_YTD_LY	LAG(CSM.ATF_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc TCH Fail YTD Last Year
ATF_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ATF_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc TCH Fail YTD % Chnage Last Year
ATM_LP	LAG(CSM.ATM, 1) OVER HIERARCHY ("TIME".HTBSNS)	Available TCH Max Last Period
ATM_LY	LAG(CSM.ATM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Available TCH Max Last Year
ATM_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ATM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Available Tch Max Last Year
ATM_YTD	SUM(CSM.ATM) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Available TCH Max YTD
ATM_YTD_LY	LAG(CSM.ATM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Available TCH Max YTD Last Year
ATM_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ATM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Available TCH Max YTD % Change Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
AUDB_LP	LAG(CSM.AUDB, 1) OVER HIERARCHY ("TIME".HTBSNS)	Air UL Data Blks Last Period
AUDB_LY	LAG(CSM.AUDB, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Air UL Data Blks Last Year
AUDB_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. AUDB, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Air UL Data Blks % Change Last Year
AUDB_YTD	SUM(CSM.AUDB) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Air UL Data Blks YTD
AUDB_YTD_LY	LAG(CSM.AUDB_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Air UL Data Blks YTD Last Year
AUDB_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. AUDB_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Air UL Data Blks YTD % Change Last Year
BSM_LP	LAG(CSM.BSM, 1) OVER HIERARCHY ("TIME".HTBSNS)	Busy SDCCH Max Last Period
BSM_LY	LAG(CSM.BSM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Busy SDCCH Max Last Year
BSM_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. BSM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Busy SDCCH Max % Chnage Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
BSM_YTD	SUM(CSM.BSM) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Busy SDCCH Max YTD
BSM_YTD_LY	LAG(CSM.BSM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Busy SDCCH Max YTD Last Year
BSM_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. BSM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Busy SDCCH Max YTD % Chnage Last Year
BTM_LP	LAG(CSM.BTM, 1) OVER HIERARCHY ("TIME".HTBSNS)	Busy TCH Max Last Period
BTM_LY	LAG(CSM.BTM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Busy TCH Max Last Year
BTM_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. BTM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Busy TCH Max % Change Last Year
BTM_YTD	SUM(CSM.BTM) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Busy TCH Max YTD
BTM_YTD_LY	LAG(CSM.BTM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Busy TCH Max YTD Last Year
BTM_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. BTM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Busy TCH Max YTD % Change Last Year

Table 9-16 (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
CCE_LP	LAG(CSM.CCE, 1) OVER HIERARCHY ("TIME".HTBSNS)	Cell Carried Erlangs Last Period
CCE_LY	LAG(CSM.CCE, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Cell Carried Erlangs Last Year
CCE_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CCE, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Cell Carried Erlangs % Change Last Year
CCE_YTD	SUM(CSM.CCE) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Cell Carried Erlangs YTD
CCE_YTD_LY	LAG(CSM.CCE_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Cell Carried Erlangs YTD Last Year
CCE_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CCE_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Cell Carried Erlangs YTD % Change Last Year
CD_LP	LAG(CSM.CD, 1) OVER HIERARCHY ("TIME".HTBSNS)	Call Duration Last Period
CD_LY	LAG(CSM.CD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Call Duration Last Year
CD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Call Duration % Chnage Last Year

Table 9-16 (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
CD_YTD	SUM(CSM.CD) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Call Duration YTD
CD_YTD_LY	LAG(CSM.CD_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Call Duration YTD Last Year
CD_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CD_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Call Duration YTD % Chnage Last Year
CHRR_LP	LAG(CSM.CHRR, 1) OVER HIERARCHY ("TIME".HTBSNS)	Channel Reqs Rec Last Period
CHRR_LY	LAG(CSM.CHRR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Channel Reqs Rec Last Year
CHRR_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CHRR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Channel Reqs Rec % Change Last Year
CHRR_YTD	SUM(CSM.CHRR) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Channel Reqs Rec YTD
CHRR_YTD_LY	LAG(CSM.CHRR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Channel Reqs Rec YTD Last Year
CHRR_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CHRR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Channel Reqs Rec YTD % Change Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
CISC_LP	LAG(CSM.CISC, 1) OVER HIERARCHY ("TIME".HTBSNS)	Congestion In Source Cell Last Period
CISC_LY	LAG(CSM.CISC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Congestion In Source Cell Last Year
CISC_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CISC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Congestion In Source Cell % Chnage Last Year
CISC_YTD	SUM(CSM.CISC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Congestion In Source Cell YTD
CISC_YTD_LY	LAG(CSM.CISC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Congestion In Source Cell YTD Last Year
CISC_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CISC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Congestion In Source Cell YTD % Chnage Last Year
CNNTS_LP	LAG(CSM.CNNTS, 1) OVER HIERARCHY ("TIME".HTBSNS)	Connections Last Period
CNNTS_LY	LAG(CSM.CNNTS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Connections Last Year
CNNTS_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CNNTS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Connections % Chnage Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
CNNTS_YTD	SUM(CSM.CNNTS) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Connections YTD
CNNTS_YTD_LY	LAG(CSM.CNNTS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Connections YTD Last Year
CNNTS_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CNNTS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Connections YTD % Chnage Last Year
CONNR_LP	LAG(CSM.CONNR, 1) OVER HIERARCHY ("TIME".HTBSNS)	Connections Refuse Last Period
CONNR_LY	LAG(CSM.CONNR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Connections Refuse Last Year
CONNR_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CONNR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Connections Refuse % Change Last Year
CONNR_YTD	SUM(CSM.CONNR) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Connections Refuse YTD
CONNR_YTD_LY	LAG(CSM.CONNR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Connections Refuse YTD Last Year
CONNR_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CONNR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Connections Refuse YTD % Change Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
CR_LP	LAG(CSM.CR, 1) OVER HIERARCHY ("TIME".HTBSNS)	CM Reestablish Last Period
CR_LY	LAG(CSM.CR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Reestablish Last Year
CR_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Reestablish % Change Last Year
CR_YTD	SUM(CSM.CR) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	CM Reestablish YTD
CR_YTD_LY	LAG(CSM.CR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Reestablish YTD Last Year
CR_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Reestablish YTD % Change Last Year
CRFR_LP	LAG(CSM.CRFR, 1) OVER HIERARCHY ("TIME".HTBSNS)	Chan Req Fail Rol Last Period
CRFR_LY	LAG(CSM.CRFR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Chan Req Fail Rol Last Year
CRFR_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CRFR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Chan Req Fail Rol % Change Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
CRFR_YTD	SUM(CSM.CRFR) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Chan Req Fail Rol YTD
CRFR_YTD_LY	LAG(CSM.CRFR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Chan Req Fail Rol YTD Last Year
CRFR_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CRFR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Chan Req Fail Rol YTD % Change Last Year
CRMB_LP	LAG(CSM.CRMB, 1) OVER HIERARCHY ("TIME".HTBSNS)	Chan Req MS Blk Last Period
CRMB_LY	LAG(CSM.CRMB, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Chan Req MS Blk Last Year
CRMB_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CRMB, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Chan Req MS Blk % Chnage Last Year
CRMB_YTD	SUM(CSM.CRMB) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Chan Req MS Blk YTD
CRMB_YTD_LY	LAG(CSM.CRMB_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Chan Req MS Blk YTD Last Year
CRMB_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CRMB_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Chan Req MS Blk YTD % Chnage Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
CRR_LP	LAG(CSM.CRR, 1) OVER HIERARCHY ("TIME".HTBSNS)	Channel Reqs Reject Last Period
CRR_LY	LAG(CSM.CRR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Channel Reqs Reject Last Year
CRR_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CRR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Channel Reqs Reject % Chnage Last Year
CRR_YTD	SUM(CSM.CRR) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Channel Reqs Reject YTD
CRR_YTD_LY	LAG(CSM.CRR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Channel Reqs Reject YTD Last Year
CRR_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CRR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Channel Reqs Reject YTD % Chnage Last Year
CSRC_LP	LAG(CSM.CSRC, 1) OVER HIERARCHY ("TIME".HTBSNS)	CM Serv Req Call Last Period
CSRC_LY	LAG(CSM.CSRC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Serv Req Call Last Year
CSRC_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CSRC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Serv Req Call % Change Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
CSRC_YTD	SUM(CSM.CSRC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	CM Serv Req Call YTD
CSRC_YTD_LY	LAG(CSM.CSRC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Serv Req Call YTD Last Year
CSRC_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.CSRC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Serv Req Call YTD % Change Last Year
CSRE_LP	LAG(CSM.CSRE, 1) OVER HIERARCHY ("TIME".HTBSNS)	CM Serv Req Emrg Last Period
CSRE_LY	LAG(CSM.CSRE, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Serv Req Emrg Last Year
CSRE_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.CSRE, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Serv Req Emrg % Chnage Last Year
CSRE_YTD	SUM(CSM.CSRE) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	CM Serv Req Emrg YTD
CSRE_YTD_LY	LAG(CSM.CSRE_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Serv Req Emrg YTD Last Year
CSRE_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.CSRE_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Serv Req Emrg % Chnage Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
CSRS_LP	LAG(CSM.CSRS, 1) OVER HIERARCHY ("TIME".HTBSNS)	CM Serv Req SMS Last Period
CSRS_LY	LAG(CSM.CSRS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Serv Req SMS Last Year
CSRS_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CSRS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Serv Req SMS % Chnage Last Year
CSRS_YTD	SUM(CSM.CSRS) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	CM Serv Req SMS YTD
CSRS_YTD_LY	LAG(CSM.CSRS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Serv Req SMS YTD Last Year
CSRS_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CSRS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Serv Req SMS YTD % Chnage Last Year
CSRSP_LP	LAG(CSM.CSRSP, 1) OVER HIERARCHY ("TIME".HTBSNS)	CM Serv Req Supp Last period
CSRSP_LY	LAG(CSM.CSRSP, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Serv Req Supp Last Year
CSRSP_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CSRSP, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Serv Req Supp % Change Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
CSRSP_YTD	SUM(CSM.CSRSP) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	CM Serv Req Supp YTD
CSRSP_YTD_LY	LAG(CSM.CSRSP_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Cm Serv Req Supp Last Year
CSRSP_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. CSRSP_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	CM Serv Req Supp % Change Last Year
DSL_LP	LAG(CSM.DSL, 1) OVER HIERARCHY ("TIME".HTBSNS)	Downlink Signal Level Last Period
DSL_LY	LAG(CSM.DSL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Downlink Signal Level Last Year
DSL_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. DSL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Downlink Signal Level % Chnage Last Year
DSL_YTD	SUM(CSM.DSL) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Downlink Signal Level YTD
DSL_YTD_LY	LAG(CSM.DSL_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Downlink Signal Level YTD Last Year
DSL_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. DSL_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Downlink Signal Level YTD % Chnage Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
DSQ_LP	LAG(CSM.DSQ, 1) OVER HIERARCHY ("TIME".HTBSNS)	Downlink Signal Quality Last Period
DSQ_LY	LAG(CSM.DSQ, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Downlink Signal Quality Last Year
DSQ_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. DSQ, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Downlink Signal Quality % Chage Last Year
DSQ_YTD	SUM(CSM.DSQ) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Downlink Signal Quality YTD
DSQ_YTD_LY	LAG(CSM.DSQ_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Downlink Signal Quality YTD Last Year
DSQ_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. DSQ_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Downlink Signal Quality YTD % Chage Last Year
EOP_COE	OLAP_DML_EXPRESSION('CSM_ COE1(time if time_levelrel eq "BSNS_MO" then time else statlast(limit(time to bottomdescendants using time_parentrel time(time time))))', NUMBER)	EOP Cell Offered Erlangs
EOP_COE_LP	LAG(CSM.EOP_COE, 1) OVER HIERARCHY ("TIME".HTBSNS)	EOP Cell Offered Erlangs Last Period
EOP_COE_LY	LAG(CSM.EOP_COE, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP Cell Offered Erlangs Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
EOP_COE_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. EOP_COE, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP Cell Offered Erlangs % Change Last Year
EOP_COE_YTD	SUM(CSM.EOP_COE) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	EOP Cell Offered Erlangs YTD
EOP_COE_YTD_LY	LAG(CSM.EOP_COE_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP Cell Offered Erlangs YTD Last Year
EOP_COE_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. EOP_COE_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP Cell Offered Erlangs % Change Last Year
HU_LP	LAG(CSM.HU, 1) OVER HIERARCHY ("TIME".HTBSNS)	Hour Usage Last Period
HU_LY	LAG(CSM.HU, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Hour Usage Last Year
HU_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. HU, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Hour Usage % Change Last Year
HU_YTD	SUM(CSM.HU) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Hour Usage YTD
HU_YTD_LY	LAG(CSM.HU_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Hour Usage YTD Last Year

Table 9-16 (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
HU_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. HU_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Hour Usage YTD % Change Last Year
ICHA_LP	LAG(CSM.ICHA, 1) OVER HIERARCHY ("TIME".HTBSNS)	Intra Cell HO Atm Last Period
ICHA_LY	LAG(CSM.ICHA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Intra Cell HO Atm Last Year
ICHA_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ICHA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Intra Cell HO Atm % Chnage Last Year
ICHA_YTD	SUM(CSM.ICHA) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Intra Cell HO Atm YTD
ICHA_YTD_LY	LAG(CSM.ICHA_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Intra Cell HO Atm YTD Last Year
ICHA_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ICHA_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Intra Cell HO Atm YTD % Chnage Last Year
ICHL_LP	LAG(CSM.ICHL, 1) OVER HIERARCHY ("TIME".HTBSNS)	Intra Cell HO Los Last Period
ICHL_LY	LAG(CSM.ICHL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Intra Cell HO Los Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
ICHL_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ICHL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Intra Cell HO Los % Chnage Last Year
ICHL_YTD	SUM(CSM.ICHL) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Intra Cell HO Los YTD
ICHL_YTD_LY	LAG(CSM.ICHL_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Intra Cell HO Los YTD Last Year
ICHL_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ICHL_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Intra Cell HO Los YTD % Chnage Last Year
ICHS_LP	LAG(CSM.ICHS, 1) OVER HIERARCHY ("TIME".HTBSNS)	Intra Cell HO Suc Last Period
ICHS_LY	LAG(CSM.ICHS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Intra Cell HO Suc Last Year
ICHS_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ICHS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Intra Cell HO Suc % Chnage Last Year
ICHS_YTD	SUM(CSM.ICHS) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Intra Cell HO Suc YTD
ICHS_YTD_LY	LAG(CSM.ICHS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Intra Cell HO Suc YTD Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
ICHS_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ICHS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Intra Cell HO Suc YTD % Chnage Last Year
ID_LP	LAG(CSM.ID, 1) OVER HIERARCHY ("TIME".HTBSNS)	IMSI Detach Last Period
ID_LY	LAG(CSM.ID, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	IMSI Detach Last Year
ID_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ID, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	IMSI Detach % Change Last Year
ID_YTD	SUM(CSM.ID) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	IMSI Detach YTD
ID_YTD_LY	LAG(CSM.ID_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	IMSI Detach YTD Last Year
ID_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ID_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	IMSI Detach YTD % Change Last Year
IECR_LP	LAG(CSM.IECR, 1) OVER HIERARCHY ("TIME".HTBSNS)	Inv Est Cause Rach Last Period
IECR_LY	LAG(CSM.IECR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Inv Est Cause Rach Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
IECR_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. IECR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Inv Est Cause Rach % Chnage Last Year
IECR_YTD	SUM(CSM.IECR) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Inv Est Cause Rach YTD
IECR_YTD_LY	LAG(CSM.IECR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Inv Est Cause Rach YTD Last Year
IECR_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. IECR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Inv Est Cause Rach YTD % Chnage Last Year
IERHS_LP	LAG(CSM.IERHS, 1) OVER HIERARCHY ("TIME".HTBSNS)	I Inter BS HO Suc Last Period
IERHS_LY	LAG(CSM.IERHS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	I Inter BS HO Suc Last Year
IERHS_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. IERHS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	I Inter BS HO Suc % Change Last Year
IERHS_YTD	SUM(CSM.IERHS) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	I Inter BS HO Suc YTD
IERHS_YTD_LY	LAG(CSM.IERHS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	I Inter BS HO Suc YTD Last Year

Table 9-16 (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
IERHS_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. IERHS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	I Inter BS HO Suc YTD % Change Last Year
IRAHC_LP	LAG(CSM.IRAHC, 1) OVER HIERARCHY ("TIME".HTBSNS)	I Intra BS HO Suc Last Period
IRAHC_LY	LAG(CSM.IRAHC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	I Intra BS HO Suc Last Year
IRAHC_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. IRAHC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	I Intra BS HO Suc % Change Last Year
IRAHC_YTD	SUM(CSM.IRAHC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	I Intra BS HO Suc YTD
IRAHC_YTD_LY	LAG(CSM.IRAHC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	I Intra BS HO Suc YTD Last Year
IRAHC_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. IRAHC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	I Intra BS HO Suc YTD % Change Last Year
LFRRN_LP	LAG(CSM.LFRRN, 1) OVER HIERARCHY ("TIME".HTBSNS)	LOC FLW REQ NRM Last Period
LFRRN_LY	LAG(CSM.LFRRN, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	LOC FLW REQ NRM Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
LFRRN_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. LFRRN, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	LOC FLW REQ NRM Last Year
LFRRN_YTD	SUM(CSM.LFRRN) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	LOC FLW REQ NRM YTD
LFRRN_YTD_LY	LAG(CSM.LFRRN_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	LOC FLW REQ NRM YTD Last Year
LFRRN_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. LFRRN_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	LOC FLW REQ NRM YTD % Chnage Last Year
LFRS_LP	LAG(CSM.LFRS, 1) OVER HIERARCHY ("TIME".HTBSNS)	Loc Flw Req SMS Last Period
LFRS_LY	LAG(CSM.LFRS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Loc Flw Req SMS Last Year
LFRS_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. LFRS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Loc Flw Req SMS % Chnage Last Year
LFRS_YTD	SUM(CSM.LFRS) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Loc Flw Req SMS YTD
LFRS_YTD_LY	LAG(CSM.LFRS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Loc Flw Req SMS YTD Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
LFRS_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. LFRS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Loc Flw Req SMS YTD % Chnage Last Year
LS_LP	LAG(CSM.LS, 1) OVER HIERARCHY ("TIME".HTBSNS)	Location Services Last Period
LS_LY	LAG(CSM.LS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Location Services Last Year
LS_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. LS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Location Services % Chnage Last Year
LS_YTD	SUM(CSM.LS) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Location Services YTD
LS_YTD_LY	LAG(CSM.LS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Location Services Last Year
LS_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. LS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Location Services YTD % Chnage Last Year
LU_LP	LAG(CSM.LU, 1) OVER HIERARCHY ("TIME".HTBSNS)	Location Update Last Period
LU_LY	LAG(CSM.LU, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Location Update Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
LU_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. LU, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Location Update % Chnage Last Year
LU_YTD	SUM(CSM.LU) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Location Update YTD
LU_YTD_LY	LAG(CSM.LU_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Location Update YTD Last Year
LU_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. LU_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Location Update YTD % Chnage Last Year
MTLOS_LP	LAG(CSM.MTLOS, 1) OVER HIERARCHY ("TIME".HTBSNS)	MT LCS ON SDDCH Last Period
MTLOS_LY	LAG(CSM.MTLOS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	MT LCS ON SDDCH Last Year
MTLOS_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. MTLOS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	MT LCS ON SDDCH % Change Last Year
MTLOS_YTD	SUM(CSM.MTLOS) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	MT LCS ON SDDCH YTD
MTLOS_YTD_LY	LAG(CSM.MTLOS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	MT LCS ON SDDCH YTD Last Year

Table 9-16 (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
MTLOS_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. MTLOS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	MT LCS ON SDDCH YTD % Change Last Year
NCA_LP	LAG(CSM.NCA, 1) OVER HIERARCHY ("TIME".HTBSNS)	Number Of Call Attempts Last Period
NCA_LY	LAG(CSM.NCA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Of Call Attempts Last Year
NCA_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. NCA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Of Call Attempts % Chnage Last Year
NCA_YTD	SUM(CSM.NCA) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Number Of Call Attempts YTD
NCA_YTD_LY	LAG(CSM.NCA_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Of Call Attempts YTD Last Year
NCA_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. NCA_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Of Call Attempts YTD % Chnage Last Year
NCAWT_LP	LAG(CSM.NCAWT, 1) OVER HIERARCHY ("TIME".HTBSNS)	Num Call Attempts WO Transit Last Period
NCAWT_LY	LAG(CSM.NCAWT, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Num Call Attempts WO Transit Last Year

Table 9-16 (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
NCAWT_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. NCAWT, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Num Call Attempts WO Transit % Chnage Last Year
NCAWT_YTD	SUM(CSM.NCAWT) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Num Call Attempts WO Transit YTD
NCAWT_YTD_LY	LAG(CSM.NCAWT_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Num Call Attempts WO Transit YTD Last Year
NCAWT_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. NCAWT_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Num Call Attempts WO Transit YTD % Chnage Last Year
NOC_LP	LAG(CSM.NOC, 1) OVER HIERARCHY ("TIME".HTBSNS)	Number Of Calls Last Period
NOC_LY	LAG(CSM.NOC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Of Calls Last Year
NOC_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. NOC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Of Calls % Change Last Year
NOC_YTD	SUM(CSM.NOC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Number Of Calls YTD
NOC_YTD_LY	LAG(CSM.NOC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Of Calls YTD Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
NOC_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. NOC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Of Calls YTD % Change Last Year
NOCE_LP	LAG(CSM.NOCE, 1) OVER HIERARCHY ("TIME".HTBSNS)	Number Of Cells Last Period
NOCE_LY	LAG(CSM.NOCE, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Of Cells Last Year
NOCE_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. NOCE, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Of Cells % Change Last Year
NOCE_YTD	SUM(CSM.NOCE) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Number Of Cells YTD
NOCE_YTD_LY	LAG(CSM.NOCE_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Of Cells YTD Last Year
NOCE_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. NOCE_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Number Of Cells YTD % Change Last Year
OAPSR_LP	LAG(CSM.OAPSR, 1) OVER HIERARCHY ("TIME".HTBSNS)	OK ACC PROC SUC R Last Period
OAPSR_LY	LAG(CSM.OAPSR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	OK ACC PROC SUC R Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
OAPSR_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. OAPSR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	OK ACC PROC SUC R % Chnage Last Year
OAPSR_YTD	SUM(CSM.OAPSR) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	OK ACC PROC SUC R YTD
OAPSR_YTD_LY	LAG(CSM.OAPSR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	OK ACC PROC SUC R YTD Last Year
OAPSR_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. OAPSR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	OK ACC PROC SUC R % Chnage Last Year
OEREF_LP	LAG(CSM.OEREF, 1) OVER HIERARCHY ("TIME".HTBSNS)	O INTER BS EQ FA Last Period
OEREF_LY	LAG(CSM.OEREF, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS EQ FA Last Year
OEREF_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. OEREF, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS EQ FA % Chnage Last Year
OEREF_YTD	SUM(CSM.OEREF) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	O INTER BS EQ FA YTD
OEREF_YTD_LY	LAG(CSM.OEREF_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS EQ FA YTD Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
OEREF_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. OEREF_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS EQ FA YTD % Chnage Last Year
OERHA_LP	LAG(CSM.OERHA, 1) OVER HIERARCHY ("TIME".HTBSNS)	O INTER BS HO ATM Last Period
OERHA_LY	LAG(CSM.OERHA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS HO ATM Last Year
OERHA_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. OERHA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS HO ATM % Chnage Last Year
OERHA_YTD	SUM(CSM.OERHA) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	O INTER BS HO ATM YTD
OERHA_YTD_LY	LAG(CSM.OERHA_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS HO ATM YTD Last Year
OERHA_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. OERHA_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS HO ATM YTD % Chnage Last Year
OERHR_LP	LAG(CSM.OERHR, 1) OVER HIERARCHY ("TIME".HTBSNS)	O INTER BS HO RET Last Period
OERHR_LY	LAG(CSM.OERHR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS HO RET Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
OERHR_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. OERHR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS HO RET % Chnage Last Year
OERHR_YTD	SUM(CSM.OERHR) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	O INTER BS HO RET YTD
OERHR_YTD_LY	LAG(CSM.OERHR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS HO RET YTD Last Year
OERHR_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. OERHR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS HO RET YTD % Chnage Last Year
OERHS_LP	LAG(CSM.OERHS, 1) OVER HIERARCHY ("TIME".HTBSNS)	O INTER BS HO SUC YTD Last Period
OERHS_LY	LAG(CSM.OERHS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS HO SUC YTD Last Year
OERHS_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. OERHS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS HO SUC % Change Last Year
OERHS_YTD	SUM(CSM.OERHS) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	O INTER BS HO SUC YTD
OERHS_YTD_LY	LAG(CSM.OERHS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS HO SUC YTD Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
OERHS_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. OERHS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS HO SUC YTD % Change Last Year
OERRM_LP	LAG(CSM.OERRM, 1) OVER HIERARCHY ("TIME".HTBSNS)	O INTER BS RQ MSC Last Period
OERRM_LY	LAG(CSM.OERRM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS RQ MSC Last Year
OERRM_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. OERRM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS RQ MSC % Chnage Last Year
OERRM_YTD	SUM(CSM.OERRM) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	O INTER BS RQ MSC YTD
OERRM_YTD_LY	LAG(CSM.OERRM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS RQ MSC YTD Last Year
OERRM_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. OERRM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTER BS RQ MSC YTD % Chnage Last Year
OHCA_LP	LAG(CSM.OHCA, 1) OVER HIERARCHY ("TIME".HTBSNS)	Out HO Cause Attempts Last Period
OHCA_LY	LAG(CSM.OHCA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Out HO Cause Attempts Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
OHCA_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. OHCA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Out HO Cause Attempts % Chnage Last Year
OHCA_YTD	SUM(CSM.OHCA) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Out HO Cause Attempts YTD
OHCA_YTD_LY	LAG(CSM.OHCA_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Out HO Cause Attempts YTD Last Year
OHCA_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. OHCA_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Out HO Cause Attempts YTD % Chnage Last Year
ORAHA_LP	LAG(CSM.ORAHA, 1) OVER HIERARCHY ("TIME".HTBSNS)	O INTRA BS HO ATM Last Period
ORAHA_LY	LAG(CSM.ORAHA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO ATM Last Year
ORAHA_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ORAHA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO ATM % Chnage Last Year
ORAHA_YTD	SUM(CSM.ORAHA) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	O INTRA BS HO ATM YTD
ORAHA_YTD_LY	LAG(CSM.ORAHA_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO ATM YTD Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
ORAHA_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ORAHA_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO ATM YTD % Chnage Last Year
ORAHC_LP	LAG(CSM.ORAHC, 1) OVER HIERARCHY ("TIME".HTBSNS)	O INTRA BS HO CLR Last Period
ORAHC_LY	LAG(CSM.ORAHC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO CLR Last Year
ORAHC_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ORAHC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO CLR % Chnage Last Year
ORAHC_YTD	SUM(CSM.ORAHC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	O INTRA BS HO CLR YTD
ORAHC_YTD_LY	LAG(CSM.ORAHC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO CLR YTD Last Year
ORAHC_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ORAHC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO CLR YTD % Chnage Last Year
ORAHL_LP	LAG(CSM.ORAHL, 1) OVER HIERARCHY ("TIME".HTBSNS)	O INTRA BS HO LOS Last Period
ORAHL_LY	LAG(CSM.ORAHL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO LOS Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
ORAHL_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ORAHL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO LOS % Chnage Last Year
ORAHL_YTD	SUM(CSM.ORAHL) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	O INTRA BS HO LOS YTD
ORAHL_YTD_LY	LAG(CSM.ORAHL_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO LOS YTD Last Year
ORAHL_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ORAHL_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO LOS YTD % Chnage Last Year
ORAHS_LP	LAG(CSM.ORAHS, 1) OVER HIERARCHY ("TIME".HTBSNS)	O INTRA BS HO SUC YTD Last Period
ORAHS_LY	LAG(CSM.ORAHS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO SUC YTD Last Year
ORAHS_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ORAHS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO SUC % Chnage Last Year
ORAHS_YTD	SUM(CSM.ORAHS) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	O INTRA BS HO SUC YTD
ORAHS_YTD_LY	LAG(CSM.ORAHS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO SUC YTD Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
ORAHS_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. ORAHS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	O INTRA BS HO SUC YTD % Chnage Last Year
PBSS_LP	LAG(CSM.PBSS, 1) OVER HIERARCHY ("TIME".HTBSNS)	Power Budget Signal Strength Last Period
PBSS_LY	LAG(CSM.PBSS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Power Budget Signal Strength Last Year
PBSS_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. PBSS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Power Budget Signal Strength % Chnage Last Year
PBSS_YTD	SUM(CSM.PBSS) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Power Budget Signal Strength YTD
PBSS_YTD_LY	LAG(CSM.PBSS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Power Budget Signal Strength YTD Last Year
PBSS_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. PBSS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Power Budget Signal Strength YTD % Chnage Last Year
PR_LP	LAG(CSM.PR, 1) OVER HIERARCHY ("TIME".HTBSNS)	Page Response Last Period
PR_LY	LAG(CSM.PR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Page Response Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
PR_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. PR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Page Response % Change Last Year
PR_YTD	SUM(CSM.PR) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Page Response YTD
PR_YTD_LY	LAG(CSM.PR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Page Response YTD Last Year
PR_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. PR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Page Response YTD % Change Last Year
PRFM_LP	LAG(CSM.PRFM, 1) OVER HIERARCHY ("TIME".HTBSNS)	Page Req From MSC Last Period
PRFM_LY	LAG(CSM.PRFM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Page Req From MSC Last Year
PRFM_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. PRFM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Page Req From MSC % Change Last Year
PRFM_YTD	SUM(CSM.PRFM) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Page Req From MSC YTD
PRFM_YTD_LY	LAG(CSM.PRFM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Page Req From MSC YTD Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
PRFM_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. PRFM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Page Req From MSC YTD % Change Last Year
RANK_ACI_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.ACI DESC NULLS LAST WITHIN PARENT)	Adjacent Channel Interference Rank of POPT Parent
RANK_ACI_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.ACI DESC NULLS LAST WITHIN PARENT)	Adjacent Channel Interference Rank of TSLT Parent
RANK_ACM_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.ACM DESC NULLS LAST WITHIN PARENT)	Air Call Minutes Rank of POPT Parent
RANK_ACM_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.ACM DESC NULLS LAST WITHIN PARENT)	Air Call Minutes Rank of TSLT Parent
RANK_ADDB_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.ADDB DESC NULLS LAST WITHIN PARENT)	Air DL Data Blks Rank of POPT Parent
RANK_ADDB_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.ADDB DESC NULLS LAST WITHIN PARENT)	Air DL Data Blks Rank of TSLT Parent
RANK_AR_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.AR DESC NULLS LAST WITHIN PARENT)	Assign Redirect Rank of POPT Parent
RANK_AR_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.AR DESC NULLS LAST WITHIN PARENT)	Assign Redirect Rank of TSLT Parent
RANK_ASF_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.ASF DESC NULLS LAST WITHIN PARENT)	ALLOC SDCCH Fail Rank of POPT Parent
RANK_ASF_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.ASF DESC NULLS LAST WITHIN PARENT)	ALLOC SDCCH Fail Rank of TSLT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
RANK_ASM_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.ASM DESC NULLS LAST WITHIN PARENT)	Available SDCCH Max Rank of POPT Parent
RANK_ASM_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.ASM DESC NULLS LAST WITHIN PARENT)	Available SDCCH Max Rank of TSLT Parent
RANK_AT_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM."AT" DESC NULLS LAST WITHIN PARENT)	Alloc Tch Rank of POPT Parent
RANK_AT_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM."AT" DESC NULLS LAST WITHIN PARENT)	Alloc Tch Rank of TSLT Parent
RANK_ATF_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.ATF DESC NULLS LAST WITHIN PARENT)	Alloc TCH Fail Rank of POPT Parent
RANK_ATF_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.ATF DESC NULLS LAST WITHIN PARENT)	Alloc TCH Fail Rank of TSLT Parent
RANK_ATM_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.ATM DESC NULLS LAST WITHIN PARENT)	O INTER BS HO ATM Rank of POPT Parent
RANK_ATM_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.ATM DESC NULLS LAST WITHIN PARENT)	O INTER BS HO ATM Rank of TSLT Parent
RANK_AUDB_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.AUDB DESC NULLS LAST WITHIN PARENT)	Air UL Data Blks Rank of POPT Parent
RANK_AUDB_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.AUDB DESC NULLS LAST WITHIN PARENT)	Air UL Data Blks Rank of TSLT Parent
RANK_BSM_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.BSM DESC NULLS LAST WITHIN PARENT)	Busy SDCCH Max Rank of POPT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
RANK_BSM_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.BSM DESC NULLS LAST WITHIN PARENT)	Busy SDCCH Max Rank of TSLT Parent
RANK_BTM_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.BTM DESC NULLS LAST WITHIN PARENT)	Busy TCH Max Rank of POPT Parent
RANK_BTM_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.BTM DESC NULLS LAST WITHIN PARENT)	Busy TCH Max Rank of TSLT Parent
RANK_CCE_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.CCE DESC NULLS LAST WITHIN PARENT)	Cell Carried Erlangs Rank of POPT Parent
RANK_CCE_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.CCE DESC NULLS LAST WITHIN PARENT)	Cell Carried Erlangs Rank of TSLT Parent
RANK_CD_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.CD DESC NULLS LAST WITHIN PARENT)	Call Duration Rank of POPT Parent
RANK_CD_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.CD DESC NULLS LAST WITHIN PARENT)	Call Duration Rank of TSLT Parent
RANK_CHRR_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.CHRR DESC NULLS LAST WITHIN PARENT)	Channel Reqs Rec Rank of POPT Parent
RANK_CHRR_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.CHRR DESC NULLS LAST WITHIN PARENT)	Channel Reqs Rec Rank of TSLT Parent
RANK_CISC_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.CISC DESC NULLS LAST WITHIN PARENT)	Congestion In Source Cell Rank of POPT Parent
RANK_CISC_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.CISC DESC NULLS LAST WITHIN PARENT)	Congestion In Source Cell Rank of TSLT Parent

Table 9-16 (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
RANK_CNNTS_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.CNNTS DESC NULLS LAST WITHIN PARENT)	Connections Rank of POPT Parent
RANK_CNNTS_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.CNNTS DESC NULLS LAST WITHIN PARENT)	Connections Rank of TSLT Parent
RANK_CONNR_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.CONNR DESC NULLS LAST WITHIN PARENT)	Connection Refuse Share of POPT Parent
RANK_CONNR_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.CONNR DESC NULLS LAST WITHIN PARENT)	Connection Refuse Rank of TSLT Parent
RANK_CR_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.CR DESC NULLS LAST WITHIN PARENT)	CM Reestablish Rank of POPT Parent
RANK_CR_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.CR DESC NULLS LAST WITHIN PARENT)	CM Reestablish Rank of TSLT Parent
RANK_CRFR_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.CRFR DESC NULLS LAST WITHIN PARENT)	CHAN REQ FAIL ROL Rank of POPT Parent
RANK_CRFR_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.CRFR DESC NULLS LAST WITHIN PARENT)	CHAN REQ FAIL ROL Rank of TSLT Parent
RANK_CRMB_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.CRMB DESC NULLS LAST WITHIN PARENT)	Chan Req MS Blk Rank of POPT Parent
RANK_CRMB_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.CRMB DESC NULLS LAST WITHIN PARENT)	Chan Req MS Blk Rank of TSLT Parent
RANK_CRR_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.CRR DESC NULLS LAST WITHIN PARENT)	Channel Reqs Reject Rank of POPT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
RANK_CRR_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.CRR DESC NULLS LAST WITHIN PARENT)	Channel Reqs Reject Rank of TSLT Parent
RANK_CSRC_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.CSRC DESC NULLS LAST WITHIN PARENT)	CM Serv Req Call Rank of POPT Parent
RANK_CSRC_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.CSRC DESC NULLS LAST WITHIN PARENT)	CM Serv Req Call rank of TSLT Parent
RANK_CSRE_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.CSRE DESC NULLS LAST WITHIN PARENT)	CM Serv Req Emrg Rank of POPT Parent
RANK_CSRE_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.CSRE DESC NULLS LAST WITHIN PARENT)	CM Serv Req Emrg Rank of TSLT Parent
RANK_CSRS_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.CSRS DESC NULLS LAST WITHIN PARENT)	CM Serv Req SMS Rank of POPT Parent
RANK_CSRS_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.CSRS DESC NULLS LAST WITHIN PARENT)	CM Serv Req SMS Rank of TSLT Parent
RANK_CSRSP_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.CSRSP DESC NULLS LAST WITHIN PARENT)	CM Serv Req Supp Rank of POPT Parent
RANK_CSRSP_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.CSRSP DESC NULLS LAST WITHIN PARENT)	CM Serv Req Supp Rank of TSLT Parent
RANK_DSL_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.DSL DESC NULLS LAST WITHIN PARENT)	Downlink Signal Rank Share of POPT Parent
RANK_DSL_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.DSL DESC NULLS LAST WITHIN PARENT)	Downlink Signal Level Share of TSLT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
RANK_DSQ_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.DSQ DESC NULLS LAST WITHIN PARENT)	Downlink Signal Quality Rank of POPT Parent
RANK_DSQ_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.DSQ DESC NULLS LAST WITHIN PARENT)	Downlink Signal Quality Rank of TSLT Parent
RANK_EOP_COE_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.EOP_COE DESC NULLS LAST WITHIN PARENT)	EOP Cell Offered Erlangs Rank of POPT Parent
RANK_EOP_COE_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.EOP_COE DESC NULLS LAST WITHIN PARENT)	EOP Cell Offered Erlangs Rank of TSLT Parent
RANK_HU_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.HU DESC NULLS LAST WITHIN PARENT)	Hour Usage Rank of POPT Parent
RANK_HU_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.HU DESC NULLS LAST WITHIN PARENT)	Hour Usage Rank of TSLT Parent
RANK_ICHA_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.ICHA DESC NULLS LAST WITHIN PARENT)	Intra Cell HO Atm Rank of POPT Parent
RANK_ICHA_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.ICHA DESC NULLS LAST WITHIN PARENT)	Intra Cell HO Atm Rank of TSLT Parent
RANK_ICHL_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.ICHL DESC NULLS LAST WITHIN PARENT)	Intra Cell HO Los Rank of POPT Parent
RANK_ICHL_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.ICHL DESC NULLS LAST WITHIN PARENT)	Intra Cell HO Los Rank of TSLT Parent
RANK_ICHS_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.ICHS DESC NULLS LAST WITHIN PARENT)	Intra Cell HO Suc Rank of POPT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
RANK_ICHS_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.ICHS DESC NULLS LAST WITHIN PARENT)	Intra Cell HO Suc Rank of TSLT Parent
RANK_ID_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.ID DESC NULLS LAST WITHIN PARENT)	IMSI Detach Rank of POPT Parent
RANK_ID_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.ID DESC NULLS LAST WITHIN PARENT)	IMSI Detach Rank of TSLT Parent
RANK_IECR_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.IECR DESC NULLS LAST WITHIN PARENT)	IMSI Detach Rank of POPT Parent
RANK_IECR_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.IECR DESC NULLS LAST WITHIN PARENT)	IMSI Detach Rank of TSLT Parent
RANK_IERHS_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.IERHS DESC NULLS LAST WITHIN PARENT)	I Inter BS HO Suc Rank of POPT Parent
RANK_IERHS_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.IERHS DESC NULLS LAST WITHIN PARENT)	I Inter BS HO Suc Rank of TSLT Parent
RANK_IRAHC_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.IRAHC DESC NULLS LAST WITHIN PARENT)	I Intra BS HO Suc Rank of POPT Parent
RANK_IRAHC_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.IRAHC DESC NULLS LAST WITHIN PARENT)	I Intra BS HO Suc Rank of TSLT Parent
RANK_LFRRN_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.LFRRN DESC NULLS LAST WITHIN PARENT)	LOC FLW REQ NRM Rank of POPT Parent
RANK_LFRRN_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.LFRRN DESC NULLS LAST WITHIN PARENT)	LOC FLW REQ NRM Rank of TSLT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
RANK_LFRS_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.LFRS DESC NULLS LAST WITHIN PARENT)	Loc Flw Req SMS Rank of POPT Parent
RANK_LFRS_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.LFRS DESC NULLS LAST WITHIN PARENT)	Loc Flw Req SMS Rank of TSLT Parent
RANK_LS_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.LS DESC NULLS LAST WITHIN PARENT)	Location Services Rank of POPT Parent
RANK_LS_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.LS DESC NULLS LAST WITHIN PARENT)	Location Services Rank of TSLT Parent
RANK_LU_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.LU DESC NULLS LAST WITHIN PARENT)	Location Update Share of POPT Parent
RANK_LU_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.LU DESC NULLS LAST WITHIN PARENT)	Location Update Share of TSLT Parent
RANK_MTLOS_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.MTLOS DESC NULLS LAST WITHIN PARENT)	MT LCS ON SDDCH Rank of POPT Parent
RANK_MTLOS_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.MTLOS DESC NULLS LAST WITHIN PARENT)	MT LCS ON SDDCH Rank of TSLT Parent
RANK_NCA_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.NCA DESC NULLS LAST WITHIN PARENT)	Number Of Call Attempts Rank of POPT Parent
RANK_NCA_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.NCA DESC NULLS LAST WITHIN PARENT)	Number Of Call Attempts Rank of TSLT Parent
RANK_NCAWT_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.NCAWT DESC NULLS LAST WITHIN PARENT)	Num Call Attempts WO Transit Rank of POPT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
RANK_NCAWT_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.NCAWT DESC NULLS LAST WITHIN PARENT)	Num Call Attempts WO Transit Rank of TSLT Parent
RANK_NOC_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.NOC DESC NULLS LAST WITHIN PARENT)	Number Of Calls Rank of POPT Parent
RANK_NOC_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.NOC DESC NULLS LAST WITHIN PARENT)	Number Of Calls Rank of TSLT Parent
RANK_NOCE_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.NOCE DESC NULLS LAST WITHIN PARENT)	Number Of Cells Rank of POPT Parent
RANK_NOCE_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.NOCE DESC NULLS LAST WITHIN PARENT)	Number Of Cells Rank of TSLT Parent
RANK_OAPSR_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.OAPSR DESC NULLS LAST WITHIN PARENT)	OK ACC PROC SUC R Rank of POPT Parent
RANK_OAPSR_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.OAPSR DESC NULLS LAST WITHIN PARENT)	OK ACC PROC SUC R Rank of TSLT Parent
RANK_OEREF_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.OEREF DESC NULLS LAST WITHIN PARENT)	OK ACC PROC SUC R Rank of POPT Parent
RANK_OEREF_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.OEREF DESC NULLS LAST WITHIN PARENT)	OK ACC PROC SUC R Rank of TSLT Parent
RANK_OERHA_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.OERHA DESC NULLS LAST WITHIN PARENT)	O Inter BS HO ATM Rank of POPT Parent
RANK_OERHA_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.OERHA DESC NULLS LAST WITHIN PARENT)	O Inter BS HO ATM Rank of TSLT Parent

Table 9-16 (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
RANK_OERHR_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.OERHR DESC NULLS LAST WITHIN PARENT)	O INTER BS HO RET ATM Rank of POPT Parent
RANK_OERHR_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.OERHR DESC NULLS LAST WITHIN PARENT)	O INTER BS HO RET ATM Rank of TSLT Parent
RANK_OERHS_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.OERHS DESC NULLS LAST WITHIN PARENT)	O INTER BS HO SUC Rank of POPT Parent
RANK_OERHS_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.OERHS DESC NULLS LAST WITHIN PARENT)	O INTER BS HO SUC Rank of TSLT Parent
RANK_OERRM_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.OERRM DESC NULLS LAST WITHIN PARENT)	O INTER BS RQ MSC Rank of POPT Parent
RANK_OERRM_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.OERRM DESC NULLS LAST WITHIN PARENT)	O INTER BS RQ MSC Rank of TSLT Parent
RANK_OHCA_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.OHCA DESC NULLS LAST WITHIN PARENT)	Out HO Cause Attempts Rank of POPT Parent
RANK_OHCA_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.OHCA DESC NULLS LAST WITHIN PARENT)	Out HO Cause Attempts Rank of TSLT Parent
RANK_ORAHA_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.ORAHA DESC NULLS LAST WITHIN PARENT)	O INTRA BS HO ATM Rank of POPT Parent
RANK_ORAHA_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.ORAHA DESC NULLS LAST WITHIN PARENT)	O INTRA BS HO ATM Rank of TSLT Parent
RANK_ORAHC_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.ORAHC DESC NULLS LAST WITHIN PARENT)	O INTRA BS HO CLR Rank of POPT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
RANK_ORAHC_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.ORAHC DESC NULLS LAST WITHIN PARENT)	O INTRA BS HO CLR Rank of TSLT Parent
RANK_ORAHL_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.ORAHL DESC NULLS LAST WITHIN PARENT)	O INTRA BS HO LOS Rank of POPT Parent
RANK_ORAHL_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.ORAHL DESC NULLS LAST WITHIN PARENT)	O INTRA BS HO LOS Rank of TSLT Parent
RANK_ORAHS_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.ORAHS DESC NULLS LAST WITHIN PARENT)	O INTRA BS HO SUC Rank of POPT Parent
RANK_ORAHS_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.ORAHS DESC NULLS LAST WITHIN PARENT)	O INTRA BS HO SUC Rank of TSLT Parent
RANK_PBSS_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.PBSS DESC NULLS LAST WITHIN PARENT)	Power Budget Signal Strength Rank of POPT Parent
RANK_PBSS_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.PBSS DESC NULLS LAST WITHIN PARENT)	Power Budget Signal Strength Rank of TSLT Parent
RANK_PR_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.PR DESC NULLS LAST WITHIN PARENT)	Power Budget Signal Strength Rank of POPT Parent
RANK_PR_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.PR DESC NULLS LAST WITHIN PARENT)	Power Budget Signal Strength Rank of TSLT Parent
RANK_PRFM_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.PRFM DESC NULLS LAST WITHIN PARENT)	Page Req From MSC Rank of POPT Parent
RANK_PRFM_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.PRFM DESC NULLS LAST WITHIN PARENT)	Page Req From MSC Rank of TSLT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
RANK_RLTR_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.RLTR DESC NULLS LAST WITHIN PARENT)	RF Loss TCH Roll Rank of POPT Parent
RANK_RLTR_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.RLTR DESC NULLS LAST WITHIN PARENT)	RF Loss TCH Roll Rank of TSLT Parent
RANK_SH_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.SH DESC NULLS LAST WITHIN PARENT)	ALLOC SDCCH Rank of POPT Parent
RANK_SH_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.SH DESC NULLS LAST WITHIN PARENT)	ALLOC SDCCH Rank of TSLT Parent
RANK_SIOS_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.SIOS DESC NULLS LAST WITHIN PARENT)	SMS INIT on SDCCH Rank of POPT Parent
RANK_SIOS_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.SIOS DESC NULLS LAST WITHIN PARENT)	SMS INIT on SDCCH Rank of TSLT Parent
RANK_SIOT_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.SIOT DESC NULLS LAST WITHIN PARENT)	SMS INIT on TCH Rank of POPT Parent
RANK_SIOT_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.SIOT DESC NULLS LAST WITHIN PARENT)	SMS INIT on TCH Rank of TSLT Parent
RANK_SPM_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.SPM DESC NULLS LAST WITHIN PARENT)	Spare TCH Max Rank of POPT Parent
RANK_SPM_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.SPM DESC NULLS LAST WITHIN PARENT)	Spare TCH Max Rank of TSLT Parent
RANK_SSD_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.SSD DESC NULLS LAST WITHIN PARENT)	Signal Source Distance Rank of POPT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
RANK_SSD_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.SSD DESC NULLS LAST WITHIN PARENT)	Signal Source Distance Rank of TSLT Parent
RANK_SSM_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.SSM DESC NULLS LAST WITHIN PARENT)	Spare SDCCH Max Rank of POPT Parent
RANK_SSM_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.SSM DESC NULLS LAST WITHIN PARENT)	Spare SDCCH Max Rank of TSLT Parent
RANK_TCM_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.TCM DESC NULLS LAST WITHIN PARENT)	Total Call Minutes Rank of POPT Parent
RANK_TCM_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.TCM DESC NULLS LAST WITHIN PARENT)	Total Call Minutes Rank of TSLT Parent
RANK_TQR_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.TQR DESC NULLS LAST WITHIN PARENT)	TCH Q Removed Rank of POPT Parent
RANK_TQR_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.TQR DESC NULLS LAST WITHIN PARENT)	TCH Q Removed Rank of TSLT Parent
RANK_TT_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.TT DESC NULLS LAST WITHIN PARENT)	Total Traffic Rank of POPT Parent
RANK_TT_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.TT DESC NULLS LAST WITHIN PARENT)	Total Traffic Share of TSLT Parent
RANK_USL_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.USL DESC NULLS LAST WITHIN PARENT)	Uplink Signal Level Rank of POPT Parent
RANK_USL_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.USL DESC NULLS LAST WITHIN PARENT)	Uplink Signal Level Rank of TSLT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
RANK_USQ_POPT	RANK() OVER HIERARCHY (POPT.HPOPT ORDER BY CSM.USQ DESC NULLS LAST WITHIN PARENT)	Uplink Signal Quality Rank of POPT Parent
RANK_USQ_TSLT	RANK() OVER HIERARCHY (TSLT.HTSLT ORDER BY CSM.USQ DESC NULLS LAST WITHIN PARENT)	Uplink Signal Quality Rank of TSLT Parent
RLTR_LP	LAG(CSM.RLTR, 1) OVER HIERARCHY ("TIME".HTBSNS)	RF Loss TCH Roll Last Period
RLTR_LY	LAG(CSM.RLTR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	RF Loss TCH Roll Last Year
RLTR_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.RLTR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	RF Loss TCH Roll % Chnage Last Year
RLTR_YTD	SUM(CSM.RLTR) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	RF Loss TCH Roll YTD
RLTR_YTD_LY	LAG(CSM.RLTR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	RF Loss TCH Roll YTD Last Year
RLTR_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.RLTR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	RF Loss TCH Roll YTD % Chnage Last Year
SH_LP	LAG(CSM.SH, 1) OVER HIERARCHY ("TIME".HTBSNS)	Alloc SDCCH Last Period
SH_LY	LAG(CSM.SH, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc SDCCH Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
SH_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. SH, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc SDCCH % Chnage Last Year
SH_YTD	SUM(CSM.SH) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Alloc SDCCH YTD
SH_YTD_LY	LAG(CSM.SH_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc SDCCH YTD Last Year
SH_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. SH_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Alloc SDCCH YTD % Chnage Last Year
SHR_ACI_POPT	SHARE(CSM.ACI OF POPT.HPOPT PARENT)	Adjacent Channel Interference Share of POPT Parent
SHR_ACI_TSLT	SHARE(CSM.ACI OF TSLT.HTSLT PARENT)	Adjacent Channel Interference Share of TSLT Parent
SHR_ACM_POPT	SHARE(CSM.ACM OF POPT.HPOPT PARENT)	Air Call Minutes Share of POPT Parent
SHR_ACM_TSLT	SHARE(CSM.ACM OF TSLT.HTSLT PARENT)	Air Call Minutes Share of TSLT Parent
SHR_ADDB_POPT	SHARE(CSM.ADDB OF POPT.HPOPT PARENT)	Air DL Data Blks Share of POPT Parent
SHR_ADDB_TSLT	SHARE(CSM.ADDB OF TSLT.HTSLT PARENT)	Air DL Data Blks Share of TSLT Parent
SHR_AR_POPT	SHARE(CSM.AR OF POPT.HPOPT PARENT)	Assign Redirect Share of POPT Parent
SHR_AR_TSLT	SHARE(CSM.AR OF TSLT.HTSLT PARENT)	Assign Redirect Share of TSLT Parent
SHR_ASF_POPT	SHARE(CSM.ASF OF POPT.HPOPT PARENT)	ALLOC SDCCH Fail Share of POPT Parent
SHR_ASF_TSLT	SHARE(CSM.ASF OF TSLT.HTSLT PARENT)	ALLOC SDCCH Fail Share of TSLT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
SHR_ASM_POPT	SHARE(CSM.ASM OF POPT.HPOPT PARENT)	Available SDCCH Max Share of POPT Parent
SHR_ASM_TSLT	SHARE(CSM.ASM OF TSLT.HTSLT PARENT)	Available SDCCH Max Share of TSLT Parent
SHR_AT_POPT	SHARE(CSM."AT" OF POPT.HPOPT PARENT)	Alloc Tch Share of POPT Parent
SHR_AT_TSLT	SHARE(CSM."AT" OF TSLT.HTSLT PARENT)	Alloc Tch Share of TSLT Parent
SHR_ATF_POPT	SHARE(CSM.ATF OF POPT.HPOPT PARENT)	Alloc TCH Fail Share of POPT Parent
SHR_ATF_TSLT	SHARE(CSM.ATF OF TSLT.HTSLT PARENT)	Alloc TCH Fail Share of TSLT Parent
SHR_ATM_POPT	SHARE(CSM.ATM OF POPT.HPOPT PARENT)	O INTER BS HO ATM Share of POPT Parent
SHR_ATM_TSLT	SHARE(CSM.ATM OF TSLT.HTSLT PARENT)	O INTER BS HO ATM Share of POPT Parent
SHR_AUDB_POPT	SHARE(CSM.AUDB OF POPT.HPOPT PARENT)	Air UL Data Blks Share of POPT Parent
SHR_AUDB_TSLT	SHARE(CSM.AUDB OF TSLT.HTSLT PARENT)	Air UL Data Blks Share of TSLT Parent
SHR_BSM_POPT	SHARE(CSM.BSM OF POPT.HPOPT PARENT)	Busy SDCCH Max Share of POPT Parent
SHR_BSM_TSLT	SHARE(CSM.BSM OF TSLT.HTSLT PARENT)	Busy SDCCH Max Share of TSLT Parent
SHR_BTM_POPT	SHARE(CSM.BTM OF POPT.HPOPT PARENT)	Busy TCH Max Share of POPT Parent
SHR_BTM_TSLT	SHARE(CSM.BTM OF TSLT.HTSLT PARENT)	Busy TCH Max Share of TSLT Parent
SHR_CCE_POPT	SHARE(CSM.CCE OF POPT.HPOPT PARENT)	Cell Carried Erlangs Share of POPT Parent
SHR_CCE_TSLT	SHARE(CSM.CCE OF TSLT.HTSLT PARENT)	Cell Carried Erlangs Share of TSLT Parent
SHR_CD_POPT	SHARE(CSM.CD OF POPT.HPOPT PARENT)	Call Duration Share of POPT Parent
SHR_CD_TSLT	SHARE(CSM.CD OF TSLT.HTSLT PARENT)	Call Duration Share of TSLT Parent
SHR_CHRR_POPT	SHARE(CSM.CHRR OF POPT.HPOPT PARENT)	Channel Reqs Rec Share of POPT Parent

Table 9-16 (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
SHR_CHRR_TSLT	SHARE(CSM.CHRR OF TSLT.HTSLT PARENT)	Channel Reqs Rec Share of TSLT Parent
SHR_CISC_POPT	SHARE(CSM.CISC OF POPT.HPOPT PARENT)	Congestion In Source Cell Share of POPT Parent
SHR_CISC_TSLT	SHARE(CSM.CISC OF TSLT.HTSLT PARENT)	Congestion In Source Cell Share of TSLT Parent
SHR_CNNTS_POPT	SHARE(CSM.CNNTS OF POPT.HPOPT PARENT)	Connections Share of POPT Parent
SHR_CNNTS_TSLT	SHARE(CSM.CNNTS OF TSLT.HTSLT PARENT)	Connections Share of TSLT Parent
SHR_CONNR_POPT	SHARE(CSM.CONNR OF POPT.HPOPT PARENT)	Connection Refuse Share of POPT Parent
SHR_CONNR_TSLT	SHARE(CSM.CONNR OF TSLT.HTSLT PARENT)	Connection Refuse Share of TSLT Parent
SHR_CR_POPT	SHARE(CSM.CR OF POPT.HPOPT PARENT)	CM Reestablish Share of POPT Parent
SHR_CR_TSLT	SHARE(CSM.CR OF TSLT.HTSLT PARENT)	CM Reestablish Share of TSLT Parent
SHR_CRFR_POPT	SHARE(CSM.CRFR OF POPT.HPOPT PARENT)	CHAN REQ FAIL ROL Share of POPT Parent
SHR_CRFR_TSLT	SHARE(CSM.CRFR OF TSLT.HTSLT PARENT)	CHAN REQ FAIL ROL Share of TSLT Parent
SHR_CRMB_POPT	SHARE(CSM.CRMB OF POPT.HPOPT PARENT)	Chan Req MS Blk Share of POPT Parent
SHR_CRMB_TSLT	SHARE(CSM.CRMB OF TSLT.HTSLT PARENT)	Chan Req MS Blk Share of TSLT Parent
SHR_CRR_POPT	SHARE(CSM.CRR OF POPT.HPOPT PARENT)	Channel Reqs Reject Share of POPT Parent
SHR_CRR_TSLT	SHARE(CSM.CRR OF TSLT.HTSLT PARENT)	Channel Reqs Reject Share of TSLT Parent
SHR_CSRC_POPT	SHARE(CSM.CSRC OF POPT.HPOPT PARENT)	CM Serv Req Call Share of POPT Parent
SHR_CSRC_TSLT	SHARE(CSM.CSRC OF TSLT.HTSLT PARENT)	CM Serv Req Call Share of TSLT Parent
SHR_CSRE_POPT	SHARE(CSM.CSRE OF POPT.HPOPT PARENT)	CM Serv Req Emrg Share of POPT Parent
SHR_CSRE_TSLT	SHARE(CSM.CSRE OF TSLT.HTSLT PARENT)	CM Serv Req Emrg Share of TSLT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
SHR_CSRS_POPT	SHARE(CSM.CSRS OF POPT.HPOPT PARENT)	CM Serv Req SMS Share of POPT Parent
SHR_CSRS_TSLT	SHARE(CSM.CSRS OF TSLT.HTSLT PARENT)	CM Serv Req SMS Share of TSLT Parent
SHR_CSRSP_POPT	SHARE(CSM.CSRSP OF POPT.HPOPT PARENT)	CM Serv Req Supp Share of POPT Parent
SHR_CSRSP_TSLT	SHARE(CSM.CSRSP OF TSLT.HTSLT PARENT)	CM Serv Req Supp Share of TSLT Parent
SHR_DSL_POPT	SHARE(CSM.DSL OF POPT.HPOPT PARENT)	Downlink Signal Level Share of POPT Parent
SHR_DSL_TSLT	SHARE(CSM.DSL OF TSLT.HTSLT PARENT)	Downlink Signal Level Share of TSLT Parent
SHR_DSQ_POPT	SHARE(CSM.DSQ OF POPT.HPOPT PARENT)	Downlink Signal Quality Share of POPT Parent
SHR_DSQ_TSLT	SHARE(CSM.DSQ OF TSLT.HTSLT PARENT)	Downlink Signal Quality Share of TSLT Parent
SHR_EOP_COE_POPT	SHARE(CSM.EOP_COE OF POPT.HPOPT PARENT)	EOP Cell Offered Erlangs Share of POPT Parent
SHR_EOP_COE_TSLT	SHARE(CSM.EOP_COE OF TSLT.HTSLT PARENT)	EOP Cell Offered Erlangs Share of TSLT Parent
SHR_HU_POPT	SHARE(CSM.HU OF POPT.HPOPT PARENT)	Hour Usage Share of POPT Parent
SHR_HU_TSLT	SHARE(CSM.HU OF TSLT.HTSLT PARENT)	Hour Usage Share of TSLT Parent
SHR_ICHA_POPT	SHARE(CSM.ICHA OF POPT.HPOPT PARENT)	Intra Cell HO Atm Share of POPT Parent
SHR_ICHA_TSLT	SHARE(CSM.ICHA OF TSLT.HTSLT PARENT)	Intra Cell HO Atm Share of TSLT Parent
SHR_ICHL_POPT	SHARE(CSM.ICHL OF POPT.HPOPT PARENT)	Intra Cell HO Los Share of POPT Parent
SHR_ICHL_TSLT	SHARE(CSM.ICHL OF TSLT.HTSLT PARENT)	Intra Cell HO Los Share of TSLT Parent
SHR_ICHS_POPT	SHARE(CSM.ICHS OF POPT.HPOPT PARENT)	Intra Cell HO Suc Share of POPT Parent
SHR_ICHS_TSLT	SHARE(CSM.ICHS OF TSLT.HTSLT PARENT)	Intra Cell HO Suc Share of TSLT Parent
SHR_ID_POPT	SHARE(CSM.ID OF POPT.HPOPT PARENT)	IMSI Detach Share of POPT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
SHR_ID_TSLT	SHARE(CSM.ID OF TSLT.HTSLT PARENT)	IMSI Detach Share of TSLT Parent
SHR_IECR_POPT	SHARE(CSM.IECR OF POPT.HPOPT PARENT)	IMSI Detach Share of POPT Parent
SHR_IECR_TSLT	SHARE(CSM.IECR OF TSLT.HTSLT PARENT)	IMSI Detach Share of TSLT Parent
SHR_IERHS_POPT	SHARE(CSM.IERHS OF POPT.HPOPT PARENT)	I Inter BS HO Suc Share of POPT Parent
SHR_IERHS_TSLT	SHARE(CSM.IERHS OF TSLT.HTSLT PARENT)	I Inter BS HO Suc Share of TSLT Parent
SHR_IRAHC_POPT	SHARE(CSM.IRAHC OF POPT.HPOPT PARENT)	I Intra BS HO Suc Share of POPT Parent
SHR_IRAHC_TSLT	SHARE(CSM.IRAHC OF TSLT.HTSLT PARENT)	I Intra BS HO Suc Share of TSLT Parent
SHR_LFRRN_POPT	SHARE(CSM.LFRRN OF POPT.HPOPT PARENT)	LOC FLW REQ NRM Share of POPT Parent
SHR_LFRRN_TSLT	SHARE(CSM.LFRRN OF TSLT.HTSLT PARENT)	LOC FLW REQ NRM Share of TSLT Parent
SHR_LFRS_POPT	SHARE(CSM.LFRS OF POPT.HPOPT PARENT)	Loc Flw Req SMS Share of POPT Parent
SHR_LFRS_TSLT	SHARE(CSM.LFRS OF TSLT.HTSLT PARENT)	Loc Flw Req SMS Share of TSLT Parent
SHR_LS_POPT	SHARE(CSM.LS OF POPT.HPOPT PARENT)	Location Services Share of POPT Parent
SHR_LS_TSLT	SHARE(CSM.LS OF TSLT.HTSLT PARENT)	Location Services Share of TSLT Parent
SHR_LU_POPT	SHARE(CSM.LU OF POPT.HPOPT PARENT)	Location Update Share of POPT Parent
SHR_LU_TSLT	SHARE(CSM.LU OF TSLT.HTSLT PARENT)	Location Update Share of TSLT Parent
SHR_MTLOS_POPT	SHARE(CSM.MTLOS OF POPT.HPOPT PARENT)	MT LCS ON SDDCH Share of POPT Parent
SHR_MTLOS_TSLT	SHARE(CSM.MTLOS OF TSLT.HTSLT PARENT)	MT LCS ON SDDCH Share of TSLT Parent
SHR_NCA_POPT	SHARE(CSM.NCA OF POPT.HPOPT PARENT)	Number Of Call Attempts Share of POPT Parent
SHR_NCA_TSLT	SHARE(CSM.NCA OF TSLT.HTSLT PARENT)	Number Of Call Attempts Share of TSLT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
SHR_NCAWT_POPT	SHARE(CSM.NCAWT OF POPT.HPOPT PARENT)	Num Call Attempts WO Transit Share of POPT Parent
SHR_NCAWT_TSLT	SHARE(CSM.NCAWT OF TSLT.HTSLT PARENT)	Num Call Attempts WO Transit Share of TSLT Parent
SHR_NOC_POPT	SHARE(CSM.NOC OF POPT.HPOPT PARENT)	Number Of Calls Share of POPT Parent
SHR_NOC_TSLT	SHARE(CSM.NOC OF TSLT.HTSLT PARENT)	Number Of Calls Share of TSLT Parent
SHR_NOCE_POPT	SHARE(CSM.NOCE OF POPT.HPOPT PARENT)	Number Of Cells Share of POPT Parent
SHR_NOCE_TSLT	SHARE(CSM.NOCE OF TSLT.HTSLT PARENT)	Number Of Cells Share of TSLT Parent
SHR_OAPSR_POPT	SHARE(CSM.OAPSR OF POPT.HPOPT PARENT)	OK ACC PROC SUC R Share of POPT Parent
SHR_OAPSR_TSLT	SHARE(CSM.OAPSR OF TSLT.HTSLT PARENT)	OK ACC PROC SUC R Share of TSLT Parent
SHR_OEREF_POPT	SHARE(CSM.OEREF OF POPT.HPOPT PARENT)	OK ACC PROC SUC R Share of POPT Parent
SHR_OEREF_TSLT	SHARE(CSM.OEREF OF TSLT.HTSLT PARENT)	OK ACC PROC SUC R Share of TSLT Parent
SHR_OERHA_POPT	SHARE(CSM.OERHA OF POPT.HPOPT PARENT)	O Inter BS HO ATM Share of POPT Parent
SHR_OERHA_TSLT	SHARE(CSM.OERHA OF TSLT.HTSLT PARENT)	O Inter BS HO ATM Share of TSLT Parent
SHR_OERHR_POPT	SHARE(CSM.OERHR OF POPT.HPOPT PARENT)	O INTER BS HO RET ATM Share of POPT Parent
SHR_OERHR_TSLT	SHARE(CSM.OERHR OF TSLT.HTSLT PARENT)	O INTER BS HO RET ATM Share of TSLT Parent
SHR_OERHS_POPT	SHARE(CSM.OERHS OF POPT.HPOPT PARENT)	O INTER BS HO SUC Share of POPT Parent
SHR_OERHS_TSLT	SHARE(CSM.OERHS OF TSLT.HTSLT PARENT)	O INTER BS HO SUC Share of TSLT Parent
SHR_OERRM_POPT	SHARE(CSM.OERRM OF POPT.HPOPT PARENT)	O INTER BS RQ MSC Share of POPT Parent
SHR_OERRM_TSLT	SHARE(CSM.OERRM OF TSLT.HTSLT PARENT)	O INTER BS RQ MSC Share of TSLT Parent
SHR_OHCA_POPT	SHARE(CSM.OHCA OF POPT.HPOPT PARENT)	Out HO Cause Attempts Share of POPT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
SHR_OHCA_TSLT	SHARE(CSM.OHCA OF TSLT.HTSLT PARENT)	Out HO Cause Attempts Share of TSLT Parent
SHR_ORAHA_POPT	SHARE(CSM.ORAHA OF POPT.HPOPT PARENT)	O INTRA BS HO ATM Share of POPT Parent
SHR_ORAHA_TSLT	SHARE(CSM.ORAHA OF TSLT.HTSLT PARENT)	O INTRA BS HO ATM Share of TSLT Parent
SHR_ORAHC_POPT	SHARE(CSM.ORAHC OF POPT.HPOPT PARENT)	O INTRA BS HO CLR Share of POPT Parent
SHR_ORAHC_TSLT	SHARE(CSM.ORAHC OF TSLT.HTSLT PARENT)	O INTRA BS HO CLR Share of TSLT Parent
SHR_ORAHL_POPT	SHARE(CSM.ORAHL OF POPT.HPOPT PARENT)	O INTRA BS HO LOS Share of POPT Parent
SHR_ORAHL_TSLT	SHARE(CSM.ORAHL OF TSLT.HTSLT PARENT)	O INTRA BS HO LOS Share of TSLT Parent
SHR_ORAHS_POPT	SHARE(CSM.ORAHS OF POPT.HPOPT PARENT)	O INTRA BS HO SUC Share of POPT Parent
SHR_ORAHS_TSLT	SHARE(CSM.ORAHS OF TSLT.HTSLT PARENT)	O INTRA BS HO SUC Share of TSLT Parent
SHR_PBSS_POPT	SHARE(CSM.PBSS OF POPT.HPOPT PARENT)	Power Budget Signal Strength Share of POPT Parent
SHR_PBSS_TSLT	SHARE(CSM.PBSS OF TSLT.HTSLT PARENT)	Power Budget Signal Strength Share of TSLT Parent
SHR_PR_POPT	SHARE(CSM.PR OF POPT.HPOPT PARENT)	Power Budget Signal Strength Share of POPT Parent
SHR_PR_TSLT	SHARE(CSM.PR OF TSLT.HTSLT PARENT)	Power Budget Signal Strength Share of TSLT Parent
SHR_PRFM_POPT	SHARE(CSM.PRFM OF POPT.HPOPT PARENT)	Page Req From MSC Share of POPT Parent
SHR_PRFM_TSLT	SHARE(CSM.PRFM OF TSLT.HTSLT PARENT)	Page Req From MSC Share of TSLT Parent
SHR_RLTR_POPT	SHARE(CSM.RLTR OF POPT.HPOPT PARENT)	RF Loss TCH Roll Share of POPT Parent
SHR_RLTR_TSLT	SHARE(CSM.RLTR OF TSLT.HTSLT PARENT)	RF Loss TCH Roll Share of TSLT Parent
SHR_SH_POPT	SHARE(CSM.SH OF POPT.HPOPT PARENT)	ALLOC SDCCH Share of POPT Parent
SHR_SH_TSLT	SHARE(CSM.SH OF TSLT.HTSLT PARENT)	ALLOC SDCCH Share of TSLT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
SHR_SIOS_POPT	SHARE(CSM.SIOS OF POPT.HPOPT PARENT)	SMS INIT on SDCCH Share of POPT Parent
SHR_SIOS_TSLT	SHARE(CSM.SIOS OF TSLT.HTSLT PARENT)	SMS INIT on SDCCH Share of TSLT Parent
SHR_SIOT_POPT	SHARE(CSM.SIOT OF POPT.HPOPT PARENT)	SMS INIT on TCH Share of POPT Parent
SHR_SIOT_TSLT	SHARE(CSM.SIOT OF TSLT.HTSLT PARENT)	SMS INIT on TCH Share of TSLT Parent
SHR_SPM_POPT	SHARE(CSM.SPM OF POPT.HPOPT PARENT)	Spare TCH Max Share of POPT Parent
SHR_SPM_TSLT	SHARE(CSM.SPM OF TSLT.HTSLT PARENT)	Spare TCH Max Share of TSLT Parent
SHR_SSD_POPT	SHARE(CSM.SSD OF POPT.HPOPT PARENT)	Signal Source Distance Share of POPT Parent
SHR_SSD_TSLT	SHARE(CSM.SSD OF TSLT.HTSLT PARENT)	Signal Source Distance Share of TSLT Parent
SHR_SSM_POPT	SHARE(CSM.SSM OF POPT.HPOPT PARENT)	Spare SDCCH Max Share of POPT Parent
SHR_SSM_TSLT	SHARE(CSM.SSM OF TSLT.HTSLT PARENT)	Spare SDCCH Max Share of TSLT Parent
SHR_TCM_POPT	SHARE(CSM.TCM OF POPT.HPOPT PARENT)	Total Call Minutes Share of POPT Parent
SHR_TCM_TSLT	SHARE(CSM.TCM OF TSLT.HTSLT PARENT)	Total Call Minutes Share of TSLT Parent
SHR_TQR_POPT	SHARE(CSM.TQR OF POPT.HPOPT PARENT)	TCH Q Removed Share of POPT Parent
SHR_TQR_TSLT	SHARE(CSM.TQR OF TSLT.HTSLT PARENT)	TCH Q Removed Share of TSLT Parent
SHR_TT_POPT	SHARE(CSM.TT OF POPT.HPOPT PARENT)	Total Traffic Share of POPT Parent
SHR_TT_TSLT	SHARE(CSM.TT OF TSLT.HTSLT PARENT)	Total Traffic Share of TSLT Parent
SHR_USL_POPT	SHARE(CSM.USL OF POPT.HPOPT PARENT)	UPLINK SIGNAL LEVEL Share of POPT Parent
SHR_USL_TSLT	SHARE(CSM.USL OF TSLT.HTSLT PARENT)	Uplink Signal Level Share of TSLT Parent
SHR_USQ_POPT	SHARE(CSM.USQ OF POPT.HPOPT PARENT)	Uplink Signal Quality Share of POPT Parent

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
SHR_USQ_TSLT	SHARE(CSM.USQ OF TSLT.HTSLT PARENT)	Uplink Signal Quality Share of TSLT Parent
SIOS_LP	LAG(CSM.SIOS, 1) OVER HIERARCHY ("TIME".HTBSNS)	SMS INIT on SDCCH Last Period
SIOS_LY	LAG(CSM.SIOS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	SMS INIT on SDCCH Last Year
SIOS_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.SIOS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	SMS INIT on SDCCH % Chnage Last Year
SIOS_YTD	SUM(CSM.SIOS) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	SMS INIT on SDCCH YTD
SIOS_YTD_LY	LAG(CSM.SIOS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sms Init On Sdcch Last Year
SIOS_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.SIOS_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	SMS INIT on SDCCH YTD % Chnage Last Year
SIOT_LP	LAG(CSM.SIOT, 1) OVER HIERARCHY ("TIME".HTBSNS)	SMS INIT on TCH Last Period
SIOT_LY	LAG(CSM.SIOT, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	SMS INIT on TCH Last Year
SIOT_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.SIOT, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	SMS INIT on TCH % Chnage Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
SIOT_YTD	SUM(CSM.SIOT) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	SMS INIT on TCH YTD
SIOT_YTD_LY	LAG(CSM.SIOT_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	SMS INIT on TCH YTD Last Year
SIOT_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.SIOT_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	SMS INIT on TCH YTD % Chnage Last Year
SPM_LP	LAG(CSM.SPM, 1) OVER HIERARCHY ("TIME".HTBSNS)	Spare TCH Max Last Period
SPM_LY	LAG(CSM.SPM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Spare TCH Max Last Year
SPM_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.SPM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Spare TCH Max % Chnage Last Year
SPM_YTD	SUM(CSM.SPM) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Spare TCH Max YTD
SPM_YTD_LY	LAG(CSM.SPM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Spare TCH Max YTD Last Year
SPM_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.SPM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Spare TCH Max YTD % Chnage Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
SSD_LP	LAG(CSM.SSD, 1) OVER HIERARCHY ("TIME".HTBSNS)	Signal Source Distance Last Period
SSD_LY	LAG(CSM.SSD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Signal Source Distance Last Year
SSD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. SSD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Signal Source Distance % Change Last Year
SSD_YTD	SUM(CSM.SSD) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Signal Source Distance YTD
SSD_YTD_LY	LAG(CSM.SSD_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Signal Source Distance YTD Last Year
SSD_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. SSD_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Signal Source Distance YTD % Change Last Year
SSM_LP	LAG(CSM.SSM, 1) OVER HIERARCHY ("TIME".HTBSNS)	Spare SDCCH Max Last Period
SSM_LY	LAG(CSM.SSM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Spare SDCCH Max Last Year
SSM_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. SSM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Spare SDCCH Max % Chnage Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
SSM_YTD	SUM(CSM.SSM) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Spare SDCCH Max YTD
SSM_YTD_LY	LAG(CSM.SSM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Spare SDCCH Max YTD Last Year
SSM_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.SSM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Spare SDCCH Max YTD % Chnage Last Year
TCM_LP	LAG(CSM.TCM, 1) OVER HIERARCHY ("TIME".HTBSNS)	Total Call Minutes Last Period
TCM_LY	LAG(CSM.TCM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Call Minutes Last Year
TCM_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.TCM, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Call Minutes % Chnage Last Year
TCM_YTD	SUM(CSM.TCM) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Total Call Minutes YTD
TCM_YTD_LY	LAG(CSM.TCM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Call Minutes YTD Last Year
TCM_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.TCM_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Call Minutes YTD % Chnage Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
TQR_LP	LAG(CSM.TQR, 1) OVER HIERARCHY ("TIME".HTBSNS)	TCH Q Removed Last Period
TQR_LY	LAG(CSM.TQR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	TCH Q Removed Last Year
TQR_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. TQR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	TCH Q Removed % Chnage Last Year
TQR_YTD	SUM(CSM.TQR) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	TCH Q Removed YTD
TQR_YTD_LY	LAG(CSM.TQR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Tch Q Removed Last Year
TQR_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. TQR_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	TCH Q Removed YTD % Chnage Last Year
TT_FCST	CSM_FCST.TT_FCST	Total Traffic Forecas
TT_LP	LAG(CSM.TT, 1) OVER HIERARCHY ("TIME".HTBSNS)	Total Traffic YTD Last Period
TT_LY	LAG(CSM.TT, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Traffic YTD Last Year
TT_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. TT, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Traffic % Change Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
TT_YTD	SUM(CSM.TT) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Total Traffic YTD
TT_YTD_LY	LAG(CSM.TT_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Traffic YTD Last Year
TT_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.TT_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Traffic YTD % Change Last Year
USL_LP	LAG(CSM.USL, 1) OVER HIERARCHY ("TIME".HTBSNS)	Uplink Signal Level Last Period
USL_LY	LAG(CSM.USL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Uplink Signal Level Last Year
USL_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.USL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Uplink Signal Level % Chnage Last Year
USL_YTD	SUM(CSM.USL) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Uplink Signal Level YTD
USL_YTD_LY	LAG(CSM.USL_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Uplink Signal Level YTD Last Year
USL_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM.USL_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Uplink Signal Level YTD % Chnage Last Year

Table 9-16   (Cont.) Cell Statistic Cube Derived Measures

Physical Name	Definition	Description
USQ_LP	LAG(CSM.USQ, 1) OVER HIERARCHY ("TIME".HTBSNS)	Uplink Signal Quality Last Period
USQ_LY	LAG(CSM.USQ, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Uplink Signal Quality Last Year
USQ_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. USQ, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Uplink Signal Quality % Chnage Last Year
USQ_YTD	SUM(CSM.USQ) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Uplink Signal Quality YTD
USQ_YTD_LY	LAG(CSM.USQ_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Uplink Signal Quality YTD Last Year
USQ_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(CSM. USQ_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Uplink Signal Quality YTD % Chnage Last Year

9.1.5 Commission Cube: CMSN

This cube is to store the received commissions for sales representatives and dealers for the sales of products and services in the given period. There are various ways and criteria to calculate and give commissions. Information about these ways and criteria are maintained in the commission fact. Individual commission break up is not important from the analytical view point. Hence the commission fact maintains the total commission values by time.

Physical Name: CMSN

Dimensions and Load Level

The fact data of Commission Cube will be loaded from the relational schema at these dimension levels(leaf level).

Table 9-17   Commission Cube Dimensions and Load Level

Dimension Name	Load level
Time	Business Month
Product	Product
Commission Type	Commission Type

Aggregation Order/Operator

The Commission Cube will be aggregated by the following order and operators on dimensions

Table 9-18   Commission Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Time	Sum	1
Product	Sum	2
Commission Type	Sum	3

Base Measures

Table 9-19 (page 9-92) shows the base measures for this data cube.

Table 9-19   Commission Cube Base Measures

Physical Name	Logical Name	Physical Column
CA	AGREEMENT ARPU	DWA_CMISN_MO.AGRMNT_ARPU
CAL	AGREEMENT ARPU LOCAL	DWA_CMISN_MO.AGRMNT_ARPU_LCL
CAR	AGREEMENT ARPU REPORTING	DWA_CMISN_MO.AGRMNT_ARPU_RPT
CC	CUSTOMERS COUNT	DWA_CMISN_MO.CUSTS_CNT
TR	TOTAL REVENUE	DWA_CMISN_MO.TOT_RVN
TRL	TOTAL REVENUE LOCAL	DWA_CMISN_MO.TOT_RVN_LCL
TRR	TOTAL REVENUE REPORTING	DWA_CMISN_MO.TOT_RVN_RPT

Derived Measures

Table 9-20 (page 9-93) shows the possible derived measure of this data cube.

Table 9-20   Commission Cube Derived Measures

Physical Name	Definition	Description
CA_LY	LAG(CMSN.CA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Agreement Arpu Last Year
CAL_LY	LAG(CMSN.CAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Agreement Arpu Local Last Year
CAR_LY	LAG(CMSN.CAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Agreement Arpu Reporting Last Year
CC_LY	LAG(CMSN.CC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Customers Count Last Year
TR_LY	LAG(CMSN.TR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Revenue Last Year
TRL_LY	LAG(CMSN.TRL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Revenue Local Last Year
TRR_LY	LAG(CMSN.TRR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Revenue Reporting Last Year

9.1.6 Cost Organizational Cube: COM

This cube is to store aggregated expense information on each business unit inside the carrier. You can use this cube for auditing and budgeting.

Physical Name: COM

Dimensions and Load Level

The fact data of Cost Organizational Cube will be loaded from the relational schema at these dimension levels(leaf level).

Table 9-21   Cost Organizational Cube Dimensions and Load Level

Dimension Name	Load level
Time	Business Month
Organization	Organization Business Unit

Aggregation Order/Operator

The Cost Organizational Cube will be aggregated by the following order and operators on dimensions.

Table 9-22   Cost Organizational Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Time	Sum	1
Organization	Sum	2

Base Measures

Table 9-23 (page 9-94) shows the base measures for this data cube.

Table 9-23   Cost Organizational Cube Base Measures

Physical Name	Logical Name	Physical Column
AC	ADVERTISING COST	DWA_COST_CNTR_MO.ADVR_COST
ACL	ADVERTISING COST LOCAL	DWA_COST_CNTR_MO.ADVR_COST_LCL
ACR	ADVERTISING COST REPORT	DWA_COST_CNTR_MO.ADVR_COST_RPT
CAC	CONTROLLING ATTRITION COST	DWA_COST_CNTR_MO.CONTRLNG_ATTRTN_COST
CACL	CONTROLLING ATTRITION COST LOCAL	DWA_COST_CNTR_MO.CONTRLNG_ATTRTN_COST_LCL
CACR	CONTROLLING ATTRITION COST REPORT	DWA_COST_CNTR_MO.CONTRLNG_ATTRTN_COST_RPT
CB	COST BUDGET	DWA_COST_CNTR_MO.COST_BDGT
CBL	COST BUDGET LOCAL	DWA_COST_CNTR_MO.COST_BDGT_LCL
CBR	COST BUDGET REPORT	DWA_COST_CNTR_MO.COST_BDGT_RPT
IC	INVESTMENT COST	DWA_COST_CNTR_MO.INVSTMNT_COST

Table 9-23 (Cont.) Cost Organizational Cube Base Measures

Physical Name	Logical Name	Physical Column
ICL	INVESTMENT COST LOCAL	DWA_COST_CNTR_MO.INVSTMNT_COST_LCL
ICR	INVESTMENT COST REPORT	DWA_COST_CNTR_MO.INVSTMNT_COST_RPT
OC	OPERATING COST	DWA_COST_CNTR_MO.OPERTNG_COST
OTRC	OTHR COST	DWA_COST_CNTR_MO.OTHR_COST
OTRCL	OTHR COST LOCAL	DWA_COST_CNTR_MO.OTHR_COST_LCL
OTRCR	OTHR COST REPORT	DWA_COST_CNTR_MO.OTHR_COST_RPT
TC	TOTAL COST	DWA_COST_CNTR_MO.TOT_COST
TCL	TOTAL COST LOCAL	DWA_COST_CNTR_MO.TOT_COST_LCL
TCR	TOTAL COST REPORT	DWA_COST_CNTR_MO.TOT_COST_RPT

Derived Measures

Table 9-24 (page 9-95) shows the possible derived measure of this data cube.

Table 9-24 Cost Organizational Cube Derived Measures

Physical Name	Definition	Description
AC_LY	LAG(COM.AC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Advertising Cost Last Year
AC_YTD	SUM(COM.AC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Advertising Cost YTD
AC_YTD_LY	LAG(COM.AC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Advertising Cost YTD Last Year

Table 9-24 (Cont.) Cost Organizational Cube Derived Measures

Physical Name	Definition	Description
ACL_LY	LAG(COM.ACL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Advertising Cost Local Last Year
ACR_LY	LAG(COM.ACR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Advertising Cost Report Last Year
CAC_LY	LAG(COM.CAC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Controlling Attrition Cost Last Year
CACL_LY	LAG(COM.CACL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Controlling Attrition Cost Local Last Year
CACR_LY	LAG(COM.CACR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Controlling Attrition Cost Report Last Year
CB_LY	LAG(COM.CB, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Cost Budget Last Year
CBL_LY	LAG(COM.CBL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Cost Budget Local Last Year
CBR_LY	LAG(COM.CBR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Cost Budget Report Last Year
IC_LY	LAG(COM.IC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Investment Cost Last Year

Table 9-24   (Cont.) Cost Organizational Cube Derived Measures

Physical Name	Definition	Description
IC_YTD	SUM(COM.IC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Investment Cost YTD
IC_YTD_LY	LAG(COM.IC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Investment Cost YTD Last Year
IC_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(COM .IC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Investment Cost YTD % Change Last Year
ICL_LY	LAG(COM.ICL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Investment Cost Local Last Year
ICR_LY	LAG(COM.ICR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Investment Cost Report Last Year
OC_LY	LAG(COM.OC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Operating Cost Last Year
OC_YTD	SUM(COM.OC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Operating Cost YTD
OC_YTD_LY	LAG(COM.OC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Operating Cost YTD Last Year

Table 9-24   (Cont.) Cost Organizational Cube Derived Measures

Physical Name	Definition	Description
OC_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(COM .OC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Operating Cost YTD % Change Last Year
OTRC_LY	LAG(COM.OTRC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Other Cost Last Year
OTRCL_LY	LAG(COM.OTRCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Other Cost Local Last Year
OTRCR_LY	LAG(COM.OTRCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Other Cost Report Last Year
RANK_AC_ORG	RANK() OVER HIERARCHY (ORG.HCHAIN ORDER BY COM.AC DESC NULLS LAST WITHIN PARENT)	Advertising Cost Rank of Organization Parent
RANK_IC_ORG	RANK() OVER HIERARCHY (ORG.HCHAIN ORDER BY COM.IC DESC NULLS LAST WITHIN PARENT)	Investment Cost Rank of Organization Parent
RANK_OC_ORG	RANK() OVER HIERARCHY (ORG.HCHAIN ORDER BY COM.OC DESC NULLS LAST WITHIN PARENT)	Operating Cost Rank of Organization Parent
SHR_AC_ORG	SHARE(COM.AC OF ORG.HCHAIN PARENT)	Advertising Cost Share of Organization Parent
SHR_IC_ORG	SHARE(COM.IC OF ORG.HCHAIN PARENT)	Investment Cost Share of Organization Parent
SHR_OC_ORG	SHARE(COM.OC OF ORG.HCHAIN PARENT)	Operating Cost Share of Organization Parent
TC_LY	LAG(COM.TC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Cost Last Year

Table 9-24   (Cont.) Cost Organizational Cube Derived Measures

Physical Name	Definition	Description
TCL_LY	LAG(COM.TCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Cost Local Last Year
TCR_LY	LAG(COM.TCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Cost Report Last Year

9.1.7 Cost Product Offering Cube: CCM

This cube stores various cost values incurred by the carrier that are important from the analysis point of view such as subscriber acquisition cost, subscriber retention cost, and so on.

Physical Name: CCM

Dimensions and Load Level

The fact data of Cost Product Offering Cube is loaded from the relational schema at these dimension levels (leaf level).

Table 9-25   Cost Product Offering Cube Dimensions and Load Level

Dimension Name	Load level
Time	Business Month
Customer Type	Customer Type
Product Offering	Product Offering

Aggregation Order/Operator

The Cost Product Offering Cube will be aggregated by the following order and operators on dimensions

Table 9-26   Cost Product Offering Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Time	Sum	1
Customer Type	Sum	2
Product Offering	Sum	3

Base Measures

Table 9-27 (page 9-100) shows the base measure for this data cube.

Table 9-27   Cost Product Offering Cube Base Measures

Physical Name	Logical Name	Physical Column
ACA	ACQUISITION COMMISSION AGREEMENT	DWA_CUST_COST_MO.ACQSTN_CMISN_AGRMNT
ACAL	ACQUISITION COMMISSION AGREEMENT LOCAL	DWA_CUST_COST_MO.ACQSTN_CMISN_AGRMNT_LCL
ACAR	ACQUISITION COMMISSION AGREEMENT RPT	DWA_CUST_COST_MO.ACQSTN_CMISN_AGRMNT_RPT
ACP	ACQUISITION COMMISSION PREPAY	DWA_CUST_COST_MO.ACQSTN_CMISN_PREPY
ACPL	ACQUISITION COMMISSION PREPAY LOCAL	DWA_CUST_COST_MO.ACQSTN_CMISN_PREPY_LCL
ACPR	ACQUISITION COMMISSION PREPAY REPORTING	DWA_CUST_COST_MO.ACQSTN_CMISN_PREPY_RPT
AHC	ACQUISITION HANDSET COGS	DWA_CUST_COST_MO.ACQSTN_HNDST_COGS
AHCL	ACQUISITION HANDSET COGS LOCAL	DWA_CUST_COST_MO.ACQSTN_HNDST_COGS_LCL
AHCR	ACQUISITION HANDSET COGS REPORTING	DWA_CUST_COST_MO.ACQSTN_HNDST_COGS_RPT
CA	COMMISSION AMOUNT	DWA_CUST_COST_MO.CMISN_AMT
CAL	COMMISSION AMOUNT LOCAL	DWA_CUST_COST_MO.CMISN_AMT_LCL
CAR	COMMISSION AMOUNT REPORTING	DWA_CUST_COST_MO.CMISN_AMT_RPT
CCC	CALL CENTER COST	DWA_CUST_COST_MO.CALL_CNTR_COST
CCCL	CALL CENTER COST LOCAL	DWA_CUST_COST_MO.CALL_CNTR_COST_LCL
CCCR	CALL CENTER COST REPORTING	DWA_CUST_COST_MO.CALL_CNTR_COST_RPT
IC	INTERCONNECT COST	DWA_CUST_COST_MO.INTCONN_COST
ICL	INTERCONNECT COST LOCAL	DWA_CUST_COST_MO.INTCONN_COST_LCL
ICR	INTERCONNECT COST REPORTING	DWA_CUST_COST_MO.INTCONN_COST_RPT
NC	NETWORK COST	DWA_CUST_COST_MO.NTWK_COST

Table 9-27   (Cont.) Cost Product Offering Cube Base Measures

Physical Name	Logical Name	Physical Column
NCL	NETWORK COST LOCAL	DWA_CUST_COST_MO.NTWK_COST_LCL
NCR	NETWORK COST REPORTING	DWA_CUST_COST_MO.NTWK_COST_RPT
OC	OPERATING COST	DWA_CUST_COST_MO.OPERTNG_COST
OCL	OPERATING COST LOCAL	DWA_CUST_COST_MO.OPERTNG_COST_LCL
OCR	OPERATING COST REPORTING	DWA_CUST_COST_MO.OPERTNG_COST_RPT
RC	REMAINING COST	DWA_CUST_COST_MO.RMNG_COST
RCL	REMAINING COST LCL	DWA_CUST_COST_MO.RMNG_COST_LCL
RCR	REMAINING COST RPT	DWA_CUST_COST_MO.RMNG_COST_RPT
RHC	RETENTION HANDSET COGS	DWA_CUST_COST_MO.RTNTN_HNDST_COGS
RHCL	RETENTION HANDSET COGS LOCAL	DWA_CUST_COST_MO.RTNTN_HNDST_COGS_LCL
RHCR	RETENTION HANDSET COGS REPORTING	DWA_CUST_COST_MO.RTNTN_HNDST_COGS_RPT
SAC	SUBSCRIBER AQUISITION COST	DWA_CUST_COST_MO.SBCRBR_AQSTN_COST
SACL	SUBSCRIBER AQUISITION COST LOCAL	DWA_CUST_COST_MO.SBCRBR_AQSTN_COST_LCL
SACR	SUBSCRIBER AQUISITION COST REPORTING	DWA_CUST_COST_MO.SBCRBR_AQSTN_COST_RPT
SC	SELLING COSTS	DWA_CUST_COST_MO.SLNG_COSTS
SCCA	SIM CARD COST AGREEMENT	DWA_CUST_COST_MO.SIM_CARD_COST_AGRMNT
SCCAL	SIM CARD COST AGREEMENT LOCAL	DWA_CUST_COST_MO.SIM_CARD_COST_AGRMNT_LCL
SCCAR	SIM CARD COST AGREEMENT REPORTING	DWA_CUST_COST_MO.SIM_CARD_COST_AGRMNT_RPT
SCL	SELLING COSTS LOCAL	DWA_CUST_COST_MO.SLNG_COSTS_LCL

Table 9-27 (Cont.) Cost Product Offering Cube Base Measures

Physical Name	Logical Name	Physical Column
SCR	SELLING COSTS REPORTING	DWA_CUST_COST_MO.SLNG_CO STS_RPT
SRC	SUBSCRIBER RETENTION COST	DWA_CUST_COST_MO.SBCRBR_ RTNTN_COST
SRCL	SUBSCRIBER RETENTION COST LOCAL	DWA_CUST_COST_MO.SBCRBR_ RTNTN_COST_LCL
SRCR	SUBSCRIBER RETENTION COST REPORTING	DWA_CUST_COST_MO.SBCRBR_ RTNTN_COST_RPT
URC	USAGE RELATED COST	DWA_CUST_COST_MO.USG_RLT D_COST
URCL	USAGE RELATED COST LOCAL	DWA_CUST_COST_MO.USG_RLT D_COST_LCL
URCR	USAGE RELATED COST REPORT	DWA_CUST_COST_MO.USG_RLT D_COST_RPT

Derived Measures

Table 9-28 (page 9-102) shows the possible derived measure of this data cube.

Table 9-28 Cost Product Offering Derived Measures

Physical Name	Definition	Description
ACA_LY	LAG(CCM.ACA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Acquisition Commission Agreement Last Year
ACAL_LY	LAG(CCM.ACAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Acquisition Commission Agreement Local Last Year
ACAR_LY	LAG(CCM.ACAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Acquisition Commission Agreement Rpt Last Year
ACP_LY	LAG(CCM.ACP, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Acquisition Commission Prepay Last Year

Table 9-28   (Cont.) Cost Product Offering Derived Measures

Physical Name	Definition	Description
ACPL_LY	LAG(CCM.ACPL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Acquisition Commission Prepay Local Last Year
ACPR_LY	LAG(CCM.ACPR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Acquisition Commission Prepay Reporting Last Year
AHC_LY	LAG(CCM.AHC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Acquisition Handset Cogs Last Year
AHCL_LY	LAG(CCM.AHCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Acquisition Handset Cogs Local Last Year
AHCR_LY	LAG(CCM.AHCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Acquisition Handset Cogs Reporting Last Year
CA_LY	LAG(CCM.CA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Commission Amount Last Year
CAL_LY	LAG(CCM.CAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Commission Amount Local Last Year
CAR_LY	LAG(CCM.CAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Commission Amount Reporting Last Year
CCC_LY	LAG(CCM.CCC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Call Center Cost Last Year

Table 9-28   (Cont.) Cost Product Offering Derived Measures

Physical Name	Definition	Description
CCCL_LY	LAG(CCM.CCCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Call Center Cost Local Last Year
CCCR_LY	LAG(CCM.CCCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Call Center Cost Reporting Last Year
IC_LY	LAG(CCM.IC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Interconnect Cost Last Year
ICL_LY	LAG(CCM.ICL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Interconnect Cost Local Last Year
ICR_LY	LAG(CCM.ICR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Interconnect Cost Reporting Last Year
NC_LY	LAG(CCM.NC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Network Cost Last Year
NCL_LY	LAG(CCM.NCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Network Cost Local Last Year
NCR_LY	LAG(CCM.NCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Network Cost Reporting Last Year
OC_LY	LAG(CCM.OC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Operating Cost Last Year

Table 9-28   (Cont.) Cost Product Offering Derived Measures

Physical Name	Definition	Description
OCL_LY	LAG(CCM.OCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Operating Cost Local Last Year
OCR_LY	LAG(CCM.OCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Operating Cost Reporting Last Year
RC_LY	LAG(CCM.RC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Remaining Cost Last Year
RCL_LY	LAG(CCM.RCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Remaining Cost Lcl Last Year
RCR_LY	LAG(CCM.RCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Remaining Cost Rpt Last Year
RHC_LY	LAG(CCM.RHC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Retention Handset Cogs Last Year
RHCL_LY	LAG(CCM.RHCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Retention Handset Cogs Local Last Year
RHCR_LY	LAG(CCM.RHCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Retention Handset Cogs Reporting Last Year
SAC_LY	LAG(CCM.SAC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Subscriber Aquisition Cost Last Year

Table 9-28   (Cont.) Cost Product Offering Derived Measures

Physical Name	Definition	Description
SACL_LY	LAG(CCM.SACL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Subscriber Aquisition Cost Local Last Year
SACR_LY	LAG(CCM.SACR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Subscriber Aquisition Cost Reporting Last Year
SC_LY	LAG(CCM.SC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Selling Costs Last Year
SCCA_LY	LAG(CCM.SCCA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sim Card Cost Agreement Last Year
SCCAL_LY	LAG(CCM.SCCAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sim Card Cost Agreement Local Last Year
SCCAR_LY	LAG(CCM.SCCAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sim Card Cost Agreement Reporting Last Year
SCL_LY	LAG(CCM.SCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Selling Costs Local Last Year
SCR_LY	LAG(CCM.SCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Selling Costs Reporting Last Year
SRC_LY	LAG(CCM.SRC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Subscriber Retention Cost Last Year

Table 9-28   (Cont.) Cost Product Offering Derived Measures

Physical Name	Definition	Description
SRCL_LY	LAG(CCM.SRCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Subscriber Retention Cost Local Last Year
SRCR_LY	LAG(CCM.SRCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Subscriber Retention Cost Reporting Last Year
URC_LY	LAG(CCM.URC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Usage Related Cost Last Year
URCL_LY	LAG(CCM.URCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Usage Related Cost Local Last Year
URCR_LY	LAG(CCM.URCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Usage Related Cost Report Last Year

9.1.8 Customer Acquisition Cube: ACM

Customer count summary for each month and product.

Physical Name: ACM

Dimensions and Load Level

The fact data of Customer Acquisition Cube will be loaded from the relational schema at these dimension levels(leaf level).

Table 9-29   Customer Acquisition Cube Dimensions and Load Level

Dimension Name	Load level
Time	Business Month
Customer Type	Customer Type
Product	Product
Product Offering	Product Offering
Geography	County

Aggregation Order/Operator

The Customer Acquisition Cube will be aggregated by the following order and operators on dimensions.

Table 9-30   Customer Acquisition Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Time	Sum	1
Customer Type	Sum	2
Product	Sum	3
Product Offering	Sum	4
Geography	Sum	5

Base Measures

Table 9-31 (page 9-108) shows the base measure for this data cube.

Table 9-31   Customer Acquisition Cube Base Measures

Physical Name	Logical Name	Physical Column
AAC	ACTUAL ACQUISITION COUNT	DWA_CUST_ACQSTN_SUMM_MO.ACT_ACQSTN_CNT
ADC	ACTUAL DEACTIVATIONS COUNT	DWA_CUST_ACQSTN_SUMM_MO.ACT_DEACTVTNS_CNT
ARC	ACTUAL REACTIVATIONS COUNT	DWA_CUST_ACQSTN_SUMM_MO.ACT_REACTVTNS_CNT
ARLDC	ACTUAL RELOAD COUNT	DWA_CUST_ACQSTN_SUMM_MO.ACT_RELOAD_CNT
ARVN	ACTUAL REVENUE	DWA_CUST_ACQSTN_SUMM_MO.ACT_RVN
PAC	PLANNED ACQUISITION COUNT	DWA_CUST_ACQSTN_SUMM_MO.PLND_ACQSTN_CNT
PDC	PLANNED DEACTIVATIONS COUNT	DWA_CUST_ACQSTN_SUMM_MO.PLND_DEACTVTNS_CNT
PRC	PLANNED REACTIVATIONS COUNT	DWA_CUST_ACQSTN_SUMM_MO.PLND_REACTVTNS_CNT
PRLDC	PLANNED RELOAD COUNT	DWA_CUST_ACQSTN_SUMM_MO.PLND_RELOAD_CNT
PRVN	PLANNED REVENUE	DWA_CUST_ACQSTN_SUMM_MO.PLND_RVN

Derived Measures

Table 9-32 (page 9-109) shows the derived measures for this data cube.

Table 9-32   Customer Acquisition Cube Derived Measures

Physical Name	Definition	Description
AAC_FCST	ACM_FCST.AAC_FCST	Actual Acquisition Count Forecast
AAC_LP	LAG(ACM.AAC, 1) OVER HIERARCHY ("TIME".HTBSNS)	Actual Acquisition Count Last Period
AAC_LY	LAG(ACM.AAC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Acquisition Count Last Year
AAC_YTD	SUM(ACM.AAC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Actual Acquisition Count YTD
AAC_YTD_LY	LAG(ACM.AAC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Acquisition Count YTD Last Year
AAC_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(ACM.AAC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Acquisition Count YTD % Change Last Year
ADC_LP	LAG(ACM.ADC, 1) OVER HIERARCHY ("TIME".HTBSNS)	Actual Deactivation Count Last Period
ADC_LY	LAG(ACM.ADC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Deactivation Count Last Year
ADC_YTD	SUM(ACM.ADC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Actual Deactivation Count YTD
ADC_YTD_LY	LAG(ACM.ADC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Deactivation Count YTD Last Year

Table 9-32 (Cont.) Customer Acquisition Cube Derived Measures

Physical Name	Definition	Description
ADC_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(ACM.ADC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Deactivation Count YTD % change Last Year
ARC_LP	LAG(ACM.ARC, 1) OVER HIERARCHY ("TIME".HTBSNS)	Actual Reactivation Count Last Period
ARC_LY	LAG(ACM.ARC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Reactivation Count Last Year
ARC_YTD	SUM(ACM.ARC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Actual Reactivation Count YTD
ARC_YTD_LY	LAG(ACM.ARC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Reactivation Count YTD Last Year
ARC_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(ACM.ARC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Reactivation Count YTD % Change Last Year
ARLDC_LP	LAG(ACM.ARLDC, 1) OVER HIERARCHY ("TIME".HTBSNS)	Actual Reload Count Last Period
ARLDC_LY	LAG(ACM.ARLDC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Reload Count Last Year
ARLDC_YTD	SUM(ACM.ARLDC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Actual Reload Count YTD

Table 9-32 (Cont.) Customer Acquisition Cube Derived Measures

Physical Name	Definition	Description
ARLDC_YTD_LY	LAG(ACM.ARLDC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Reload Count YTD Last Year
ARLDC_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(ACM .ARLDC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Reload Count YTD % Change Last Year
ARVN_LP	LAG(ACM.ARVN, 1) OVER HIERARCHY ("TIME".HTBSNS)	Actual Reload Count Last Period
ARVN_LY	LAG(ACM.ARVN, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Reload Count Last Year
ARVN_YTD	SUM(ACM.ARVN) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Actual Revenue YTD
ARVN_YTD_LY	LAG(ACM.ARVN_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Reload Count YTD Last Year
ARVN_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(ACM .ARVN_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Actual Reload Count YTD % Change Last Year
PAC_LP	LAG(ACM.PAC, 1) OVER HIERARCHY ("TIME".HTBSNS)	Planned Acquisition Count Last Period
PAC_LY	LAG(ACM.PAC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Planned Acquisition Count Last Year

Table 9-32   (Cont.) Customer Acquisition Cube Derived Measures

Physical Name	Definition	Description
PAC_YTD	SUM(ACM.PAC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Planned Acquisition Count YTD
PAC_YTD_LY	LAG(ACM.PAC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Planned Acquisition Count YTD Last Year
PAC_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(ACM.PAC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Planned Acquisition Count YTD % Change Last Year
PDC_LP	LAG(ACM.PDC, 1) OVER HIERARCHY ("TIME".HTBSNS)	Planned Deactivations Count Last Period
PDC_LY	LAG(ACM.PDC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Planned Deactivations Count Last Year
PDC_YTD	SUM(ACM.PDC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Planned Deactivations Count YTD
PDC_YTD_LY	LAG(ACM.PDC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Planned Deactivations Count YTD Last Year
PDC_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(ACM.PDC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Planned Deactivations Count YTD % change Last Year
PRC_LP	LAG(ACM.PRC, 1) OVER HIERARCHY ("TIME".HTBSNS)	Planned Reactivations Count Last Period

Table 9-32   (Cont.) Customer Acquisition Cube Derived Measures

Physical Name	Definition	Description
PRC_LY	LAG(ACM.PRC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Planned Reactivations Count Last Year
PRC_YTD	SUM(ACM.PRC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Planned Reactivations Count YTD
PRC_YTD_LY	LAG(ACM.PRC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Planned Reactivations Count YTD Last Year
PRC_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(ACM .PRC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Planned Reactivations Count YTD % Change Last Year
PRLDC_LP	LAG(ACM.PRLDC, 1) OVER HIERARCHY ("TIME".HTBSNS)	Planned Reload Count Last Period
PRLDC_LY	LAG(ACM.PRLDC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Planned Reload Count Last Year
PRLDC_YTD	SUM(ACM.PRLDC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Planned Reload Count YTD
PRLDC_YTD_LY	LAG(ACM.PRLDC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Planned Reload Count YTD Last Year
PRLDC_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(ACM .PRLDC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Planned Reload Count YTD % Change Last Year

Table 9-32   (Cont.) Customer Acquisition Cube Derived Measures

Physical Name	Definition	Description
PRVN_LP	LAG(ACM.PRVN, 1) OVER HIERARCHY ("TIME".HTBSNS)	Planned Revenue Last Period
PRVN_LY	LAG(ACM.PRVN, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Planned Revenue Last Year
PRVN_YTD	SUM(ACM.PRVN) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Planned Revenue YTD
PRVN_YTD_LY	LAG(ACM.PRVN_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Planned Revenue YTD Last Year
PRVN_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(ACM.PRVN_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Planned Revenue YTD % Change Last Year
RANK_AAC_CUSTYP	RANK() OVER HIERARCHY (CUSTYP.HCUSTYP ORDER BY ACM.AAC DESC NULLS LAST WITHIN PARENT)	Actual Acquisition Count Rank of Customer Type Parent
RANK_AAC_GEO	RANK() OVER HIERARCHY (GEO.HGEO ORDER BY ACM.AAC DESC NULLS LAST WITHIN PARENT)	Actual Acquisition Count Rank of Geography Parent
RANK_ADC_CUSTYP	RANK() OVER HIERARCHY (CUSTYP.HCUSTYP ORDER BY ACM.ADC DESC NULLS LAST WITHIN PARENT)	Actual Deactivation Count Rank of CUSTYP Parent
RANK_ADC_GEO	RANK() OVER HIERARCHY (GEO.HGEO ORDER BY ACM.ADC DESC NULLS LAST WITHIN PARENT)	Actual Deactivation Count Rank of Geography Parent
RANK_ARC_CUSTYP	RANK() OVER HIERARCHY (CUSTYP.HCUSTYP ORDER BY ACM.ARC DESC NULLS LAST WITHIN PARENT)	Actual Reactivation Count Rank of CUSTYP Parent

Table 9-32   (Cont.) Customer Acquisition Cube Derived Measures

Physical Name	Definition	Description
RANK_ARC_GEO	RANK() OVER HIERARCHY (GEO.HGEO ORDER BY ACM.ARC DESC NULLS LAST WITHIN PARENT)	Actual Reactivation Count Rank of Geography Parent
RANK_ARLDC_CUSTYP	RANK() OVER HIERARCHY (CUSTYP.HCUSTYP ORDER BY ACM.ARLDC DESC NULLS LAST WITHIN PARENT)	Actual Reload Count Rank of CUSTYP Parent
RANK_ARLDC_GEO	RANK() OVER HIERARCHY (GEO.HGEO ORDER BY ACM.ARLDC DESC NULLS LAST WITHIN PARENT)	Actual Reload Count Rank of Geography Parent
RANK_ARVN_CUSTYP	RANK() OVER HIERARCHY (CUSTYP.HCUSTYP ORDER BY ACM.ARVN DESC NULLS LAST WITHIN PARENT)	Actual Reload Count Rank of CUSTYP Parent
RANK_ARVN_GEO	RANK() OVER HIERARCHY (GEO.HGEO ORDER BY ACM.ARVN DESC NULLS LAST WITHIN PARENT)	Actual Reload Count Rank of Geography Parent
RANK_PAC_CUSTYP	RANK() OVER HIERARCHY (CUSTYP.HCUSTYP ORDER BY ACM.PAC DESC NULLS LAST WITHIN PARENT)	Planned Acquisition Count Rank of CUSTYP Parent
RANK_PAC_GEO	RANK() OVER HIERARCHY (GEO.HGEO ORDER BY ACM.PAC DESC NULLS LAST WITHIN PARENT)	Planned Acquisition Count Rank of Geography Parent
RANK_PDC_CUSTYP	RANK() OVER HIERARCHY (CUSTYP.HCUSTYP ORDER BY ACM.PDC DESC NULLS LAST WITHIN PARENT)	Planned Deactivations Count Rank of CUSTYP Parent
RANK_PDC_GEO	RANK() OVER HIERARCHY (GEO.HGEO ORDER BY ACM.PDC DESC NULLS LAST WITHIN PARENT)	Planned Deactivations Count Rank of Geography Parent
RANK_PRC_CUSTYP	RANK() OVER HIERARCHY (CUSTYP.HCUSTYP ORDER BY ACM.PRC DESC NULLS LAST WITHIN PARENT)	Planned Reactivations Count Rank of CUSTYP Parent
RANK_PRC_GEO	RANK() OVER HIERARCHY (GEO.HGEO ORDER BY ACM.PRC DESC NULLS LAST WITHIN PARENT)	Planned Reactivations Count Rank of Geography Parent

Table 9-32   (Cont.) Customer Acquisition Cube Derived Measures

Physical Name	Definition	Description
RANK_PRLDC_CUSTYP	RANK() OVER HIERARCHY (CUSTYP.HCUSTYP ORDER BY ACM.PRLDC DESC NULLS LAST WITHIN PARENT)	Planned Reload Count Rank of CUSTYP Parent
RANK_PRLDC_GEO	RANK() OVER HIERARCHY (GEO.HGEO ORDER BY ACM.PRLDC DESC NULLS LAST WITHIN PARENT)	Planned Reload Count Rank of Geography Parent
RANK_PRVN_CUSTYP	RANK() OVER HIERARCHY (CUSTYP.HCUSTYP ORDER BY ACM.PRVN DESC NULLS LAST WITHIN PARENT)	Planned Revenue Rank of CUSTYP Parent
RANK_PRVN_GEO	RANK() OVER HIERARCHY (GEO.HGEO ORDER BY ACM.PRVN DESC NULLS LAST WITHIN PARENT)	Planned Revenue Rank of Geography Parent
SHR_AAC_CUSTYP	SHARE(ACM.AAC OF CUSTYP.HCUSTYP PARENT)	Actual Acquisition Count Share of Customer Type Parent
SHR_AAC_GEO	SHARE(ACM.AAC OF GEO.HGEO PARENT)	Actual Acquisition Count Share of Geography Parent
SHR_ADC_CUSTYP	SHARE(ACM.ADC OF CUSTYP.HCUSTYP PARENT)	Actual Deactivation Count Share of CUSTYP Parent
SHR_ADC_GEO	SHARE(ACM.ADC OF GEO.HGEO PARENT)	Actual Deactivation Count Share of Geography Parent
SHR_ARC_CUSTYP	SHARE(ACM.ARC OF CUSTYP.HCUSTYP PARENT)	Actual Reactivation Count Share of CUSTYP Parent
SHR_ARC_GEO	SHARE(ACM.ARC OF GEO.HGEO PARENT)	Actual Reactivation Count Share of Geography Parent
SHR_ARLDC_CUSTYP	SHARE(ACM.ARLDC OF CUSTYP.HCUSTYP PARENT)	Actual Reload Count Share of CUSTYP Parent
SHR_ARLDC_GEO	SHARE(ACM.ARLDC OF GEO.HGEO PARENT)	Actual Reload Count Share of Geography Parent
SHR_ARVN_CUSTYP	SHARE(ACM.ARVN OF CUSTYP.HCUSTYP PARENT)	Actual Reload Count Share of CUSTYP Parent
SHR_ARVN_GEO	SHARE(ACM.ARVN OF GEO.HGEO PARENT)	Actual Reload Count Share of Geography Parent
SHR_PAC_CUSTYP	SHARE(ACM.PAC OF CUSTYP.HCUSTYP PARENT)	Planned Acquisition Count Share of CUSTYP Parent
SHR_PAC_GEO	SHARE(ACM.PAC OF GEO.HGEO PARENT)	Planned Acquisition Count Share of Geography Parent

Table 9-32   (Cont.) Customer Acquisition Cube Derived Measures

Physical Name	Definition	Description
SHR_PDC_CUSTYP	SHARE(ACM.PDC OF CUSTYP.HCUSTYP PARENT)	Planned Deactivations Count Share of CUSTYP Parent
SHR_PDC_GEO	SHARE(ACM.PDC OF GEO.HGEO PARENT)	Planned Deactivations Count Share of Geography Parent
SHR_PRC_CUSTYP	SHARE(ACM.PRC OF CUSTYP.HCUSTYP PARENT)	Planned Reactivations Count Share of CUSTYP Parent
SHR_PRC_GEO	SHARE(ACM.PRC OF GEO.HGEO PARENT)	Planned Reactivations Count Share of Geography Parent
SHR_PRLDC_CUSTYP	SHARE(ACM.PRLDC OF CUSTYP.HCUSTYP PARENT)	Planned Reload Count Share of CUSTYP Parent
SHR_PRLDC_GEO	SHARE(ACM.PRLDC OF GEO.HGEO PARENT)	Planned Reload Count Share of Geography Parent
SHR_PRVN_CUSTYP	SHARE(ACM.PRVN OF CUSTYP.HCUSTYP PARENT)	Planned Revenue Share of CUSTYP Parent
SHR_PRVN_GEO	SHARE(ACM.PRVN OF GEO.HGEO PARENT)	Planned Revenue Share of Geography Parent

9.1.9 Inventory Cube: INV

This cube contains Inventory measures.

Physical Name: INV

Dimensionality

The Inventory Cube is loaded from the relational schema at these dimension levels.

Inventory Cube Dimensions

Dimension Number	OLAP Dimension	OLAP Dimension Type
1	Organization: ORGANIZATION	STANDARD
2	Product: PRODUCT	STANDARD
3	Time: TIME	TIME

Aggregation, Load Information

Inventory Cube Aggregation, Load Information

Order	OLAP Dimension	Operator	Aggregate from Level
1	Organization: ORGANIZATION	SUM	Default

Order	OLAP Dimension	Operator	Aggregate from Level
2	Product: PRODUCT	SUM	Default
3	Time: TIME	SUM	Default

Base Measures with Description, Logical Name and Mapping Expression

Inventory Cube Base Measures

Physical Name	Logical Name	Mapping Expression
SR1	*** do not use *** SOH Value (Retail)	DWD_INV_POSN_ITEM_DAY.STCK_ON_HND_RTL_AMT
SU1	*** do not use *** SOH Units	DWD_INV_POSN_ITEM_DAY.STCK_ON_HND_QTY
SV1	*** do not use *** SOH Value (Cost)	DWD_INV_POSN_ITEM_DAY.STCK_ON_HND_BASE_COST_AMT

Derived Measure with Description, Logical Name and Expression / Calculation

Inventory Cube Derived Measures

Physical Name	Expression or Calculation	Description
BOP_SR	OLAP_DML_EXPRESSION('INV_SR1(time_day if time_day_levelrel eq ''DAY'' then time_day else statlast(limit(time_day to bottomdescendants using time_day_parentrel time_day(time_day time_day))))', NUMBER)	BOP SOH Value (Retail)
BOP_SU	OLAP_DML_EXPRESSION('INV_SU1(time_day if time_day_levelrel eq ''DAY'' then time_day else statlast(limit(time_day to bottomdescendants using time_day_parentrel time_day(time_day time_day))))', NUMBER)	BOP SOH Units
BOP_SV	OLAP_DML_EXPRESSION('INV_SV1(time_day if time_day_levelrel eq ''DAY'' then time_day else statlast(limit(time_day to bottomdescendants using time_day_parentrel time_day(time_day time_day))))', NUMBER)	BOP SOH Value (Cost)

Physical Name	Expression or Calculation	Description
EOP_SR	OLAP_DML_EXPRESSION('INV_S R1(time_day if time_day_levelrel eq ''DAY'' then time_day else statlast(limit(time_day to bottomdescendants using time_day_parentrel time_day(time_day time_day))))', NUMBER)	EOP SOH Value (Retail)
EOP_SR_LY	LAG(INV.EOP_SR, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP SOH Value (Retail) Last Year
EOP_SR_LY_CHG	LAG_VARIANCE(INV.EOP_SR_LY , 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP SOH Value (Retail) Change Last Year
EOP_SR_LY_PCT_CHG	LAG_VARIANCE_PERCENT(INV. EOP_SR, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP SOH Value (Retail) % Change Last Year
EOP_SU	OLAP_DML_EXPRESSION('INV_S U1(time_day if time_day_levelrel eq ''DAY'' then time_day else statlast(limit(time_day to bottomdescendants using time_day_parentrel time_day(time_day time_day))))', NUMBER)	EOP SOH Units
EOP_SU_LY	LAG(INV.EOP_SU, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP SOH Units Last Year
EOP_SU_LY_CHG	LAG_VARIANCE(INV.EOP_SU_L Y, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP SOH Units Change Last Year
EOP_SU_LY_PCT_CHG	LAG_VARIANCE_PERCENT(INV. EOP_SU, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP SOH Units % Change Last Year

Physical Name	Expression or Calculation	Description
EOP_SV	OLAP_DML_EXPRESSION('INV_SV1(time_day if time_day_levelrel eq "DAY" then time_day else statlast(limit(time_day to bottomdescendants using time_day_parentrel time_day(time_day time_day))))', NUMBER)	EOP SOH Value (Cost)
EOP_SV_LY	LAG(INV.EOP_SV, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP SOH Value (Cost) Last Year
EOP_SV_LY_CHG	LAG_VARIANCE(INV.EOP_SV_LY, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP SOH Value (Cost) Change Last Year
EOP_SV_LY_PCT_CHG	LAG_VARIANCE_PERCENT(INV.EOP_SV, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP SOH Value (Cost) % Change Last Year
HOW_IS_EOP_SR_G_YOY	OLAP_DML_EXPRESSION('if inv_eop_sr_ly_pct_chg gt .15 then "GOOD" else if inv_eop_sr_ly_pct_chg lt .05 then "ALERT" else "MODERATE"', VARCHAR2 (60))	How is EOP SOH Value (Retail) Growth YoY
HOW_IS_EOP_SU_G_YOY	OLAP_DML_EXPRESSION('if inv_eop_su_ly_pct_chg gt .15 then "GOOD" else if inv_eop_su_ly_pct_chg lt .05 then "ALERT" else "MODERATE"', VARCHAR2 (60))	How is EOP SOH Units Growth YoY
HOW_IS_EOP_SV_G_YOY	OLAP_DML_EXPRESSION('if inv_eop_sv_ly_pct_chg gt .15 then "GOOD" else if inv_eop_sv_ly_pct_chg lt .05 then "ALERT" else "MODERATE"', VARCHAR2 (60))	How is EOP SOH Value (Cost) Growth YoY

9.1.10 Inventory Forecast Cube: INV_FCST

This Cube contains the Inventory Forecast related measures.

Physical Name: INV_FCST

Dimensionality

The Inventory Forecast Cube is NOT loaded from the relational schema. Data for this cube is generated by the OLAP Forecast process.

Inventory Forecast Cube Dimensions

Dimension Number	OLAP Dimension	OLAP Dimension Type
1	Organization: ORGANIZATION	STANDARD
2	Product: PRODUCT	STANDARD
3	Time: TIME	TIME

Aggregation, Load Information

Inventory Forecast Cube Aggregation, Load Information

OLAP Cube	Order	OLAP Dimension	Operator	Aggregate from Level
Inventory Forecast Cube: INV_FCST	1	Organization: ORGANIZATION	SUM	Default
Inventory Forecast Cube: INV_FCST	2	Product: PRODUCT	SUM	Default
Inventory Forecast Cube: INV_FCST	3	Time: TIME	SUM	Default

Base Measures with Description, Logical Name and Mapping Expression

Inventory Forecast Cube Base Measures

Cube Name	Physical Name	Logical Name	Mapping Expression
Inventory Forecast Cube: INV_FCST	SR_FCST	SOH Value (Retail) Forecast	NULL
Inventory Forecast Cube: INV_FCST	SU_FCST	SOH Units Forecast	NULL
Inventory Forecast Cube: INV_FCST	SV_FCST	SOH Value (Cost) Forecast	NULL

Derived Measure with Description, Logical Name and Expression / Calculation

Inventory Forecast Cube Derived Measures

Physical Name	Expression or Calculation	Description
EOP_SR_FCST	OLAP_DML_EXPRESSION('INV_FCST_SR_FCST(time_day if time_day_levelrel eq ''BSNS_YR'' then time_day else statlast(limit(time_day to bottomdescendants using time_day_parentrel time_day(time_day time_day))))', NUMBER)	EOP SOH Value (Retail) Forecast
EOP_SU_FCST	OLAP_DML_EXPRESSION('INV_FCST_SU_FCST(time_day if time_day_levelrel eq ''BSNS_YR'' then time_day else statlast(limit(time_day to bottomdescendants using time_day_parentrel time_day(time_day time_day))))', NUMBER)	EOP SOH Units Forecast
EOP_SV_FCST	OLAP_DML_EXPRESSION('INV_FCST_SV_FCST(time_day if time_day_levelrel eq ''DAY'' then time_day else statlast(limit(time_day to bottomdescendants using time_day_parentrel time_day(time_day time_day))))', NUMBER)	EOP SOH Value (Cost) Forecast

9.1.11 Inventory Forecast Statistic Cube: INV_FCST_STTSTC

This Cube contains Inventory Forecast Statistics related Measures.

Physical Name: INV_FCST_STTSTC

Dimensionality

The Inventory ForecastStatistics Cube is NOT loaded from the relational schema. Data for this cube is generated by the OLAP Forecast process.

Inventory Forecast Statistics Cube Dimensions

Dimension Number	OLAP Dimension	OLAP Dimension Type
1	Organization: ORGANIZATION	STANDARD
2	Product: PRODUCT	STANDARD
3	Time: TIME	TIME

Aggregation, Load Information

Inventory Forecast Statistics Cube Aggregation, Load Information

Order	OLAP Dimension	Operator	Aggregate from Level
1	Organization: ORGANIZATION	Non-Additive (Do not summarize)	Default
2	Product: PRODUCT	Non-Additive (Do not summarize)	Default
3	Time: TIME	Non-Additive (Do not summarize)	Default

Base Measures with Description, Logical Name and Mapping Expression

Inventory Forecast Statistics Cube Base Measures

Physical Name	Logical Name	Mapping Expression
SR_STTSTC	SOH Value (Retail) Forecast Statistic	NULL
SU_STTSTC	SOH Units Forecast Statistic	NULL
SV_STTSTC	SOH Value (Cost) Forecast Statistic	NULL

Derived Measure with Description, Logical Name and Expression / Calculation

Inventory Forecast Statistics Cube Derived Measures

Cube Name	Physical Name	Logical Name	Expression / Calculation
-	-	-	-

9.1.12 Invoice Adjustment Cube: IAM

This cube is to store all adjustment made on the invoices. In current design, Adjustment ID & Invoices code serve the primary, therefore, 1 adjustment could make change to multiple invoices.

Physical Name: IAM

Dimensions and Load Level

The fact data of Invoice Adjustment Cube will be loaded from the relational schema at these dimension levels(leaf level).

Table 9-33   Invoice Adjustment Cube Dimensions and Load Level

Dimension Name	Load level
Time	Business Month
Customer Type	Customer Type
Invoice Adjustment Reason	Invoice Adjustment Reason
Invoice Adjustment Type	Invoice Adjustment Type

Table 9-33   (Cont.) Invoice Adjustment Cube Dimensions and Load Level

Dimension Name	Load level
Promotion	Promotion
Product	Product
Organization	Organization Business Unit
Geography	County

Aggregation Order/Operator

The Invoice Adjustment Cube will be aggregated by the following order and operators on dimensions.

Table 9-34   Invoice Adjustment Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Time	Sum	1
Customer Type	Sum	2
Invoice Adjustment Reason	Sum	3
Invoice Adjustment Type	Sum	4
Promotion	Sum	5
Product	Sum	6
Organization	Sum	7
Geography	Sum	8

Base Measures

Table 9-35 (page 9-124) shows the base measures for this data cube.

Table 9-35   Invoice Adjustment Cube Base Measures

Physical Name	Logical Name	Physical Column
AA	ADJUSTMENT AMOUNT	DWA_INVC_ADJ_MO.ADJ_AMT
AAL	ADJUSTMENT AMOUNT LOCAL	DWA_INVC_ADJ_MO.ADJ_AMT_LCL
AAR	ADJUSTMENT AMOUNT REPORTING	DWA_INVC_ADJ_MO.ADJ_AMT_RPT
AC	ADJUSTMENT COUNT	DWA_INVC_ADJ_MO.ADJ_CNT

Derived Measures

Table 9-36 (page 9-125) shows the possible derived measure of this data cube.

Table 9-36   Invoice Adjustment Cube Derived Measures

Physical Name	Definition	Description
AA_LY	LAG(IAM.AA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Adjustment Amount Last Year
AA_YTD	SUM(IAM.AA) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Adjustment Amount YTD
AA_YTD_LY	LAG(IAM.AA_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Adjustment Amount YTD Last Year
AAL_LY	LAG(IAM.AAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Adjustment Amount Local Last Year
AAR_LY	LAG(IAM.AAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Adjustment Amount Reporting Last Year
AC_LY	LAG(IAM.AC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Adjustment Count Last Year
AC_YTD	SUM(IAM.AC) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Adjustment Count YTD
AC_YTD_LY	LAG(IAM.AC_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Adjustment Count YTD Last Year

9.1.13 Invoice Customer Type Cube: INVCM

Post paid customers are billed or invoiced for the usage of services on monthly basis. That is, bill for every subscriber based on his package, category, and usage is calculated, printed and sent to the customer account address for payment.

Physical Name: INVCM

Dimensions and Load Level

The fact data of Invoice Customer Type Cube will be loaded from the relational schema at these dimension levels(leaf level).

Table 9-37   Invoice Customer Type Cube Dimensions and Load Level

Dimension Name	Load level	Description
Time	Business Month	
Customer Type	Customer Type	
Product	Product	
Product Offering	Product Offering	
Organization	Organization Business Unit	
Geography	County	

Aggregation Order/Operator

The Invoice Customer Type will be aggregated by the following order and operators on dimensions.

Table 9-38   Invoice Customer Type Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Time	Sum	1
Customer Type	Sum	2
Product	Sum	3
Product Offering	Sum	4
Organization	Sum	5
Geography	Sum	6

Base Measures

Table 9-39 (page 9-126) shows the base measures for this data cube.

Table 9-39   Invoice Customer Type Base Measures

Physical Name	Logical Name	Physical Column
BA	Bill Amount	DWA_INVC_CUST_TYP.BILL_AMT
BDA	BILLING DISCOUNT AMOUNT	DWA_INVC_MO.BLNG_DISC_AMT

Table 9-39   (Cont.) Invoice Customer Type Base Measures

Physical Name	Logical Name	Physical Column
BDAL	BILLING DISCOUNT AMOUNT LOCAL	DWA_INVC_MO.BLNG_DISC_AMT_LCL
BDAR	BILLING DISCOUNT AMOUNT REPORT	DWA_INVC_MO.BLNG_DISC_AMT_RPT
IG	INVOICE GRANTED	DWA_INVC_MO.INVC_GNRTED
LPA	LATE PAYMENT AMOUNT	DWA_INVC_MO.LATE_PYMT_AMT
LPAL	LATE PAYMENT AMOUNT LOCAL	DWA_INVC_MO.LATE_PYMT_AMT_LCL
LPAR	LATE PAYMENT AMOUNT REPORT	DWA_INVC_MO.LATE_PYMT_AMT_RPT
ORA	OTHER REV AMOUNT	DWA_INVC_MO.OTHR_REV_AMT
ORAL	OTHER REV AMOUNT LOCAL	DWA_INVC_MO.OTHR_REV_AMT_LCL
ORAR	OTHER REV AMOUNT REPORT	DWA_INVC_MO.OTHR_REV_AMT_RPT
OTFA	ONE TIME FEE AMOUNT	DWA_INVC_MO.ONE_TIME_FEE_AMT
OTFAL	ONE TIME FEE AMOUNT LOCAL	DWA_INVC_MO.ONE_TIME_FEE_AMT_LCL
OTFAR	ONE TIME FEE AMOUNT REPORT	DWA_INVC_MO.ONE_TIME_FEE_AMT_RPT
OTFHSA	ONE TIME FEE HARDWARE SALE AMOUNT	DWA_INVC_MO.ONE_TIME_FEE_HW_SL_AMT
OTFHSAL	ONE TIME FEE HARDWARE SALE AMOUNT LOCAL	DWA_INVC_MO.ONE_TIME_FEE_HW_SL_AMT_LCL
OTFHSAR	ONE TIME FEE HARDWARE SALE AMOUNT REPORT	DWA_INVC_MO.ONE_TIME_FEE_HW_SL_AMT_RPT
OTFNSA	ONE TIME FEE NONTELCO SRVC AMOUNT	DWA_INVC_MO.ONE_TIME_FEE_NONTELCO_SRVC_AMT
OTNS	ONE TIMFEE NONTELCO SRVCAMOUNTREPORT	DWA_INVC_MO.ONE_TIMFEE_NONTELCO_SRVCAMTRPT
PPURA	PAY PER USE REV AMOUNT	DWA_INVC_MO.PAY_PER_USE_REV_AMT
PPURAL	PAY PER USE REV AMOUNT LOCAL	DWA_INVC_MO.PAY_PER_USE_REV_AMT_LCL

Table 9-39   (Cont.) Invoice Customer Type Base Measures

Physical Name	Logical Name	Physical Column
PPURAR	PAY PER USE REV AMOUNT REPORT	DWA_INVC_MO.PAY_PER_USE_REV_AMT_RPT
RFA	RECRNG FEE AMOUNT	DWA_INVC_MO.RECRNG_FEE_AMT
RFAL	RECRNG FEE AMOUNT LOCAL	DWA_INVC_MO.RECRNG_FEE_AMT_LCL
RFAR	RECRNG FEE AMOUNT REPORT	DWA_INVC_MO.RECRNG_FEE_AMT_RPT
RHRFA	RCHRG REV AMOUNT	DWA_INVC_MO.RECRNG_HW_RENT_FEE_AMT
RHRFAL	RCHRG REV AMOUNT LOCAL	DWA_INVC_MO.RECRNG_HW_RENT_FEE_AMT_LCL
RHRFAR	RCHRG REV AMOUNT REPORT	DWA_INVC_MO.RECRNG_HW_RENT_FEE_AMT_RPT
RNSA	RECRNG NONTELCO SRVC FEE AMOUNT REPORT	DWA_INVC_MO.RECRNG_NONTELCO_SRVCFEE_AMTRPT
RNSFA	RECRNG NONTELCO SRVC FEE AMOUNT	DWA_INVC_MO.RECRNG_NONTELCO_SRVC_FEE_AMT
RRA	REV REDUCTION AMOUNT	DWA_INVC_MO.REV_RDCTN_AMT
RRAL	REV REDUCTION AMOUNT LOCAL	DWA_INVC_MO.REV_RDCTN_AMT_LCL
RRAR	REV REDUCTION AMOUNT REPORT	DWA_INVC_MO.REV_RDCTN_AMT_RPT
TDA	TOTAL DUE AMOUNT	DWA_INVC_MO.TOT_DUE_AMT
TDAL	TOTAL DUE AMOUNT LOCAL	DWA_INVC_MO.TOT_DUE_AMT_LCL
TDAR	TOTAL DUE AMOUNT REPORT	DWA_INVC_MO.TOT_DUE_AMT_RPT
TIA	TOTAL INVOICE AMOUNT	DWA_INVC_MO.TOT_INVC_AMT
TIAL	TOTAL INVOICE AMOUNT LOCAL	DWA_INVC_MO.TOT_INVC_AMT_LCL
TIAR	TOTAL INVOICE AMOUNT REPORT	DWA_INVC_MO.TOT_INVC_AMT_RPT
TIC	TOTAL INVOICE COUNT	DWA_INVC_MO.TOT_INVC_CNT
TTA	TOTAL TAX AMOUNT	DWA_INVC_MO.TOT_TAX_AMT

Table 9-39 (Cont.) Invoice Customer Type Base Measures

Physical Name	Logical Name	Physical Column
TTAL	TOTAL TAX AMOUNT LOCAL	DWA_INVC_MO.TOT_TAX_AMT_LCL
TTAR	TOTAL TAX AMOUNT REPORT	DWA_INVC_MO.TOT_TAX_AMT_RPT
UAFPBC	UNPAID AMOUNT FROM PREV BLLG CYCL	DWA_INVC_MO.UNPAID_AMT_FRM_PREV_BLLG_CYCL
UAPCL	UNPID AMOUNT FROM PREVBLLG CYCL LOCAL	DWA_INVC_MO.UNPID_AMTFRM_PREVBLLG_CYCL_LCL
UAPCR	UNPID AMOUNT FROM PREVBLLG CYCL REPORT	DWA_INVC_MO.UNPID_AMTFRM_PREVBLLG_CYCL_RPT
URA	USAGE REV AMOUNT	DWA_INVC_MO.USG_REV_AMT
URAL	USAGE REV AMOUNT LOCAL	DWA_INVC_MO.USG_REV_AMT_LCL
URAR	USAGE REV AMOUNT REPORT	DWA_INVC_MO.USG_REV_AMT_RPT

Derived Measures

Table 9-39 (page 9-126) shows the possible derived measure of this data cube.

Table 9-40 Invoice Customer Type Derived Measures

Physical Name	Definition	Description
BDA_LY	LAG(INVCM.BDA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billing Discount Amount Last Year
BDAL_LY	LAG(INVCM.BDAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billing Discount Amount Local Last Year
BDAR_LY	LAG(INVCM.BDAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billing Discount Amount Report Last Year
IAAT	INVCM.TIA + INVCM.TTA	Invoice Amount After Tax

Table 9-40   (Cont.) Invoice Customer Type Derived Measures

Physical Name	Definition	Description
IAAT_LM	LAG(INVCM.IAAT, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_MO POSITION FROM BEGINNING)	Invoice Amount After Tax Last Month
IG_LY	LAG(INVCM.IG, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Invoice Granted Last Year
LPA_LY	LAG(INVCM.LPA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Late Payment Amount Last Year
LPAL_LY	LAG(INVCM.LPAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Late Payment Amount Local Last Year
LPAR_LY	LAG(INVCM.LPAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Late Payment Amount Report Last Year
ORA_LY	LAG(INVCM.ORA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Other Rev Amount Last Year
ORAL_LY	LAG(INVCM.ORAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Other Rev Amount Local Last Year
ORAR_LY	LAG(INVCM.ORAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Other Rev Amount Report Last Year
OTFA_LY	LAG(INVCM.OTFA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	One Time Fee Amount Last Year

Table 9-40   (Cont.) Invoice Customer Type Derived Measures

Physical Name	Definition	Description
OTFAL_LY	LAG(INVCM.OTFAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	One Time Fee Amount Local Last Year
OTFAR_LY	LAG(INVCM.OTFAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	One Time Fee Amount Report Last Year
OTFHSA_LY	LAG(INVCM.OTFHSA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	One Time Fee Hardware Sale Amount Last Year
OTFHSAL_LY	LAG(INVCM.OTFHSAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	One Time Fee Hardware Sale Amount Local Last Year
OTFHSAR_LY	LAG(INVCM.OTFHSAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	One Time Fee Hardware Sale Amount Report Last Year
OTFNSA_LY	LAG(INVCM.OTFNSA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	One Time Fee Nontelco Srvc Amount Last Year
OTNS_LY	LAG(INVCM.OTNS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	One Timfee Nontelco Srvcamountreport Last Year
PPURA_LY	LAG(INVCM.PPURA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Pay Per Use Rev Amount Last Year
PPURAL_LY	LAG(INVCM.PPURAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Pay Per Use Rev Amount Local Last Year

Table 9-40   (Cont.) Invoice Customer Type Derived Measures

Physical Name	Definition	Description
PPURAR_LY	LAG(INVCM.PPURAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Pay Per Use Rev Amount Report Last Year
RFA_LY	LAG(INVCM.RFA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Recrng Fee Amount Last Year
RFAL_LY	LAG(INVCM.RFAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Recrng Fee Amount Local Last Year
RFAR_LY	LAG(INVCM.RFAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Recrng Fee Amount Report Last Year
RHRFA_LY	LAG(INVCM.RHRFA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Rchrg Rev Amount Last Year
RHRFAL_LY	LAG(INVCM.RHRFAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Rchrg Rev Amount Local Last Year
RHRFAR_LY	LAG(INVCM.RHRFAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Rchrg Rev Amount Report Last Year
RNSA_LY	LAG(INVCM.RNSA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Recrng Nontelco Srvc Fee Amount Report Last Year
RNSFA_LY	LAG(INVCM.RNSFA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Recrng Nontelco Srvc Fee Amount Last Year

Table 9-40   (Cont.) Invoice Customer Type Derived Measures

Physical Name	Definition	Description
RRA_LY	LAG(INVCM.RRA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Rev Reduction Amount Last Year
RRAL_LY	LAG(INVCM.RRAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Rev Reduction Amount Local Last Year
RRAR_LY	LAG(INVCM.RRAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Rev Reduction Amount Report Last Year
TDA_LY	LAG(INVCM.TDA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Due Amount Last Year
TDAL_LY	LAG(INVCM.TDAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Due Amount Local Last Year
TDAR_LY	LAG(INVCM.TDAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Due Amount Report Last Year
TIA_LM	LAG(INVCM.TIA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_MO POSITION FROM BEGINNING)	Total Invoice Amount Last Month
TIA_LY	LAG(INVCM.TIA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Invoice Amount Last Year
TIAL_LY	LAG(INVCM.TIAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Invoice Amount Local Last Year

Table 9-40 (Cont.) Invoice Customer Type Derived Measures

Physical Name	Definition	Description
TIAR_LY	LAG(INVCM.TIAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Invoice Amount Report Last Year
TIC_LY	LAG(INVCM.TIC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Invoice Count Last Year
TTA_LM	LAG(INVCM.TTA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_MO POSITION FROM BEGINNING)	Total Tax Amount Last Month
TTA_LY	LAG(INVCM.TTA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Tax Amount Last Year
TTAL_LY	LAG(INVCM.TTAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Tax Amount Local Last Year
TTAR_LY	LAG(INVCM.TTAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Tax Amount Report Last Year
UAFPBC_LY	LAG(INVCM.UAFPBC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Unpaid Amount From Prev Bllg Cycl Last Year
UAPCL_LY	LAG(INVCM.UAPCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Unpid Amount From Prevbllg Cycl Local Last Year
UAPCR_LY	LAG(INVCM.UAPCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Unpid Amount From Prevbllg Cycl Report Last Year

Table 9-40   (Cont.) Invoice Customer Type Derived Measures

Physical Name	Definition	Description
URA_LY	LAG(INVCM.URA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Usage Rev Amount Last Year
URAL_LY	LAG(INVCM.URAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Usage Rev Amount Local Last Year
URAR_LY	LAG(INVCM.URAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Usage Rev Amount Report Last Year

9.1.14 Revenue Cube: RVN

This datacube is used to store the monthly summary of the revenue values and its components along with the subscriber base count, which will be used to calculate the ARPU values.

Physical Name: RVN

Dimensions and Load Level

The fact data of Revenue Cube will be loaded from the relational schema at these dimension levels(leaf level).

Table 9-41   Revenue Cube Dimensions and Load Level

Dimension Name	Load level
Time	Business Month
Customer Type	Customer Type
Product	Product
Organization	Organization Business Unit
Geography	County

Aggregation Order/Operator

The Revenue Cube will be aggregated by the following order and operators on dimensions.

Table 9-42   Revenue Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Time	Sum	1
Customer Type	Sum	2
Product	Sum	3
Organization	Sum	4
Geography	Sum	5

Base Measures

Table 9-43 (page 9-136) shows the base measures for this data cube.

Table 9-43   Revenue Cube Base Measures

Physical Name	Logical Name	Physical Column
AR	AIRTIME REVENUE	DWA_ARPU_BASE_CUST_TYP.AIRTM_RVN
ARL	AIRTIME REVENUE LOCAL	DWA_ARPU_BASE_CUST_TYP.AIRTM_RVN_LCL
ARR	AIRTIME REVENUE REPORTING	DWA_ARPU_BASE_CUST_TYP.AIRTM_RVN_RPT
ASB	AVERAGE SUBSCRIBER BASE	DWA_ARPU_BASE_CUST_TYP.AVG_SBCRBR_BASE
BRL	BILLED REVENUE LOCAL	DWA_ARPU_BASE_CUST_TYP.BLLD_RVN_LCL
BRR	BILLED REVENUE REPORTING	DWA_ARPU_BASE_CUST_TYP.BLLD_RVN_RPT
BRVN	BILLED REVENUE	DWA_ARPU_BASE_CUST_TYP.BLLD_RVN
CA	COMMISSION AMOUNT	DWA_ARPU_BASE_CUST_TYP.CMISN_AMT
CAL	COMMISSION AMOUNT LOCAL	DWA_ARPU_BASE_CUST_TYP.CMISN_AMT_LCL
CAR	COMMISSION AMOUNT REPORTING	DWA_ARPU_BASE_CUST_TYP.CMISN_AMT_RPT
CNT	COUNT	DWA_ARPU_BASE_CUST_TYP.CNT
CUSTCNT	CUSTOMER COUNT	DWA_ARPU_BASE_CUST_TYP.CUST_CNT
NCC	NEW CUSTOMER COUNT	DWA_ARPU_BASE_CUST_TYP.NEW_CUST_CNT

Table 9-43   (Cont.) Revenue Cube Base Measures

Physical Name	Logical Name	Physical Column
NSC	NEW SUBSCRIBERS COUNT	DWA_ARPU_BASE_CUST_TYP.NEW_SBCRBRS_CNT
OC	OPERATION COST	DWA_ARPU_BASE_CUST_TYP.OPRN_COST
OCL	OPERATION COST LOCAL	DWA_ARPU_BASE_CUST_TYP.OPRN_COST_LCL
OCR	OPERATION COST REPORTING	DWA_ARPU_BASE_CUST_TYP.OPRN_COST_RPT
SAC	SUBSCRIBER ACQUISITION COST	DWA_ARPU_BASE_CUST_TYP.SBCRBR_ACQSTN_COST
SACL	SUBSCRIBER ACQUISITION COST LOCAL	DWA_ARPU_BASE_CUST_TYP.SBCRBR_ACQSTN_COST_LCL
SACR	SUBSCRIBER ACQUISITION COST REPORTING	DWA_ARPU_BASE_CUST_TYP.SBCRBR_ACQSTN_COST_RPT
SBC	SUBSCRIBER BEGIN COUNT	DWA_ARPU_BASE_CUST_TYP.SBCRBR_BEGIN_CNT
SEC	SUBSCRIBER END COUNT	DWA_ARPU_BASE_CUST_TYP.SBCRBR_END_CNT
SLRVN	SALES REVENUE	DWA_ARPU_BASE_CUST_TYP.SL_RVN
SRC	SUBSCRIBER RETENTION COST	DWA_ARPU_BASE_CUST_TYP.SBCRBR_RTNTN_COST
SRCL	SUBSCRIBER RETENTION COST LOCAL	DWA_ARPU_BASE_CUST_TYP.SBCRBR_RTNTN_COST_LCL
SRCR	SUBSCRIBER RETENTION COST REPORTING	DWA_ARPU_BASE_CUST_TYP.SBCRBR_RTNTN_COST_RPT
SRL	SALES REVENUE LOCAL	DWA_ARPU_BASE_CUST_TYP.SL_RVN_LCL
SRR	SALES REVENUE REPORTING	DWA_ARPU_BASE_CUST_TYP.SL_RVN_RPT
TPR	TOTAL REVENUE	DWA_ARPU_BASE_CUST_TYP.TOT_PYMT_RVN
TPRL	TOTAL REVENUE LOCAL	DWA_ARPU_BASE_CUST_TYP.TOT_PYMT_RVN_LCL
TPRR	TOTAL REVENUE REPORTING	DWA_ARPU_BASE_CUST_TYP.TOT_PYMT_RVN_RPT

Derived Measures

Table 9-44 (page 9-138) shows the possible derived measure of this data cube.

Table 9-44   Revenue Cube Derived Measures

Physical Name	Definition	Description
AR_LY	LAG(RVN.AR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Airtime Revenue Last Year
ARL_LY	LAG(RVN.ARL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Airtime Revenue Local Last Year
ARR_LY	LAG(RVN.ARR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Airtime Revenue Reporting Last Year
ASB_LY	LAG(RVN.ASB, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Average Subscriber Base Last Year
BRL_LY	LAG(RVN.BRL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billed Revenue Local Last Year
BRR_LY	LAG(RVN.BRR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billed Revenue Reporting Last Year
BRVN_LY	LAG(RVN.BRVN, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billed Revenue Last Year
BRVN_YTD	SUM(RVN.BRVN) OVER HIERARCHY ("TIME".HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL "TIME".BSNS_YR)	Billed Revenue Last Year
BRVN_YTD_LY	LAG(RVN.BRVN_YTD, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billed Revenue YTD Last Year

Table 9-44   (Cont.) Revenue Cube Derived Measures

Physical Name	Definition	Description
CA_LY	LAG(RVN.CA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Commission Amount Last Year
CAL_LY	LAG(RVN.CAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Commission Amount Local Last Year
CAR_LY	LAG(RVN.CAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Commission Amount Reporting Last Year
CNT_LY	LAG(RVN.CNT, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Count Last Year
CUSTCNT_LY	LAG(RVN.CUSTCNT, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Customer Count Last Year
EOP_CUSTCNT	OLAP_DML_EXPRESSION('RVN_CUSTCNT(time if time_levelrel eq "BSNS_MO" then time else statlast(limit(time to bottomdescendants using time_parentrel time(time time))))', NUMBER)	EOP Customer Count
EOP_CUSTCNT_FCST	RVN_FCST.EOP_CUSTCNT_FCST	EOP Customer Count Forecast
EOP_CUSTCNT_LY	LAG(RVN.EOP_CUSTCNT, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	EOP Customer Count Last Year
NCC_LY	LAG(RVN.NCC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	New Customer Count Last Year

Table 9-44   (Cont.) Revenue Cube Derived Measures

Physical Name	Definition	Description
NSC_LY	LAG(RVN.NSC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	New Subscribers Count Last Year
OC_LY	LAG(RVN.OC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Operation Cost Last Year
OCL_LY	LAG(RVN.OCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Operation Cost Local Last Year
OCR_LY	LAG(RVN.OCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Operation Cost Reporting Last Year
SAC_LY	LAG(RVN.SAC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Subscriber Acquisition Cost Last Year
SACL_LY	LAG(RVN.SACL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Subscriber Acquisition Cost Local Last Year
SACR_LY	LAG(RVN.SACR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Subscriber Acquisition Cost Reporting Last Year
SBC_LY	LAG(RVN.SBC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Subscriber Begin Count Last Year
SEC_LY	LAG(RVN.SEC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Subscriber End Count Last Year
SHR_EOP_CUSTCNT_ORG	SHARE(RVN.EOP_CUSTCNT OF ORG.HCHAIN PARENT)	Customer Count Share of ORG Parent

Table 9-44   (Cont.) Revenue Cube Derived Measures

Physical Name	Definition	Description
SHR_EOP_CUSTCNT_PROD	SHARE(RVN.EOP_CUSTCNT OF PROD.HPROD PARENT)	Customer Count Share of Product Parent
SLRVN_LY	LAG(RVN.SLRVN, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sales Revenue Last Year
SRC_LY	LAG(RVN.SRC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Subscriber Retention Cost Last Year
SRCL_LY	LAG(RVN.SRCL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Subscriber Retention Cost Local Last Year
SRCR_LY	LAG(RVN.SRCR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Subscriber Retention Cost Reporting Last Year
SRL_LY	LAG(RVN.SRL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sales Revenue Local Last Year
SRR_LY	LAG(RVN.SRR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sales Revenue Reporting Last Year
TPR_LY	LAG(RVN.TPR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Revenue Last Year
TPRL_LY	LAG(RVN.TPRL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Revenue Local Last Year
TPRR_LY	LAG(RVN.TPRR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Revenue Reporting Last Year

9.1.15 Subscriber Churn Statistic Cube: CHRN

This cube analyzes the Churned Subscribers based on the subscription status for each product.

Physical Name: CHRN

Dimensions and Load Level

The fact data of Subscriber Churn Statistic Cube will be loaded from the relational schema at these dimension levels(leaf level).

Table 9-45   Subscriber Churn Statistic Cube Dimensions and Load Level

Dimension Name	Load level
Time	Business Month
Customer Type	Customer Type
Churn Reason	Churn Reason
Product	Product
Product Offering	Product Offering
Organization	Organization Business Unit
Geography	Product Offering

Aggregation Order/Operator

The Subscriber Churn Statistic Cube will be aggregated by the following order and operators on dimensions

Table 9-46   Subscriber Churn Statistic Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Time	Sum	1
Customer Type	Sum	2
Churn Reason	Sum	3
Product	Sum	4
Product Offering	Sum	5
Organization	Sum	6
Geography	Sum	7

Base Measures

Table 9-47 (page 9-143) shows the base measures for this data cube.

Table 9-47   Subscriber Chrn Statistic Cube Base Measures

Physical Name	Logical Name	Physical Column
BRA	BILLED RFND AMT	DWA_SBSCBR_STTSTC_MO.BLLD_RFND_AMT
BRAL	BILLED RFND AMT LOCAL	DWA_SBSCBR_STTSTC_MO.BLLD_RFND_AMT_LCL
BRAR	BILLED RFND AMT REPORT	DWA_SBSCBR_STTSTC_MO.BLLD_RFND_AMT_RPT
BTA	BILLED TAX AMT	DWA_SBSCBR_STTSTC_MO.BLLD_TAX_AMT
BTAL	BILLED TAX AMT LOCAL	DWA_SBSCBR_STTSTC_MO.BLLD_TAX_AMT_LCL
BTAR	BILLED TAX AMT REPORT	DWA_SBSCBR_STTSTC_MO.BLLD_TAX_AMT_RPT
BWOA	BILLED WRITE OFF AMT	DWA_SBSCBR_STTSTC_MO.BLLD_WRITE_OFF_AMT
BWOAL	BILLED WRITE OFF AMT LOCAL	DWA_SBSCBR_STTSTC_MO.BLLD_WRITE_OFF_AMT_LCL
BWOAR	BILLED WRITE OFF AMT REPORT	DWA_SBSCBR_STTSTC_MO.BLLD_WRITE_OFF_AMT_RPT
CRI	COUNT ROW ID	DWA_SBSCBR_STTSTC_MO.CNT_ROW_ID
DRI	DISC REVENUE INVOICE CODE	DWA_SBSCBR_STTSTC_MO.DISC_RVN_INVCD
DRIL	DISC REVENUE INVOICE CODE LOCAL	DWA_SBSCBR_STTSTC_MO.DISC_RVN_INVCD_LCL
DRIR	DISC REVENUE INVOICE CODE REPORT	DWA_SBSCBR_STTSTC_MO.DISC_RVN_INVCD_RPT
ER	EXPIRED REVENUE	DWA_SBSCBR_STTSTC_MO.EXPIRED_RVN
ERL	EXPIRED REVENUE LOCAL	DWA_SBSCBR_STTSTC_MO.EXPIRED_RVN_LCL
ERR	EXPIRED REVENUE REPORT	DWA_SBSCBR_STTSTC_MO.EXPIRED_RVN_RPT
ESRI	EQPMNT SL REVENUE INVOICE CODE	DWA_SBSCBR_STTSTC_MO.EQPMNT_SL_RVN_INVCD
ESRIL	EQPMNT SL REVENUE INVOICE CODE LOCAL	DWA_SBSCBR_STTSTC_MO.EQPMNT_SL_RVN_INVCD_LCL
ESRIR	EQPMNT SL REVENUE INVOICE CODE REPORT	DWA_SBSCBR_STTSTC_MO.EQPMNT_SL_RVN_INVCD_RPT

Table 9-47   (Cont.) Subscriber Chrn Statistic Cube Base Measures

Physical Name	Logical Name	Physical Column
IDATC	INVOLUNTARY DACTIVATED ACCESS METHOD THIS PRODUCT COUNT	DWA_SBSCBR_STTSTC_MO.INVL TRY_DACTD_AGMT_THSPRD_C NT
IDCTC	INVOLUNTARY DACTIVATED ACCT THISPRD COUNT	DWA_SBSCBR_STTSTC_MO.INVL TRY_DACTD_CUST_THSPRD_CN T
IDPTC	INVOLUNTARY DACTIVATED PODSBP THIS PRODUCT COUNT	DWA_SBSCBR_STTSTC_MO.INVL TRY_DACTD_PODSBP_TSPD_CN T
ISATC	INVOLUNTARY DACTIVATED AGREEMENT THISPRD COUNT	DWA_SBSCBR_STTSTC_MO.INVL TRY_SUSPND_AGMT_TSPD_CNT
ISCTC	INVOLUNTARY DACTIVATED CUSTOMER THISPRD COUNT	DWA_SBSCBR_STTSTC_MO.INVL TRY_SUSPND_CUST_TSPD_CNT
ISMSTC	INVOLUNTARY SUSPEND MN SBP THIS PRODUCT COUNT	DWA_SBSCBR_STTSTC_MO.INVL TRY_SUSPND_MN_SBP_TSPD_CN T
NAAC	NEW ACTIVATION AGREEMENT COUNT	DWA_SBSCBR_STTSTC_MO.NEW _ACTV_AGMT_CNT
NAAMC	NEW ACTIVATION ACCESS METHOD COUNT	DWA_SBSCBR_STTSTC_MO.NEW _ACTV_ACCS_MTHD_CNT
NAC	NEW ACCT COUNT	DWA_SBSCBR_STTSTC_MO.NEW _ACCT_CNT
NAMPSC	NEW ACTIVATION MN PRODUCT SBSCREPORTN COUNT	DWA_SBSCBR_STTSTC_MO.NEW _ACTV_MN_PROD_SBRP_CNT
NAPSC	NEW ACTIVATION PRODUCT SBSCREPORTN COUNT	DWA_SBSCBR_STTSTC_MO.NEW _ACTV_PROD_SBRP_CNT
NCC	NEW CUSTOMER COUNT	DWA_SBSCBR_STTSTC_MO.NEW _CUST_CNT
ORI	OTHER REVENUE INVOICE CODE	DWA_SBSCBR_STTSTC_MO.OTH R_RVN_INVCD
ORIL	OTHER REVENUE INVOICE CODE LOCAL	DWA_SBSCBR_STTSTC_MO.OTH R_RVN_INVCD_LCL
ORIR	OTHER REVENUE INVOICE CODE REPORT	DWA_SBSCBR_STTSTC_MO.OTH R_RVN_INVCD_RPT
OTFI	ONE TIME FEE INVOICE CODE	DWA_SBSCBR_STTSTC_MO.ONE_ TIME_FEE_INVCD
OTFIL	ONE TIME FEE INVOICE CODE LOCAL	DWA_SBSCBR_STTSTC_MO.ONE_ TIME_FEE_INVCD_LCL

Table 9-47   (Cont.) Subscriber Chrn Statistic Cube Base Measures

Physical Name	Logical Name	Physical Column
OTFIR	ONE TIME FEE INVOICE CODE REPORT	DWA_SBSCBR_STTSTC_MO.ONE_TIME_FEE_INVCD_RPT
POL	PRODUCT OFFER LVL	DWA_SBSCBR_STTSTC_MO.PROD_OFR_LVL
PSL	PROD SPEC LEVEL	DWA_SBSCBR_STTSTC_MO.PROD_SPEC_LVL
PSSC	PROD SBSCREPORTN SUSPEND COUNT	DWA_SBSCBR_STTSTC_MO.PROD_SBRP_SUSPND_CNT
PT	PLAN TYPE	DWA_SBSCBR_STTSTC_MO.PLN_TYP
RATPC	REACTIVATIOND AGREEMENT THIS PRD COUNT	DWA_SBSCBR_STTSTC_MO.REACTVD_AGMT_THS_PRD_CNT
RCTPC	REACTIVATIOND CUSTOMER THIS PRD COUNT	DWA_SBSCBR_STTSTC_MO.REACTVD_CUST_THS_PRD_CNT
RMSTPC	REACTIVATIOND MN SBSCREPORTN THIS PRD COUNT	DWA_SBSCBR_STTSTC_MO.REACTVD_MN_SBRP_THS_PRD_CNT
RRI	REVENUE ROW ID	DWA_SBSCBR_STTSTC_MO.RVN_ROW_ID
TAAC	TOTAL ACTIVATION AGREEMENT COUNT	DWA_SBSCBR_STTSTC_MO.TOT_ACTV_AGMT_CNT
TAACWS	TOTAL ACTIVATION AGREEMENT COUNT WITH SLA	DWA_SBSCBR_STTSTC_MO.TOT_ACTV_AGMT_CNT_WITH_SLA
TAAMC	TOTAL ACTIVATION ACCESS METHOD COUNT	DWA_SBSCBR_STTSTC_MO.TOT_ACTV_ACCS_MTHD_CNT
TACC	TOTAL ACTIVATION CUSTOMER COUNT	DWA_SBSCBR_STTSTC_MO.TOT_ACTV_CUST_CNT
TACCWS	TOTAL ACTIVATION CUSTOMER COUNT WITH SLA	DWA_SBSCBR_STTSTC_MO.TOT_ACTV_CUST_CNT_WITH_SLA
TAMPSC	TOTAL ACTIVATION MINIMUM PRODUCT SBSCREPORTN COUNT	DWA_SBSCBR_STTSTC_MO.TOT_ACTV_MN_PROD_SBRP_CNT
TAPA	TOTAL ACCT PENDING ACTIVATION	DWA_SBSCBR_STTSTC_MO.TOT_ACCT_PNDNG_ACTVTN
TAPSC	TOTAL ACTIVATION PROD SBSCREPORTN COUNT	DWA_SBSCBR_STTSTC_MO.TOT_ACTV_PROD_SBRP_CNT
TASCUS	TOTAL AVMN SBSCREPORTN COUNT UNDER SLA	DWA_SBSCBR_STTSTC_MO.TOT_AVMN_SBRP_CNT_UNDER_SLA
TCACTP	TOTAL CANCEL ACCOUNT COUNT THIS PRD	DWA_SBSCBR_STTSTC_MO.TOT_CNCL_AGMT_CNT_THS_PRD

Table 9-47   (Cont.) Subscriber Chrn Statistic Cube Base Measures

Physical Name	Logical Name	Physical Column
TCCCTP	TOTAL CANCEL AGGREMENT COUNT THIS PRD	DWA_SBSCBR_STTSTC_MO.TOT_CNCL_CUST_CNT_THS_PRD
TCPA	TOTAL CUSTOMER PENDING ACTIVATION	DWA_SBSCBR_STTSTC_MO.TOT_CUST_PNDNG_ACTVTN
TCPSCP	TOTAL CANCEL CUSTOMER COUNT THIS PRD	DWA_SBSCBR_STTSTC_MO.TOT_CNCL_PROD_SBRP_CNTTS_PRD
TMPPA	TOTAL CANCEL PRODUCT SBSCREPORTN COUNTTS PRD	DWA_SBSCBR_STTSTC_MO.TOT_MN_PRODSBRP_PNDNG_ACTVTN
URI	USG REVENUE INVOICE CODE	DWA_SBSCBR_STTSTC_MO.USG_RVN_INVCD
URIL	USG REVENUE INVOICE CODE LOCAL	DWA_SBSCBR_STTSTC_MO.USG_RVN_INVCD_LCL
URIR	USG REVENUE INVOICE CODE REPORT	DWA_SBSCBR_STTSTC_MO.USG_RVN_INVCD_RPT
VDAP	VOLUNTARY DACTIVATED AGREEMENT THIS PRODUCT COUNT	DWA_SBSCBR_STTSTC_MO.VLTRY_DACTD_AGMTTHS_PRDCNT
VDAPC	VOLUNTARY DACTIVATED ACCT THIS PRODUCT COUNT	DWA_SBSCBR_STTSTC_MO.VLTRY_DACTD_ACCTTHS_PRD_CNT
VDCPC	VOLUNTARY DACTIVATED CUSTOMERTHIS PRD COUNT	DWA_SBSCBR_STTSTC_MO.VLTRY_DACTD_CUSTTHS_PRD_CNT
VDMTC	VOLUNTARY DACTIVATEDACCS METHOD THIS PRODUCT COUNT	DWA_SBSCBR_STTSTC_MO.VLTRY_DACTDACCS_MTHD_TSPD_CNT
VDPT	VOLUNTARY DACTMIN PRODUCT SBSCREPORTN TSIS PRODUCT COUNT	DWA_SBSCBR_STTSTC_MO.VLTRY_DACTMIN_PRODSBRP_TSPDCNT
VDSTC	VOLUNTARY DACTIVATEDPROD SBSCREPORTN THIS PRODUCT COUNT	DWA_SBSCBR_STTSTC_MO.VLTRY_DACTDPROD_SBRP_TSPD_CNT
VSATC	VOLUNTARY SUSPEND AGGREMENT THISPRD COUNT	DWA_SBSCBR_STTSTC_MO.VLTRY_SUSPND_AGMT_THSPRD_CNT
VSCTC	VOLUNTARY SUSPEND CUSTOMER THISPRD COUNT	DWA_SBSCBR_STTSTC_MO.VLTRY_SUSPND_CUST_THSPRD_CNT
VSMSTC	VOLUNTARY SUSPEND MN SBSCREPORTN TSPRD COUNT	DWA_SBSCBR_STTSTC_MO.VLTRY_SUSPND_MN_SBP_TSPRD_CNT

Derived Measures

Table 9-48 (page 9-147) shows the possible derived measure of this data cube.

Table 9-48   Subscriber Churn Statistic Cube Derived Measures

Physical Name	Definition	Description
BRA_LY	LAG(CHRN.BRA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billed Rfnd Amt Last Year
BRAL_LY	LAG(CHRN.BRAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billed Rfnd Amt Local Last Year
BRAR_LY	LAG(CHRN.BRAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billed Rfnd Amt Report Last Year
BTA_LY	LAG(CHRN.BTA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billed Tax Amt Last Year
BTAL_LY	LAG(CHRN.BTAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billed Tax Amt Local Last Year
BTAR_LY	LAG(CHRN.BTAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billed Tax Amt Report Last Year
BWOA_LY	LAG(CHRN.BWOA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billed Write Off Amt Last Year
BWOAL_LY	LAG(CHRN.BWOAL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billed Write Off Amt Local Last Year
BWOAR_LY	LAG(CHRN.BWOAR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Billed Write Off Amt Report Last Year

Table 9-48   (Cont.) Subscriber Churn Statistic Cube Derived Measures

Physical Name	Definition	Description
CRI_LY	LAG(CHRN.CRI, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Count Row Id Last Year
DRI_LY	LAG(CHRN.DRI, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Disc Revenue Invoice Code Last Year
DRIL_LY	LAG(CHRN.DRIL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Disc Revenue Invoice Code Local Last Year
DRIR_LY	LAG(CHRN.DRIR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Disc Revenue Invoice Code Report Last Year
ER_LY	LAG(CHRN.ER, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Expired Revenue Last Year
ERL_LY	LAG(CHRN.ERL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Expired Revenue Local Last Year
ERR_LY	LAG(CHRN.ERR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Expired Revenue Report Last Year
ESRI_LY	LAG(CHRN.ESRI, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Eqpmnt Sl Revenue Invoice Code Last Year
ESRIL_LY	LAG(CHRN.ESRIL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Eqpmnt Sl Revenue Invoice Code Local Last Year

Table 9-48   (Cont.) Subscriber Churn Statistic Cube Derived Measures

Physical Name	Definition	Description
ESRIR_LY	LAG(CHRN.ESRIR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Eqpmnt Sl Revenue Invoice Code Report Last Year
IDATC_LY	LAG(CHRN.IDATC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Involuntary Deactivated Access Method This Product Count Last Year
IDCTC_LY	LAG(CHRN.IDCTC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Involuntary Deactivated Acct Thisprd Count Last Year
IDPTC_LY	LAG(CHRN.IDPTC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Involuntary Deactivated Podsbp This Product Count Last Year
ISATC_LY	LAG(CHRN.ISATC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Involuntary Deactivated Agreement Thisprd Count Last Year
ISCTC_LY	LAG(CHRN.ISCTC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Involuntary Deactivated Customer Thisprd Count Last Year
ISMSTC_LY	LAG(CHRN.ISMSTC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Involuntary Suspend Mn Sbp This Product Count Last Year
NAAC_LY	LAG(CHRN.NAAC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	New Activation Agreement Count Last Year
NAAMC_LY	LAG(CHRN.NAAMC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	New Activation Access Method Count Last Year

Table 9-48 (Cont.) Subscriber Churn Statistic Cube Derived Measures

Physical Name	Definition	Description
NAC_LY	LAG(CHRN.NAC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	New Acct Count Last Year
NAMPSC_LY	LAG(CHRN.NAMPSC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	New Activation Mn Product Sbscreportn Count Last Year
NAPSC_LY	LAG(CHRN.NAPSC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	New Activation Product Sbscreportn Count Last Year
NCC_LY	LAG(CHRN.NCC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	New Customer Count Last Year
ORI_LY	LAG(CHRN.ORI, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Other Revenue Invoice Code Last Year
ORIL_LY	LAG(CHRN.ORIL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Other Revenue Invoice Code Local Last Year
ORIR_LY	LAG(CHRN.ORIR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Other Revenue Invoice Code Report Last Year
OTFI_LY	LAG(CHRN.OTFI, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	One Time Fee Invoice Code Last Year
OTFIL_LY	LAG(CHRN.OTFIL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	One Time Fee Invoice Code Local Last Year

Table 9-48   (Cont.) Subscriber Churn Statistic Cube Derived Measures

Physical Name	Definition	Description
OTFIR_LY	LAG(CHRN.OTFIR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	One Time Fee Invoice Code Report Last Year
PSSC_LY	LAG(CHRN.PSSC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Prod Sbscreportn Suspend Count Last Year
RATPC_LY	LAG(CHRN.RATPC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Reactivationd Agreement This Prd Count Last Year
RCTPC_LY	LAG(CHRN.RCTPC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Reactivationd Customer This Prd Count Last Year
RMSTPC_LY	LAG(CHRN.RMSTPC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Reactivationd Mn Sbscreportn This Prd Count Last Year
RRI_LY	LAG(CHRN.RRI, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Revenue Row Id Last Year
TAAC_LY	LAG(CHRN.TAAC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Activation Agreement Count Last Year
TAACWS_LY	LAG(CHRN.TAACWS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Activation Agreement Count With Sla Last Year
TAAMC_LY	LAG(CHRN.TAAMC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Activation Access Method Count Last Year

Table 9-48   (Cont.) Subscriber Churn Statistic Cube Derived Measures

Physical Name	Definition	Description
TACC_LY	LAG(CHRN.TACC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Activation Customer Count Last Year
TACCWS_LY	LAG(CHRN.TACCWS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Activation Customer Count With Sla Last Year
TAMPSC_LY	LAG(CHRN.TAMPSC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Activation Minimum Product Sbscreportn Count Last Year
TAPA_LY	LAG(CHRN.TAPA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Acct Pending Activation Last Year
TAPSC_LY	LAG(CHRN.TAPSC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Activation Prod Sbscreportn Count Last Year
TASCUS_LY	LAG(CHRN.TASCUS, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Avmn Sbscreportn Count Under Sla Last Year
TCACTP_LY	LAG(CHRN.TCACTP, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Cancel Account Count This Prd Last Year
TCCCTP_LY	LAG(CHRN.TCCCTP, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Cancel Agreement Count This Prd Last Year
TCPA_LY	LAG(CHRN.TCPA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Customer Pending Activation Last Year

Table 9-48   (Cont.) Subscriber Churn Statistic Cube Derived Measures

Physical Name	Definition	Description
TCPSCP_LY	LAG(CHRN.TCPSCP, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Cancel Customer Count This Prd Last Year
TMPPA_LY	LAG(CHRN.TMPPA, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Total Cancel Product Sbscreportn Countts Prd Last Year
URI_LY	LAG(CHRN.URI, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Usg Revenue Invoice Code Last Year
URIL_LY	LAG(CHRN.URIL, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Usg Revenue Invoice Code Local Last Year
URIR_LY	LAG(CHRN.URIR, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Usg Revenue Invoice Code Report Last Year
VDAP_LY	LAG(CHRN.VDAP, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Voluntary Deactivated Agreement This Product Count Last Year
VDAPC_LY	LAG(CHRN.VDAPC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Voluntary Deactivated Acct This Product Count Last Year
VDCPC_LY	LAG(CHRN.VDCPC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Voluntary Deactivated Customerthis Prd Count Last Year
VDMTC_LY	LAG(CHRN.VDMTC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Voluntary Deactivatedaccs Method This Product Count Last Year

Table 9-48   (Cont.) Subscriber Churn Statistic Cube Derived Measures

Physical Name	Definition	Description
VDPT_LY	LAG(CHRN.VDPT, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Voluntary Dactmin Product Sbscreportn Tsis Product Count Last Year
VDSTC_LY	LAG(CHRN.VDSTC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Voluntary Deactivatedprod Sbscreportn This Product Count Last Year
VSATC_LY	LAG(CHRN.VSATC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Voluntary Suspend Agreement Thisprd Count Last Year
VSCTC_LY	LAG(CHRN.VSCTC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Voluntary Suspend Customer Thisprd Count Last Year
VSMSTC_LY	LAG(CHRN.VSMSTC, 1) OVER HIERARCHY ("TIME".HTBSNS BY ANCESTOR AT LEVEL "TIME".HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Voluntary Suspend Mn Sbscreportn Tsprd Count Last Year

9.1.16 Customer Acquisition Forecast Cube: ACM_FCST

This cube provides information on customer acquisition forecasting.

Physical Name: ACM_FCST

Dimensions and Load Level

The fact data of Customer Acquisition Forecast Cube is loaded by the forecast program from the ACM cube at these dimension levels (leaf level).

Table 9-49   Customer Acquisition Forecast Cube Dimensions and Load Level

Dimension Name	Load level
Time	Business Month
Customer Type	Customer Type
Product	Product
Product Offering	Product Offering
Geography	County

Aggregation Order/Operator

The Customer Acquisition Forecast Cube will be aggregated by the following order and operators on dimensions

Table 9-50   Customer Acquisition Forecast Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Time	Sum	1
Customer Type	Sum	2
Product	Sum	3
Product Offering	Sum	4
Geography	Sum	5

Base Measures

Table 9-51 (page 9-155) shows the base measure of this data cube.

Table 9-51   Customer Acquisition Forecast Cube Base Measures

Physical Name	Logical Name
AAC_FCST	Actual Acquisition Count Forecast

9.1.17 Customer Acquisition Forecast Statistic Cube: ACM_FCST_STTSTC

This cube provides information on customer acquisition forecasting statistics.

Physical Name: ACM_FCST_STTSTC

Dimensions and Load Level

The fact data for the Customer Acquisition Forecast Statistic Cube is loaded by the forecast program at these dimension levels (leaf level). The Customer Acquisition Forecast Statistic Cube stores the details about the forecast calculation, such as which forecast method the Geneva engine is using and what are the values of the parameters for this forecast method, and so on. There is no time dimension in this cube because all the forecasts in Oracle Communications Data Model use a time series forecast.

Table 9-52   Customer Acquisition Forecast Statistic Cube Dimensions and Load Level

Dimension Name	Load level	Description
Customer Type	Customer Type	
Product	Product	
Product Offering	Product Offering	
Geography	County	

Aggregation Order/Operator

The Customer Acquisition Forecast Cube will be aggregated by the following order and operators on dimensions.

Table 9-53   Customer Acquisition Forecast Statistic Aggregation Operator and Order

Dimension Name	Operator	Order
Customer Type	Sum	2
Product	Sum	3
Product Offering	Sum	4
Geography	Sum	5

Base Measures

Table 9-54 (page 9-156) shows the base measure of this data cube.

Table 9-54   Customer Acquisition Forecast Statistic Cube Base Measures

Physical Name	Logical Name
AAC_STTSTC	Actual Acquisition Count Forecast Statistic

9.1.18 Cell Statistic Forecast Cube: CSM_FCST

Provides information on cell statistics forecasting.

Physical Name: CSM_FCST

Dimensions and Load Level

The fact data of Cell Statistic Forecast Cube is loaded by the forecast program from the CSM cube at these dimension levels(leaf level).

Table 9-55   Cell Statistic Forecast Cube Dimensions and Load Level

Dimension Name	Load level
Time	Business Month
Peak Offpeak Time	Peak Offpeak Time
Network Element	Network Element
Time Slot	Time Slot
Geography	County

Aggregation Order/Operator

The Cell Statistic Forecast Cube will be aggregated by the following order and operators on dimensions.

Table 9-56   Cell Statistic Forecast Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Time	Sum	1
Peak Offpeak Time	Sum	2
Network Element	Sum	3
Time Slot	Sum	4
Geography	Sum	5

Base Measures

Table 9-57 (page 9-157) shows the base measure of this data cube.

Table 9-57   Cell Statistic Forecast Cube Base Measures

Physical Name	Logical Name
TT_FCST	Total Traffic Forecast

9.1.19 Revenue Forecast Cube: RVN_FCST

Provides information on revenue forecasting.

Physical Name: RVN_FCST

Dimensions and Load level

The fact data of Revenue Forecast Cube is loaded by the forecast program from the RVN cube at these dimension levels (leaf level).

Table 9-58   Revenue Forecast Cube Dimensions and Load Level

Dimension Name	Load level
Time	Business Month
Customer Type	Customer Type
Product	Product
Organization	Organization Business Unit
Geography	County

Aggregation Order/Operator

The Revenue Cube will be aggregated by the following order and operators on dimensions.

Table 9-59   Revenue Forecast Cube Aggregation Operator and Order

Dimension Name	Operator	Order
Time	Sum	1
Customer Type	Sum	2
Product	Sum	3
Organization	Sum	4
Geography	Sum	5

Base Measures

Table 9-60 (page 9-158) shows the base measure of this data cube.

Table 9-60   Revenue Forecast Cube Base Measures

Physical Name	Logical Name
BRVN_FCST	Bill Revenue Forecast
CUSTCNT_FCST	For Internal Use Only Customer Count Forecast
SLRVN_FCST	Sales Revenue Forecast

Derived Measures

The possible derived measure of this data cube are:

Table 9-61   Revenue Forecast Cube Derived Measures

Physical Name	Expression	Description
EOP_CUSTCNT_FCST	OLAP_DML_EXPRESSION('RVN_FCST_CUSTCNT_FCST(time if time_levelrel eq ''BSNS_MO'' then time else statlast(limit(time to bottomdescendants using time_parentrel time(time time))))', NUMBER)	EOP Customer Count Forecast

9.1.20 Sales Cube: SLS

This Cube contains the Sales Subject Area Measures. This cube is dimensioned by the default Organization, Product and Time dimensions - each of which contain multiple hierarchies.

Physical Name: SLS

Dimensionality

The Sales Cube is loaded from the relational schema at these dimension levels.

Sales Cube Dimensions

OLAP Cube	Dimension Number	OLAP Dimension	OLAP Dimension Type
Sales Cube: SLS	1	Organization: ORGANIZATION	STANDARD
Sales Cube: SLS	2	Product: PRODUCT	STANDARD
Sales Cube: SLS	3	Time: TIME	TIME

Aggregation, Load Information

Sales Cube Aggregation, Load Information

Order	OLAP Dimension	Operator	Aggregate from Level
1	Organization: ORGANIZATION	SUM	Default
2	Product: PRODUCT	SUM	Default
3	Time: TIME	SUM	Default

Base Measures with Description, Logical Name and Mapping Expression

Sales Cube Base Measures

Physical Name	Logical Name	Mapping Expression
GROSS_SU	Gross Sales Units	DWD_RTL_SL_RETRN_ITEM_DAY.SL_UNIT_CNT
GROSS_SV	Gross Sales Value	DWD_RTL_SL_RETRN_ITEM_DAY.SL_AMT
RET_U	Return Units	DWD_RTL_SL_RETRN_ITEM_DAY.RETRN_UNIT_CNT
RET_V	Return Value	DWD_RTL_SL_RETRN_ITEM_DAY.RETRN_AMT

Derived Measure with Description, Logical Name and Expression / Calculation

Sales Cube Derived Measures

Physical Name	Expression or Calculation	Description
EOP_SR	INV.EOP_SR	Inventory EOP SOH Value (Retail)
EOP_SR_FCST	INV_FCST.EOP_SR_FCST	Inventory EOP SOH Value (Retail) Forecast
EOP_SU	INV.EOP_SU	Inventory EOP SOH Units
EOP_SU_FCST	INV_FCST.EOP_SU_FCST	Inventory EOP SOH Units Forecast

Physical Name	Expression or Calculation	Description
EOP_SV	INV.EOP_SV	Inventory EOP SOH Value (Cost)
EOP_SV_FCST	INV_FCST.EOP_SV_FCST	Inventory EOP SOH Value (Cost) Forecast
HOW_IS_SU_G_POP	OLAP_DML_EXPRESSION('if SLS_SU_LP_PCT_CHG gt .15 then "GOOD" else if SLS_SU_LP_PCT_CHG lt .05 then "ALERT" else "MODERATE"', VARCHAR2 (60))	How is Sales Units Growth PoP
HOW_IS_SU_G_YOY	OLAP_DML_EXPRESSION('if SLS_SU_LY_PCT_CHG gt .15 then "GOOD" else if SLS_SU_LY_PCT_CHG lt .05 then "ALERT" else "MODERATE"', VARCHAR2 (60))	How is Sales Units Growth YoY
HOW_IS_SU_YTD_G_YOY	OLAP_DML_EXPRESSION('if SLS_SU_YTD_LY_PCT_CHG gt .15 then "GOOD" else if SLS_SU_YTD_LY_PCT_CHG lt .05 then "ALERT" else "MODERATE"', VARCHAR2 (60))	How is Sales Units YTD Growth YoY
HOW_IS_SV_G_POP	OLAP_DML_EXPRESSION('if SLS_SV_LP_PCT_CHG gt .15 then "GOOD" else if SLS_SV_LP_PCT_CHG lt .05 then "ALERT" else "MODERATE"', VARCHAR2 (60))	How is Sales Value Growth PoP
HOW_IS_SV_G_YOY	OLAP_DML_EXPRESSION('if SLS_SV_LY_PCT_CHG gt .15 then "GOOD" else if SLS_SV_LY_PCT_CHG lt .05 then "ALERT" else "MODERATE"', VARCHAR2 (60))	How is Sales Value Growth YoY
HOW_IS_SV_YTD_G_YOY	OLAP_DML_EXPRESSION('if SLS_SV_YTD_LY_PCT_CHG gt .15 then "GOOD" else if SLS_SV_YTD_LY_PCT_CHG lt .05 then "ALERT" else "MODERATE"', VARCHAR2 (60))	How is Sales Value YTD Growth YoY
OOS_UNITS	SLS.EOP_SU_FCST - SLS.SU_FCST	Out of Stock Units
OOS_UNITS_S	OLAP_DML_EXPRESSION('if time_day_levelrel eq "DAY" and SLS_OOS_UNITS lt 0 then "Out-of-Stock" else na', VARCHAR2 (60))	Out of Stock Units Status
SU	SLS.GROSS_SU - SLS.RET_U	Sales Units
SU_FCST	SLS_FCST.SU_FCST	Sales Unit Forecast

Physical Name	Expression or Calculation	Description
SU_LAG5	LAG(SLS.SU, 5) OVER (HIERARCHY TIME_DAY.HTBSNS)	Sales Units - Lag 5 days
SU_LAG5WKDAY	OLAP_DML_EXPRESSION('LAG(sls_su, 5, time_day, convert(time_day_end_date text "DY") ne "SAT" and convert(time_day_end_date text "DY") ne "SUN")', NUMBER)	Sales Units - Lag 5 Weekdays
SU_LAG5WKDAY_NASKIP	OLAP_DML_EXPRESSION('LAG(sls_su, 5, time_day, convert(time_day_end_date text "DY") ne "SAT" and convert(time_day_end_date text "DY") ne "SUN" and sls_su ne na)', NUMBER)	Sales Units - Lag 5 Weekdays, na skip
SU_LP	LAG(SLS.SU, 1) OVER HIERARCHY (TIME_DAY.HTBSNS)	Sales Units Last Period
SU_LP_CHG	LAG_VARIANCE(SLS.SU, 1) OVER HIERARCHY (TIME_DAY.HTBSNS)	Sales Units Change Last Period
SU_LP_PCT_CHG	LAG_VARIANCE_PERCENT(SLS.SU, 1) OVER HIERARCHY (TIME_DAY.HTBSNS)	Sales Units % Chg Last Period
SU_LY	LAG(SLS.SU, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sales Units Last Year
SU_LY_CHG	LAG_VARIANCE(SLS.SU, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sales Units Change Last Year
SU_LY_PCT_CHG	LAG_VARIANCE_PERCENT(SLS.SU, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sales Units % Chg Last Year
SU_MVAVG5	AVG(SLS.SU) OVER (HIERARCHY TIME_DAY.HTBSNS BETWEEN 5 PRECEDING AND 0 FOLLOWING WITHIN LEVEL)	Sales Units - Moving Average 5 days

Physical Name	Expression or Calculation	Description
SU_MVAVG5WKDAY	OLAP_DML_EXPRESSION('MOVINGAVERAGE(sls_su, -5, 0, 1, time_day convert(time_day_end_date text ''DY'') ne ''SAT'' and convert(time_day_end_date text ''DY'') ne ''SUN'')', NUMBER)	Sales Units - Moving Average 5 Weekdays
SU_MVAVG5WKDAY_NASKIP	OLAP_DML_EXPRESSION('MOVINGAVERAGE(sls_su, -5, 0, 1, time_day convert(time_day_end_date text ''DY'') ne ''SAT'' and convert(time_day_end_date text ''DY'') ne ''SUN'' and sls_su ne na)', NUMBER)	Sales Units - Moving Average 5 Weekdays, na skip
SU_MVMAX5	MAX(SLS.SU) OVER (HIERARCHY TIME_DAY.HTBSNS BETWEEN 5 PRECEDING AND 0 FOLLOWING WITHIN LEVEL)	Sales Units - Moving Max 5 days
SU_MVMAX5WKDAY	OLAP_DML_EXPRESSION('MOVINGMAX(sls_su, -5, 0, 1, time_day convert(time_day_end_date text ''DY'') ne ''SAT'' and convert(time_day_end_date text ''DY'') ne ''SUN'')', NUMBER)	Sales Units - Moving Max 5 Weekdays
SU_MVMAX5WKDAY_NASKIP	OLAP_DML_EXPRESSION('MOVINGMAX(sls_su, -5, 0, 1, time_day convert(time_day_end_date text ''DY'') ne ''SAT'' and convert(time_day_end_date text ''DY'') ne ''SUN'' and sls_su ne na)', NUMBER)	Sales Units - Moving Max 5 Weekdays, na skip
SU_MVTOT5	SUM(SLS.SU) OVER (HIERARCHY TIME_DAY.HTBSNS BETWEEN 5 PRECEDING AND 0 FOLLOWING WITHIN LEVEL)	Sales Units - Moving Total 5 days
SU_MVTOT5WKDAY	OLAP_DML_EXPRESSION('MOVINGTOTAL(sls_su, -5, 0, 1, time_day convert(time_day_end_date text ''DY'') ne ''SAT'' and convert(time_day_end_date text ''DY'') ne ''SUN'')', NUMBER)	Sales Units - Moving Total 5 Weekdays
SU_MVTOT5WKDAY_NASKIP	OLAP_DML_EXPRESSION('MOVINGTOTAL(sls_su, -5, 0, 1, time_day convert(time_day_end_date text ''DY'') ne ''SAT'' and convert(time_day_end_date text ''DY'') ne ''SUN'' and sls_su ne na)', NUMBER)	Sales Units - Moving Total 5 Weekdays, na skip

Physical Name	Expression or Calculation	Description
SU_ORG_RNK_U	OLAP_DML_EXPRESSION('RANK(SLS_SU UNIQUE TIEBREAKERS(SORT(ORG D sls_su_ly_pct_chg)) based on ORG)', NUMBER)	Sales Units Org Rank Unique
SU_ORG_RNK_UNAF	OLAP_DML_EXPRESSION('RANK(SLS_SU UNIQUE NAFIRST TIEBREAKERS(SORT(ORG D sls_su_ly_pct_chg)) based on ORG)', NUMBER)	Sales Units Org Rank Unique NAFIRST
SU_ORG_RNK_UNAL	OLAP_DML_EXPRESSION('RANK(SLS_SU UNIQUE NALAST TIEBREAKERS(SORT(ORG D sls_su_ly_pct_chg)) based on ORG)', NUMBER)	Sales Units Org Rank Unique NALAST
SU_ORG_SHR_AREA	SHARE(SLS.SU OF ORG.HCHAIN LEVEL ORG.AREA)	Sales Units Share of Org Area Ancestor
SU_ORG_SHR_PRNT	SHARE(SLS.SU OF ORG.HCHAIN PARENT)	Sales Units Share of Org Parent
SU_ORG_SHR_TOT	SHARE(SLS.SU OF ORG.HCHAIN TOP)	Sales Units Share of Total Org
SU_ORG_TIME_DAY_RNK_UNAL	OLAP_DML_EXPRESSION('RANK(SLS_SU UNIQUE NALAST TIEBREAKERS(SORT(ORG D sls_su_ly_pct_chg) SORT(time_day D sls_su_ly_pct_chg)) based on ORG TIME_DAY)', NUMBER)	Sales Units Org Time Rank Unique
SU_PROD_SHR_DEPT	SHARE(SLS.SU OF SKUITEM.HSKUITEM LEVEL SKUITEM.DEPT)	Sales Units Share of Prod Dept
SU_PROD_SHR_PRNT	SHARE(SLS.SU OF SKUITEM.HSKUITEM PARENT)	Sales Units Share of Prod Parent
SU_PROD_SHR_TOT	SHARE(SLS.SU OF SKUITEM.HSKUITEM TOP)	Sales Units Share of Total Prod
SU_RNK_NU	OLAP_DML_EXPRESSION('RANK(SLS_SU MIN)', NUMBER)	Sales Units Rank Non-Unique
SU_RNK_U	OLAP_DML_EXPRESSION('RANK(SLS_SU UNIQUE TIEBREAKERS(SORT(ORG D sls_su_ly_pct_chg) SORT(ORG D org_long_description)))', NUMBER)	Sales Units Rank Unique
SU_STTSTC	SLS_FCST_STTSTC.SU_STTSTC	Sales Unit Forecast Statistic

Physical Name	Expression or Calculation	Description
SU_YTD	SUM(SLS.SU) OVER HIERARCHY (TIME_DAY.HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL TIME_DAY.BSNS_YR)	Sales Units YTD
SU_YTD_LY	LAG(SLS.SU_YTD, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sales Units YTD Last Year
SU_YTD_LY_CHG	LAG_VARIANCE(SLS.SU_YTD, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sales Units YTD Chg Last Year
SU_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(SLS.SU_YTD, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sales Units YTD % Chg Last Year
SV	SLS.GROSS_SV - SLS.RET_V	Sales Value
SV_FCST	SLS_FCST.SV_FCST	Sales Value Forecast
SV_LP	LAG(SLS.SV, 1) OVER HIERARCHY (TIME_DAY.HTBSNS)	Sales Value Last Period
SV_LP_CHG	LAG_VARIANCE(SLS.SV, 1) OVER HIERARCHY (TIME_DAY.HTBSNS)	Sales Value Change Last Period
SV_LP_PCT_CHG	LAG_VARIANCE_PERCENT(SLS.SV, 1) OVER HIERARCHY (TIME_DAY.HTBSNS)	Sales Value % Chg Last Period
SV_LY	LAG(SLS.SV, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sales Value Last Year
SV_LY_CHG	LAG_VARIANCE(SLS.SV, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sales Value Change Last Year

Physical Name	Expression or Calculation	Description
SV_LY_PCT_CHG	LAG_VARIANCE_PERCENT(SLS.SV, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sales Value % Chg Last Year
SV_ORG_RNK_U	OLAP_DML_EXPRESSION('RANK(SLS_SV UNIQUE TIEBREAKERS(SORT(ORG D sls_sv_ly_pct_chg)) based on ORG)', NUMBER)	Sales Value Org Rank Unique
SV_ORG_RNK_UNAF	OLAP_DML_EXPRESSION('RANK(SLS_SV UNIQUE NAFIRST TIEBREAKERS(SORT(ORG D sls_sv_ly_pct_chg)) based on ORG)', NUMBER)	Sales Value Org Rank Unique NAFIRST
SV_ORG_RNK_UNAL	OLAP_DML_EXPRESSION('RANK(SLS_SV UNIQUE NALAST TIEBREAKERS(SORT(ORG D sls_sv_ly_pct_chg)) based on ORG)', NUMBER)	Sales Value Org Rank Unique NALAST
SV_ORG_SHR_AREA	SHARE(SLS.SV OF ORG.HCHAIN LEVEL ORG.AREA)	Sales Value Share of Org Area Ancestor
SV_ORG_SHR_PRNT	SHARE(SLS.SV OF ORG.HCHAIN PARENT)	Sales Value Share of Org Parent
SV_ORG_SHR_TOT	SHARE(SLS.SV OF ORG.HCHAIN TOP)	Sales Value Share of Total Org
SV_ORG_TIME_DAY_RNK_UNAL	OLAP_DML_EXPRESSION('RANK(SLS_SV UNIQUE NALAST TIEBREAKERS(SORT(ORG D sls_sv_ly_pct_chg) SORT(time_day D sls_sv_ly_pct_chg)) based on ORG time_day)', NUMBER)	Sales Value Org Time Rank Unique
SV_PROD_SHR_DEPT	SHARE(SLS.SV OF SKUITEM.HSKUITEM LEVEL SKUITEM.DEPT)	Sales Value Share of Prod Dept
SV_PROD_SHR_PRNT	SHARE(SLS.SV OF SKUITEM.HSKUITEM PARENT)	Sales Value Share of Prod Parent
SV_PROD_SHR_TOT	SHARE(SLS.SV OF SKUITEM.HSKUITEM TOP)	Sales Value Share of Total Prod
SV_RNK_NU	OLAP_DML_EXPRESSION('RANK(SLS_SV MIN)', NUMBER)	Sales Value Rank Non-Unique

Physical Name	Expression or Calculation	Description
SV_RNK_U	OLAP_DML_EXPRESSION('RANK(SLS_SV UNIQUE TIEBREAKERS(SORT(org D sls_sv_ly_pct_chg) SORT(org D org_long_description)))', NUMBER)	Sales Value Rank Unique
SV_STTSTC	SLS_FCST_STTSTC.SV_STTSTC	Sales Value Forecast Statistic
SV_YTD	SUM(SLS.SV) OVER HIERARCHY (TIME_DAY.HTBSNS BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT LEVEL TIME_DAY.BSNS_YR)	Sales Value YTD
SV_YTD_LY	LAG(SLS.SV_YTD, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sales Value YTD Last Year
SV_YTD_LY_CHG	LAG_VARIANCE(SLS.SV_YTD, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sales Value YTD Chg Last Year
SV_YTD_LY_PCT_CHG	LAG_VARIANCE_PERCENT(SLS.SV_YTD, 1) OVER HIERARCHY (TIME_DAY.HTBSNS BY ANCESTOR AT LEVEL TIME_DAY.HTBSNS.BSNS_YR POSITION FROM BEGINNING)	Sales Value YTD % Chg Last Year

9.1.21 Sales Forecast Cube: SLS_FCST

This Cube contains the Sales Forecast related measures.

Physical Name: SLS_FCST

Dimensionality

The Sales Forecast Cube is NOT loaded from the relational schema. Data for this cube is generated by the OLAP Forecast process.

Sales Forecast Cube Dimensions

OLAP Cube	Dimension Number	OLAP Dimension	OLAP Dimension Type
Sales Cube Forecast: SLS_FCST	1	Organization: ORGANIZATION	STANDARD
Sales Cube Forecast: SLS_FCST	2	Product: PRODUCT	STANDARD

OLAP Cube	Dimension Number	OLAP Dimension	OLAP Dimension Type
Sales Cube Forecast: SLS_FCST	3	Time: TIME	TIME

Aggregation, Load Information

Sales Forecast Cube Aggregation, Load Information

Order	OLAP Dimension	Operator	Aggregate from Level
1	Organization: ORGANIZATION	SUM	Default
2	Product: PRODUCT	SUM	Default
3	Time: TIME	SUM	Default

Base Measures with Description, Logical Name and Mapping Expression

Sales Forecast Cube Base Measures

Physical Name	Logical Name	Mapping Expression
SU_FCST	Sales Unit Forecast	NULL
SV_FCST	Sales Value Forecast	NULL

Derived Measure with Description, Logical Name and Expression / Calculation

Sales Forecast Cube Derived Measures

Physical Name	Expression or Calculation	Description
OOS_VALUE	INV_FCST.EOP_SV_FCST - SLS_FCST.SV_FCST	Out of Stock Value
OOS_VALUE_S	OLAP_DML_EXPRESSION('if time_day_levelrel eq "DAY" and SLS_FCST_OOS_VALUE lt 0 then "Out-of-Stock" else na', VARCHAR2 (60))	Out of Stock Value Status

9.1.22 Sales Forecast Statistic Cube: SLS_FCST_STTSTC

This cube contains Statistics Measures relating to the Sales Forecast process.

Physical Name: SLS_FCST_STTSTC

Dimensionality

The Sales Forecast Statistics Cube is NOT loaded from the relational schema. Data for this cube is generated by the OLAP Forecast process.

Sales Forecast Statistics Cube Dimensions

Dimension Number	OLAP Dimension	OLAP Dimension Type
1	Organization: ORGANIZATION	STANDARD
2	Product: PRODUCT	STANDARD
3	Time: TIME	TIME

Aggregation, Load Information

Sales Forecast Statistics Cube Aggregation, Load Information

Order	OLAP Dimension	Operator	Aggregate from Level
1	Organization: ORGANIZATION	Non-Additive (Do not summarize)	Default
2	Product: PRODUCT	Non-Additive (Do not summarize)	Default
3	Time: TIME	Non-Additive (Do not summarize)	Default

Base Measures with Description, Logical Name and Mapping Expression

Sales Forecast Statistics Cube Base Measures

Physical Name	Logical Name	Mapping Expression
SU_STTSTC	Sales Unit Forecast Statistic	NULL
SV_STTSTC	Sales Value Forecast Statistic	NULL

10

Oracle Communications Data Model Data Mining Models

This chapter provides reference information about the data mining models provided with Oracle Communications Data Model.

This chapter includes the following sections:

10.1 About Data Mining in Oracle Communications Data Model

Oracle Communications Data Model data mining includes data mining intra-ETL package, data mining core package, source views, target tables, support tables, and setting tables. The source views are defined on source derived tables. These source views are used to train the models. The target tables contain the mining model rules, mining prediction results. Data mining core package uses source views as training data, builds, tests, and applies mining models. Mining target tables are populated with mining model rules and prediction results. The data in the target tables can be presented in reports.

Note:

Modified or new mining models are not supported by Oracle as part of the standard Oracle Communications Data Model support. However, it is recommended that you adapt the supplied mining models to your needs or create new mining models, as required.

Related Topics:

Oracle Data Mining Concepts

Oracle Data Mining User's Guide

10.1.1 Understanding the Mining Model Architecture

Figure 10-1 (page 10-3) shows the architecture of data mining in Oracle Communications Data Model. Oracle Communications Data Model schema, `ocdm_sys`, includes the following:

- Mining Model Source Views: Views defined source derived tables, DWD_CUST_DNA and DWD_VAS_SBRP_QCK_SUMM. These views are used to train mining models. Source data is selected as of training day parameter provided in DWC_ETL_PARAMETER table for "BUILD-MINING-MODELS" process.

- Mining Model Apply Views: Views defined source derived tables, DWD_CUST_DNA and DWD_VAS_SBRP_QCK_SUMM. These views are used to apply trained mining models. Apply data is selected as of apply day parameter provided in DWC_ETL_PARAMETER table for "BUILD-MINING-MODELS" process.

- Mining Model Support Tables: Mining algorithm settings for different algorithms used in Oracle Communications Data Model are stored in the support tables. These support tables start with "DM". Building a mining model creates few tables and views which start with "DM$".

  > **Note:**
  >
  > Do not delete tables and views that start with "DM" and "DM$". Deleting "DM$" tables and views would also delete the trained mining model.

- Mining Model Target Tables: Mining model target tables used for storing mining model rules and prediction results. Mining model rules are generated from the trained model and predictions results are produced when a trained model is applied on apply data.

- Mining Model Core Package: This is the core package for Oracle Communications Data Model data mining. Each mining model has separate procedure in this package. Each procedure builds, tests, and applied mining model. It uses source views as training data, and applies trained model on apply views.

Figure 10-1   Oracle Communications Data Model Mining Packages Tables and Views
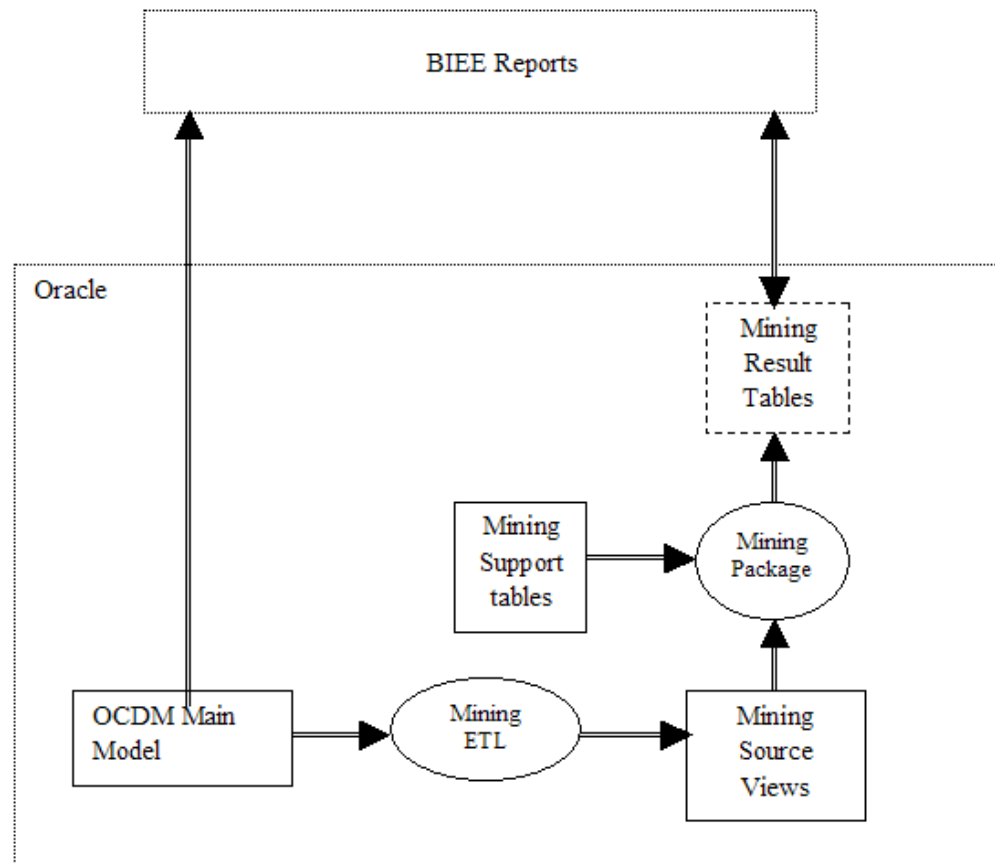
10.1.2 Refreshing the Oracle Communications Data Model Mining Model

Over time, the customer information and the customer behavior may change. Therefore, you may want to refresh the trained mining models based on the latest customer and usage data:

1. Make sure the source derived tables `DWD_CUST_DNA` and `DWD_VAS_SBRP_QCK_SUMM` are loaded with latest data.

2. Update "from_date_etl" and "end_date_etl" columns for "BUILD-MINING-MODELS" process in `DWC_ETL_PARAMETER` table.

   - *"from_date_etl"* - Training data is selected as of this date

   - *"to_date_etl"* - Apply data is selected as of this date

3. Refresh mining source views and apply views to get training data and apply data for the given training day and apply day:

   ```
   exec pkg_mining_etl.refresh_mining_views(l_trnng_day_key,l_apply_day_key);
   ```

4. Build, test, and apply mining models. Make sure an intra-etl process is running, if not, start a process:

   ```
   exec pkg_ocdm_mining.REFRESH_MODEL(l_apply_day_key,NULL);
   ```

5. For each mining procedure, an activity is created and the status of all mining activities are saved into DWC_INTRA_ETL_ACTIVITY table.

10.2 Oracle Communications Data Model Mining Result Tables

Table 10-1   Target Columns in DWD_CUST_DNA Data Mining Result Table

Name	Data Type	Description
CLSTR_SGMNT_CD	VARCHAR2(8)	The k-Means algorithm divides the set of all customers into segments. This value identifies the segment that the customer belongs to.
CMPTD_LTV_VALUE	NUMBER	
LT_SRVVL_CD	VARCHAR2(120)	The band code of Customer Survival period (Life Expectancy), predicted by Life_Exp (GLMR) Model.
LTV_BAND_CD	VARCHAR2(120)	The band code of customer lifetime value, predicted by LTV Generalized Linear Models Regression. For more information, see *Oracle Data Mining Concepts*.
MANUAL_SNTMNT_CTGRY	VARCHAR2(120)	The manual score applied by end user. The end user generates this model. For example, an employee from the operator might generate this model. Usually this is the call center agent. For example, when the message is recorded, there could be a manual tag associated with the message indicating that the customer is happy or upset.
PRDCT_CHURN_DT_IND	CHAR(1)	Boolean value whether customer will churn in next three months according to DT model.
PRDCT_CHURN_DT_ND_NBR	VARCHAR2(30)	The ID of the node in the decision tree where the customer is assigned.
PRDCT_CHURN_DT_PROB	NUMBER	The probability value of how likely customer will churn in next 3 months. This is the probability that the DT prediction is correct.
PRDCT_CHURN_SVM_IND	CHAR(1)	Boolean value whether customer will churn in next three months according to SVM model.
PRDCT_CHURN_SVM_PROB	NUMBER	The probability value of how likely customer will churn in next 3 months. This is the probability that the SVM prediction is correct.

Table 10-1   (Cont.) Target Columns in DWD_CUST_DNA Data Mining Result Table

Name	Data Type	Description
PRDCT_LT_SRVVL_VAL	NUMBER(22,7)	The value of Customer Survival period (Life Expectancy), predicted by Life_Exp (GLMR) Mode.
PRDCT_LTV_VALUE	NUMBER	The real value of Customer Lifetime value, predicted by LTV (GLMR) Mode.
SNTMNT_CTGRY_CD	VARCHAR2(120)	The customer sentiment category detected by Customer sentiment model (SVM + Text). This is an SVM model on transformed TEXTs (transformed into a words matrix).
SNTMNT_PROB	NUMBER	The probability of which customer is in possible model (Happy). This is the probability that customer is happy with their service. For example, a value of 60% means there is 60% chance that customer is happy with the service and a 40% chance that customer is not happy.

Table 10-2   DWD_CUST_PROD_AFFLTN Data Mining Result Table

Name	Data Type	Description
AFFLTN_PROB	NUMBER(20,18)	The likelihood, predicted by the SVM model, that the customer will purchase the product.
BUY_IND	CHAR(1)	Boolean value to indicate whether customer may purchase the product. This indicates that a value 1 is BUY and a value of 0 is "NOT to BUY".
CUST_CD	VARCHAR2(120)	Customer natural key to identify the customer.
MO_KEY	NUMBER(30)	Month key for which the target promotion model was trained.
PROD_CD	VARCHAR2(120)	The product code which was predicted against. This is target product for promotion.

Table 10-3   DWD_CHRN_SVM_FACTOR Data Mining Result Table

Name	Data Type	Description
ACCT_TYP_CD	VARCHAR2(120)	Account Type Code. For example: Prepaid, Postpaid
ATTRIBUTE_NAME	VARCHAR2(4000)	Name of the factor.

Table 10-3 (Cont.) DWD_CHRN_SVM_FACTOR Data Mining Result Table

Name	Data Type	Description
ATTRIBUTE_SUBNAME	VARCHAR2(4000)	Subname of the factor if there is any. For example, if the ATTRIBUTE_NAME has the value, "Payment_Method", then the ATTRIBUTE_SUBNAME could be and of the following: • Debit_Card • Cash Each ATTRIBUTE_SUBNAME has a different weight, coefficient, in the model.
ATTRIBUTE_VALUE	VARCHAR2(4000)	Value of the factor, if there is any. For example, for payment method, value of "cash" and "direct debit" might have different influence and ranking.
COEFFICIENT	NUMBER	Importance of the factor. The factors are ranked according to this value.
MODEL_NAME	VARCHAR2(120)	Churn model name

Table 10-4 DWD_PROMO_SVM_FACTOR Data Mining Result Table

Name	Data Type	Description
ATTRIBUTE_NAME	VARCHAR2(4000)	Name of the factor.
ATTRIBUTE_SUBNAME	VARCHAR2(4000)	Subname of the factor if there is any. For example, if the ATTRIBUTE_NAME has the value, "Payment_Method", then the ATTRIBUTE_SUBNAME could be and of the following: • Debit_Card • Cash Each ATTRIBUTE_SUBNAME has a different weight, coefficient, in the model.
ATTRIBUTE_VALUE	VARCHAR2(4000)	Value of the factor, if there is any. For example, for payment method, value of "cash" and "direct debit" might have different influence and ranking.
COEFFICIENT	NUMBER	Importance of the factor. The factors are ranked according to this value.
MO_KEY	NUMBER(30)	Month key for which the target promotion model was trained

Table 10-4   (Cont.) DWD_PROMO_SVM_FACTOR Data Mining Result Table

Name	Data Type	Description
PROD_CD	VARCHAR2(50)	The product code which was predicted against. This is target product for promotion.

Table 10-5   DWR_CUST_DT_NODE Data Mining Result Table

Name	Data Type	Description
ACCT_TYP_CD	VARCHAR2(120)	Account Type Code. For example: Prepaid, Postpaid
CONFIDENCE	NUMBER	Ratios of prediction_count to record_count
IS_LEAF	VARCHAR2(10)	Indicates whether the node is a leaf indicator. The prediction of lead node is the final prediction
MODEL_NAME	VARCHAR2(120)	Churn model name
NODE_ID	VARCHAR2(50)	Decision tree node number
PREDICTION	NUMBER	Prediction for the current node. If number of customers predicted to churn is higher than number of customers to retain, then this would be 1, otherwise it would be 0
PREDICTION_COUNT	NUMBER	Number of customers predicted to churn under the current node
RECORD_COUNT	NUMBER	Number of customer under the current node
SUPPORT	NUMBER	Ration of record_count to total number of customers

Table 10-6   DWD_CHRN_SVM_ROC Data Mining Result Table

Name	Data Type	Description
ACCT_TYP_CD	VARCHAR2(120)	Account Type Code. For example, Prepaid, Postpaid
BASE_BENCHMARK_PERCENT	NUMBER	Base Benchmark Percentage
COST_THRESHOLD	NUMBER	Cost Threshold
GAIN_CUMULATIVE	NUMBER	Cumulative Gain
LIFT_CUMULATIVE	NUMBER	Cumulative Lift
LIFT_QUANTILE	NUMBER	Quantile Lift
MAX_SVM_TO_CHRN_PROB	NUMBER	Maximum Churn Probability

Table 10-6   (Cont.) DWD_CHRN_SVM_ROC Data Mining Result Table

Name	Data Type	Description
MIN_SVM_TO_CHRN_PROB	NUMBER	Minimum Churn Probability
MODEL_NAME	VARCHAR2(120)	Churn Model Name
NON_TARGETS_CUMULATIVE	NUMBER	Cumulative Non-targets
PERCENTAGE_RECORDS_CUMULAT IVE	NUMBER	Cumulative Percentage Records
PRED_QUANTILE_TARGET_COUNT	NUMBER	Predicted Target Count of the Quantile
QUANTILE_NUMBER	NUMBER	Quantile number
QUANTILE_TARGET_COUNT	NUMBER	Target Count of the current Quantile
QUANTILE_TOTAL_COUNT	NUMBER	Total Count in the current Quantile
TARGET_DENSITY	NUMBER	Target Density
TARGET_DENSITY_CUMULATIVE	NUMBER	Cumulative Target Density
TARGETS_CUMULATIVE	NUMBER	Cumulative Targets
TEST_DATE	DATE	Date when mining model trained and applied

Table 10-7   DWD_PROMO_SVM_ROC Data Mining Result Table

Name	Data Type	Description
ACCT_TYP_CD	VARCHAR2(120)	Account Type Code. For example, Prepaid, Postpaid
BASE_BENCHMARK_PERCENT	NUMBER	Base Benchmark Percentage
COST_THRESHOLD	NUMBER	Cost Threshold
GAIN_CUMULATIVE	NUMBER	Cumulative Gain
LIFT_CUMULATIVE	NUMBER	Cumulative Lift
LIFT_QUANTILE	NUMBER	Quantile Lift
MAX_SVM_TO_BUY_PROB	NUMBER	Maximum Buy Probability
MIN_SVM_TO_BUY_PROB	NUMBER	Minimum Buy Probability
MO_KEY	NUMBER(30)	Month Key
MODEL_NAME	VARCHAR2(120)	Churn Model Name
NON_TARGETS_CUMULATIVE	NUMBER	Cumulative Non-targets

Table 10-7   (Cont.) DWD_PROMO_SVM_ROC Data Mining Result Table

Name	Data Type	Description
PERCENTAGE_RECORDS_CUMULATIVE	NUMBER	Cumulative Percentage Records
PRED_QUANTILE_TARGET_COUNT	NUMBER	Predicted Target Count of the Quantile
PROD_CD	VARCHAR2(50)	Product code
QUANTILE_NUMBER	NUMBER	Quantile number
QUANTILE_TARGET_COUNT	NUMBER	Target Count of the current Quantile
QUANTILE_TOTAL_COUNT	NUMBER	Total Count in the current Quantile
TARGET_DENSITY	NUMBER	Target Density
TARGET_DENSITY_CUMULATIVE	NUMBER	Cumulative Target Density
TARGETS_CUMULATIVE	NUMBER	Cumulative Targets
TEST_DATE	DATE	Date when mining model trained and applied

10.3 Model 1: Prepaid Churn Prediction

The prepaid churn prediction model identifies the characteristics of a prepaid customer likely to churn. When you apply the model you get a prediction of how likely a particular customer is to churn. This is based on customer information such as customer demographic information, service quality, recharge history, calling usage, interaction, and other factors. Using the patterns learned, the model can also perform the calculation over current customer base (called 'Apply') to predict which customers are mostly like to churn in next four months. With this knowledge, operators can initiate certain retention programs to reduce the customer churn rate. However, the churn prediction produces a likely to churn value. Further processing may be required to determine if it is desirable to retain a customer that is likely to churn. For example, you may only want to initiate retention programs for high value customers.

Algorithm settings tables allow you to override default values of different settings for mining algorithms.

10.3.1 Prepaid Churner Definition

There are several levels to define churn, namely Customer, Account, and subscription. For some operators with only limited business line, customer and account churn at

same time, while subscription is at a lower level. Customer can stop using some products (termination of subscription) while continue to use the other products. In later case, operator still has the customer and may promote other products in the future. However, if customer completely stopped using any products from the operator, it is very difficult for operator to bring customer back.

In Oracle Communications Data Model, the churn is defined at Customer Level, which is, a customer is recognized as a churner only when he stop using any product from the operator.

If customers churn at a given month, the model may receive the data only three months after the actual Churn. So the time window should be adjusted.

10.3.2 Prepaid Churn Source

Table 10-8 (page 10-10) shows the attributes identified from the Foundation Data Warehouse as input source variables for the prepaid churn model.

Table 10-8   DWV_PRPD_CUST_CHRN_SRC

Attribute	Description
ACCPT_NWSLTR_IND	Indicates whether customer accepts News Letter
ADDR_LOC_CD	Customer Address Location Code
AGE_BND_CD	Customer Age Band Code
AGE_ON_NET_BND_CD	Customer Age on Net Band Code
AGE_ON_NET_NBR	Customer Age on Net expressed in number of months
ARPU_BND_CD	Customer ARPU Band Code
AVG_DRTN_BTWN_RCHRG	Average duration between two recharges - in days
BARNG_RSN_CD	Customer Barring Reason Code
BRDBND_IND	Indicates whether Customer has Broadband connection
BSNS_LEGAL_STAT_CD	Legal Status Code of Enterprise Customers, for example, Public, Private
CAR_DRVR_LICNS_IND	Indicates whether customer has driver's license
CAR_TYP_CD	Car Type Code
CHRN_IND	Indicates whether a customer is a Churner or Non-churner
CITY	City
CMPLNT_CNT_LAST_3MO	Number of complaints made by customer in last 3 months
CMPLNT_CNT_LAST_MO	Number of complaints made by customer in this month
CMPLNT_CNT_LFTM	Number of complaints made by customer in his/her life span

Table 10-8   (Cont.) DWV_PRPD_CUST_CHRN_SRC

Attribute	Description
CNCT_ADDR_EFF_DT_NBR	Customer Contact Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
CNTCT_ALLWD_IND	Indicates whether customer allows to contact
CNTRY	Country
COLL_ZIP_CD	College ZIP Code
CRDT_CTGRY_KEY	Customer Credit Category
CUST_BRANCH_CD	Customer Branch Code
CUST_CD	Customer Identifier
CUST_RVN_BND_CD	Customer Revenue Band Code
CUST_SCR_CD	Customer SCR Code
CUST_TYP_CD	Customer Type Code
DAYS_BFR_FIRST_RCHRG	Days between first payment and first recharge
DAYS_BFR_FIRST_USE	Days between payment and first use
DRPD_CALLS_CNT_LAST_3MO	Number of dropped calls in last 3 months
DRPD_CALLS_CNT_LAST_MO	Number of dropped calls this month
DRPD_CALLS_CNT_LFTM	Number of dropped calls in customer life span
DWLNG_OWNER	Dwelling Owner
DWLNG_STAT	Dwelling Status
DWLNG_SZ	Dwelling Size
DWLNG_TENR	Dwelling Tenure
DWLNG_TYP	Dwelling Type
DWNLD_DATA_LAST_3MO	Data downloaded in KBs in last 3 months
DWNLD_DATA_LAST_MO	Data downloaded in KBs in last 1 month
DWNLD_DATA_LFTM	Data downloaded in KBs in lifetime
ECNMCLY_ACTV_IND	Indicates whether a customer is economically Active
EDU_CD	Education Qualification Code
EFF_FROM_DT_NBR	Customer Effective From Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.

Table 10-8   (Cont.) DWV_PRPD_CUST_CHRN_SRC

Attribute	Description
END_OF_JB_AGRMNT_NBR	End of Job Agreement expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
ESTMTD_ACQSTN_COST	Customer Acquisition Estimated Cost
ETHNCTY	Customer Ethnicity
ETHNIC_BCKGRND	Customer Ethnic Background
FORM_OF_EMPMNT	Form of Employment
GNDR_CD	Individual Customer Gender Code
HH_SZ	Household Size
HNGUP_CALLS_CNT_LAST_3MO	Number of hangup calls in last 3 months
HNGUP_CALLS_CNT_LAST_MO	Number of hangup calls this month
HNGUP_CALLS_CNT_LFTM	Number of hangup calls in customer life span
HOMTEL_IND	Indicates whether Customer has Home Telephone
IDD_IND	Indicates whether Customer subscribed to International Direct Dialing
JB_AGRMNT_TYP	Job Agreement Type
JB_CD	Customer Job Code
JB_POSN	Customer Job Position
LANG_CD	Language Code
LAST_INCOMING_USG_DT_NBR	When was last incoming call occurred
LAST_OUTGOING_USG_DT_NBR	When was last outgoing call occurred
LAST_RCHRG_AMT	Last recharge amount
LEGAL_TTL_TO_HSNG	Legal Title to Housing
LIFE_SPN	Customer Life Span
LIKE_SCP_IN_FCBK_IND	Indicates whether customer likes Service Provide page in Facebook
LVNG_AT_CURR_ADDR_SINCE_NBR	Since When Customer Living at Current Address expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
MAIL_ALWD_IND	Indicates whether Customer allows Service Provider to send mail

Table 10-8   (Cont.) DWV_PRPD_CUST_CHRN_SRC

Attribute	Description
MAX_RCHRG_AMT	Maximum recharge amount
MIN_RCHRG_AMT	Minimum recharge amount
MMS_CNT_LAST_3MO	MMSs sent in last 3 months
MMS_CNT_LAST_MO	MMSs sent in last 1 month
MMS_CNT_LFTM	MMSs sent over customer's lifetime
MRTL_STAT_CD	Individual Customer Marital Status Code
MULT_PRTY_ROLE_IND	Indicates whether customer has multiple party roles. For example, both an employee and customer of Service Provider
NAME_OF_WKPLC	Name of Workplace
NAME_PRFX	Name Prefix
NBR_CHLDRN_AT_COLL	Total Number of Children at College
NBR_CHLDRN_AT_SCHL	Total Number of Children at School
NBR_CHLDRN_AT_UNIV	Total Number of Children at University
NBR_OF_CHLDRN	Total Number of Children
NBR_OF_DPNDNT	Total Number of Dependents
NEW_ACCT_IND	Indicates whether Customer is New
NO_MTHS_CMPNY	Number of months an Individual Customer is in his/her current Company
NO_MTHS_POSN	Number of months an Individual Customer is in his/her current Position
NTNLTY_CD	Customer Nationality Code
OFFNET_AIRTIME_LAST_3MO	Total offnet airtime in minutes in last 3 months
OFFNET_AIRTIME_LAST_MO	Total offnet airtime in minutes in last 1 month
OFFNET_AIRTIME_LFTM	Total offnet airtime in minutes in lifetime
OFFNET_CALLS_LAST_3MO	Number of offnet calls in last 3 months
OFFNET_CALLS_LAST_MO	Number of offnet calls in last 1 month
OFFNET_CALLS_LFTM	Number of offnet calls in lifetime
ONNET_AIRTIME_LAST_3MO	Total onnet airtime in minutes in last 3 months
ONNET_AIRTIME_LAST_MO	Total onnet airtime in minutes in last 1 month
ONNET_AIRTIME_LFTM	Total onnet airtime in minutes in lifetime

Table 10-8   (Cont.) DWV_PRPD_CUST_CHRN_SRC

Attribute	Description
ONNET_CALLS_LAST_3MO	Number of onnet calls in last 3 months
ONNET_CALLS_LAST_MO	Number of onnet calls in last 1 month
ONNET_CALLS_LFTM	Number of onnet calls in lifetime
OTH_DRVR_LICNS_IND	Indicates whether customer has other vehicle License
PAY_TV_IND	Indicates whether Customer has Pay TV connection
PLC_OF_BRTH	Place of Birth
PORT_IN_CNT	Number of times the customer ported in
PORT_IN_FROM	Service Provide from who the customer ported out from
PORT_OUT_CNT	Number of times the customer ported out
POSTCD_CD	Postcard Code
PREF_CNTCT_MDM	Preferred Contact Method
PREF_ENTMNT_IND	Indicates whether customer given any Entitlement preference
PREF_GVN_IND	Indicates whether customer given any preference
PREF_MSC_IND	Indicates whether customer given any Music preference
PREF_SPRT_IND	Indicates whether customer given any sport preference
PREF_TRVL_IND	Indicates whether customer given any Travel preference
PRMRY_STAT_CD	Customer Primary Status Code
PRMRY_STAT_RSN_CD	Customer Primary Status Reason Code
PRTY_AGE	Customer Age expressed as number of years
PRTY_TYP_CD	Party Type Code, for example, Individual, Large Enterprise, Medium Enterprise, and so on.
RLSD_CALLS_CNT_LAST_3MO	Number of released calls in last 3 months
RLSD_CALLS_CNT_LAST_MO	Number of released calls this month
RLSD_CALLS_CNT_LFTM	Number of released calls in customer life span
RMRK_CNT_LAST_3MO	Numbers of remarks made against customer in last 3 months
RMRK_CNT_LAST_MO	Numbers of remarks made against customer in this month

Table 10-8   (Cont.) DWV_PRPD_CUST_CHRN_SRC

Attribute	Description
RMRK_CNT_LFTM	Numbers of remarks made against customer in his/her life span
SCHL_ZIP_CD	School ZIP Code
SCL_NTWK_USR_IND	Indicates whether customer uses any Social Network site
SL_CHNL_KEY	Sales Channel
SL_CHNL_RPRSTV_KEY	Sales Channel Representative
SMS_CNT_LAST_3MO	SMSs sent in last 3 months
SMS_CNT_LAST_MO	SMSs sent in last 1 month
SMS_CNT_LFTM	SMSs sent over customer's lifetime
SPRT_IND	Indicates whether customer plays Sports
SPRT_TYP_CD	Sport Type Code
SRC_OF_INCM	Source of Income
STATE	State
STRT_OF_EMPMNT_NBR	Customer Start of Employment expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
TOT_AGE_CHLDRN	Total Age of Children
TOT_CALL_CNT_LAST_3MO	Total number of calls to Call center made by customer in last 3 months
TOT_CALL_CNT_LAST_MO	Total number of calls to Call center made by customer in this month
TOT_CALL_CNT_LFTM	Total number of calls to Call center made by customer in his/her life span
TOT_CNTRBTN_LAST_MO	Sum of total payments and total recharges made in the last one month
TOT_CNTRBTN_LFTM	Sum of total payments and total recharges made in customers life time
TOT_DAYS_ACTVTY	Total days of activity
TOT_DAYS_ON_USE	Total days on use
TOT_DAYS_OUTGOING_ACTVTY	Total days of outgoing activity
TOT_DRTN_OF_USG	Total durations of usage in customer life time
TOT_EXP_AMT_EQVLT_VAL	Total amount expired in customers life time

Table 10-8 (Cont.) DWV_PRPD_CUST_CHRN_SRC

Attribute	Description
TOT_HLD_DRTN_LAST_3MO	Total hold duration in last 3 months in seconds
TOT_HLD_DRTN_LAST_MO	Total hold duration this month in seconds
TOT_HLD_DRTN_LFTM	Total hold duration in customer life span in seconds
TOT_QUE_DRTN_LAST_3MO	Total queue duration in the last 3 months in seconds
TOT_QUE_DRTN_LAST_MO	Total queue duration this month in seconds
TOT_QUE_DRTN_LFTM	Total queue duration in customer life span in seconds
TOT_RCHRG_AMT_LAST_3MO	Total recharge amount this month
TOT_RCHRG_AMT_LAST_MO	Total recharge amount in last 3 months
TOT_RCHRG_AMT_LFTM	Total recharge amount in customers life time
TOT_RCHRG_CNT_LAST_3MO	Number of recharges made in last 3 months
TOT_RCHRG_CNT_LAST_MO	Number of recharges made this month
TOT_RCHRG_CNT_LFTM	Number of recharges made in customer life time
TOT_TALK_DRTN_LAST_3MO	Total talk duration in the last 3 months in seconds
TOT_TALK_DRTN_LAST_MO	Total talk duration this month in seconds
TOT_TALK_DRTN_LFTM	Total talk duration in customer life span in seconds
TOT_UTILZD_EQVLT_VAL	Total utilized monetary value in customers life time
UNIV_ZIP_CD	University ZIP Code
UPLD_DATA_LAST_3MO	Data uploaded in KBs in last 3 months
UPLD_DATA_LAST_MO	Data uploaded in KBs in last 1 month
UPLD_DATA_LFTM	Data uploaded in KBs in lifetime
VOI_INTERNAT_AIRTIME_LAST_3MO	International voice air time including roaming in minutes in last three months
VOI_INTERNAT_AIRTIME_LAST_MO	International voice air time in minutes including roaming in last one month
VOI_INTERNAT_AIRTIME_LFTM	International voice air time in minutes including roaming over customer's life time
VOI_NAT_AIRTIME_LAST_3MO	National voice air time in minutes in last three months
VOI_NAT_AIRTIME_LAST_MO	National voice air time in minutes in last one month
VOI_NAT_AIRTIME_LFTM	National voice air time in minutes over customer's life time

Table 10-8   (Cont.) DWV_PRPD_CUST_CHRN_SRC

Attribute	Description
WRLS_IND	Indicates whether Customer has Wireless Internet connection

10.3.3 Prepaid Churn Output Target Attribute: CHRN_IND

Data in DWV_PRPD_CUST_CHRN_SRC view is used to train prepaid churn models using two algorithms, *Support Vector Machines* and *Decision Tree*. Data in DWV_PRPD_CUST_CHRN_TST view is used to compare the performance of old and new mining models and the best model is chosen as final trained model. Data in DWV_PRPD_CUST_CHRN_APPLY view is scored with the final trained model. Scoring results are saved into DWD_CUST_DNA table with the following columns:

- DWD_CUST_DNA.PRDCT_CHURN_SVM_IND

- DWD_CUST_DNA.PRDCT_CHURN_SVM_PROB

- DWD_CUST_DNA.PRDCT_CHURN_DT_IND

- DWD_CUST_DNA.PRDCT_CHURN_DT_ND_NBR

10.3.4 Prepaid Churn Algorithm

The following two algorithms are used separately to solve prepaid churn classification mining problem:

- Support Vector Machines (SVM)

- Decision Tree

10.3.5 Prepaid Churn Algorithm Setting Tables

Algorithm settings tables allow you to override default values of different settings for mining algorithms.

The following are the prepaid churn setting tables:

- DM_STNG_CHURN_SVM - For Support Vector Machines algorithm

- DM_STNG_CHURN_DT - For Decision Tree algorithm

10.4 Model 2: Postpaid Churn Prediction

The postpaid churn prediction model identifies the characteristics of a postpaid customer likely to churn. When you apply the model you get a prediction of how likely a particular customer is to churn. This is based on customer information such as customer demographic information, service quality, tariff plan, calling usage, interaction, and other factors. Using the patterns learned, the model can also perform the calculation over current customer base (called 'Apply') to predict which customers are mostly like to churn in next four months. With this knowledge, operators can initiate certain retention programs to reduce the customer churn rate. However, the churn prediction produces a likely to churn value. Further processing may be required to determine if it is desirable to retain a customer that is likely to churn. For example, you may only want to initiate retention programs for high value customers.

> Algorithm settings tables allow you to override default values of different settings for mining algorithms.

10.4.1 Postpaid Churner Definition

There are several levels to define churn, namely Customer, Account, and subscription. For some operators with only limited business line, customer and account churn at same time, while subscription is at a lower level. Customer can stop using some products (termination of subscription) while continue to use the other products. In later case, operator still has the customer and may promote other products in the future. However, if customer completely stopped using any products from the operator, it is very difficult for operator to bring customer back.

In Oracle Communications Data Model, the churn was defined at Customer Level, which is, a customer is recognized as a churner only when he stop using any product from the operator.

If customers churn at a given month, the model may receive the data only three months after the actual Churn. In this case the time window should be adjusted.

10.4.2 Postpaid Churner Source

Table 10-9 (page 10-18) shows the attributes identified from the Foundation Data Warehouse as input source variables for the postpaid churn model.

Table 10-9   DWV_PSTPD_CUST_CHRN_SRC

Attribute	Description
ACCPT_NWSLTR_IND	Indicates whether customer accepts News Letter
ACCT_LFT_VAL_LAST_3MO	Account Left Value in last three months
ACCT_LFT_VAL_LAST_MO	Account Left Value in last month
ADDR_LOC_CD	Customer Address Location Code
AGE_BND_CD	Customer Age Band Code
AGE_ON_NET_BND_CD	Customer Age on Net Band Code
AGE_ON_NET_NBR	Customer Age on Net expressed in number of months
AGRMNT_CNT_LAST_3MO	Number of Agreements in last 3 months
AGRMNT_CNT_LAST_MO	Number of Agreements in last 1 month
AGRMNT_LFT_DAYS_LAST_3MO	Agreement Left Days in last 3 months
AGRMNT_LFT_DAYS_LAST_MO	Agreement Left Days in last 1 month
ARPU_BND_CD	Customer ARPU Band Code

Table 10-9   (Cont.) DWV_PSTPD_CUST_CHRN_SRC

Attribute	Description
BARNG_RSN_CD	Customer Barring Reason Code
BLLG_ADDR_EFF_DT_NBR	Building Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
BNKRPT_STAT	Bankrupt Status
BNKRPT_STRT_DT_NBR	Bankrupt Start Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
BRDBND_IND	Indicates whether Customer has Broadband connection
BSNS_LEGAL_STAT_CD	Legal Status Code of Enterprise Customers. For example, Public, Private
CAR_DRVR_LICNS_IND	Indicates whether customer has Car Driving License
CAR_TYP_CD	Car Type Code
CHRN_IND	Indicates whether a customer is a Churner or Non-churner
CITY	City
CMPLNT_CNT_LAST_3MO	Number of complaints made by customer in last 3 months
CMPLNT_CNT_LAST_MO	Number of complaints made by customer in this month
CMPLNT_CNT_LFTM	Number of complaints made by customer in his/her life span
CMPNY_EMP_SZ_BND_CD	Enterprise Customer Employee Size Band Code
CMPNY_RVN_BND_CD	Enterprise Customer Revenue Band Code
CMPNY_TYP_CD	Company Type Code
CNCT_ADDR_EFF_DT_NBR	Customer Contact Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
CNTCT_ALLWD_IND	Indicates whether customer allows to contact
CNTRY	Country
COLL_ZIP_CD	College ZIP Code
CRDT_CTGRY_KEY	Customer Credit Category
CUST_BRANCH_CD	Customer Branch Code

Table 10-9   (Cont.) DWV_PSTPD_CUST_CHRN_SRC

Attribute	Description
CUST_CD	Customer Identifier
CUST_PYMT_RESPBL_IND	Indicates whether customer is responsible for making payments
CUST_RVN_BND_CD	Customer Revenue Band Code
CUST_SCR_CD	Customer SCR Code
CUST_TYP_CD	Customer Type Code
DEBT_AGNG_BND_CD_LAST_3MO	Debt Ageing Band Code in last 3 months
DEBT_AGNG_BND_CD_LAST_MO	Debt Ageing Band Code in last 1 month
DEBT_VAL_LAST_3MO	Debt Value in last 3 months
DEBT_VAL_LAST_MO	Debt Value in last 1 month
DRPD_CALLS_CNT_LAST_3MO	Number of dropped calls in last 3 months
DRPD_CALLS_CNT_LAST_MO	Number of dropped calls this month
DRPD_CALLS_CNT_LFTM	Number of dropped calls in customer life span
DWLNG_OWNER	Dwelling Owner
DWLNG_STAT	Dwelling Status
DWLNG_SZ	Dwelling Size
DWLNG_TENR	Dwelling Tenure
DWLNG_TYP	Dwelling Type
DWNLD_DATA_LAST_3MO	Data downloaded in KBs in last 3 months
DWNLD_DATA_LAST_MO	Data downloaded in KBs in last 1 month
DWNLD_DATA_LFTM	Data downloaded in KBs in lifetime
ECNMCLY_ACTV_IND	Indicates whether a customer is economically Active
EDU_CD	Education Qualification Code
EFF_FROM_DT_NBR	Customer Effective From Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
END_OF_JB_AGRMNT_NBR	End of Job Agreement expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
ESTMTD_ACQSTN_COST	Customer Acquisition Estimated Cost

Table 10-9   (Cont.) DWV_PSTPD_CUST_CHRN_SRC

Attribute	Description
ETHNCTY	Customer Ethnicity
ETHNIC_BCKGRND	Customer Ethnic Background
EXTRNL_ORG_TYP_CD	External Organization Type Code
FORM_OF_EMPMNT	Form of Employment
FUTRE_AGRMNT_CNT_LAST_3MO	Number of Future Agreements in last 3 months
FUTRE_AGRMNT_CNT_LAST_MO	Number of Future Agreements in last 1 month
FUTRE_AGRMNT_DAYS_LAST_3MO	Future Agreement Days in last 3 months
FUTRE_AGRMNT_DAYS_LAST_MO	Future Agreement Days in last 1 month
GNDR_CD	Individual Customer Gender Code
HH_SZ	Household Size
HNGUP_CALLS_CNT_LAST_3MO	Number of hangup calls in last 3 months
HNGUP_CALLS_CNT_LAST_MO	Number of hangup calls this month
HNGUP_CALLS_CNT_LFTM	Number of hangup calls in customer life span
HOMTEL_IND	Indicates whether Customer has Home Telephone
IDD_IND	Indicates whether Customer subscribed to International Direct Dialing
JB_AGRMNT_TYP	Job Agreement Type
JB_CD	Customer Job Code
JB_POSN	Customer Job Position
LANG_CD	Language Code
LEGAL_TTL_TO_HSNG	Legal Title to Housing
LIFE_SPN	Customer Life Span
LIKE_SCP_IN_FCBK_IND	Indicates whether customer likes Service Provide page in Facebook
LVNG_AT_CURR_ADDR_SINCE_NBR	Since When Customer Living at Current Address expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
LYLTY_PROG_BAL_LAST_3MO	Loyalty Program Balance in last three months
LYLTY_PROG_BAL_LAST_MO	Loyalty Program Balance in last month
MAIL_ALWD_IND	Indicates whether Customer allows Service Provider to send mail

Table 10-9 (Cont.) DWV_PSTPD_CUST_CHRN_SRC

Attribute	Description
MMS_CNT_LAST_3MO	MMSs sent in last 3 months
MMS_CNT_LAST_MO	MMSs sent in last 1 month
MMS_CNT_LFTM	MMSs sent over customer's lifetime
MO_RVN_LAST_3MO	Monthly Revenue as of 3 months ago
MO_RVN_LAST_MO	Monthly Revenue as of 1 month ago
MRTL_STAT_CD	Individual Customer Marital Status Code
MULT_PRTY_ROLE_IND	Indicates whether customer has multiple party roles. For example, both an employee and customer of Service Provider
NAME_OF_WKPLC	Name of Workplace
NAME_PRFX	Name Prefix
NBR_CHLDRN_AT_COLL	Total Number of Children at College
NBR_CHLDRN_AT_SCHL	Total Number of Children at School
NBR_CHLDRN_AT_UNIV	Total Number of Children at University
NBR_EMP_SNC_CUST	Numbers of Employees Since Customer
NBR_OF_CHLDRN	Total Number of Children
NBR_OF_DPNDNT	Total Number of Dependents
NEW_ACCT_IND	Indicates whether Customer is New
NO_MTHS_CMPNY	Number of months an Individual Customer is in his/her current Company
NO_MTHS_POSN	Number of months an Individual Customer is in his/her current Position
NTNLTY_CD	Customer Nationality Code
OFFNET_AIRTIME_LAST_3MO	Total offnet airtime in minutes in last 3 months
OFFNET_AIRTIME_LAST_MO	Total offnet airtime in minutes in last 1 month
OFFNET_AIRTIME_LFTM	Total offnet airtime in minutes in lifetime
OFFNET_CALLS_LAST_3MO	Number of offnet calls in last 3 months
OFFNET_CALLS_LAST_MO	Number of offnet calls in last 1 month
OFFNET_CALLS_LFTM	Number of offnet calls in lifetime
ONNET_AIRTIME_LAST_3MO	Total onnet airtime in minutes in last 3 months
ONNET_AIRTIME_LAST_MO	Total onnet airtime in minutes in last 1 month

Table 10-9   (Cont.) DWV_PSTPD_CUST_CHRN_SRC

Attribute	Description
ONNET_AIRTIME_LFTM	Total onnet airtime in minutes in lifetime
ONNET_CALLS_LAST_3MO	Number of onnet calls in last 3 months
ONNET_CALLS_LAST_MO	Number of onnet calls in last 1 month
ONNET_CALLS_LFTM	Number of onnet calls in lifetime
OTH_DRVR_LICNS_IND	Indicates whether customer has other vehicle License
PAY_TV_IND	Indicates whether Customer has Pay TV connection
PLC_OF_BRTH	Place of Birth
PORT_IN_CNT	Number of times the customer ported in
PORT_IN_FROM	Service Provide from who the customer ported out from
PORT_OUT_CNT	Number of times the customer ported out
POSTCD_CD	Postcard Code
PREF_CNTCT_MDM	Preferred Contact Method
PREF_ENTMNT_IND	Indicates whether customer given any Entitlement preference
PREF_GVN_IND	Indicates whether customer given any preference
PREF_MSC_IND	Indicates whether customer given any Music preference
PREF_PYMT_MTHD_TYP_CD	Preferred Payment Method Type Code
PREF_SPRT_IND	Indicates whether customer given any sport preference
PREF_TRVL_IND	Indicates whether customer given any Travel preference
PRMRY_STAT_CD	Customer Primary Status Code
PRMRY_STAT_RSN_CD	Customer Primary Status Reason Code
PRTY_AGE	Customer Age expressed as number of years
PRTY_TYP_CD	Party Type Code. For example, Individual, Large Enterprise, Medium Enterprise, and so on.
PYMT_ACCT_OPEN_DT_NBR	Payment Account Open Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
RLSD_CALLS_CNT_LAST_3MO	Number of released calls in last 3 months
RLSD_CALLS_CNT_LAST_MO	Number of released calls this month

Table 10-9   (Cont.) DWV_PSTPD_CUST_CHRN_SRC

Attribute	Description
RLSD_CALLS_CNT_LFTM	Number of released calls in customer life span
RMRK_CNT_LAST_3MO	Numbers of remarks made against customer in last 3 months
RMRK_CNT_LAST_MO	Numbers of remarks made against customer in this month
RMRK_CNT_LFTM	Numbers of remarks made against customer in his/her life span
SBRP_CNT_LAST_3MO	Subscription Count in last three months
SBRP_CNT_LAST_MO	Subscription Count in last month
SCHL_ZIP_CD	School ZIP Code
SCL_NTWK_USR_IND	Indicates whether customer uses any Social Network site
SL_CHNL_KEY	Sales Channel
SL_CHNL_RPRSTV_KEY	Sales Channel Representative
SMS_CNT_LAST_3MO	SMSs sent in last 3 months
SMS_CNT_LAST_MO	SMSs sent in last 1 month
SMS_CNT_LFTM	SMSs sent over customer's lifetime
SOC_JB_CD	SOC Job Code
SPRT_IND	Indicates whether customer plays Sports
SPRT_TYP_CD	Sport Type Code
SRC_OF_INCM	Source of Income
SSPNSN_CNT_LAST_3MO	Suspension Count in last three months
SSPNSN_CNT_LAST_MO	Suspension Count in last month
STATE	State
STRT_OF_EMPMNT_NBR	Customer Start of Employment expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
TOT_AGE_CHLDRN	Total Age of Children
TOT_CALL_CNT_LAST_3MO	Total number of calls to Call center made by customer in last 3 months
TOT_CALL_CNT_LAST_MO	Total number of calls to Call center made by customer in this month

Table 10-9   (Cont.) DWV_PSTPD_CUST_CHRN_SRC

Attribute	Description
TOT_CALL_CNT_LFTM	Total number of calls to Call center made by customer in his/her life span
TOT_HLD_DRTN_LAST_3MO	Total hold duration in the last 3 months in seconds
TOT_HLD_DRTN_LAST_MO	Total hold duration this month in seconds
TOT_HLD_DRTN_LFTM	Total hold duration in customer life span in seconds
TOT_PYMT_RVN_LAST_3MO	Total Payment Revenue as of 3 months ago
TOT_PYMT_RVN_LAST_MO	Total Payment Revenue as of 1 month ago
TOT_QUE_DRTN_LAST_3MO	Total queue duration in the last 3 months in seconds
TOT_QUE_DRTN_LAST_MO	Total queue duration this month in seconds
TOT_QUE_DRTN_LFTM	Total queue duration in customer life span in seconds
TOT_TALK_DRTN_LAST_3MO	Total talk duration in the last 3 months in seconds
TOT_TALK_DRTN_LAST_MO	Total talk duration this month in seconds
TOT_TALK_DRTN_LFTM	Total talk duration in customer life span in seconds
UNIV_ZIP_CD	University ZIP Code
UPLD_DATA_LAST_3MO	Data uploaded in KBs in last 3 months
UPLD_DATA_LAST_MO	Data uploaded in KBs in last 1 month
UPLD_DATA_LFTM	Data uploaded in KBs in lifetime
VOI_INTERNAT_AIRTIME_LAST_3MO	International voice air time including roaming in minutes in last three month
VOI_INTERNAT_AIRTIME_LAST_MO	International voice air time in minutes including roaming in last one month
VOI_INTERNAT_AIRTIME_LFTM	International voice air time in minutes including roaming over customer's life time
VOI_NAT_AIRTIME_LAST_3MO	National voice air time in minutes in last three month
VOI_NAT_AIRTIME_LAST_MO	National voice air time in minutes in last one month
VOI_NAT_AIRTIME_LFTM	National voice air time in minutes over customer's life time
WRLS_IND	Indicates whether Customer has Wireless Internet connection

10.4.3 Postpaid Churn Output Target Attribute: CHRN_IND

Data in DWV_PSTPD_CUST_CHRN_SRC view is used to train postpaid churn models using two algorithms, *Support Vector Machines* and *Decision Tree*. Data in DWV_PSTPD_CUST_CHRN_TST view is used to compare the performance of old and

new mining models and the best model is chosen as final trained model. Data in `DWV_PSTPD_CUST_CHRN_APPLY` view is scored with the final trained model. Scoring results are saved into `DWD_CUST_DNA` table with the following columns:

- `DWD_CUST_DNA.PRDCT_CHURN_SVM_IND`

- `DWD_CUST_DNA.PRDCT_CHURN_SVM_PROB`

- `DWD_CUST_DNA.PRDCT_CHURN_DT_IND`

- `DWD_CUST_DNA.PRDCT_CHURN_DT_ND_NBR`

10.4.4 Postpaid Churner Algorithm

The following two algorithms are used separately to solve postpaid churn classification mining problem:

- Support Vector Machines (SVM)

- Decision Tree

10.4.5 Postpaid Churner Algorithm Setting Tables

Algorithm settings tables allow you to override default values of different settings for mining algorithms.

The following are the setting tables for postpaid churn:

- DM_STNG_CHURN_SVM - For Support Vector Machines algorithm

- DM_STNG_CHURN_DT - For Decision Tree algorithm

10.5 Model 3: Customer Profiling

The business problem is to group customers into generally homogeneous groups (Segments) based on customer demographic value, usage pattern and list of telecom products they subscribe to (customer subscriber history).Business Analysts can look into each segment to further understand the customer group discovered by the model and name each segments.

The discovered clustering rules draw a profile of the customers along with their product subscription. Thus, the clustering rules generated for each profile group will show the most important similar characteristics in each group. For example, an operator may have a group having significantly shorter message (SMS) usage than any other groups. Alternatively, there may be a group with extremely higher profit than any other group (covering high end customers).

Describes the attributes identified from the Foundation Data Warehouse as input source variables for the customer profiling model.

Algorithm settings tables allow you to override default values of different settings for mining algorithms.

10.5.1 Customer Profiling Source

Describes the attributes identified from the Foundation Data Warehouse as input source variables for the customer profiling model.

Table 10-10 DWV_CUST_PROFILE_SRC

Attribute	Description
ACCPT_NWSLTR_IND	Indicates whether customer accepts News Letter
ACCT_TYP_CD	Account Type Code. For example, PSTPD - Postpaid, PRPD - Prepaid
ADDR_LOC_CD	Customer Address Location Code
AGE_BND_CD	Customer Age Band Code
AGE_ON_NET_BND_CD	Customer Age on Net Band Code
AGE_ON_NET_NBR	Customer Age on Net expressed in number of months
AGRMNT_CNT_LAST_3MO	Number of Agreements in last 3 months
AGRMNT_CNT_LAST_MO	Number of Agreements in last 1 month
AGRMNT_LFT_DAYS_LAST_3MO	Agreement Left Days in last 3 months
AGRMNT_LFT_DAYS_LAST_MO	Agreement Left Days in last 1 month
ARPU_BND_CD	Customer ARPU Band Code
AVG_DRTN_BTWN_RCHRG	Average duration between two recharges - in days
BARNG_RSN_CD	Customer Barring Reason Code
BLLG_ADDR_EFF_DT_NBR	Building Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
BNKRPT_STAT	Bankrupt Status
BNKRPT_STRT_DT_NBR	Bankrupt Start Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
BRDBND_IND	Indicates whether Customer has Broadband connection
BSNS_LEGAL_STAT_CD	Legal Status Code of Enterprise Customers. For example, Public, Private
CAR_DRVR_LICNS_IND	Indicates whether customer has Car Driving License
CAR_TYP_CD	Car Type Code
CITY	City
CMPLNT_CNT_LAST_3MO	Number of complaints made by customer in last 3 months

Table 10-10   (Cont.) DWV_CUST_PROFILE_SRC

Attribute	Description
CMPLNT_CNT_LAST_MO	Number of complaints made by customer in this month
CMPLNT_CNT_LFTM	Number of complaints made by customer in his/her life span
CMPNY_EMP_SZ_BND_CD	Enterprise Customer Employee Size Band Code
CMPNY_RVN_BND_CD	Enterprise Customer Revenue Band Code
CMPNY_TYP_CD	Company Type Code
CNCT_ADDR_EFF_DT_NBR	Customer Contact Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
CNTCT_ALLWD_IND	Indicates whether customer allows to contact
CNTRY	Country
COLL_ZIP_CD	College ZIP Code
CRDT_CTGRY_KEY	Customer Credit Category
CUST_BRANCH_CD	Customer Branch Code
CUST_CD	Customer Identifier
CUST_PYMT_RESPBL_IND	Indicates whether customer is responsible for making payments
CUST_RVN_BND_CD	Customer Revenue Band Code
CUST_SCR_CD	Customer SCR Code
CUST_TYP_CD	Customer Type Code
DAYS_BFR_FIRST_RCHRG	Days between first payment and first recharge
DAYS_BFR_FIRST_USE	Days between payment and first use
DEBT_AGNG_BND_CD_LAST_3MO	Debt Ageing Band Code in last 3 months
DEBT_AGNG_BND_CD_LAST_MO	Debt Ageing Band Code in last 1 month
DEBT_VAL_LAST_3MO	Debt Value in last 3 months
DEBT_VAL_LAST_MO	Debt Value in last 1 month
DRPD_CALLS_CNT_LAST_3MO	Number of dropped calls in last 3 months
DRPD_CALLS_CNT_LAST_MO	Number of dropped calls this month
DRPD_CALLS_CNT_LFTM	Number of dropped calls in customer life span
DWLNG_OWNER	Dwelling Owner

Table 10-10   (Cont.) DWV_CUST_PROFILE_SRC

Attribute	Description
DWLNG_STAT	Dwelling Status
DWLNG_SZ	Dwelling Size
DWLNG_TENR	Dwelling Tenure
DWLNG_TYP	Dwelling Type
DWNLD_DATA_LAST_3MO	Data downloaded in KBs in last 3 months
DWNLD_DATA_LAST_MO	Data downloaded in KBs in last 1 month
DWNLD_DATA_LFTM	Data downloaded in KBs in lifetime
ECNMCLY_ACTV_IND	Indicates whether a customer is economically Active
EDU_CD	Education Qualification Code
EFF_FROM_DT_NBR	Customer Effective From Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
END_OF_JB_AGRMNT_NBR	End of Job Agreement expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
ESTMTD_ACQSTN_COST	Customer Acquisition Estimated Cost
ETHNCTY	Customer Ethnicity
ETHNIC_BCKGRND	Customer Ethnic Background
EXTRNL_ORG_TYP_CD	External Organization Type Code
FORM_OF_EMPMNT	Form of Employment
FUTRE_AGRMNT_CNT_LAST_3MO	Number of Future Agreements in last 3 months
FUTRE_AGRMNT_CNT_LAST_MO	Number of Future Agreements in last 1 month
FUTRE_AGRMNT_DAYS_LAST_3MO	Future Agreement Days in last 3 months
FUTRE_AGRMNT_DAYS_LAST_MO	Future Agreement Days in last 1 month
GNDR_CD	Individual Customer Gender Code
HH_SZ	Household Size
HNGUP_CALLS_CNT_LAST_3MO	Number of hangup calls in last 3 months
HNGUP_CALLS_CNT_LAST_MO	Number of hangup calls this month
HNGUP_CALLS_CNT_LFTM	Number of hangup calls in customer life span
HOMTEL_IND	Indicates whether Customer has Home Telephone

Table 10-10   (Cont.) DWV_CUST_PROFILE_SRC

Attribute	Description
IDD_IND	Indicates whether Customer subscribed to International Direct Dialing
JB_AGRMNT_TYP	Job Agreement Type
JB_CD	Customer Job Code
JB_POSN	Customer Job Position
LANG_CD	Language Code
LAST_INCOMING_USG_DT_NBR	When was last incoming call occurred
LAST_OUTGOING_USG_DT_NBR	When was last outgoing call occurred
LAST_RCHRG_AMT	Last recharge amount
LEGAL_TTL_TO_HSNG	Legal Title to Housing
LIFE_SPN	Customer Life Span
LIKE_SCP_IN_FCBK_IND	Indicates whether customer likes Service Provide page in Facebook
LVNG_AT_CURR_ADDR_SINCE_NBR	Since When Customer Living at Current Address expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
MAIL_ALWD_IND	Indicates whether Customer allows Service Provider to send mail
MAX_RCHRG_AMT	Maximum recharge amount
MIN_RCHRG_AMT	Minimum recharge amount
MMS_CNT_LAST_3MO	MMSs sent in last 3 months
MMS_CNT_LAST_MO	MMSs sent in last 1 month
MMS_CNT_LFTM	MMSs sent over customer's lifetime
MO_RVN_LAST_3MO	Monthly Revenue as of 3 months ago
MO_RVN_LAST_MO	Monthly Revenue as of 1 month ago
MRTL_STAT_CD	Individual Customer Marital Status Code
MULT_PRTY_ROLE_IND	Indicates whether customer has multiple party roles. For example, both an employee and customer of Service Provider
NAME_OF_WKPLC	Name of Workplace
NAME_PRFX	Name Prefix
NBR_CHLDRN_AT_COLL	Total Number of Children at College

Table 10-10   (Cont.) DWV_CUST_PROFILE_SRC

Attribute	Description
NBR_CHLDRN_AT_SCHL	Total Number of Children at School
NBR_CHLDRN_AT_UNIV	Total Number of Children at University
NBR_EMP_SNC_CUST	Numbers of Employees Since Customer
NBR_OF_CHLDRN	Total Number of Children
NBR_OF_DPNDNT	Total Number of Dependents
NEW_ACCT_IND	Indicates whether Customer is New
NO_MTHS_CMPNY	Number of months an Individual Customer is in his/her current Company
NO_MTHS_POSN	Number of months an Individual Customer is in his/her current Position
NTNLTY_CD	Customer Nationality Code
OFFNET_AIRTIME_LAST_3MO	Total offnet airtime in minutes in last 3 months
OFFNET_AIRTIME_LAST_MO	Total offnet airtime in minutes in last 1 month
OFFNET_AIRTIME_LFTM	Total offnet airtime in minutes in lifetime
OFFNET_CALLS_LAST_3MO	Number of offnet calls in last 3 months
OFFNET_CALLS_LAST_MO	Number of offnet calls in last 1 month
OFFNET_CALLS_LFTM	Number of offnet calls in lifetime
ONNET_AIRTIME_LAST_3MO	Total onnet airtime in minutes in last 3 months
ONNET_AIRTIME_LAST_MO	Total onnet airtime in minutes in last 1 month
ONNET_AIRTIME_LFTM	Total onnet airtime in minutes in lifetime
ONNET_CALLS_LAST_3MO	Number of onnet calls in last 3 months
ONNET_CALLS_LAST_MO	Number of onnet calls in last 1 month
ONNET_CALLS_LFTM	Number of onnet calls in lifetime
OTH_DRVR_LICNS_IND	Indicates whether customer has other vehicle License
PAY_TV_IND	Indicates whether Customer has Pay TV connection
PLC_OF_BRTH	Place of Birth
PORT_IN_CNT	Number of times the customer ported in
PORT_IN_FROM	Service Provide from who the customer ported out from
PORT_OUT_CNT	Number of times the customer ported out

Table 10-10   (Cont.) DWV_CUST_PROFILE_SRC

Attribute	Description
POSTCD_CD	Postcard Code
PREF_CNTCT_MDM	Preferred Contact Method
PREF_ENTMNT_IND	Indicates whether customer given any Entitlement preference
PREF_GVN_IND	Indicates whether customer given any preference
PREF_MSC_IND	Indicates whether customer given any Music preference
PREF_PYMT_MTHD_TYP_CD	Preferred Payment Method Type Code
PREF_SPRT_IND	Indicates whether customer given any sport preference
PREF_TRVL_IND	Indicates whether customer given any Travel preference
PRMRY_STAT_CD	Customer Primary Status Code
PRMRY_STAT_RSN_CD	Customer Primary Status Reason Code
PRTY_AGE	Customer Age expressed as number of years
PRTY_TYP_CD	Party Type Code. For example, Individual, Large Enterprise, Medium Enterprise, and so on.
PYMT_ACCT_OPEN_DT_NBR	Payment Account Open Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
RLSD_CALLS_CNT_LAST_3MO	Number of released calls in last 3 months
RLSD_CALLS_CNT_LAST_MO	Number of released calls this month
RLSD_CALLS_CNT_LFTM	Number of released calls in customer life span
RMRK_CNT_LAST_3MO	Numbers of remarks made against customer in last 3 months
RMRK_CNT_LAST_MO	Numbers of remarks made against customer in this month
RMRK_CNT_LFTM	Numbers of remarks made against customer in his/her life span
SCHL_ZIP_CD	School ZIP Code
SCL_NTWK_USR_IND	Indicates whether customer uses any Social Network site
SL_CHNL_KEY	Sales Channel
SL_CHNL_RPRSTV_KEY	Sales Channel Representative

Table 10-10   (Cont.) DWV_CUST_PROFILE_SRC

Attribute	Description
SMS_CNT_LAST_3MO	SMSs sent in last 3 months
SMS_CNT_LAST_MO	SMSs sent in last 1 month
SMS_CNT_LFTM	SMSs sent over customer's lifetime
SOC_JB_CD	SOC Job Code
SPRT_IND	Indicates whether customer plays Sports
SPRT_TYP_CD	Sport Type Code
SRC_OF_INCM	Source of Income
STATE	State
STRT_OF_EMPMNT_NBR	Customer Start of Employment expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
TOT_AGE_CHLDRN	Total Age of Children
TOT_CALL_CNT_LAST_3MO	Total number of calls to Call center made by customer in last 3 months
TOT_CALL_CNT_LAST_MO	Total number of calls to Call center made by customer in this month
TOT_CALL_CNT_LFTM	Total number of calls to Call center made by customer in his/her life span
TOT_CNTRBTN_LAST_MO	Sum of total payments and total recharges made in the last one month
TOT_CNTRBTN_LFTM	Sum of total payments and total recharges made in customers life time
TOT_DAYS_ACTVTY	Total days of activity
TOT_DAYS_ON_USE	Total days on use
TOT_DAYS_OUTGOING_ACTVTY	Total days of outgoing activity
TOT_DRTN_OF_USG	Total durations of usage in customer life time
TOT_EXP_AMT_EQVLT_VAL	Total amount expired in customers life time
TOT_HLD_DRTN_LAST_3MO	Total hold duration in the last 3 months in seconds
TOT_HLD_DRTN_LAST_MO	Total hold duration this month in seconds
TOT_HLD_DRTN_LFTM	Total hold duration in customer life span in seconds
TOT_PYMT_RVN_LAST_3MO	Total Payment Revenue as of 3 months ago
TOT_PYMT_RVN_LAST_MO	Total Payment Revenue as of 1 month ago

Table 10-10   (Cont.) DWV_CUST_PROFILE_SRC

Attribute	Description
TOT_QUE_DRTN_LAST_3MO	Total queue duration in the last 3 months in seconds
TOT_QUE_DRTN_LAST_MO	Total queue duration this month in seconds
TOT_QUE_DRTN_LFTM	Total queue duration in customer life span in seconds
TOT_RCHRG_AMT_LAST_3MO	Total recharge amount this month
TOT_RCHRG_AMT_LAST_MO	Total recharge amount in last 3 months
TOT_RCHRG_AMT_LFTM	Total recharge amount in customers life time
TOT_RCHRG_CNT_LAST_3MO	Number of recharges made in last 3 months
TOT_RCHRG_CNT_LAST_MO	Number of recharges made this month
TOT_RCHRG_CNT_LFTM	Number of recharges made in customer life time
TOT_TALK_DRTN_LAST_3MO	Total talk duration in the last 3 months in seconds
TOT_TALK_DRTN_LAST_MO	Total talk duration this month in seconds
TOT_TALK_DRTN_LFTM	Total talk duration in customer life span in seconds
TOT_UTILZD_EQVLT_VAL	Total utilized monetary value in customers life time
UNIV_ZIP_CD	University ZIP Code
UPLD_DATA_LAST_3MO	Data uploaded in KBs in last 3 months
UPLD_DATA_LAST_MO	Data uploaded in KBs in last 1 month
UPLD_DATA_LFTM	Data uploaded in KBs in lifetime
VOI_INTERNAT_AIRTIME_LAST_3MO	International voice air time including roaming in minutes in last three month
VOI_INTERNAT_AIRTIME_LAST_MO	International voice air time in minutes including roaming in last one month
VOI_INTERNAT_AIRTIME_LFTM	International voice air time in minutes including roaming over customer's life time
VOI_NAT_AIRTIME_LAST_3MO	National voice air time in minutes in last three month
VOI_NAT_AIRTIME_LAST_MO	National voice air time in minutes in last one month
VOI_NAT_AIRTIME_LFTM	National voice air time in minutes over customer's life time
WRLS_IND	Indicates whether Customer has Wireless Internet connection

10.5.2 Customer Profile Output

Data in DWV_CUST_PROFILE_SRC view is used to train unsupervised customer
segmentation model. The trained is applied on the DWV_CUST_LTV_SGMNT_APPLY

view, which has only active customers' data, to get the segment code for each active customer. Customer segment code is saved into DWD_CUST_DNA table with the following column:

- DWD_CUST_DNA. CLSTR_SGMNT_CD

10.5.3 Customer Profile Algorithm

The following algorithms is used to segment the active customer base:

- K-Means Clustering

10.5.4 Customer Profile Algorithm Setting Tables

Algorithm settings tables allow you to override default values of different settings for mining algorithms.

The following is the setting table for customer profiling:

- DM_STNG_PROFILE_KMEANS - For K-Means Clustering

10.6 Model 4: Targeted Promotion

The business problem is to identify the patterns of which products are typically purchased together or one after another over the lifetime of a customer. This helps in providing recommendations about which products should be presented to customers according to their potential acceptance score. A typical scenario is call center can call certain customers with some specific purpose to cross-sell some products. Operators need the list of customers to save promotion cost and improve efficiency.

The trained model generates recommendations about promotion target products. This is done based on what products the customer has subscribed to taking into account other factors such as customers credit history and the risk involved in offering the particular product to the customer.

Algorithm settings tables allow you to override default values of different settings for mining algorithms. The following is the setting table for targeted promotion.

10.6.1 Targeted Promotion Source

shows the attributes identified from the Foundation Data Warehouse as input variables for targeted promotion model.

Table 10-11   DWV_PROD_MIX_SRC

Attribute	Description
ACCT_LFT_VAL_LAST_MO	Account Left Value in last 1 month
AGRMNT_ARPU_LAST_MO	Agreement ARPU as of 1 month ago

Table 10-11   (Cont.) DWV_PROD_MIX_SRC

Attribute	Description
AGRMNT_CNT_LAST_MO	Number of Agreements in last 1 month
AGRMNT_LFT_DAYS_LAST_MO	Agreement Left Days in last 1 month
BARNG_RSN_CD	Customer Barring Reason Code
BSNS_LEGAL_STAT_CD	Legal Status Code of Enterprise Customers. For example Public, Private
CALL_BCK	Indicates whether Customer subscribed to Call Back
CALL_CNFRN	Indicates whether Customer subscribed to Call Conference
CALL_TRNSFR	Indicates whether Customer subscribed to Call Transfer
CB	Indicates whether Customer subscribed to CB
CF	Indicates whether Customer subscribed to Call Forward
CF_WHEN_BUSY	Indicates whether Customer subscribed to Call Forward When Busy
CF_WHEN_NO_RPLY	Indicates whether Customer subscribed to Call Forward When No Reply
CF_WHEN_NOT_RCHBLE	Indicates whether Customer subscribed to Call Forward When Not Reachable
CLI	Indicates whether Customer subscribed to Calling Line Identity
CLIR	Indicates whether Customer subscribed to Calling Line Identification Restriction
CMPLNT_CNT_LAST_MO	Number of complaints made by customer in this month
CMPLNT_CNT_LFTM	Number of complaints made by customer in his/her life span
CUST_CD	Customer Identifier
CW	Indicates whether Customer subscribed to Call Waiting
DEBT_VAL_LAST_MO	Debt Value in last 1 month
EDU_CD	Education Qualification Code
FAX	Indicates whether Customer subscribed to Fax
FUTRE_AGRMNT_CNT_LAST_MO	Number of Future Agreements in last 1 month
GNDR_CD	Individual Customer Gender Code
GPRS	Indicates whether Customer subscribed to GPRS

Table 10-11   (Cont.) DWV_PROD_MIX_SRC

Attribute	Description
HH_SZ	Household Size
INTRNTL_CALL	Indicates whether Customer subscribed to International Call
JB_AGRMNT_TYP	Job Agreement Type
JB_CD	Customer Job Code
LFTM_ARPU_LAST_MO	Lifetime ARPU as of 1 month ago
LIFE_SPN	Customer Life Span
LYLTY_PROG_BAL_LAST_MO	Loyalty Program Balance in last 1 month
MMS	Indicates whether Customer subscribed to MMS
MO_RVN_LAST_MO	Monthly Revenue as of 1 month ago
MRTL_STAT_CD	Individual Customer Marital Status Code
NTNLTY_CD	Customer Nationality Code
PORT_IN_CNT	Number of times the customer ported in
PORT_IN_FROM	Service Provide from who the customer ported out from
PORT_OUT_CNT	Number of times the customer ported out
POSTCD_CD	Postcard Code
PRTY_TYP_CD	Party Type Code. For example, Individual, Large Enterprise, Medium Enterprise, and so on.
REMNG_AGRMNT_AMT_LAST_MO	Remaining Agreement Amount in last 1 month
SBRP_CNT_LAST_MO	Subscription Count in last three months
SMS	Indicates whether Customer subscribed to SMS
SSPNSN_CNT_LAST_MO	Suspension Count in last three months
STATE	State
TOT_PYMT_RVN_LAST_MO	Total Payment Revenue as of 1 month ago
WAP	Indicates whether Customer subscribed to WAP

10.6.2 Targeted Promotion Output

Data in DWV_PROD_MIX_SRC view is used to train target promotion classification model for the product chosen. Data in DWV_PROD_MIX_APPLY view scored with the trained model and the scoring results are saved into DWD_CUST_PROD_AFFLTN table with the following columns:

- DWD_CUST_PROD_AFFLTN.AFFLTN_PROB

- DWD_CUST_PROD_AFFLTN.BUY_IND

10.6.3 Targeted Promotion Algorithm

The following algorithm is used to solve train the targeted promotion model:

- Support Vector Machines (SVM)

10.6.4 Targeted Promotion Algorithm Setting Tables

Algorithm settings tables allow you to override default values of different settings for mining algorithms. The following is the setting table for targeted promotion.

- DM_STNG_CHURN_SVM - For Support Vector Machines

10.7 Model 5: Customer Life Time Value

Service Provider wants know how much valuable a customer is to the Service Provider for next *n* years into future. Customer predicted Life Time Value can be combined with customer predicted churn behavior to make important business decision such as whether to retain a customer. Customers predicted to have high LTV and also predicted to churn should be retained, whereas Customer predicted to have low LTV and also predicted to churn need not be retained. This is a regression model, where a continuous value is predicted and the source data is all those customers who have been on net for at least *n* years. *n* could be three or five years.

Algorithm settings tables allow you to override default values of different settings for mining algorithms.

10.7.1 Customer Life Time Value Source

Table 10-12 (page 10-38) shows the attributes identified from the Foundation Data Warehouse as input variables for Customer Life Time Value model.

Table 10-12   DWV_CUST_LTV_SRC

Attribute	Description
ACCPT_NWSLTR_IND	Indicates whether customer accepts News Letter
ACCT_TYP_CD	Account Type Code. For example, PSTPD - Postpaid, PRPD - Prepaid
ADDR_LOC_CD	Customer Address Location Code
AGE_BND_CD	Customer Age Band Code
AGE_ON_NET_BND_CD	Customer Age on Net Band Code

Table 10-12   (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
AGE_ON_NET_NBR	Customer Age on Net expressed in number of months
AGRMNT_CNT_LAST_3MO	Number of Agreements in last 3 months
AGRMNT_CNT_LAST_MO	Number of Agreements in last 1 month
AGRMNT_LFT_DAYS_LAST_3MO	Agreement Left Days in last 3 months
AGRMNT_LFT_DAYS_LAST_MO	Agreement Left Days in last 1 month
ARPU_BND_CD	Customer ARPU Band Code
AVG_DRTN_BTWN_RCHRG	Average duration between two recharges - in days
BARNG_RSN_CD	Customer Barring Reason Code
BLLG_ADDR_EFF_DT_NBR	Building Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
BNKRPT_STAT	Bankrupt Status
BNKRPT_STRT_DT_NBR	Bankrupt Start Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
BRDBND_IND	Indicates whether Customer has Broadband connection
BSNS_LEGAL_STAT_CD	Legal Status Code of Enterprise Customers. For example, Public, Private
CAR_DRVR_LICNS_IND	Indicates whether customer has Car Driving License
CAR_TYP_CD	Car Type Code
CITY	City
CMPLNT_CNT_LAST_3MO	Number of complaints made by customer in last 3 months
CMPLNT_CNT_LAST_MO	Number of complaints made by customer in this month
CMPLNT_CNT_LFTM	Number of complaints made by customer in his/her life span
CMPNY_EMP_SZ_BND_CD	Enterprise Customer Employee Size Band Code
CMPNY_RVN_BND_CD	Enterprise Customer Revenue Band Code
CMPNY_TYP_CD	Company Type Code
CNCT_ADDR_EFF_DT_NBR	Customer Contact Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.

Table 10-12   (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
CNTCT_ALLWD_IND	Indicates whether customer allows to contact
CNTRY	Country
COLL_ZIP_CD	College ZIP Code
CRDT_CTGRY_KEY	Customer Credit Category
CUST_BRANCH_CD	Customer Branch Code
CUST_CD	Customer Identifier
CUST_PYMT_RESPBL_IND	Indicates whether customer is responsible for making payments
CUST_RVN_BND_CD	Customer Revenue Band Code
CUST_SCR_CD	Customer SCR Code
CUST_TYP_CD	Customer Type Code
DAYS_BFR_FIRST_RCHRG	Days between first payment and first recharge
DAYS_BFR_FIRST_USE	Days between payment and first use
DEBT_AGNG_BND_CD_LAST_3MO	Debt Ageing Band Code in last 3 months
DEBT_AGNG_BND_CD_LAST_MO	Debt Ageing Band Code in last 1 month
DEBT_VAL_LAST_3MO	Debt Value in last 3 months
DEBT_VAL_LAST_MO	Debt Value in last 1 month
DRPD_CALLS_CNT_LAST_3MO	Number of dropped calls in last 3 months
DRPD_CALLS_CNT_LAST_MO	Number of dropped calls this month
DRPD_CALLS_CNT_LFTM	Number of dropped calls in customer life span
DWLNG_OWNER	Dwelling Owner
DWLNG_STAT	Dwelling Status
DWLNG_SZ	Dwelling Size
DWLNG_TENR	Dwelling Tenure
DWLNG_TYP	Dwelling Type
DWNLD_DATA_LAST_3MO	Data downloaded in KBs in last 3 months
DWNLD_DATA_LAST_MO	Data downloaded in KBs in last 1 month
DWNLD_DATA_LFTM	Data downloaded in KBs in lifetime
ECNMCLY_ACTV_IND	Indicates whether a customer is economically Active
EDU_CD	Education Qualification Code

Table 10-12   (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
EFF_FROM_DT_NBR	Customer Effective From Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
END_OF_JB_AGRMNT_NBR	End of Job Agreement expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
ESTMTD_ACQSTN_COST	Customer Acquisition Estimated Cost
ETHNCTY	Customer Ethnicity
ETHNIC_BCKGRND	Customer Ethnic Background
EXTRNL_ORG_TYP_CD	External Organization Type Code
FORM_OF_EMPMNT	Form of Employment
FUTRE_AGRMNT_CNT_LAST_3MO	Number of Future Agreements in last 3 months
FUTRE_AGRMNT_CNT_LAST_MO	Number of Future Agreements in last 1 month
FUTRE_AGRMNT_DAYS_LAST_3MO	Future Agreement Days in last 3 months
FUTRE_AGRMNT_DAYS_LAST_MO	Future Agreement Days in last 1 month
GNDR_CD	Individual Customer Gender Code
HH_SZ	Household Size
HNGUP_CALLS_CNT_LAST_3MO	Number of hangup calls in last 3 months
HNGUP_CALLS_CNT_LAST_MO	Number of hangup calls this month
HNGUP_CALLS_CNT_LFTM	Number of hangup calls in customer life span
HOMTEL_IND	Indicates whether Customer has Home Telephone
IDD_IND	Indicates whether Customer subscribed to International Direct Dialing
JB_AGRMNT_TYP	Job Agreement Type
JB_CD	Customer Job Code
JB_POSN	Customer Job Position
LANG_CD	Language Code
LAST_INCOMING_USG_DT_NBR	When was last incoming call occurred
LAST_OUTGOING_USG_DT_NBR	When was last outgoing call occurred
LAST_RCHRG_AMT	Last recharge amount

Table 10-12   (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
LEGAL_TTL_TO_HSNG	Legal Title to Housing
LIFE_SPN	Customer Life Span
LIKE_SCP_IN_FCBK_IND	Indicates whether customer likes Service Provide page in Facebook
LVNG_AT_CURR_ADDR_SINCE_NBR	Since When Customer Living at Current Address expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
MAIL_ALWD_IND	Indicates whether Customer allows Service Provider to send mail
MAX_RCHRG_AMT	Maximum recharge amount
MIN_RCHRG_AMT	Minimum recharge amount
MMS_CNT_LAST_3MO	MMSs sent in last 3 months
MMS_CNT_LAST_MO	MMSs sent in last 1 month
MMS_CNT_LFTM	MMSs sent over customer's lifetime
MO_RVN_LAST_3MO	Monthly Revenue as of 3 months ago
MO_RVN_LAST_MO	Monthly Revenue as of 1 month ago
MRTL_STAT_CD	Individual Customer Marital Status Code
MULT_PRTY_ROLE_IND	Indicates whether customer has multiple party roles. For example, both an employee and customer of Service Provider
NAME_OF_WKPLC	Name of Workplace
NAME_PRFX	Name Prefix
NBR_CHLDRN_AT_COLL	Total Number of Children at College
NBR_CHLDRN_AT_SCHL	Total Number of Children at School
NBR_CHLDRN_AT_UNIV	Total Number of Children at University
NBR_EMP_SNC_CUST	Numbers of Employees Since Customer
NBR_OF_CHLDRN	Total Number of Children
NBR_OF_DPNDNT	Total Number of Dependents
NEW_ACCT_IND	Indicates whether Customer is New
NO_MTHS_CMPNY	Number of months an Individual Customer is in his/her current Company

Table 10-12   (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
NO_MTHS_POSN	Number of months an Individual Customer is in his/her current Position
NTNLTY_CD	Customer Nationality Code
OFFNET_AIRTIME_LAST_3MO	Total offnet airtime in minutes in last 3 months
OFFNET_AIRTIME_LAST_MO	Total offnet airtime in minutes in last 1 month
OFFNET_AIRTIME_LFTM	Total offnet airtime in minutes in lifetime
OFFNET_CALLS_LAST_3MO	Number of offnet calls in last 3 months
OFFNET_CALLS_LAST_MO	Number of offnet calls in last 1 month
OFFNET_CALLS_LFTM	Number of offnet calls in lifetime
ONNET_AIRTIME_LAST_3MO	Total onnet airtime in minutes in last 3 months
ONNET_AIRTIME_LAST_MO	Total onnet airtime in minutes in last 1 month
ONNET_AIRTIME_LFTM	Total onnet airtime in minutes in lifetime
ONNET_CALLS_LAST_3MO	Number of onnet calls in last 3 months
ONNET_CALLS_LAST_MO	Number of onnet calls in last 1 month
ONNET_CALLS_LFTM	Number of onnet calls in lifetime
OTH_DRVR_LICNS_IND	Indicates whether customer has other vehicle License
PAY_TV_IND	Indicates whether Customer has Pay TV connection
PLC_OF_BRTH	Place of Birth
PORT_IN_CNT	Number of times the customer ported in
PORT_IN_FROM	Service Provide from who the customer ported out from
PORT_OUT_CNT	Number of times the customer ported out
POSTCD_CD	Postcard Code
PREF_CNTCT_MDM	Preferred Contact Method
PREF_ENTMNT_IND	Indicates whether customer given any Entitlement preference
PREF_GVN_IND	Indicates whether customer given any preference
PREF_MSC_IND	Indicates whether customer given any Music preference
PREF_PYMT_MTHD_TYP_CD	Preferred Payment Method Type Code
PREF_SPRT_IND	Indicates whether customer given any sport preference

Table 10-12   (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
PREF_TRVL_IND	Indicates whether customer given any Travel preference
PRMRY_STAT_CD	Customer Primary Status Code
PRMRY_STAT_RSN_CD	Customer Primary Status Reason Code
PRTY_AGE	Customer Age expressed as number of years
PRTY_TYP_CD	Party Type Code. For example, Individual, Large Enterprise, Medium Enterprise, and so on.
PYMT_ACCT_OPEN_DT_NBR	Payment Account Open Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
RLSD_CALLS_CNT_LAST_3MO	Number of released calls in last 3 months
RLSD_CALLS_CNT_LAST_MO	Number of released calls this month
RLSD_CALLS_CNT_LFTM	Number of released calls in customer life span
RMRK_CNT_LAST_3MO	Numbers of remarks made against customer in last 3 months
RMRK_CNT_LAST_MO	Numbers of remarks made against customer in this month
RMRK_CNT_LFTM	Numbers of remarks made against customer in his/her life span
SCHL_ZIP_CD	School ZIP Code
SCL_NTWK_USR_IND	Indicates whether customer uses any Social Network site
SL_CHNL_KEY	Sales Channel
SL_CHNL_RPRSTV_KEY	Sales Channel Representative
SMS_CNT_LAST_3MO	SMSs sent in last 3 months
SMS_CNT_LAST_MO	SMSs sent in last 1 month
SMS_CNT_LFTM	SMSs sent over customer's lifetime
SOC_JB_CD	SOC Job Code
SPRT_IND	Indicates whether customer plays Sports
SPRT_TYP_CD	Sport Type Code
SRC_OF_INCM	Source of Income
STATE	State

Table 10-12   (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
STRT_OF_EMPMNT_NBR	Customer Start of Employment expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
TOT_AGE_CHLDRN	Total Age of Children
TOT_CALL_CNT_LAST_3MO	Total number of calls to Call center made by customer in last 3 months
TOT_CALL_CNT_LAST_MO	Total number of calls to Call center made by customer in this month
TOT_CALL_CNT_LFTM	Total number of calls to Call center made by customer in his/her life span
TOT_CNTRBTN_LAST_MO	Sum of total payments and total recharges made in the last one month
TOT_CNTRBTN_LFTM	Sum of total payments and total recharges made in customers life time
TOT_DAYS_ACTVTY	Total days of activity
TOT_DAYS_ON_USE	Total days on use
TOT_DAYS_OUTGOING_ACTVTY	Total days of outgoing activity
TOT_DRTN_OF_USG	Total durations of usage in customer life time
TOT_EXP_AMT_EQVLT_VAL	Total amount expired in customers life time
TOT_HLD_DRTN_LAST_3MO	Total hold duration in the last 3 months in seconds
TOT_HLD_DRTN_LAST_MO	Total hold duration this month in seconds
TOT_HLD_DRTN_LFTM	Total hold duration in customer life span in seconds
TOT_PYMT_RVN_LAST_3MO	Total Payment Revenue as of 3 months ago
TOT_PYMT_RVN_LAST_MO	Total Payment Revenue as of 1 month ago
TOT_QUE_DRTN_LAST_3MO	Total queue duration in the last 3 months in seconds
TOT_QUE_DRTN_LAST_MO	Total queue duration this month in seconds
TOT_QUE_DRTN_LFTM	Total queue duration in customer life span in seconds
TOT_RCHRG_AMT_LAST_3MO	Total recharge amount this month
TOT_RCHRG_AMT_LAST_MO	Total recharge amount in last 3 months
TOT_RCHRG_AMT_LFTM	Total recharge amount in customers life time
TOT_RCHRG_CNT_LAST_3MO	Number of recharges made in last 3 months
TOT_RCHRG_CNT_LAST_MO	Number of recharges made this month

Table 10-12   (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
TOT_RCHRG_CNT_LFTM	Number of recharges made in customer life time
TOT_TALK_DRTN_LAST_3MO	Total talk duration in the last 3 months in seconds
TOT_TALK_DRTN_LAST_MO	Total talk duration this month in seconds
TOT_TALK_DRTN_LFTM	Total talk duration in customer life span in seconds
TOT_UTILZD_EQVLT_VAL	Total utilized monetary value in customers life time
UNIV_ZIP_CD	University ZIP Code
UPLD_DATA_LAST_3MO	Data uploaded in KBs in last 3 months
UPLD_DATA_LAST_MO	Data uploaded in KBs in last 1 month
UPLD_DATA_LFTM	Data uploaded in KBs in lifetime
VOI_INTERNAT_AIRTIME_LAST_3MO	International voice air time including roaming in minutes in last three month
VOI_INTERNAT_AIRTIME_LAST_MO	International voice air time in minutes including roaming in last one month
VOI_INTERNAT_AIRTIME_LFTM	International voice air time in minutes including roaming over customer's life time
VOI_NAT_AIRTIME_LAST_3MO	National voice air time in minutes in last three month
VOI_NAT_AIRTIME_LAST_MO	National voice air time in minutes in last one month
VOI_NAT_AIRTIME_LFTM	National voice air time in minutes over customer's life time
WRLS_IND	Indicates whether Customer has Wireless Internet connection

10.7.2 Customer Life Time Value Output Target Attribute: TOT_PYMT_RVN_LAST_MO

Data in `DWV_CUST_LTV_SRC` view is used to train Customer Life Time Value regression mining model. Data in `DWV_CUST_LTV_SGMNT_APPLY` view, which has all active customers' data, is scored using the trained model and scoring results are saved into `DWD_CUST_DNA` table with the following column:

- DWD_CUST_DNA.PRDCT_LTV_VALUE

10.7.3 Customer Life Time Value Algorithms

The following algorithm is used to predict the Life Time Value of active customer base:

- Generalized Linear Model Regression

10.7.4 Customer Life Time Value Algorithm Setting Tables

Algorithm settings tables allow you to override default values of different settings for mining algorithms.

The following is the setting table for customer Life Time Value:

- DM_STNG_LTV_GLMR - For Generalized Linear Model Regression

10.8 Model 6: Customer Life Time Survival Value

When the Service Provider wants to know how long a customer uses the services offered, rather than leaving you use the Life Time Survival Value rating. This is a regression model, where a continuous value is predicted and the source data is all those customers who have been on net for at least n years. where n could be 3 or 5 years.

Algorithm settings tables allow you to override default values of different settings for mining algorithms.

10.8.1 Customer Life Time Value (LTV) Survival Source

Table 10-13 (page 10-47) shows the attributes identified from the Foundation Data Warehouse as input variables for Customer Life Time Survival Value model.

Table 10-13   DWV_CUST_LTV_SRC

Attribute	Description
ACCPT_NWSLTR_IND	Indicates whether customer accepts News Letter
ACCT_TYP_CD	Account Type Code. For example, PSTPD - Postpaid, PRPD - Prepaid
ADDR_LOC_CD	Customer Address Location Code
AGE_BND_CD	Customer Age Band Code
AGE_ON_NET_BND_CD	Customer Age on Net Band Code
AGE_ON_NET_NBR	Customer Age on Net expressed in number of months
AGRMNT_CNT_LAST_3MO	Number of Agreements in last 3 months
AGRMNT_CNT_LAST_MO	Number of Agreements in last 1 month
AGRMNT_LFT_DAYS_LAST_3MO	Agreement Left Days in last 3 months
AGRMNT_LFT_DAYS_LAST_MO	Agreement Left Days in last 1 month
ARPU_BND_CD	Customer ARPU Band Code

Table 10-13   (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
AVG_DRTN_BTWN_RCHRG	Average duration between two recharges - in days
BARNG_RSN_CD	Customer Barring Reason Code
BLLG_ADDR_EFF_DT_NBR	Building Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
BNKRPT_STAT	Bankrupt Status
BNKRPT_STRT_DT_NBR	Bankrupt Start Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
BRDBND_IND	Indicates whether Customer has Broadband connection
BSNS_LEGAL_STAT_CD	Legal Status Code of Enterprise Customers. For example, Public, Private
CAR_DRVR_LICNS_IND	Indicates whether customer has Car Driving License
CAR_TYP_CD	Car Type Code
CITY	City
CMPLNT_CNT_LAST_3MO	Number of complaints made by customer in last 3 months
CMPLNT_CNT_LAST_MO	Number of complaints made by customer in this month
CMPLNT_CNT_LFTM	Number of complaints made by customer in his/her life span
CMPNY_EMP_SZ_BND_CD	Enterprise Customer Employee Size Band Code
CMPNY_RVN_BND_CD	Enterprise Customer Revenue Band Code
CMPNY_TYP_CD	Company Type Code
CNCT_ADDR_EFF_DT_NBR	Customer Contact Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
CNTCT_ALLWD_IND	Indicates whether customer allows to contact
CNTRY	Country
COLL_ZIP_CD	College ZIP Code
CRDT_CTGRY_KEY	Customer Credit Category
CUST_BRANCH_CD	Customer Branch Code
CUST_CD	Customer Identifier

Table 10-13   (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
CUST_PYMT_RESPBL_IND	Indicates whether customer is responsible for making payments
CUST_RVN_BND_CD	Customer Revenue Band Code
CUST_SCR_CD	Customer SCR Code
CUST_TYP_CD	Customer Type Code
DAYS_BFR_FIRST_RCHRG	Days between first payment and first recharge
DAYS_BFR_FIRST_USE	Days between payment and first use
DEBT_AGNG_BND_CD_LAST_3MO	Debt Ageing Band Code in last 3 months
DEBT_AGNG_BND_CD_LAST_MO	Debt Ageing Band Code in last 1 month
DEBT_VAL_LAST_3MO	Debt Value in last 3 months
DEBT_VAL_LAST_MO	Debt Value in last 1 month
DRPD_CALLS_CNT_LAST_3MO	Number of dropped calls in last 3 months
DRPD_CALLS_CNT_LAST_MO	Number of dropped calls this month
DRPD_CALLS_CNT_LFTM	Number of dropped calls in customer life span
DWLNG_OWNER	Dwelling Owner
DWLNG_STAT	Dwelling Status
DWLNG_SZ	Dwelling Size
DWLNG_TENR	Dwelling Tenure
DWLNG_TYP	Dwelling Type
DWNLD_DATA_LAST_3MO	Data downloaded in KBs in last 3 months
DWNLD_DATA_LAST_MO	Data downloaded in KBs in last 1 month
DWNLD_DATA_LFTM	Data downloaded in KBs in lifetime
ECNMCLY_ACTV_IND	Indicates whether a customer is economically Active
EDU_CD	Education Qualification Code
EFF_FROM_DT_NBR	Customer Effective From Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
END_OF_JB_AGRMNT_NBR	End of Job Agreement expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.

Table 10-13   (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
ESTMTD_ACQSTN_COST	Customer Acquisition Estimated Cost
ETHNCTY	Customer Ethnicity
ETHNIC_BCKGRND	Customer Ethnic Background
EXTRNL_ORG_TYP_CD	External Organization Type Code
FORM_OF_EMPMNT	Form of Employment
FUTRE_AGRMNT_CNT_LAST_3MO	Number of Future Agreements in last 3 months
FUTRE_AGRMNT_CNT_LAST_MO	Number of Future Agreements in last 1 month
FUTRE_AGRMNT_DAYS_LAST_3MO	Future Agreement Days in last 3 months
FUTRE_AGRMNT_DAYS_LAST_MO	Future Agreement Days in last 1 month
GNDR_CD	Individual Customer Gender Code
HH_SZ	Household Size
HNGUP_CALLS_CNT_LAST_3MO	Number of hangup calls in last 3 months
HNGUP_CALLS_CNT_LAST_MO	Number of hangup calls this month
HNGUP_CALLS_CNT_LFTM	Number of hangup calls in customer life span
HOMTEL_IND	Indicates whether Customer has Home Telephone
IDD_IND	Indicates whether Customer subscribed to International Direct Dialing
JB_AGRMNT_TYP	Job Agreement Type
JB_CD	Customer Job Code
JB_POSN	Customer Job Position
LANG_CD	Language Code
LAST_INCOMING_USG_DT_NBR	When was last incoming call occurred
LAST_OUTGOING_USG_DT_NBR	When was last outgoing call occurred
LAST_RCHRG_AMT	Last recharge amount
LEGAL_TTL_TO_HSNG	Legal Title to Housing
LIFE_SPN	Customer Life Span
LIKE_SCP_IN_FCBK_IND	Indicates whether customer likes Service Provide page in Facebook

Table 10-13   (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
LVNG_AT_CURR_ADDR_SINCE_NBR	Since When Customer Living at Current Address expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
MAIL_ALWD_IND	Indicates whether Customer allows Service Provider to send mail
MAX_RCHRG_AMT	Maximum recharge amount
MIN_RCHRG_AMT	Minimum recharge amount
MMS_CNT_LAST_3MO	MMSs sent in last 3 months
MMS_CNT_LAST_MO	MMSs sent in last 1 month
MMS_CNT_LFTM	MMSs sent over customer's lifetime
MO_RVN_LAST_3MO	Monthly Revenue as of 3 months ago
MO_RVN_LAST_MO	Monthly Revenue as of 1 month ago
MRTL_STAT_CD	Individual Customer Marital Status Code
MULT_PRTY_ROLE_IND	Indicates whether customer has multiple party roles. For example, both an employee and customer of Service Provider
NAME_OF_WKPLC	Name of Workplace
NAME_PRFX	Name Prefix
NBR_CHLDRN_AT_COLL	Total Number of Children at College
NBR_CHLDRN_AT_SCHL	Total Number of Children at School
NBR_CHLDRN_AT_UNIV	Total Number of Children at University
NBR_EMP_SNC_CUST	Numbers of Employees Since Customer
NBR_OF_CHLDRN	Total Number of Children
NBR_OF_DPNDNT	Total Number of Dependents
NEW_ACCT_IND	Indicates whether Customer is New
NO_MTHS_CMPNY	Number of months an Individual Customer is in his/her current Company
NO_MTHS_POSN	Number of months an Individual Customer is in his/her current Position
NTNLTY_CD	Customer Nationality Code
OFFNET_AIRTIME_LAST_3MO	Total offnet airtime in minutes in last 3 months
OFFNET_AIRTIME_LAST_MO	Total offnet airtime in minutes in last 1 month

Table 10-13   (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
OFFNET_AIRTIME_LFTM	Total offnet airtime in minutes in lifetime
OFFNET_CALLS_LAST_3MO	Number of offnet calls in last 3 months
OFFNET_CALLS_LAST_MO	Number of offnet calls in last 1 month
OFFNET_CALLS_LFTM	Number of offnet calls in lifetime
ONNET_AIRTIME_LAST_3MO	Total onnet airtime in minutes in last 3 months
ONNET_AIRTIME_LAST_MO	Total onnet airtime in minutes in last 1 month
ONNET_AIRTIME_LFTM	Total onnet airtime in minutes in lifetime
ONNET_CALLS_LAST_3MO	Number of onnet calls in last 3 months
ONNET_CALLS_LAST_MO	Number of onnet calls in last 1 month
ONNET_CALLS_LFTM	Number of onnet calls in lifetime
OTH_DRVR_LICNS_IND	Indicates whether customer has other vehicle License
PAY_TV_IND	Indicates whether Customer has Pay TV connection
PLC_OF_BRTH	Place of Birth
PORT_IN_CNT	Number of times the customer ported in
PORT_IN_FROM	Service Provide from who the customer ported out from
PORT_OUT_CNT	Number of times the customer ported out
POSTCD_CD	Postcard Code
PREF_CNTCT_MDM	Preferred Contact Method
PREF_ENTMNT_IND	Indicates whether customer given any Entitlement preference
PREF_GVN_IND	Indicates whether customer given any preference
PREF_MSC_IND	Indicates whether customer given any Music preference
PREF_PYMT_MTHD_TYP_CD	Preferred Payment Method Type Code
PREF_SPRT_IND	Indicates whether customer given any sport preference
PREF_TRVL_IND	Indicates whether customer given any Travel preference
PRMRY_STAT_CD	Customer Primary Status Code
PRMRY_STAT_RSN_CD	Customer Primary Status Reason Code
PRTY_AGE	Customer Age expressed as number of years

Table 10-13   (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
PRTY_TYP_CD	Party Type Code. For example, Individual, Large Enterprise, Medium Enterprise, and so on.
PYMT_ACCT_OPEN_DT_NBR	Payment Account Open Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
RLSD_CALLS_CNT_LAST_3MO	Number of released calls in last 3 months
RLSD_CALLS_CNT_LAST_MO	Number of released calls this month
RLSD_CALLS_CNT_LFTM	Number of released calls in customer life span
RMRK_CNT_LAST_3MO	Numbers of remarks made against customer in last 3 months
RMRK_CNT_LAST_MO	Numbers of remarks made against customer in this month
RMRK_CNT_LFTM	Numbers of remarks made against customer in his/her life span
SCHL_ZIP_CD	School ZIP Code
SCL_NTWK_USR_IND	Indicates whether customer uses any Social Network site
SL_CHNL_KEY	Sales Channel
SL_CHNL_RPRSTV_KEY	Sales Channel Representative
SMS_CNT_LAST_3MO	SMSs sent in last 3 months
SMS_CNT_LAST_MO	SMSs sent in last 1 month
SMS_CNT_LFTM	SMSs sent over customer's lifetime
SOC_JB_CD	SOC Job Code
SPRT_IND	Indicates whether customer plays Sports
SPRT_TYP_CD	Sport Type Code
SRC_OF_INCM	Source of Income
STATE	State
STRT_OF_EMPMNT_NBR	Customer Start of Employment expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
TOT_AGE_CHLDRN	Total Age of Children
TOT_CALL_CNT_LAST_3MO	Total number of calls to Call center made by customer in last 3 months

Table 10-13 (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
TOT_CALL_CNT_LAST_MO	Total number of calls to Call center made by customer in this month
TOT_CALL_CNT_LFTM	Total number of calls to Call center made by customer in his/her life span
TOT_CNTRBTN_LAST_MO	Sum of total payments and total recharges made in the last one month
TOT_CNTRBTN_LFTM	Sum of total payments and total recharges made in customers life time
TOT_DAYS_ACTVTY	Total days of activity
TOT_DAYS_ON_USE	Total days on use
TOT_DAYS_OUTGOING_ACTVTY	Total days of outgoing activity
TOT_DRTN_OF_USG	Total durations of usage in customer life time
TOT_EXP_AMT_EQVLT_VAL	Total amount expired in customers life time
TOT_HLD_DRTN_LAST_3MO	Total hold duration in the last 3 months in seconds
TOT_HLD_DRTN_LAST_MO	Total hold duration this month in seconds
TOT_HLD_DRTN_LFTM	Total hold duration in customer life span in seconds
TOT_PYMT_RVN_LAST_3MO	Total Payment Revenue as of 3 months ago
TOT_PYMT_RVN_LAST_MO	Total Payment Revenue as of 1 month ago
TOT_QUE_DRTN_LAST_3MO	Total queue duration in the last 3 months in seconds
TOT_QUE_DRTN_LAST_MO	Total queue duration this month in seconds
TOT_QUE_DRTN_LFTM	Total queue duration in customer life span in seconds
TOT_RCHRG_AMT_LAST_3MO	Total recharge amount this month
TOT_RCHRG_AMT_LAST_MO	Total recharge amount in last 3 months
TOT_RCHRG_AMT_LFTM	Total recharge amount in customers life time
TOT_RCHRG_CNT_LAST_3MO	Number of recharges made in last 3 months
TOT_RCHRG_CNT_LAST_MO	Number of recharges made this month
TOT_RCHRG_CNT_LFTM	Number of recharges made in customer life time
TOT_TALK_DRTN_LAST_3MO	Total talk duration in the last 3 months in seconds
TOT_TALK_DRTN_LAST_MO	Total talk duration this month in seconds
TOT_TALK_DRTN_LFTM	Total talk duration in customer life span in seconds
TOT_UTILZD_EQVLT_VAL	Total utilized monetary value in customers life time

Table 10-13   (Cont.) DWV_CUST_LTV_SRC

Attribute	Description
UNIV_ZIP_CD	University ZIP Code
UPLD_DATA_LAST_3MO	Data uploaded in KBs in last 3 months
UPLD_DATA_LAST_MO	Data uploaded in KBs in last 1 month
UPLD_DATA_LFTM	Data uploaded in KBs in lifetime
VOI_INTERNAT_AIRTIME_LAST_3MO	International voice air time including roaming in minutes in last three month
VOI_INTERNAT_AIRTIME_LAST_MO	International voice air time in minutes including roaming in last one month
VOI_INTERNAT_AIRTIME_LFTM	International voice air time in minutes including roaming over customer's life time
VOI_NAT_AIRTIME_LAST_3MO	National voice air time in minutes in last three month
VOI_NAT_AIRTIME_LAST_MO	National voice air time in minutes in last one month
VOI_NAT_AIRTIME_LFTM	National voice air time in minutes over customer's life time
WRLS_IND	Indicates whether Customer has Wireless Internet connection

10.8.2 Customer Life Time Value Survival Output Target Attribute: AGE_ON_NET_NBR

Data in `DWV_CUST_LTV_SRC` view is used to train Customer Life Time Survival Value regression mining model. Data in `DWV_CUST_LTV_SGMNT_APPLY` view, which has all active customers' data, is scored using the trained model and scoring results are saved into `DWD_CUST_DNA` table with the following column:

- DWD_CUST_DNA.PRDCT_LT_SRVVL_VAL

10.8.3 Customer Life Time Value Survival Algorithms

The following algorithm is used to predict the Lifetime Value of active customer base:

- Generalized Linear Model Regression

10.8.4 Customer Life Time Value Survival Algorithm Setting Tables

Algorithm settings tables allow you to override default values of different settings for mining algorithms.

The following is the setting table for customer Life Time Survival Value:

- DM_STNG_LTV_GLMR - For Generalized Linear Model Regression

10.9 Model 7: Customer Sentiment

The business problem is to measure customer sentiment regarding the service quality according to any text message received from the customer. Those text messages may be emails from customer, or written down by call center agents during call center calls, and so on.

This model leverages Text mining capability provided by Oracle database.

Algorithm settings tables allow you to override default values of different settings for mining algorithms.

10.9.1 Customer Sentiment Source

The table DM_CUST_CMMNT is the main source table for Customer Sentiment classification model. The data in this table further transformed using Oracle Text to make it ready to be accepted by Oracle Data Mining.

Table 10-14 (page 10-56) shows DM_CUST_CMMNT attributes.

Table 10-14   DM_CUST_CMMNT Customer Sentiment Source Table

Attribute	Data Type	Description
CUST_CMMNT	VARCHAR2(4000)	The text messages all together from the customer.
CUST_KEY	NUMBER(30)	Customer Key
MANUAL_SCORE	VARCHAR2(40)	Manual scores or manually adjusted after reading
MINUSPROB	NUMBER(20,16)	The probability of customer belonging to un-happy group
PLUSPROB	NUMBER(20,16)	The probability of customer belonging to happy group
SENTIMENT	VARCHAR2(40)	Sentiment scored by Mining Model

10.9.2 Customer Sentiment Output

The text mining sentiment analysis can be refined by extending the dictionary table DWD_CUST_SNTMNT_MANUAL_SCORE to improve the performance of the model. Predefined dictionary is used to manually score customers, who are not scored by customer call center. Data of manually scored and customer call center scored customers is used to train Customer Sentiment mining model. The trained mining model is then used to score customers' comments and the scoring results are saved into DWD_CUST_DNA table with the following columns:

- DWD_CUST_DNA.SNTMNT_CTGRY_CD

- DWD_CUST_DNA.MANUAL_SNTMNT_CTGRY

- DWD_CUST_DNA. SNTMNT_PROB

10.9.3 Customer Sentiment Algorithm

This model uses the Oracle Text option first to transform Customer comments, then uses the SVM algorithm to train the model.

- Oracle Text

- Support Vector Machines

10.9.4 Customer Sentiment Algorithm Setting Tables

Algorithm settings tables allow you to override default values of different settings for mining algorithms.

The following is the setting table for customer sentiment:

- DM_STNG_SENTIMENT_SVM - For Generalized Linear Model Regression

10.10 Oracle Communications Data Model Mining Setting Tables

The algorithm setting tables allow you to override the default values of different settings for the Oracle Communications Data Model data mining algorithms.

Table 10-15 (page 10-57) shows the data mining setting table setting structure for each of the following algorithms:

- DM_STNG_USER_ALL

- DM_STNG_SENTIMENT_SVM

- DM_STNG_LTV_GLMR

- DM_STNG_CHURN_SVM

- DM_STNG_CHURN_DT

- DM_STNG_PROFILE_KMEANS

- DM_STNG_ATRIB_IMPORTANCE

Table 10-15   Data Mining Algorithm Setting Table Structure

Name	Data Type	Description
SETTING_NAME	VARCHAR2(500)	Setting Name
SETTING_VALUE	VARCHAR2(500)	Setting Value

Table 10-16 (page 10-58) shows the data mining setting table structure for DM_STNG_CHURN_SVM_PRIORS.

Table 10-16   DM_STNG_CHURN_SVM_PRIORS Data Mining Algorithm Setting Table

Name	Data Type	Description
TARGET_VALUE	NUMBER	Target Value. For SVM Churn model, target value is either 1 or 0.
PRIOR_PROBABILITY	NUMBER	Prior probability of the target value.

Table 10-17 (page 10-58) shows the data mining setting table structure for DM_STNG_CHURN_DT_COST.

Table 10-17   DM_STNG_CHURN_DT_COST Data Mining Algorithm Setting Table

Name	Data Type	Description
ACTUAL_TARGET_VALUE	NUMBER	Actual Target Value. For DT Churn model, target value is either 1 or 0.
PREDICTED_TARGET_VALUE	NUMBER	Target Value predicted by DT Churn model. Predicted target value is either 1 or 0.
COST	NUMBER	Cost of misclassification

10.11 Oracle Communications Data Model Data Mining Related Tables

In addition to result tables described in "Oracle Communications Data Model Result Tables" section, there are few more result tables, few lookup tables, and a table for predefined dictionary to manually score customers' comments.

Table 10-18 (page 10-58) shows the DWD_CUST_SNTMNT_MANUAL_SCORE table. This predefined dictionary table manually scores customers' comments.

Table 10-18   DWD_CUST_SNTMNT_MANUAL_SCORE Data Mining Source Table

Name	Data Type	Description
SENTIMENT_EXPRSN	VARCHAR2(100)	Sentiment expression that customer give in e-mail or on phone.
SENTIMENT_SCORE	VARCHAR2(30)	Sentiment score for the expression. It is "-" or "+"

Table 10-19   DWL_MNNG_CHRN_TYP Data Mining Lookup Table

Name	Data Type	Description
LANG_CD	VARCHAR2(30)	Language Code
CHRN_TYP_CD	VARCHAR2(120)	Churn Type Code. It is 1 or 0.
CHRN_TYP_NAME	VARCHAR2(200)	Churn Type Name. It is "Churner" or "Non-Churner"
CHRN_TYP_DSCR	VARCHAR2(400)	Churn Type Description

Table 10-20   DWL_MNNG_SNTMNT_CTGRY Data Mining Lookup Table

Name	Data Type	Description
LANG_CD	VARCHAR2(30)	Language Code
SNTMNT_CTGRY_CD	VARCHAR2(30)	Sentiment Category Code. For e.g. Angry, Satisfied
SNTMNT_CTGRY_NAME	VARCHAR2(50)	Sentiment Category Name
SNTMNT_CTGRY_DSCR	VARCHAR2(500)	Sentiment Category Description

Table 10-21   DWL_MNNG_LTV_BAND Data Mining Result Table

Name	Data Type	Description
LANG_CD	VARCHAR2(30)	Language Code
LTV_BAND_CD	VARCHAR2(30)	Life Time Value Band Code
LTV_BAND_NAME	VARCHAR2(50)	Life Time Value Band Name
LTV_BAND_DSCR	VARCHAR2(500)	Life Time Value Band Description

Table 10-22   DWL_MNNG_LT_SRVVL_BAND Data Mining Result Table

Name	Data Type	Description
LANG_CD	VARCHAR2(30)	Language Code
LT_SRVVL_BAND_CD	VARCHAR2(30)	Life Time Survival Value Band Code
LT_SRVVL_BAND_NAME	VARCHAR2(50)	Life Time Survival Value Band Name
LT_SRVVL_BAND_DSCR	VARCHAR2(500)	Life Time Survival Value Band Description

Table 10-23   Sequences Defined for Data Mining

Table Name	Sequence Name
DWR_CUST_SGMNT	CUST_SGMNT_SEQ

10.12 Data Mining Package Customer Life Time Value Computation

In addition to the prebuilt data mining models, Oracle Communications Data Model core data mining package also includes a procedure for prepaid and postpaid customers to compute the Customer Life Time Value:

- `PKG_OCDM_MINING.COMPUTE_PRPD_CUST_LTV`

- `PKG_OCDM_MINING.COMPUTE_PSTPD_CUST_LTV`

The packages compute a value for a Service Provider that wants to know how valuable a customer would be to the Service Provider for next *n* months into future.

The computation of the Life Time Value is different for prepaid and postpaid customers.

10.12.1 Prepaid Customer Life Time Value Computation

The computation of prepaid customer Life Time Value involves the parameters shown in Table 10-24 (page 10-60), set in the `DM_STNG_USER_ALL` table. These settings can be updated according to Service Provider requirements.

Table 10-24   Prepaid Customer Life Time Value Computation

Parameter	Description
PREPAID_MARGIN_RATE (**m**)	% Profit margin of all prepaid customers
PREPAID_HISTORY_MONTHS (**h**)	Historical data to calculate Average Monthly Recharge Amount for each customer
ANNUAL_DISCOUNT_RATE (**i**)	Specifies the interest rate used in discounted cash flow analysis to determine the present value of cash flows. Usually it falls between 8% and 15%
CUST_LIFETIME_VALUE_COMPUATION_TIME_MONTHS (**T**)	Specifies for how long the Service Provider wants to calculate the Life Time Value

In addition to the parameters shown in Table 10-24 (page 10-60), the prepaid customer Life Time Value calculation also involves the values shown in Table 10-25 (page 10-60).

Table 10-25   Prepaid Customer Life Time Value Additional Required Parameter Values

Parameter	Description
RETENTION RATE (r)	1- the Predicted Churn Probability. The Predicted Churn Probability is retrieved from the `DWD_CUST_DNA` table.
AVERAGE MONTHLY RECHARGE AMOUNT or REVENUE (R)	Ratio of "Sum of all recharges in last *PREPAID_HISTORY_MONTHS"* to *"PREPAID_HISTORY_MONTHS"*

Prepaid Customer Life Time Value Calculation

Prepaid Customer Life Time Value =

$$\sum_{t=1}^{T} \frac{[R] - [R * (1 - m)]}{\left(1 + \left(i/_{12}\right)\right)^{t}} * r$$

The computed prepaid Customer Life Time Value is saved to `DWD_CUST_DNA` table in the following column:

- DWD_CUST_DNA. CMPTD_LTV_VALUE

10.12.2 Postpaid Customer Life Time Value Computation

The computation of postpaid customer Life Time Value involves the parameters shown in Table 10-26 (page 10-61), which are all settings in the `DM_STNG_USER_ALL` table. These settings can be updated according to Service Provider requirements.

Table 10-26   Postpaid Customer Life Time Value Computation

Parameter	Description
POSTPAID_MARGIN_RATE (**m**)	% Profit margin of all postpaid customers
POSTPAID_HISTORY_MONTHS (**h**)	Specifies the historical data to calculate Average Monthly Billed Amount for each customer
ANNUAL_DISCOUNT_RATE (**i**)	Specifies the interest rate used in discounted cash flow analysis to determine the present value of cash flows. Usually it falls between 8% and 15%
CUST_LIFETIME_VALUE_COMPUATION_TIME_MONTHS (**T**)	Specifies how long the Service Provider wants to calculate the Life Time Value

In addition to the parameters specified in Table 10-26 (page 10-61), the calculation also involves the parameters shown in Table 10-27 (page 10-61).

Table 10-27   Postpaid Customer Life Time Value Additional Required Parameter Values

Parameter	Description
RETENTION RATE (r)	1- the Predicted Churn Probability. The Predicted Churn Probability is retrieved from the `DWD_CUST_DNA` table.
AVERAGE MONTHLY BILLED AMOUNT or REVENUE (R)	Ratio of "Sum of all Billed amounts in last *POSTPAID_HISTORY_MONTHS*" to "*POSTPAID_HISTORY_MONTHS*"

Postpaid Customer Life Time Value Calculation

Postpaid Customer Life Time Value =

$$\sum_{t=1}^{T} \frac{\left[\frac{R}{\left(1 + \left(\frac{i}{360}\right)\right)^{30}} \right] - \left[R * (1 - m) \right]}{\left(1 + \left(i/12\right)\right)^{t}} * r$$

The computed postpaid Customer Life Time Value is saved in the table DWD_CUST_DNA with the following column:

- DWD_CUST_DNA. CMPTD_LTV_VALUE

11

Communications Data Mining with Data Miner

Describes Data Mining with Data Miner

> The business problem is to group customers into generally homogeneous groups (Segments) based on customer demographic value, usage pattern and list of telecom products they subscribe to (customer subscriber history).Business Analysts can look into each segment to further understand the customer group discovered by the model and name each segment.

> The business problem is to measure customer sentiment regarding the service quality according to any text message received from the customer. Those text messages may be emails from customer, or written down by call center agents during call center calls, and so on.

> The business problem is to identify the patterns of which products are typically purchased together or one after another over the lifetime of a customer. This helps in providing recommendations about which products should be presented to customers according to their potential acceptance score. A typical scenario is call center can call certain customers with some specific purpose to cross-sell some products. Operators need the list of customers to save promotion cost and improve efficiency.

11.1 Data Mining Miner Architecture

Covers Data Mining Miner Architecture

Oracle Communications Data Model Deliverables

1. *ocdm_mining_init.sql*

   a. Initializes mining environment

   b. Creates mining target tables, setting tables, mining utility package, and dictionary for scoring customer comments

2. *cust_sntmnt_manual_score.sql*

   a. Creates dictionary for scoring customer comments

3. *pkg_ocdm_mining_util.sql:* Data Mining utility package that consists of procedures to:

   a. Prepare data for customer sentiment analysis

   b. Score customer comments using dictionary

   c. Update mining target tables with model details, extracted rules, and prediction results

4. *Oracle Data Miner workflows xml files*:

   a. prepaid_churn_dt_and_svm.xml

     b. postpaid_churn_dt_and_svm.xml

     c. customer_segmentation_kmeans.xml

     d. customer_ltv_srvl_val_glmr.xml

     e. customer_sentiment_svm.xml

     f. target_promotion_svm.xml

5. ocdm_import_odm_workflow.sql

     a. Creates data miner project

     b. Imports OCDM Oracle Data Miner workflows into data miner project created in the above step

6. pkg_ocdm_mining_odmr_util.sql: Data Miner utility package that consists of procedures to:

     a. Run Oracle Data Miner workflows

     b. Extract workflows status and inserting it into dwc_odmr_wf_exctn control table

     c. Check status of each workflow and invoke update mining target table procedure in pkg_ocdm_mining_util package

Steps for Setting Up Mining Environment

1. Execute *ocdm_mining_init.sql* script, which initializes mining environment. Creates mining target tables, setting tables, mining utility package, and dictionary for scoring customer comments.

2. Import Oracle Data Miner workflows using *ocdm_import_odm_workflow.sql* script.

3. Update *from_date_etl* and *to_date_etl* columns for *BUILD-MINING-MODELS* process in *DWC_ETL_PARAMETER* table:

     a. *from_date_etl* - Training data is selected as of this date

     b. *to_date_etl* - Apply data is selected as of this date

Steps of Mining Models Creation

1. Invoke *pkg_ocdm_mining_odmr_util.odmr_run_wf* procedure, which

     a. Splits data into training, test, and apply data sets

     b. Trains model using training data

     c. Extracts mining model information and creates a database view to store the model information

     d. Applies trained model on apply data set and creates a database view to store apply results

2. Invoke *pkg_ocdm_mining_odmr_util.odmr_wf_ltst_exctn_log* procedure to extract Oracle Data Miner workflows status. Check *dwc_odmr_wf_exctn* table for workflows status.

3. Invoke *pkg_ocdm_mining_odmr_util.odmr_wf_stat_chk_upd_trgt_tab* procedure to check the status of each workflow and update mining target tables of the models created in the workflow if workflow execution finished successfully.

Mining Model Components

Figure 11-1 Mining Model Architecture
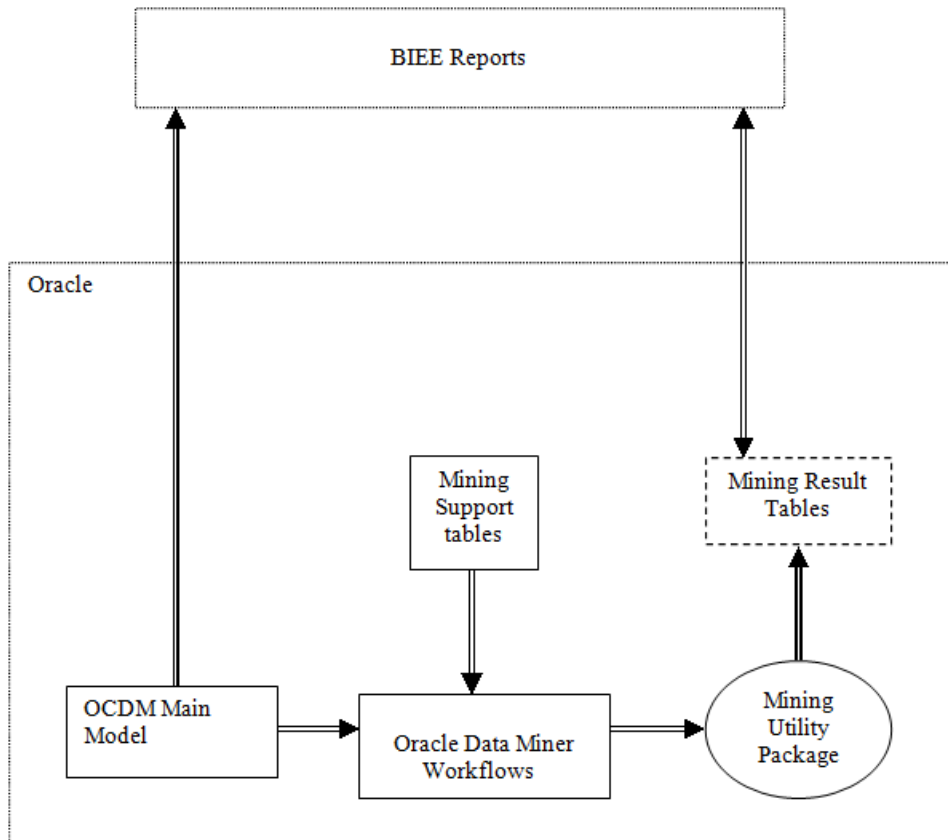
In the diagram, **Oracle Data Miner Workflows** is responsible for generating the **Knowledge (mining rules)** from the data available in **Oracle Communications Data Model Main Model**. **Mining Utility Package** has procedures to update mining target tables for all mining models. Mining models information, extracted rules, and prediction results are stored in **Mining Result Tables**.

11.2 Data Model Mining Result Tables

Provides a description of the Oracle Communications Data Model Data Mining Result Tables.

Section Title

Table 11-1   DWD_CUST_DNA Data Mining Results Table

Name	Data Type	Description
PRDCT_CHURN_SVM_IND	CHAR(1)	Boolean value whether customer will churn in next three months according to SVM model.

Table 11-1   (Cont.) DWD_CUST_DNA Data Mining Results Table

Name	Data Type	Description
PRDCT_CHURN_SVM_PROB	NUMBER	The probability value of how likely customer will churn in next 3 months. This is the probability that the SVM prediction is correct.
PRDCT_CHURN_DT_IND	CHAR(1)	Boolean value whether customer will churn in next three months according to DT model.
PRDCT_CHURN_DT_PROB	NUMBER	The probability value of how likely customer will churn in next 3 months. This is the probability that the DT prediction is correct.
PRDCT_CHURN_DT_ND_NBR	VARCHAR2(30)	The ID of the node in the decision tree where the customer is assigned.
CLSTR_SGMNT_CD	VARCHAR2(8)	The k-Means algorithm divides the set of all customers into segments. This value identifies the segment that the customer belongs to.
LTV_BAND_CD	VARCHAR2(120)	The band code of customer lifetime value, predicted by LTV Generalized Linear Models Regression. For more information, see *Oracle Data Mining Concepts*.
PRDCT_LTV_VALUE	NUMBER	The real value of Customer Lifetime value, predicted by LTV (GLMR) Mode.
LT_SRVVL_CD	VARCHAR2(120)	The band code of Customer Survival period (Life Expectancy), predicted by Life_Exp (GLMR) Model.
PRDCT_LT_SRVVL_VAL	NUMBER(22, 7)	The value of Customer Survival period (Life Expectancy), predicted by Life_Exp (GLMR) Mode.
SNTMNT_CTGRY_CD	VARCHAR2(120)	The customer sentiment category detected by Customer sentiment model (SVM + Text). This is an SVM model on transformed TEXTs (transformed into a words matrix).

Table 11-1   (Cont.) DWD_CUST_DNA Data Mining Results Table

Name	Data Type	Description
MANUAL_SNTMNT_ CTGRY	VARCHAR2(120)	The manual score applied by end user. The end user generates this model. For example, an employee from the operator might generate this model. Usually this is the call center agent. For example, when the message is recorded, there could be a manual tag associated with the message indicating that the customer is happy or upset.
SNTMNT_PROB	NUMBER	The probability of which customer is in possible model (Happy). This is the probability that customer is happy with their service. For example, a value of 60% means there is 60% chance that customer is happy with the service and a 40% chance that customer is not happy.

Table 11-2   DWD_CUST_PROD_AFFLTN - Data Mining Results Table

Name	Data Type	Description
MO_KEY	NUMBER(30)	Month key for which the target promotion model was trained
CUST_CD	VARCHAR2(120)	Customer natural key to identify the customer
PROD_CD	VARCHAR2(120)	The product code which was predicted against. This is target product for promotion.
AFFLTN_PR OB	NUMBER(20,18)	The likelihood, predicted by the SVM model, that the customer will purchase the product.
BUY_IND	CHAR(1)	Boolean value to indicate whether customer may purchase the product. This indicates that a value 1 is BUY and a value of 0 is "NOT to BUY".

Table 11-3   DWD_CHRN_SVM_FACTOR - Data Mining Results Table

Name	Data Type	Description
MODEL_NAME	VARCHAR2(120)	Churn model name
ACCT_TYP_CD	VARCHAR2(120)	Account Type Code. For e.g. Prepaid, Postpaid
ATTRIBUTE_NAME	VARCHAR2(4000)	Name of the factor.
ATTRIBUTE_SUBNAME	VARCHAR2(4000)	Subname of the factor if there is any. For example, if the ATTRIBUTE_NAME has the value, "Payment_Method", then the ATTRIBUTE_SUBNAME could be and of the following: • Debit_Card • Cash Each ATTRIBUTE_SUBNAME has a different weight, coefficient, in the model.
ATTRIBUTE_VALUE	VARCHAR2(4000)	Value of the factor, if there is any. For example, for payment method, value of "cash" and "direct debit" might have different influence and ranking.
COEFFICIENT	NUMBER	Importance of the factor. The factors are ranked according to this value.

Table 11-4   DWD_PROMO_SVM_FACTOR - Data Mining Results Table

Name	Data Type	Description
PROD_CD	VARCHAR2(50)	The product code which was predicted against. This is target product for promotion.
MO_KEY	NUMBER(30)	Month key for which the target promotion model was trained
MODEL_NAME	VARCHAR2(200)	Target promotion model name
ATTRIBUTE_NAME	VARCHAR2(4000)	Name of the factor.

Table 11-4   (Cont.) DWD_PROMO_SVM_FACTOR - Data Mining Results Table

Name	Data Type	Description
ATTRIBUTE_SUB NAME	VARCHAR2(4000)	Subname of the factor if there is any. For example, if the ATTRIBUTE_NAME has the value, "Payment_Method", then the ATTRIBUTE_SUBNAME could be and of the following: • Debit_Card • Cash Each ATTRIBUTE_SUBNAME has a different weight, coefficient, in the model.
ATTRIBUTE_VAL UE	VARCHAR2(4000)	Value of the factor, if there is any. For example, for payment method, value of "cash" and "direct debit" might have different influence and ranking.
COEFFICIENT	NUMBER	Importance of the factor. The factors are ranked according to this value.

Table 11-5   DWR_CUST_DT_NODE - Data Mining Results Table

Name	Data Type	Description
MODEL_NAME	VARCHAR2(120)	Churn model name
ACCT_TYP_CD	VARCHAR2(120)	Account Type Code. For e.g. Prepaid, Postpaid
NODE_ID	VARCHAR2(50)	Decision tree node number
PREDICTION	NUMBER	Prediction for the current node. If number of customers predicted to churn is higher than number of customers to retain, then this would be 1, otherwise it would be 0
PREDICTION_COUN T	NUMBER	Number of customers predicted to churn under the current node
RECORD_COUNT	NUMBER	Number of customer under the current node
IS_LEAF	VARCHAR2(10)	Indicates whether the node is a leaf indicator. The prediction of lead node is the final prediction
CONFIDENCE	NUMBER	Ratios of prediction_count to record_count

Table 11-5   (Cont.) DWR_CUST_DT_NODE - Data Mining Results Table

Name	Data Type	Description
SUPPORT	NUMBER	Ration of record_count to total number of customers
RULE	VARCHAR2(4000)	Decision Tree rule

Table 11-6   DWD_PRPD_CHRN_SVM_ROC - Data Mining Results Table

Name	Data Type	Description
PROBABILITY	NUMBER	Prepaid churn probability threshold
TRUE_POSITIVES	NUMBER	Number of true positive cases
FALSE_NEGATIVES	NUMBER	Number of false negative cases
FALSE_POSITIVES	NUMBER	Number of false positive cases
TRUE_NEGATIVES	NUMBER	Number of true negative cases
TRUE_POSITIVE_FRACTION	NUMBER	Ratio of "Number of true positives" to the "Number of total actual positives"
FALSE_POSITIVE_FRACTION	NUMBER	Ration of "Number of false positives" to the "Number of actual negatives"

Table 11-7   DWD_PSTPD_CHRN_SVM_ROC - Data Mining Results Table

Name	Data Type	Description
PROBABILITY	NUMBER	Postpaid churn probability threshold
TRUE_POSITIVES	NUMBER	Number of true positive cases
FALSE_NEGATIVES	NUMBER	Number of false negative cases
FALSE_POSITIVES	NUMBER	Number of false positive cases
TRUE_NEGATIVES	NUMBER	Number of true negative cases
TRUE_POSITIVE_FRACTION	NUMBER	Ratio of "Number of true positives" to the "Number of total actual positives"
FALSE_POSITIVE_FRACTION	NUMBER	Ration of "Number of false positives" to the "Number of actual negatives"

Table 11-8   DWD_TARGET_PROMO_SVM_ROC - Data Mining Results Table

Name	Data Type	Description
PROBABILITY	NUMBER	Target product buy probability threshold

Table 11-8   (Cont.) DWD_TARGET_PROMO_SVM_ROC - Data Mining Results Table

Name	Data Type	Description
TRUE_POSITIVES	NUMBER	Number of true positive cases
FALSE_NEGATIVES	NUMBER	Number of false negative cases
FALSE_POSITIVES	NUMBER	Number of false positive cases
TRUE_NEGATIVES	NUMBER	Number of true negative cases
TRUE_POSITIVE_FRACT ION	NUMBER	Ratio of "Number of true positives" to the "Number of total actual positives"
FALSE_POSITIVE_FRAC TION	NUMBER	Ration of "Number of false positives" to the "Number of actual negatives"

Table 11-9   DWD_PRPD_CHRN_SVM_LIFT - Data Mining Results Table

Name	Data Type	Description
QUANTILE_NUMBER	NUMBER	Quantile number
PROBABILITY_THRESHOL D	NUMBER	Prepaid churn probability threshold
GAIN_CUMULATIVE	NUMBER	Cumulative Gain
QUANTILE_TOTAL_COU NT	NUMBER	Total Count in the current Quantile
QUANTILE_TARGET_COU NT	NUMBER	Target Count of the current Quantile
PERCENTAGE_RECORDS_ CUMULATIVE	NUMBER	Cumulative Percentage Records
LIFT_CUMULATIVE	NUMBER	Cumulative Lift
TARGET_DENSITY_CUMU LATIVE	NUMBER	Cumulative Target Density
TARGETS_CUMULATIVE	NUMBER	Cumulative Targets
NON_TARGETS_CUMULA TIVE	NUMBER	Cumulative Non-targets
LIFT_QUANTILE	NUMBER	Quantile Lift
TARGET_DENSITY	NUMBER	Target Density

Table 11-10   DWD_PSTPD_CHRN_SVM_LIFT - Data Mining Results Table

Name	Data Type	Description
QUANTILE_NUMBER	NUMBER	Quantile number
PROBABILITY_THRESHOLD	NUMBER	Postpaid churn probability threshold
GAIN_CUMULATIVE	NUMBER	Cumulative Gain
QUANTILE_TOTAL_COUNT	NUMBER	Total Count in the current Quantile
QUANTILE_TARGET_COUNT	NUMBER	Target Count of the current Quantile
PERCENTAGE_RECORDS_CUMULATIVE	NUMBER	Cumulative Percentage Records
LIFT_CUMULATIVE	NUMBER	Cumulative Lift
TARGET_DENSITY_CUMULATIVE	NUMBER	Cumulative Target Density
TARGETS_CUMULATIVE	NUMBER	Cumulative Targets
NON_TARGETS_CUMULATIVE	NUMBER	Cumulative Non-targets
LIFT_QUANTILE	NUMBER	Quantile Lift
TARGET_DENSITY	NUMBER	Target Density

Table 11-11   DWD_TARGET_PROMO_SVM_LIFT - Data Mining Results Table

Name	Data Type	Description
QUANTILE_NUMBER	NUMBER	Quantile number
PROBABILITY_THRESHOLD	NUMBER	Target product buy probability threshold
GAIN_CUMULATIVE	NUMBER	Cumulative Gain
QUANTILE_TOTAL_COUNT	NUMBER	Total Count in the current Quantile
QUANTILE_TARGET_COUNT	NUMBER	Target Count of the current Quantile
PERCENTAGE_RECORDS_CUMULATIVE	NUMBER	Cumulative Percentage Records
LIFT_CUMULATIVE	NUMBER	Cumulative Lift

Table 11-11   (Cont.) DWD_TARGET_PROMO_SVM_LIFT - Data Mining Results Table

Name	Data Type	Description
TARGET_DENSITY_CUMULATIVE	NUMBER	Cumulative Target Density
TARGETS_CUMULATIVE	NUMBER	Cumulative Targets
NON_TARGETS_CUMULATIVE	NUMBER	Cumulative Non-targets
LIFT_QUANTILE	NUMBER	Quantile Lift
TARGET_DENSITY	NUMBER	Target Density

Table 11-12   DWD_PRPD_CHRN_SVM_LIFT - Data Mining Results Table

Name	Data Type	Description
ACTUAL_TARGET_VALUE	CHAR(1)	Actual prepaid churn indicator
PREDICTED_TARGET_VALUE	VARCHAR2(1)	Predicted prepaid churn indicator
VALUE	NUMBER	Number of customers

Table 11-13   DWD_PSTPD_CHRN_SVM_LIFT - Data Mining Results Table

Name	Data Type	Description
ACTUAL_TARGET_VALUE	CHAR(1)	Actual postpaid churn indicator
PREDICTED_TARGET_VALUE	VARCHAR2(1)	Predicted postpaid churn indicator
VALUE	NUMBER	Number of customers

Table 11-14   DWD_PSTPD_CHRN_SVM_LIFT - Data Mining Results Table

Name	Data Type	Description
ACTUAL_TARGET_VALUE	CHAR(1)	Actual target product buy indicator
PREDICTED_TARGET_VALUE	VARCHAR2(1)	Predicted target product buy indicator
VALUE	NUMBER	Number of customers

Table 11-15   DWR_CUST_SGMNT - Data Mining Results Table

Name	Data Type	Description
CUST_SGMNT_KEY	NUMBER	Customer segment key generated by database sequence
CUST_SGMNT_CD	VARCHAR2(120)	Customer segment code
CUST_SGMNT_NAME	VARCHAR2(400)	Customer segment name
CUST_SGMNT_DSCR	LONG	Customer segment description
SGMNT_DISPRSN	VARCHAR2(500)	Segment dispersion. Measures how closely the customers in the segment have their characteristics
SPPRTG_REC_CNT	NUMBER	Supporting record count
TREE_LVL	NUMBER	Tree level in hierarchical cluster
IS_LEAF_IND	CHAR(1)	Indicates whether the segment is at leaf level

Table 11-16   DWR_CUST_SGMNT_DTL - Data Mining Results Table

Name	Data Type	Description
SGMNT_ID	NUMBER	Segment identifier
ATTRIBUTE_NAME	VARCHAR2(4000)	Attribute name
MEAN	NUMBER	Mean value of all the customers in the segment (if attribute is numeric)
MODE_VALUE	VARCHAR2(4000)	Mode value of all the customers in the segment (if attribute is categorical)

11.3 Additional Data Model Mining Tables

Provides a description of several additional Oracle Communications Data Model Data Mining tables for use with Oracle Data Miner.

Data Model Mining Control Tables

In addition to result tables described in, there are several additional Data Mining result tables, lookup tables, setting tables, and a table for the dictionary to manually score customer comments.

Table 11-17   DWC_ODMR_WF_EXCTN – Data Miner Workflow Status Log Table

Name	Data Type	Description
PROJECT_ID	NUMBER	Data miner project identifier
PROJECT_NAME	VARCHAR2(120)	Data miner project name

Table 11-17   (Cont.) DWC_ODMR_WF_EXCTN – Data Miner Workflow Status Log Table

Name	Data Type	Description
WORKFLOW_ID	NUMBER	Data miner workflow identifier
WORKFLOW_NAME	VARCHAR2(120)	Data miner workflow name
WF_JOB_NAME	VARCHAR2(30)	Data miner workflow job name
WF_EXCTN_STATUS	VARCHAR2(30)	Data miner workflow execution status
WF_ERROR_DTL	VARCHAR2(2000)	Data miner workflow error detail
WF_EXCTN_START_ TIME	TIMESTAMP(6)	Data miner workflow execution start time
WF_EXCTN_END_TI ME	TIMESTAMP(6)	Data miner workflow execution end time
WF_EXCTN_DRTN_S ECONDS	NUMBER	Data miner workflow execution duration in seconds

Table 11-18   DWD_CUST_SNTMNT_MANUAL_SCORE - Data Mining Source Table

Name	Data Type	Description
SENTIMENT_EXP RSN	VARCHAR2(100)	Sentiment expression that customer give in e-mail or on phone.
SENTIMENT_SCO RE	VARCHAR2(30)	Sentiment score for the expression. It is "-" or "+"

Table 11-19   DWL_MNNG_CHRN_TYP - Data Mining Lookup Table

Name	Data Type	Description
LANG_CD	VARCHAR2(30)	Language Code
CHRN_TYP_CD	VARCHAR2(120)	Churn Type Code. It is 1 or 0.
CHRN_TYP_NAME	VARCHAR2(200)	Churn Type Name. It is "Churner" or "Non-Churner"
CHRN_TYP_DSCR	VARCHAR2(400)	Churn Type Description

Table 11-20   DWL_MNNG_SNTMNT_CTGRY - Data Mining Lookup Table

Name	Data Type	Description
LANG_CD	VARCHAR2(30)	Language Code
SNTMNT_CTGRY_C D	VARCHAR2(30)	Sentiment Category Code. For e.g. Angry, Satisfied

Table 11-20   (Cont.) DWL_MNNG_SNTMNT_CTGRY - Data Mining Lookup Table

Name	Data Type	Description
SNTMNT_CTGRY_N AME	VARCHAR2(50)	Sentiment Category Name
SNTMNT_CTGRY_D SCR	VARCHAR2(500)	Sentiment Category Description

Table 11-21   DWL_MNNG_LTV_BAND - Data Mining Result Table

Name	Data Type	Description
LANG_CD	VARCHAR2(30)	Language Code
LTV_BAND_CD	VARCHAR2(30)	Life Time Value Band Code
LTV_BAND_NAME	VARCHAR2(50)	Life Time Value Band Name
LTV_BAND_DSCR	VARCHAR2(500)	Life Time Value Band Description

Table 11-22   DWL_MNNG_LT_SRVVL_BAND - Data Mining Result Table

Name	Data Type	Description
LANG_CD	VARCHAR2(30)	Language Code
LT_SRVVL_BAND_C D	VARCHAR2(30)	Life Time Survival Value Band Code
LT_SRVVL_BAND_N AME	VARCHAR2(50)	Life Time Survival Value Band Name
LT_SRVVL_BAND_D SCR	VARCHAR2(500)	Life Time Survival Value Band Description

Table 11-23   DM_STNG_USER_ALL – Data Mining Setting Table

Name	Data Type	Description
SETTING_NAME	VARCHAR2(500)	Setting Name
SETTING_VALUE	VARCHAR2(500)	Setting Value

There is also a sequence created for customer segments as given below:

Table Name	Sequence Name
DWR_CUST_SGMNT	CUST_SGMNT_SEQ

11.4 Prepaid Churn Prediction with Oracle Data Miner

The prepaid churn prediction model identifies the characteristics of a prepaid customer likely to churn. When you apply the model you get a prediction of how likely a particular customer is to churn. This is based on customer information such as customer demographic information, service quality, recharge history, calling usage, interaction, and other factors. Using the patterns learned, the model can also perform the calculation over current customer base (called 'Apply') to predict which customers are mostly like to churn in next four months. With this knowledge, operators can initiate certain retention programs to reduce the customer churn rate. However, the churn prediction produces a likely to churn value. Further processing may be required to determine if it is desirable to retain a customer that is likely to churn. For example, you may only want to initiate retention programs for high value customers.

Prepaid Churn Prediction Model and Definition

There are several levels to define churn, namely Customer, Account, and subscription. For some operators with only limited business line, customer and account churn at same time, while subscription is at a lower level. Customer can stop using some products (termination of subscription) while continue to use the other products. In later case, operator still has the customer and may promote other products in the future. However, if customer completely stopped using any products from the operator, it is very difficult for operator to bring customer back.

In Oracle Communications Data Model, the churn was defined at Customer Level, which is, a customer is recognized as a churner only when he stop using any product from the operator.

If customers churn at a given month, we may receive the data only 3 months after the actual Churn. So time window should be adjusted.

Algorithms Used

- Support Vector Machines

- Decision Tree

Table 11-24   Attributes Identified from DWD_CUST_DNA for Prepaid Churn

Attribute	Description
CUST_CD	Customer Identifier
PRTY_TYP_CD	Party Type Code, For example: Individual, Large Enterprise, Medium Enterprise, and so on.
BSNS_LEGAL_STAT_CD	Legal Status Code of Enterprise Customers, For example:. Public, Private
HH_SZ	Household Size
LANG_CD	Language Code
EFF_FROM_DT_NBR	Customer Effective From Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
ESTMTD_ACQSTN_COST	Customer Acquisition Estimated Cost

Table 11-24   (Cont.) Attributes Identified from DWD_CUST_DNA for Prepaid Churn

Attribute	Description
BRDBND_IND	Indicates whether Customer has Broadband connection
PAY_TV_IND	Indicates whether Customer has Pay TV connection
IDD_IND	Indicates whether Customer subscribed to International Direct Dialing
HOMTEL_IND	Indicates whether Customer has Home Telephone
WRLS_IND	Indicates whether Customer has Wireless Internet connection
NEW_ACCT_IND	Indicates whether Customer is New
PORT_IN_FROM	Service Provide from who the customer ported out from
PORT_IN_CNT	Number of times the customer ported in
PORT_OUT_CNT	Number of times the customer ported out
CRDT_CTGRY_KEY	Customer Credit Category
ARPU_BND_CD	Customer ARPU Band Code
SL_CHNL_KEY	Sales Channel
SL_CHNL_RPRSTV_KEY	Sales Channel Representative
CUST_RVN_BND_CD	Customer Revenue Band Code
LIFE_SPN	Customer Life Span
CUST_TYP_CD	Customer Type Code
MULT_PRTY_ROLE_IND	Indicates whether customer has multiple party roles, e.g. both an employee and customer of Service Provider
PRMRY_STAT_CD	Customer Primary Status Code
PRMRY_STAT_RSN_CD	Customer Primary Status Reason Code
AGE_ON_NET_BND_CD	Customer Age on Net Band Code
AGE_ON_NET_NBR	Customer Age on Net expressed in number of months
AGE_BND_CD	Customer Age Band Code
CNCT_ADDR_EFF_DT_NBR	Customer Contact Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
MAIL_ALWD_IND	Indicates whether Customer allows Service Provider to send mail

Table 11-24   (Cont.) Attributes Identified from DWD_CUST_DNA for Prepaid Churn

Attribute	Description
LVNG_AT_CURR_ADDR_SINCE_NBR	Since When Customer Living at Current Address expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
END_OF_JB_AGRMNT_NBR	End of Job Agreement expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
STRT_OF_EMPMNT_NBR	Customer Start of Employment expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
NO_MTHS_POSN	Number of months an Individual Customer is in his/her current Position
NO_MTHS_CMPNY	Number of months an Individual Customer is in his/her current Company
ECNMCLY_ACTV_IND	Indicates whether a customer is economically Active
ADDR_LOC_CD	Customer Address Location Code
CUST_SCR_CD	Customer SCR Code
GNDR_CD	Individual Customer Gender Code
MRTL_STAT_CD	Individual Customer Marital Status Code
NTNLTY_CD	Customer Nationality Code
ETHNIC_BCKGRND	Customer Ethnic Background
ETHNCTY	Customer Ethnicity
PLC_OF_BRTH	Place of Birth
JB_CD	Customer Job Code
JB_POSN	Customer Job Position
LEGAL_TTL_TO_HSNG	Legal Title to Housing
EDU_CD	Education Qualification Code
POSTCD_CD	Postcard Code
CITY	City
STATE	State
CNTRY	Country
NAME_PRFX	Name Prefix

Table 11-24   (Cont.) Attributes Identified from DWD_CUST_DNA for Prepaid Churn

Attribute	Description
FORM_OF_EMPMNT	Form of Employment
CUST_BRANCH_CD	Customer Branch Code
NAME_OF_WKPLC	Name of Workplace
JB_AGRMNT_TYP	Job Agreement Type
BARNG_RSN_CD	Customer Barring Reason Code
SRC_OF_INCM	Source of Income
DWLNG_OWNER	Dwelling Owner
DWLNG_STAT	Dwelling Status
DWLNG_TYP	Dwelling Type
DWLNG_TENR	Dwelling Tenure
DWLNG_SZ	Dwelling Size
CAR_DRVR_LICNS_IND	Indicates whether customer has Car Driving License
OTH_DRVR_LICNS_IND	Indicates whether customer has other vehicle License
SPRT_IND	Indicates whether customer plays Sports
SPRT_TYP_CD	Sport Type Code
NBR_OF_CHLDRN	Total Number of Children
NBR_OF_DPNDNT	Total Number of Dependents
TOT_AGE_CHLDRN	Total Age of Children
NBR_CHLDRN_AT_SCHL	Total Number of Children at School
SCHL_ZIP_CD	School ZIP Code
NBR_CHLDRN_AT_COLL	Total Number of Children at College
COLL_ZIP_CD	College ZIP Code
NBR_CHLDRN_AT_UNIV	Total Number of Children at University
UNIV_ZIP_CD	University ZIP Code
CAR_TYP_CD	Car Type Code
CNTCT_ALLWD_IND	Indicates whether customer allows to contact
PREF_CNTCT_MDM	Preferred Contact Medium
ACCPT_NWSLTR_IND	Indicates whether customer accepts News Letter
PREF_GVN_IND	Indicates whether customer given any preference

Table 11-24   (Cont.) Attributes Identified from DWD_CUST_DNA for Prepaid Churn

Attribute	Description
PREF_SPRT_IND	Indicates whether customer given any sport preference
PREF_ENTMNT_IND	Indicates whether customer given any Entitlement preference
PREF_TRVL_IND	Indicates whether customer given any Travel preference
PREF_MSC_IND	Indicates whether customer given any Music preference
SCL_NTWK_USR_IND	Indicates whether customer uses any Social Network site
LIKE_SCP_IN_FCBK_IND	Indicates whether customer likes Service Provide page in Facebook
TOT_CALL_CNT_LFTM	Total number of calls to Call center made by customer in his/her life span
CMPLNT_CNT_LFTM	Number of complaints made by customer in his/her life span
DRPD_CALLS_CNT_LFTM	Number of dropped calls in customer life span
HNGUP_CALLS_CNT_LFTM	Number of hangup calls in customer life span
RLSD_CALLS_CNT_LFTM	Number of released calls in customer life span
TOT_QUE_DRTN_LFTM	Total queue duration in customer life span in seconds
TOT_HLD_DRTN_LFTM	Total hold duration in customer life span in seconds
TOT_TALK_DRTN_LFTM	Total talk duration in customer life span in seconds
RMRK_CNT_LFTM	Numbers of remarks made against customer in his/her life span
PRTY_AGE	Customer Age expressed as number of years
TOT_CALL_CNT_LAST_3MO	Total number of calls to Call center made by customer in last 3 months
CMPLNT_CNT_LAST_3MO	Number of complaints made by customer in last 3 months
DRPD_CALLS_CNT_LAST_3MO	Number of dropped calls in last 3 months
HNGUP_CALLS_CNT_LAST_3 MO	Number of hangup calls in last 3 months
RLSD_CALLS_CNT_LAST_3MO	Number of released calls in last 3 months
TOT_QUE_DRTN_LAST_3MO	Total queue duration in in last 3 months in seconds
TOT_HLD_DRTN_LAST_3MO	Total hold duration in in last 3 months in seconds
TOT_TALK_DRTN_LAST_3MO	Total talk duration in in last 3 months in seconds

Table 11-24   (Cont.) Attributes Identified from DWD_CUST_DNA for Prepaid Churn

Attribute	Description
RMRK_CNT_LAST_3MO	Numbers of remarks made against customer in last 3 months
TOT_CALL_CNT_LAST_MO	Total number of calls to Call center made by customer in this month
CMPLNT_CNT_LAST_MO	Number of complaints made by customer in this month
DRPD_CALLS_CNT_LAST_MO	Number of dropped calls this month
HNGUP_CALLS_CNT_LAST_MO	Number of hangup calls this month
RLSD_CALLS_CNT_LAST_MO	Number of released calls this month
TOT_QUE_DRTN_LAST_MO	Total queue duration this month in seconds
TOT_HLD_DRTN_LAST_MO	Total hold duration this month in seconds
TOT_TALK_DRTN_LAST_MO	Total talk duration this month in seconds
RMRK_CNT_LAST_MO	Numbers of remarks made against customer in this month
TOT_RCHRG_AMT_LFTM	Total recharge amount in customers life time
TOT_RCHRG_AMT_LAST_MO	Total recharge amount in last 3 months
TOT_RCHRG_AMT_LAST_3MO	Total recharge amount this month
LAST_RCHRG_AMT	Last recharge amount
MIN_RCHRG_AMT	Minimum recharge amount
MAX_RCHRG_AMT	Maximum recharge amount
TOT_RCHRG_CNT_LFTM	Number of recharges made in customer life time
TOT_RCHRG_CNT_LAST_MO	Number of recharges made this month
TOT_RCHRG_CNT_LAST_3MO	Number of recharges made in last 3 months
TOT_EXP_AMT_EQVLT_VAL	Total amount expired in customers life time
TOT_UTILZD_EQVLT_VAL	Total utilized monetary value in customers life time
TOT_CNTRBTN_LFTM	Sum of total payments and total recharges made in customers life time
TOT_CNTRBTN_LAST_MO	Sum of total payments and total recharges made in the last one month
TOT_DRTN_OF_USG	Total durations of usage in customer life time
DAYS_BFR_FIRST_RCHRG	Days between first payment and first recharge
DAYS_BFR_FIRST_USE	Days between payment and first use

Table 11-24   (Cont.) Attributes Identified from DWD_CUST_DNA for Prepaid Churn

Attribute	Description
AVG_DRTN_BTWN_RCHRG	Average duration between two recharges - in days
TOT_DAYS_ON_USE	Total days on use
TOT_DAYS_ACTVTY	Total days of activity
TOT_DAYS_OUTGOING_ACTVTY	Total days of outgoing activity
LAST_OUTGOING_USG_DT_NBR	When was last outgoing call occurred
LAST_INCOMING_USG_DT_NBR	When was last incoming call occurred
VOI_NAT_AIRTIME_LFTM	National voice air time in minutes over customer's life time
VOI_NAT_AIRTIME_LAST_MO	National voice air time in minutes in last one month
VOI_NAT_AIRTIME_LAST_3MO	National voice air time in minutes in last three months
VOI_INTERNAT_AIRTIME_LFTM	International voice air time in minutes including roaming over customer's life time
VOI_INTERNAT_AIRTIME_LAST_MO	International voice air time in minutes including roaming in last one month
VOI_INTERNAT_AIRTIME_LAST_3MO	International voice air time including roaming in minutes in last three months
SMS_CNT_LFTM	SMSs sent over customer's lifetime
SMS_CNT_LAST_MO	SMSs sent in last 1 month
SMS_CNT_LAST_3MO	SMSs sent in last 3 months
MMS_CNT_LFTM	MMSs sent over customer's lifetime
MMS_CNT_LAST_MO	MMSs sent in last 1 month
MMS_CNT_LAST_3MO	MMSs sent in last 3 months
DWNLD_DATA_LFTM	Data downloaded in KBs in lifetime
DWNLD_DATA_LAST_MO	Data downloaded in KBs in last 1 month
DWNLD_DATA_LAST_3MO	Data downloaded in KBs in last 3 months
UPLD_DATA_LFTM	Data uploaded in KBs in lifetime
UPLD_DATA_LAST_MO	Data uploaded in KBs in last 1 month
UPLD_DATA_LAST_3MO	Data uploaded in KBs in last 3 months
OFFNET_CALLS_LFTM	Number of offnet calls in lifetime

Table 11-24   (Cont.) Attributes Identified from DWD_CUST_DNA for Prepaid Churn

Attribute	Description
OFFNET_CALLS_LAST_MO	Number of offnet calls in last 1 month
OFFNET_CALLS_LAST_3MO	Number of offnet calls in last 3 months
ONNET_CALLS_LFTM	Number of onnet calls in lifetime
ONNET_CALLS_LAST_MO	Number of onnet calls in last 1 month
ONNET_CALLS_LAST_3MO	Number of onnet calls in last 3 months
OFFNET_AIRTIME_LFTM	Total offnet airtime in minutes in lifetime
OFFNET_AIRTIME_LAST_MO	Total offnet airtime in minutes in last 1 month
OFFNET_AIRTIME_LAST_3MO	Total offnet airtime in minutes in last 3 months
ONNET_AIRTIME_LFTM	Total onnet airtime in minutes in lifetime
ONNET_AIRTIME_LAST_MO	Total onnet airtime in minutes in last 1 month
ONNET_AIRTIME_LAST_3MO	Total onnet airtime in minutes in last 3 months
CHRN_IND	Indicates whether a customer is a Churner or Non-churner

Oracle Data Miner Workflow for PREPAID_CHURN_DT_AND_SVM
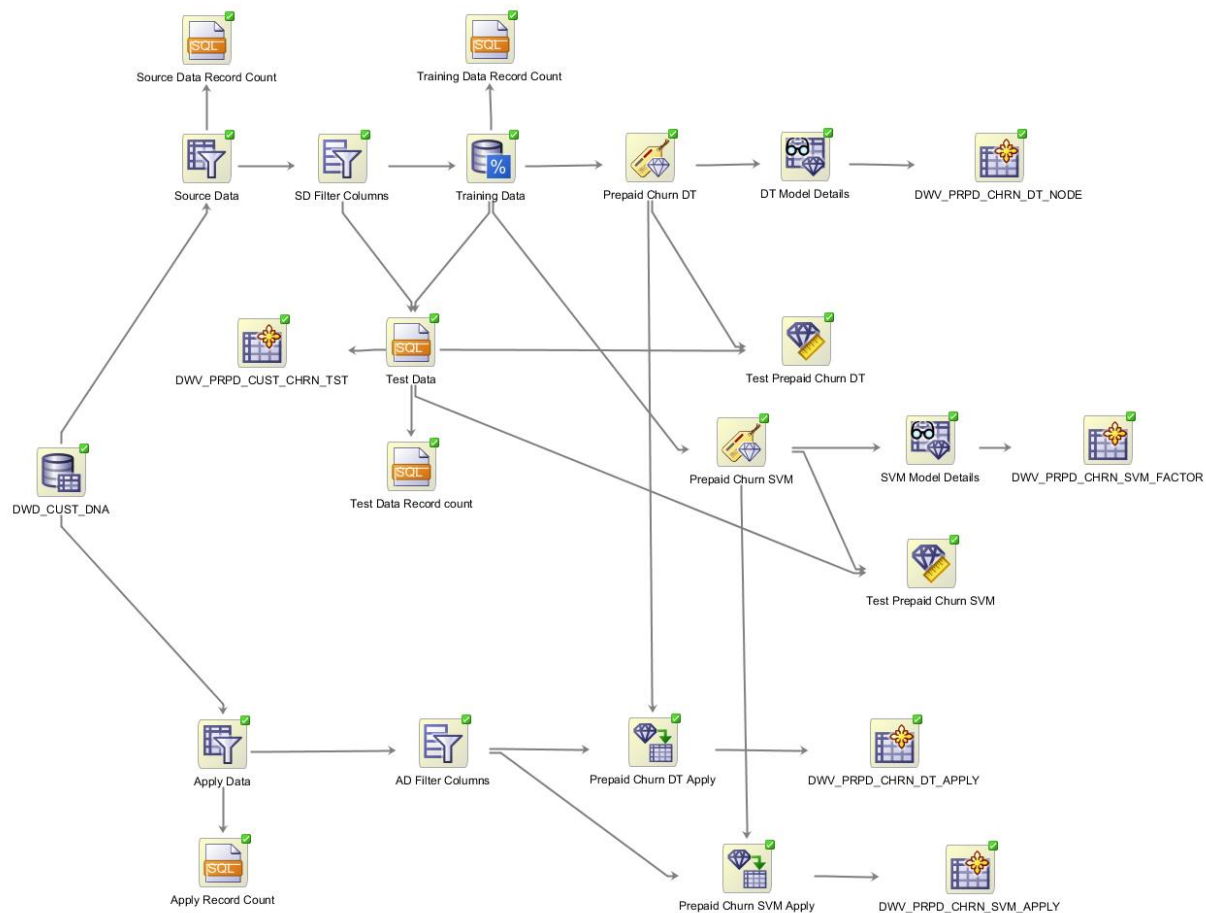
Workflow Description:

1. In data miner workflow, relevant columns are selected from DWD_CUST_DNA in *Data Source* node

2. Data is split into *source* and *apply* datasets

3. *Source* dataset is further split into *training* and *test* datasets

4. *Training* dataset is used to train prepaid churn models using two algorithms, *Support Vector Machines* and *Decision Tree*

5. Models are *PRPD_CUST_CHRN_DT* and *PRPD_CUST_CHRN_SVM*

6. *Decision Tree Churn model, PRPD_CUST_CHRN_DT*, details are extracted and stored in *DWV_PRPD_CHRN_DT_NODE* database view

7. *Support Vector Machines Churn model, PRPD_CUST_CHRN_SVM,* details are extracted and stored in *DWV_PRPD_CHRN_SVM_FACTOR* database view

8. *Test* dataset is stored in *DWV_PRPD_CUST_CHRN_TST* database view. This data is later used to extract ROC, LIFT, and Confusion Matrix from *Support Vector Machines Churn model, PRPD_CUST_CHRN_SVM*

9. *Apply* dataset is scored using trained prepaid churn models.
PRPD_CUST_CHRN_DT model apply results are stored in
DWV_PRPD_CHRN_DT_APPLY database view and *PRPD_CUST_CHRN_SVM*
model apply results are stored in *DWV_PRPD_CHRN_SVM_APPLY* database
view

Data Model Mining Target Tables

prepaid_churn_dt_and_svm workflow is executed when
pkg_ocdm_mining_odmr_util.odmr_run_wf procedure invoked. Workflows status is
extracted and stored into *dwc_odmr_wf_exctn* table by invoking
pkg_ocdm_mining_odmr_util.odmr_wf_ltst_exctn_log procedure.

Invoke *pkg_ocdm_mining_odmr_util.odmr_wf_stat_chk_upd_trgt_tab* procedure to check
the status of workflow execution. If workflow is executed successfully without any
errors, then the procedure will invoke
pkg_ocdm_mining_util.updt_mnng_trgt_prpd_chrn_dt and
pkg_ocdm_mining_util.updt_mnng_trgt_prpd_chrn_svm procedures to update mining
target tables for *PRPD_CUST_CHRN_DT* and *PRPD_CUST_CHRN_SVM* models.

Following table gives the list of target tables (columns) that get updated/loaded/
created

Table 11-25   Target Tables (columns) that get updated/loaded/created

Model Name	Target Table Name	Database Operation	Columns
PRPD_CUST_CHRN _DT	DWR_CUST_DT_NODE	Insert	No value
PRPD_CUST_CHRN _DT	DWD_CUST_DNA	Update	PRDCT_CHURN_DT_IND PRDCT_CHURN_DT_PROB PRDCT_CHURN_DT_ND_N BR
PRPD_CUST_CHRN _SVM	DWD_CHRN_SVM_FA CTOR	Insert	No value
PRPD_CUST_CHRN _SVM	DWD_PRPD_CHRN_SV M_ROC	Create	No value
PRPD_CUST_CHRN _SVM	DWD_PRPD_CHRN_SV M_LIFT	Create	No value
PRPD_CUST_CHRN _SVM	DWD_PRPD_CHRN_SV M_CNF_MTRX	Create	No value
PRPD_CUST_CHRN _SVM	DWD_CUST_DNA	Update	PRDCT_CHURN_SVM_IND PRDCT_CHURN_SVM_PRO B

11.5 Postpaid Churn Prediction with Oracle Data Miner

The postpaid churn prediction model identifies the characteristics of a postpaid
customer likely to churn. When you apply the model you get a prediction of how
likely a particular customer is to churn. This is based on customer information such as

customer demographic information, service quality, tariff plan, calling usage, interaction, and other factors. Using the patterns learned, the model can also perform the calculation over current customer base (called 'Apply') to predict which customers are mostly like to churn in next four months. With this knowledge, operators can initiate certain retention programs to reduce the customer churn rate. However, the churn prediction produces a likely to churn value. Further processing may be required to determine if it is desirable to retain a customer that is likely to churn. For example, you may only want to initiate retention programs for high value customers.

Postpaid Churn Prediction Model and Definition

There are several levels to define churn, namely Customer, Account, and subscription. For some operators with only limited business line, customer and account churn at same time, while subscription is at a lower level. Customer can stop using some products (termination of subscription) while continue to use the other products. In later case, operator still has the customer and may promote other products in the future. However, if customer completely stopped using any products from the operator, it is very difficult for operator to bring customer back.

In Oracle Communications Data Model, the churn was defined at Customer Level, which is, a customer is recognized as a churner only when he stop using any product from the operator.

If customers churn at a given month, we may receive the data only 3 months after the actual Churn. So time window should be adjusted.

Algorithms Used

- Support Vector Machines

- Decision Tree

Table 11-26   Source Attributes Identified from DWD_CUST_DNA table for Postpaid Churn

Attribute	Description
CUST_CD	Customer Identifier
FUTRE_AGRMNT_CNT_LAST_3MO	Number of Future Agreements in last 3 months
AGRMNT_CNT_LAST_3MO	Number of Agreements in last 3 months
AGRMNT_LFT_DAYS_LAST_3MO	Agreement Left Days in last 3 months
FUTRE_AGRMNT_DAYS_LAST_3MO	Future Agreement Days in last 3 months
DEBT_VAL_LAST_3MO	Debt Value in last 3 months
TOT_PYMT_RVN_LAST_3MO	Total Payment Revenue as of 3 months ago
MO_RVN_LAST_3MO	Monthly Revenue as of 3 months ago
DEBT_AGNG_BND_CD_LAST_3MO	Debt Ageing Band Code in last 3 months

Table 11-26   (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Postpaid Churn

Attribute	Description
FUTRE_AGRMNT_CNT_LAST_MO	Number of Future Agreements in last 1 month
AGRMNT_CNT_LAST_MO	Number of Agreements in last 1 month
AGRMNT_LFT_DAYS_LAST_MO	Agreement Left Days in last 1 month
FUTRE_AGRMNT_DAYS_LAST_MO	Future Agreement Days in last 1 month
DEBT_VAL_LAST_MO	Debt Value in last 1 month
TOT_PYMT_RVN_LAST_MO	Total Payment Revenue as of 1 month ago
MO_RVN_LAST_MO	Monthly Revenue as of 1 month ago
DEBT_AGNG_BND_CD_LAST_MO	Debt Ageing Band Code in last 1 month
BNKRPT_STRT_DT_NBR	Bankrupt Start Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
BNKRPT_STAT	Bankrupt Status
BLLG_ADDR_EFF_DT_NBR	Billing Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
PYMT_ACCT_OPEN_DT_NBR	Payment Account Open Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
CUST_PYMT_RESPBL_IND	Indicates whether customer is responsible for making payments
CMPNY_TYP_CD	Company Type Code
SOC_JB_CD	SOC Job Code
EXTRNL_ORG_TYP_CD	External Organization Type Code
CMPNY_EMP_SZ_BND_CD	Enterprise Customer Employee Size Band Code
CMPNY_RVN_BND_CD	Enterprise Customer Revenue Band Code
NBR_EMP_SNC_CUST	Numbers of Employees Since Customer
PREF_PYMT_MTHD_TYP_CD	Preferred Payment Method Type Code
PRTY_TYP_CD	Party Type Code, e.g. Individual, Large Enterprise, Medium Enterprise, etc.

Table 11-26   (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Postpaid Churn

Attribute	Description
BSNS_LEGAL_STAT_CD	Legal Status Code of Enterprise Customers, e.g. Public, Private
HH_SZ	Household Size
LANG_CD	Language Code
EFF_FROM_DT_NBR	Customer Effective From Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
ESTMTD_ACQSTN_COST	Customer Acquisition Estimated Cost
BRDBND_IND	Indicates whether Customer has Broadband connection
PAY_TV_IND	Indicates whether Customer has Pay TV connection
IDD_IND	Indicates whether Customer subscribed to International Direct Dialing
HOMTEL_IND	Indicates whether Customer has Home Telephone
WRLS_IND	Indicates whether Customer has Wireless Internet connection
NEW_ACCT_IND	Indicates whether Customer is New
PORT_IN_FROM	Service Provide from who the customer ported out from
PORT_IN_CNT	Number of times the customer ported in
PORT_OUT_CNT	Number of times the customer ported out
CRDT_CTGRY_KEY	Customer Credit Category
ARPU_BND_CD	Customer ARPU Band Code
SL_CHNL_KEY	Sales Channel
SL_CHNL_RPRSTV_KEY	Sales Channel Representative
CUST_RVN_BND_CD	Customer Revenue Band Code
LIFE_SPN	Customer Life Span
CUST_TYP_CD	Customer Type Code
MULT_PRTY_ROLE_IND	Indicates whether customer has multiple party roles, e.g. both an employee and customer of Service Provider
PRMRY_STAT_CD	Customer Primary Status Code
PRMRY_STAT_RSN_CD	Customer Primary Status Reason Code
AGE_ON_NET_BND_CD	Customer Age on Net Band Code

Table 11-26   (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Postpaid Churn

Attribute	Description
AGE_ON_NET_NBR	Customer Age on Net expressed in number of months
AGE_BND_CD	Customer Age Band Code
CNCT_ADDR_EFF_DT_NBR	Customer Contact Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
MAIL_ALWD_IND	Indicates whether Customer allows Service Provider to send mail
LVNG_AT_CURR_ADDR_SINCE_NBR	Since When Customer Living at Current Address expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
END_OF_JB_AGRMNT_NBR	End of Job Agreement expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
STRT_OF_EMPMNT_NBR	Customer Start of Employment expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
NO_MTHS_POSN	Number of months an Individual Customer is in his/her current Position
NO_MTHS_CMPNY	Number of months an Individual Customer is in his/her current Company
ECNMCLY_ACTV_IND	Indicates whether a customer is economically Active
ADDR_LOC_CD	Customer Address Location Code
CUST_SCR_CD	Customer SCR Code
GNDR_CD	Individual Customer Gender Code
MRTL_STAT_CD	Individual Customer Marital Status Code
NTNLTY_CD	Customer Nationality Code
ETHNIC_BCKGRND	Customer Ethnic Background
ETHNCTY	Customer Ethnicity
PLC_OF_BRTH	Place of Birth
JB_CD	Customer Job Code
JB_POSN	Customer Job Position
LEGAL_TTL_TO_HSNG	Legal Title to Housing

Table 11-26   (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Postpaid Churn

Attribute	Description
EDU_CD	Education Qualification Code
POSTCD_CD	Postcard Code
CITY	City
STATE	State
CNTRY	Country
NAME_PRFX	Name Prefix
FORM_OF_EMPMNT	Form of Employment
CUST_BRANCH_CD	Customer Branch Code
NAME_OF_WKPLC	Name of Workplace
JB_AGRMNT_TYP	Job Agreement Type
BARNG_RSN_CD	Customer Barring Reason Code
SRC_OF_INCM	Source of Income
DWLNG_OWNER	Dwelling Owner
DWLNG_STAT	Dwelling Status
DWLNG_TYP	Dwelling Type
DWLNG_TENR	Dwelling Tenure
DWLNG_SZ	Dwelling Size
CAR_DRVR_LICNS_IND	Indicates whether customer has Car Driving License
OTH_DRVR_LICNS_IND	Indicates whether customer has other vehicle License
SPRT_IND	Indicates whether customer plays Sports
SPRT_TYP_CD	Sport Type Code
NBR_OF_CHLDRN	Total Number of Children
NBR_OF_DPNDNT	Total Number of Dependents
TOT_AGE_CHLDRN	Total Age of Children
NBR_CHLDRN_AT_SCHL	Total Number of Children at School
SCHL_ZIP_CD	School ZIP Code
NBR_CHLDRN_AT_COLL	Total Number of Children at College
COLL_ZIP_CD	College ZIP Code
NBR_CHLDRN_AT_UNIV	Total Number of Children at University

Table 11-26   (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Postpaid Churn

Attribute	Description
UNIV_ZIP_CD	University ZIP Code
CAR_TYP_CD	Car Type Code
CNTCT_ALLWD_IND	Indicates whether customer allows to contact
PREF_CNTCT_MDM	Preferred Contact Medium
ACCPT_NWSLTR_IND	Indicates whether customer accepts News Letter
PREF_GVN_IND	Indicates whether customer given any preference
PREF_SPRT_IND	Indicates whether customer given any sport preference
PREF_ENTMNT_IND	Indicates whether customer given any Entitlement preference
PREF_TRVL_IND	Indicates whether customer given any Travel preference
PREF_MSC_IND	Indicates whether customer given any Music preference
SCL_NTWK_USR_IND	Indicates whether customer uses any Social Network site
LIKE_SCP_IN_FCBK_IND	Indicates whether customer likes Service Provide page in Facebook
TOT_CALL_CNT_LFTM	Total number of calls to Call center made by customer in his/her life span
CMPLNT_CNT_LFTM	Number of complaints made by customer in his/her life span
DRPD_CALLS_CNT_LFTM	Number of dropped calls in customer life span
HNGUP_CALLS_CNT_LFTM	Number of hangup calls in customer life span
RLSD_CALLS_CNT_LFTM	Number of released calls in customer life span
TOT_QUE_DRTN_LFTM	Total queue duration in customer life span in seconds
TOT_HLD_DRTN_LFTM	Total hold duration in customer life span in seconds
TOT_TALK_DRTN_LFTM	Total talk duration in customer life span in seconds
RMRK_CNT_LFTM	Numbers of remarks made against customer in his/her life span
PRTY_AGE	Customer Age expressed as number of years
TOT_CALL_CNT_LAST_3MO	Total number of calls to Call center made by customer in last 3 months
CMPLNT_CNT_LAST_3MO	Number of complaints made by customer in last 3 months

Table 11-26   (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Postpaid Churn

Attribute	Description
DRPD_CALLS_CNT_LAST_3MO	Number of dropped calls in last 3 months
HNGUP_CALLS_CNT_LAST_3MO	Number of hangup calls in last 3 months
RLSD_CALLS_CNT_LAST_3MO	Number of released calls in last 3 months
TOT_QUE_DRTN_LAST_3MO	Total queue duration in last 3 months in seconds
TOT_HLD_DRTN_LAST_3MO	Total hold duration in last 3 months in seconds
TOT_TALK_DRTN_LAST_3MO	Total talk duration in last 3 months in seconds
RMRK_CNT_LAST_3MO	Numbers of remarks made against customer in last 3 months
TOT_CALL_CNT_LAST_MO	Total number of calls to Call center made by customer in this month
CMPLNT_CNT_LAST_MO	Number of complaints made by customer in this month
DRPD_CALLS_CNT_LAST_MO	Number of dropped calls this month
HNGUP_CALLS_CNT_LAST_MO	Number of hangup calls this month
RLSD_CALLS_CNT_LAST_MO	Number of released calls this month
TOT_QUE_DRTN_LAST_MO	Total queue duration this month in seconds
TOT_HLD_DRTN_LAST_MO	Total hold duration this month in seconds
TOT_TALK_DRTN_LAST_MO	Total talk duration this month in seconds
RMRK_CNT_LAST_MO	Numbers of remarks made against customer in this month
SBRP_CNT_LAST_3MO	Subscription Count in last three months
SSPNSN_CNT_LAST_3MO	Suspension Count in last three months
ACCT_LFT_VAL_LAST_3MO	Account Left Value in last three months
LYLTY_PROG_BAL_LAST_3MO	Loyalty Program Balance in last three months
SBRP_CNT_LAST_MO	Subscription Count in last month
SSPNSN_CNT_LAST_MO	Suspension Count in last month
ACCT_LFT_VAL_LAST_MO	Account Left Value in last month
LYLTY_PROG_BAL_LAST_MO	Loyalty Program Balance in last month
VOI_NAT_AIRTIME_LFTM	National voice air time in minutes over customer's life time
VOI_NAT_AIRTIME_LAST_MO	National voice air time in minutes in last one month

Table 11-26   (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Postpaid Churn

Attribute	Description
VOI_NAT_AIRTIME_LAST_3MO	National voice air time in minutes in last three month
VOI_INTERNAT_AIRTIME_LFTM	International voice air time in minutes including roaming over customer's life time
VOI_INTERNAT_AIRTIME_LAST_MO	International voice air time in minutes including roaming in last one month
VOI_INTERNAT_AIRTIME_LAST_3MO	International voice air time including roaming in minutes in last three month
SMS_CNT_LFTM	SMSs sent over customer's lifetime
SMS_CNT_LAST_MO	SMSs sent in last 1 month
SMS_CNT_LAST_3MO	SMSs sent in last 3 months
MMS_CNT_LFTM	MMSs sent over customer's lifetime
MMS_CNT_LAST_MO	MMSs sent in last 1 month
MMS_CNT_LAST_3MO	MMSs sent in last 3 months
DWNLD_DATA_LFTM	Data downloaded in KBs in lifetime
DWNLD_DATA_LAST_MO	Data downloaded in KBs in last 1 month
DWNLD_DATA_LAST_3MO	Data downloaded in KBs in last 3 months
UPLD_DATA_LFTM	Data uploaded in KBs in lifetime
UPLD_DATA_LAST_MO	Data uploaded in KBs in last 1 month
UPLD_DATA_LAST_3MO	Data uploaded in KBs in last 3 months
OFFNET_CALLS_LFTM	Number of offnet calls in lifetime
OFFNET_CALLS_LAST_MO	Number of offnet calls in last 1 month
OFFNET_CALLS_LAST_3MO	Number of offnet calls in last 3 months
ONNET_CALLS_LFTM	Number of onnet calls in lifetime
ONNET_CALLS_LAST_MO	Number of onnet calls in last 1 month
ONNET_CALLS_LAST_3MO	Number of onnet calls in last 3 months
OFFNET_AIRTIME_LFTM	Total offnet airtime in minutes in lifetime
OFFNET_AIRTIME_LAST_MO	Total offnet airtime in minutes in last 1 month
OFFNET_AIRTIME_LAST_3MO	Total offnet airtime in minutes in last 3 months
ONNET_AIRTIME_LFTM	Total onnet airtime in minutes in lifetime
ONNET_AIRTIME_LAST_MO	Total onnet airtime in minutes in last 1 month

Table 11-26   (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Postpaid Churn

Attribute	Description
ONNET_AIRTIME_LAST_3MO	Total onnet airtime in minutes in last 3 months
CHRN_IND	Indicates whether a customer is a Churner or Non-churner

Oracle Data Miner Workflow for POSTPAID_CHURN_DT_AND_SVM

Oracle Data Miner Workflow for POSTPAID_CHURN_DT_AND_SVM
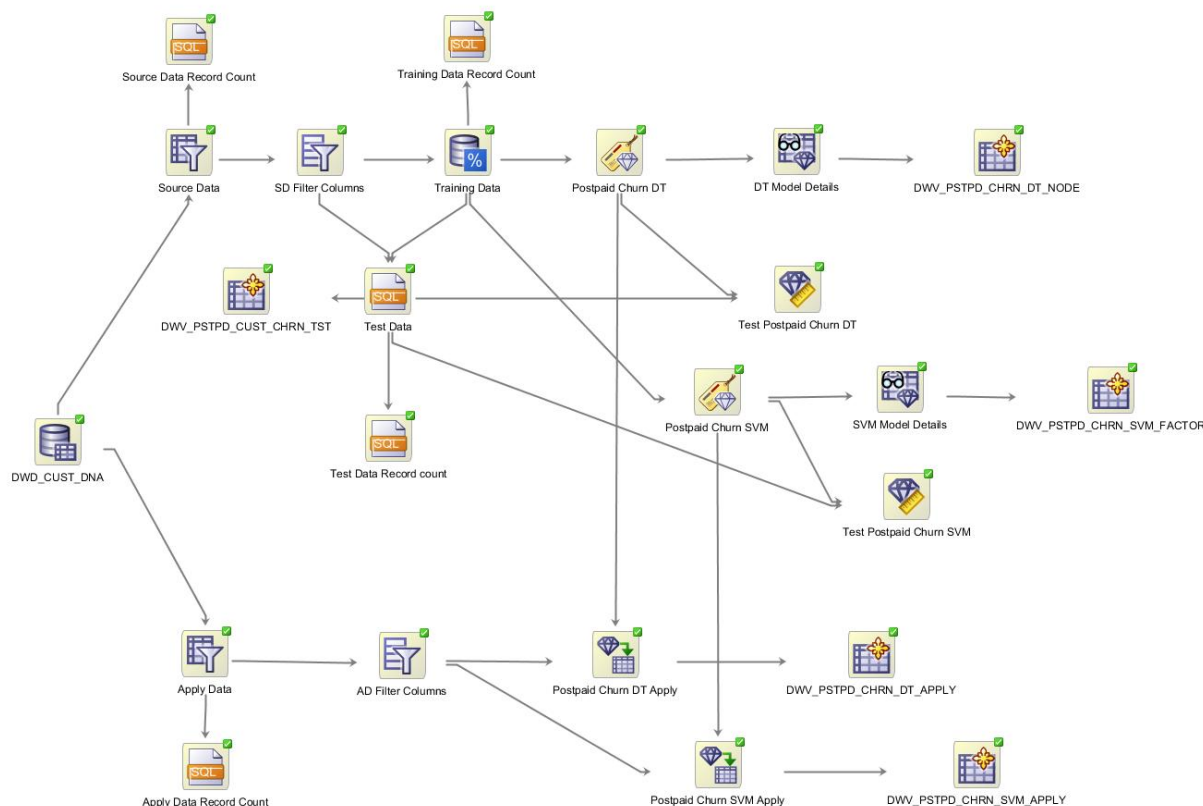
Workflow Description:

1. In data miner workflow, relevant columns are selected from DWD_CUST_DNA in *Data Source* node

2. Data is split into *source* and *apply* datasets

3. *Source* dataset is further split into *training* and *test* datasets

4. *Training* dataset is used to train postpaid churn models using two algorithms, *Support Vector Machines* and *Decision Tree*

5. Models are *PSTPD_CUST_CHRN_DT* and *PSTPD_CUST_CHRN_SVM*

6. *Decision Tree Churn model, PSTPD_CUST_CHRN_DT*, details are extracted and stored in *DWV_PSTPD_CHRN_DT_NODE* database view

7. *Support Vector Machines Churn model, PSTPD_CUST_CHRN_SVM,* details are extracted and stored in *DWV_PSTPD_CHRN_SVM_FACTOR* database view

8. *Test* dataset is stored in *DWV_PSTPD_CUST_CHRN_TST* database view. This data is later used to extract ROC, LIFT, and Confusion Matrix from *Support Vector Machines Churn model, PSTPD_CUST_CHRN_SVM*

9. *Apply* dataset is scored using trained postpaid churn models. *PSTPD_CUST_CHRN_DT* model apply results are stored in *DWV_PSTPD_CHRN_DT_APPLY* database view and *PSTPD_CUST_CHRN_SVM* model apply results are stored in *DWV_PSTPD_CHRN_SVM_APPLY* database view

Data Model Mining Target Tables

postpaid_churn_dt_and_svm workflow is executed when *pkg_ocdm_mining_odmr_util.odmr_run_wf* procedure invoked. Workflows status is extracted and stored into *dwc_odmr_wf_exctn* table by invoking *pkg_ocdm_mining_odmr_util.odmr_wf_ltst_exctn_log* procedure.

Invoke *pkg_ocdm_mining_odmr_util.odmr_wf_stat_chk_upd_trgt_tab* procedure to check the status of workflow execution. If workflow is executed successfully without any errors, then the procedure will invoke *pkg_ocdm_mining_util.updt_mnng_trgt_pstpd_chrn_dt* and *pkg_ocdm_mining_util.updt_mnng_trgt_pstpd_chrn_svm* procedures to update mining target tables for *PSTPD_CUST_CHRN_DT* and *PSTPD_CUST_CHRN_SVM* models.

Table 11-27   Target Tables

Model Name	Target Table Name	Database Operation	Columns
PSTPD_CUST_CHRN_DT	DWR_CUST_DT_NODE	Insert	No value
PSTPD_CUST_CHRN_DT	DWD_CUST_DNA	Update	PRDCT_CHURN_DT_IND PRDCT_CHURN_DT_PROB PRDCT_CHURN_DT_ND_NBR
PSTPD_CUST_CHRN_SVM	DWD_CHRN_SVM_FACTOR	Insert	No value
PSTPD_CUST_CHRN_SVM	DWD_PSTPD_CHRN_SVM_ROC	Create	No value
PSTPD_CUST_CHRN_SVM	DWD_PSTPD_CHRN_SVM_LIFT	Create	No value
PSTPD_CUST_CHRN_SVM	DWD_PSTPD_CHRN_SVM_CNF_MTRX	Create	No value

Table 11-27   (Cont.) Target Tables

Model Name	Target Table Name	Database Operation	Columns
PSTPD_CUST_CHRN _SVM	DWD_CUST_DNA	Update	PRDCT_CHURN_SVM_IND PRDCT_CHURN_SVM_PROB

11.6 Customer Profiling with Oracle Data Miner

The business problem is to group customers into generally homogeneous groups (Segments) based on customer demographic value, usage pattern and list of telecom products they subscribe to (customer subscriber history).Business Analysts can look into each segment to further understand the customer group discovered by the model and name each segment.

Customer Profiling

The discovered clustering rules draw a profile of the customers along with their product subscription. Thus, the clustering rules generated for each profile group show the most important similar characteristics in each group. For example, an operator may have a group having significantly shorter message (SMS) usage than any other group. Alternatively, there may be a group with extremely higher profit than any other group (covering high end customers).

Algorithm Used

- K-Means Clustering

Table 11-28   Source Attributes Identified from DWD_CUST_DNA for Customer Profiling

Attribute	Description
CUST_CD	Customer Identifier
ACCT_TYP_CD	Account Type Code, e.g. PSTPD - Postpaid, PRPD - Prepaid
FUTRE_AGRMNT_CNT_LAST_3 MO	Number of Future Agreements in last 3 months
AGRMNT_CNT_LAST_3MO	Number of Agreements in last 3 months
AGRMNT_LFT_DAYS_LAST_3M O	Agreement Left Days in last 3 months
FUTRE_AGRMNT_DAYS_LAST_ 3MO	Future Agreement Days in last 3 months
DEBT_VAL_LAST_3MO	Debt Value in last 3 months
TOT_PYMT_RVN_LAST_3MO	Total Payment Revenue as of 3 months ago
MO_RVN_LAST_3MO	Monthly Revenue as of 3 months ago

Table 11-28   (Cont.) Source Attributes Identified from DWD_CUST_DNA for Customer Profiling

Attribute	Description
DEBT_AGNG_BND_CD_LAST_3 MO	Debt Ageing Band Code in last 3 months
FUTRE_AGRMNT_CNT_LAST_MO	Number of Future Agreements in last 1 month
AGRMNT_CNT_LAST_MO	Number of Agreements in last 1 month
AGRMNT_LFT_DAYS_LAST_MO	Agreement Left Days in last 1 month
FUTRE_AGRMNT_DAYS_LAST_ MO	Future Agreement Days in last 1 month
DEBT_VAL_LAST_MO	Debt Value in last 1 month
TOT_PYMT_RVN_LAST_MO	Total Payment Revenue as of 1 month ago
MO_RVN_LAST_MO	Monthly Revenue as of 1 month ago
DEBT_AGNG_BND_CD_LAST_M O	Debt Ageing Band Code in last 1 month
BNKRPT_STRT_DT_NBR	Bankrupt Start Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
BNKRPT_STAT	Bankrupt Status
BLLG_ADDR_EFF_DT_NBR	Billing Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
PYMT_ACCT_OPEN_DT_NBR	Payment Account Open Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
CUST_PYMT_RESPBL_IND	Indicates whether customer is responsible for making payments
CMPNY_TYP_CD	Company Type Code
SOC_JB_CD	SOC Job Code
EXTRNL_ORG_TYP_CD	External Organization Type Code
CMPNY_EMP_SZ_BND_CD	Enterprise Customer Employee Size Band Code
CMPNY_RVN_BND_CD	Enterprise Customer Revenue Band Code
NBR_EMP_SNC_CUST	Numbers of Employees Since Customer
PREF_PYMT_MTHD_TYP_CD	Preferred Payment Method Type Code

Table 11-28   (Cont.) Source Attributes Identified from DWD_CUST_DNA for Customer Profiling

Attribute	Description
PRTY_TYP_CD	Party Type Code, e.g. Individual, Large Enterprise, Medium Enterprise, etc.
BSNS_LEGAL_STAT_CD	Legal Status Code of Enterprise Customers, e.g. Public, Private
HH_SZ	Household Size
LANG_CD	Language Code
EFF_FROM_DT_NBR	Customer Effective From Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
ESTMTD_ACQSTN_COST	Customer Acquisition Estimated Cost
BRDBND_IND	Indicates whether Customer has Broadband connection
PAY_TV_IND	Indicates whether Customer has Pay TV connection
IDD_IND	Indicates whether Customer subscribed to International Direct Dialing
HOMTEL_IND	Indicates whether Customer has Home Telephone
WRLS_IND	Indicates whether Customer has Wireless Internet connection
NEW_ACCT_IND	Indicates whether Customer is New
PORT_IN_FROM	Service Provide from who the customer ported out from
PORT_IN_CNT	Number of times the customer ported in
PORT_OUT_CNT	Number of times the customer ported out
CRDT_CTGRY_KEY	Customer Credit Category
ARPU_BND_CD	Customer ARPU Band Code
SL_CHNL_KEY	Sales Channel
SL_CHNL_RPRSTV_KEY	Sales Channel Representative
CUST_RVN_BND_CD	Customer Revenue Band Code
LIFE_SPN	Customer Life Span
CUST_TYP_CD	Customer Type Code
MULT_PRTY_ROLE_IND	Indicates whether customer has multiple party roles, e.g. both an employee and customer of Service Provider
PRMRY_STAT_CD	Customer Primary Status Code

Table 11-28   (Cont.) Source Attributes Identified from DWD_CUST_DNA for Customer Profiling

Attribute	Description
PRMRY_STAT_RSN_CD	Customer Primary Status Reason Code
AGE_ON_NET_BND_CD	Customer Age on Net Band Code
AGE_ON_NET_NBR	Customer Age on Net expressed in number of months
AGE_BND_CD	Customer Age Band Code
CNCT_ADDR_EFF_DT_NBR	Customer Contact Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
MAIL_ALWD_IND	Indicates whether Customer allows Service Provider to send mail
LVNG_AT_CURR_ADDR_SINCE_NBR	Since When Customer Living at Current Address expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
END_OF_JB_AGRMNT_NBR	End of Job Agreement expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
STRT_OF_EMPMNT_NBR	Customer Start of Employment expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
NO_MTHS_POSN	Number of months an Individual Customer is in his/her current Position
NO_MTHS_CMPNY	Number of months an Individual Customer is in his/her current Company
ECNMCLY_ACTV_IND	Indicates whether a customer is economically Active
ADDR_LOC_CD	Customer Address Location Code
CUST_SCR_CD	Customer SCR Code
GNDR_CD	Individual Customer Gender Code
MRTL_STAT_CD	Individual Customer Marital Status Code
NTNLTY_CD	Customer Nationality Code
ETHNIC_BCKGRND	Customer Ethnic Background
ETHNCTY	Customer Ethnicity
PLC_OF_BRTH	Place of Birth
JB_CD	Customer Job Code

Table 11-28   (Cont.) Source Attributes Identified from DWD_CUST_DNA for Customer Profiling

Attribute	Description
JB_POSN	Customer Job Position
LEGAL_TTL_TO_HSNG	Legal Title to Housing
EDU_CD	Education Qualification Code
POSTCD_CD	Postcard Code
CITY	City
STATE	State
CNTRY	Country
NAME_PRFX	Name Prefix
FORM_OF_EMPMNT	Form of Employment
CUST_BRANCH_CD	Customer Branch Code
NAME_OF_WKPLC	Name of Workplace
JB_AGRMNT_TYP	Job Agreement Type
BARNG_RSN_CD	Customer Barring Reason Code
SRC_OF_INCM	Source of Income
DWLNG_OWNER	Dwelling Owner
DWLNG_STAT	Dwelling Status
DWLNG_TYP	Dwelling Type
DWLNG_TENR	Dwelling Tenure
DWLNG_SZ	Dwelling Size
CAR_DRVR_LICNS_IND	Indicates whether customer has Car Driving License
OTH_DRVR_LICNS_IND	Indicates whether customer has other vehicle License
SPRT_IND	Indicates whether customer plays Sports
SPRT_TYP_CD	Sport Type Code
NBR_OF_CHLDRN	Total Number of Children
NBR_OF_DPNDNT	Total Number of Dependents
TOT_AGE_CHLDRN	Total Age of Children
NBR_CHLDRN_AT_SCHL	Total Number of Children at School
SCHL_ZIP_CD	School ZIP Code
NBR_CHLDRN_AT_COLL	Total Number of Children at College

Table 11-28   (Cont.) Source Attributes Identified from DWD_CUST_DNA for Customer Profiling

Attribute	Description
COLL_ZIP_CD	College ZIP Code
NBR_CHLDRN_AT_UNIV	Total Number of Children at University
UNIV_ZIP_CD	University ZIP Code
CAR_TYP_CD	Car Type Code
CNTCT_ALLWD_IND	Indicates whether customer allows to contact
PREF_CNTCT_MDM	Preferred Contact Medium
ACCPT_NWSLTR_IND	Indicates whether customer accepts News Letter
PREF_GVN_IND	Indicates whether customer given any preference
PREF_SPRT_IND	Indicates whether customer given any sport preference
PREF_ENTMNT_IND	Indicates whether customer given any Entitlement preference
PREF_TRVL_IND	Indicates whether customer given any Travel preference
PREF_MSC_IND	Indicates whether customer given any Music preference
SCL_NTWK_USR_IND	Indicates whether customer uses any Social Network site
LIKE_SCP_IN_FCBK_IND	Indicates whether customer likes Service Provide page in Facebook
TOT_CALL_CNT_LFTM	Total number of calls to Call center made by customer in his/her life span
CMPLNT_CNT_LFTM	Number of complaints made by customer in his/her life span
DRPD_CALLS_CNT_LFTM	Number of dropped calls in customer life span
HNGUP_CALLS_CNT_LFTM	Number of hangup calls in customer life span
RLSD_CALLS_CNT_LFTM	Number of released calls in customer life span
TOT_QUE_DRTN_LFTM	Total queue duration in customer life span in seconds
TOT_HLD_DRTN_LFTM	Total hold duration in customer life span in seconds
TOT_TALK_DRTN_LFTM	Total talk duration in customer life span in seconds
RMRK_CNT_LFTM	Numbers of remarks made against customer in his/her life span
PRTY_AGE	Customer Age expressed as number of years
TOT_CALL_CNT_LAST_3MO	Total number of calls to Call center made by customer in last 3 months

Table 11-28 (Cont.) Source Attributes Identified from DWD_CUST_DNA for Customer Profiling

Attribute	Description
CMPLNT_CNT_LAST_3MO	Number of complaints made by customer in last 3 months
DRPD_CALLS_CNT_LAST_3MO	Number of dropped calls in last 3 months
HNGUP_CALLS_CNT_LAST_3MO	Number of hangup calls in last 3 months
RLSD_CALLS_CNT_LAST_3MO	Number of released calls in last 3 months
TOT_QUE_DRTN_LAST_3MO	Total queue duration in last 3 months in seconds
TOT_HLD_DRTN_LAST_3MO	Total hold duration in last 3 months in seconds
TOT_TALK_DRTN_LAST_3MO	Total talk duration in last 3 months in seconds
RMRK_CNT_LAST_3MO	Numbers of remarks made against customer in last 3 months
TOT_CALL_CNT_LAST_MO	Total number of calls to Call center made by customer in this month
CMPLNT_CNT_LAST_MO	Number of complaints made by customer in this month
DRPD_CALLS_CNT_LAST_MO	Number of dropped calls this month
HNGUP_CALLS_CNT_LAST_MO	Number of hangup calls this month
RLSD_CALLS_CNT_LAST_MO	Number of released calls this month
TOT_QUE_DRTN_LAST_MO	Total queue duration this month in seconds
TOT_HLD_DRTN_LAST_MO	Total hold duration this month in seconds
TOT_TALK_DRTN_LAST_MO	Total talk duration this month in seconds
RMRK_CNT_LAST_MO	Numbers of remarks made against customer in this month
TOT_RCHRG_AMT_LFTM	Total recharge amount in customers life time
TOT_RCHRG_AMT_LAST_MO	Total recharge amount in last 3 months
TOT_RCHRG_AMT_LAST_3MO	Total recharge amount this month
LAST_RCHRG_AMT	Last recharge amount
MIN_RCHRG_AMT	Minimum recharge amount
MAX_RCHRG_AMT	Maximum recharge amount
TOT_RCHRG_CNT_LFTM	Number of recharges made in customer life time
TOT_RCHRG_CNT_LAST_MO	Number of recharges made this month
TOT_RCHRG_CNT_LAST_3MO	Number of recharges made in last 3 months

Table 11-28   (Cont.) Source Attributes Identified from DWD_CUST_DNA for Customer Profiling

Attribute	Description
TOT_EXP_AMT_EQVLT_VAL	Total amount expired in customers life time
TOT_UTILZD_EQVLT_VAL	Total utilized monetary value in customers life time
TOT_CNTRBTN_LFTM	Sum of total payments and total recharges made in customers life time
TOT_CNTRBTN_LAST_MO	Sum of total payments and total recharges made in the last one month
TOT_DRTN_OF_USG	Total durations of usage in customer life time
DAYS_BFR_FIRST_RCHRG	Days between first payment and first recharge
DAYS_BFR_FIRST_USE	Days between payment and first use
AVG_DRTN_BTWN_RCHRG	Average duration between two recharges - in days
TOT_DAYS_ON_USE	Total days on use
TOT_DAYS_ACTVTY	Total days of activity
TOT_DAYS_OUTGOING_ACTVTY	Total days of outgoing activity
LAST_OUTGOING_USG_DT_NBR	When was last outgoing call occurred
LAST_INCOMING_USG_DT_NBR	When was last incoming call occurred
VOI_NAT_AIRTIME_LFTM	National voice air time in minutes over customer's life time
VOI_NAT_AIRTIME_LAST_MO	National voice air time in minutes in last one month
VOI_NAT_AIRTIME_LAST_3MO	National voice air time in minutes in last three month
VOI_INTERNAT_AIRTIME_LFTM	International voice air time in minutes including roaming over customer's life time
VOI_INTERNAT_AIRTIME_LAST_MO	International voice air time in minutes including roaming in last one month
VOI_INTERNAT_AIRTIME_LAST_3MO	International voice air time including roaming in minutes in last three month
SMS_CNT_LFTM	SMSs sent over customer's lifetime
SMS_CNT_LAST_MO	SMSs sent in last 1 month
SMS_CNT_LAST_3MO	SMSs sent in last 3 months
MMS_CNT_LFTM	MMSs sent over customer's lifetime
MMS_CNT_LAST_MO	MMSs sent in last 1 month

Table 11-28   (Cont.) Source Attributes Identified from DWD_CUST_DNA for Customer Profiling

Attribute	Description
MMS_CNT_LAST_3MO	MMSs sent in last 3 months
DWNLD_DATA_LFTM	Data downloaded in KBs in lifetime
DWNLD_DATA_LAST_MO	Data downloaded in KBs in last 1 month
DWNLD_DATA_LAST_3MO	Data downloaded in KBs in last 3 months
UPLD_DATA_LFTM	Data uploaded in KBs in lifetime
UPLD_DATA_LAST_MO	Data uploaded in KBs in last 1 month
UPLD_DATA_LAST_3MO	Data uploaded in KBs in last 3 months
OFFNET_CALLS_LFTM	Number of offnet calls in lifetime
OFFNET_CALLS_LAST_MO	Number of offnet calls in last 1 month
OFFNET_CALLS_LAST_3MO	Number of offnet calls in last 3 months
ONNET_CALLS_LFTM	Number of onnet calls in lifetime
ONNET_CALLS_LAST_MO	Number of onnet calls in last 1 month
ONNET_CALLS_LAST_3MO	Number of onnet calls in last 3 months
OFFNET_AIRTIME_LFTM	Total offnet airtime in minutes in lifetime
OFFNET_AIRTIME_LAST_MO	Total offnet airtime in minutes in last 1 month
OFFNET_AIRTIME_LAST_3MO	Total offnet airtime in minutes in last 3 months
ONNET_AIRTIME_LFTM	Total onnet airtime in minutes in lifetime
ONNET_AIRTIME_LAST_MO	Total onnet airtime in minutes in last 1 month
ONNET_AIRTIME_LAST_3MO	Total onnet airtime in minutes in last 3 months

Oracle Data Miner Workflow for Customer Segmentation KMEANS
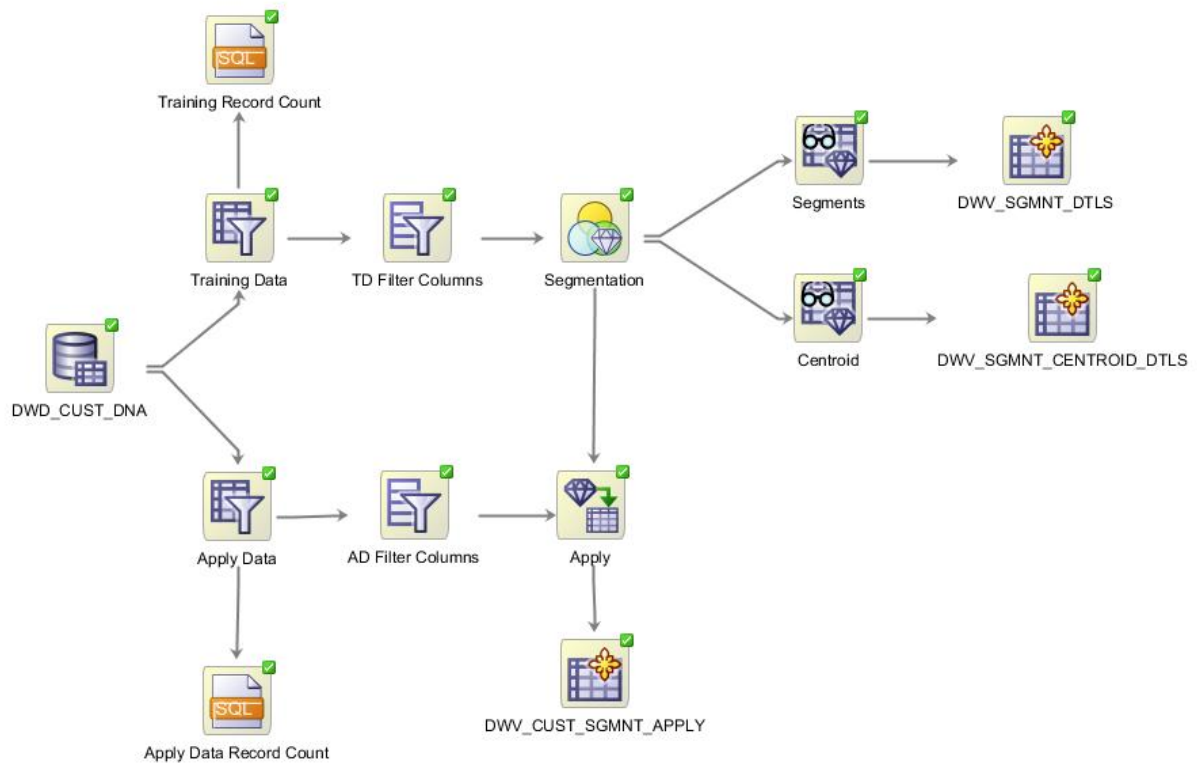
Workflow Description:

1. In data miner workflow, relevant columns are selected from DWD_CUST_DNA in *Data Source* node

2. Data is split into *source* and *training* datasets

3. *Training* dataset is used to train postpaid customer profiling model using *K-Means* algorithm

4. Model is *CUST_SGMNT_KMEANS*

5. *CUST_SGMNT_KMEANS* model segment details are extracted and stored in *DWV_SGMNT_DTLS* database view

6. Segments centroid details are extracted and stored in *DWV_SGMNT_CENTROID_DTLS* database view

7. *Apply* dataset is scored using trained customer profiling model. Apply results are stored in *DWV_CUST_SGMNT_APPLY* database view

Data Model Mining Target Tables

customer_segmentation_kmeans workflow is executed when *pkg_ocdm_mining_odmr_util.odmr_run_wf* procedure invoked. Workflows status is extracted and stored into *dwc_odmr_wf_exctn* table by invoking *pkg_ocdm_mining_odmr_util.odmr_wf_ltst_exctn_log* procedure.

Invoke *pkg_ocdm_mining_odmr_util.odmr_wf_stat_chk_upd_trgt_tab* procedure to check the status of workflow execution. If workflow is executed successfully without any errors, then the procedure will invoke *pkg_ocdm_mining_util.updt_mnng_trgt_cust_sgmnt* procedure to update mining target tables for *CUST_SGMNT_KMEAN* model.

Following table gives the list of target tables (columns) that get updated/loaded/created:

Table 11-29   Data Mining Model Target Tables

Target Table Name	Database Operation	Columns
DWR_CUST_SGMNT	Insert	No value
DWR_CUST_SGMNT_DTL	Insert	No value
DWD_CUST_DNA	Update	CLSTR_SGMNT_CD
DWR_CUST	Update	CUST_SGMNT_KEY

11.7 Customer Lifetime Value

Customer Lifetime Value

When a Service Provider wants know how valuable a customer is to the Service Provider for the next *n* years into future. Customer predicted Life Time Value can be combined with customer predicted churn behavior to make important business decisions such as whether to retain a customer. Customers predicted to have high LTV and also predicted to churn should be retained, whereas Customer predicted to have low LTV and also predicted to churn need not be retained. This is a regression model, where a continuous value is predicted and the source data is all those customers who have been on net for at least *n* years. *n* could be 3 or 5 years.

Algorithms Used

- Generalized Linear Model Regression

Table 11-30   Source Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Value

Attribute	Description
CUST_CD	Customer Identifier
ACCT_TYP_CD	Account Type Code, e.g. PSTPD - Postpaid, PRPD - Prepaid
FUTRE_AGRMNT_CNT_LAST_3 MO	Number of Future Agreements in last 3 months
AGRMNT_CNT_LAST_3MO	Number of Agreements in last 3 months
AGRMNT_LFT_DAYS_LAST_3M O	Agreement Left Days in last 3 months
FUTRE_AGRMNT_DAYS_LAST_ 3MO	Future Agreement Days in last 3 months

Table 11-30   (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Value

Attribute	Description
DEBT_VAL_LAST_3MO	Debt Value in last 3 months
TOT_PYMT_RVN_LAST_3MO	Total Payment Revenue as of 3 months ago
MO_RVN_LAST_3MO	Monthly Revenue as of 3 months ago
DEBT_AGNG_BND_CD_LAST_3 MO	Debt Ageing Band Code in last 3 months
FUTRE_AGRMNT_CNT_LAST_M O	Number of Future Agreements in last 1 month
AGRMNT_CNT_LAST_MO	Number of Agreements in last 1 month
AGRMNT_LFT_DAYS_LAST_MO	Agreement Left Days in last 1 month
FUTRE_AGRMNT_DAYS_LAST_ MO	Future Agreement Days in last 1 month
DEBT_VAL_LAST_MO	Debt Value in last 1 month
TOT_PYMT_RVN_LAST_MO	Total Payment Revenue as of 1 month ago
MO_RVN_LAST_MO	Monthly Revenue as of 1 month ago
DEBT_AGNG_BND_CD_LAST_M O	Debt Ageing Band Code in last 1 month
BNKRPT_STRT_DT_NBR	Bankrupt Start Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
BNKRPT_STAT	Bankrupt Status
BLLG_ADDR_EFF_DT_NBR	Billing Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
PYMT_ACCT_OPEN_DT_NBR	Payment Account Open Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
CUST_PYMT_RESPBL_IND	Indicates whether customer is responsible for making payments
CMPNY_TYP_CD	Company Type Code
SOC_JB_CD	SOC Job Code
EXTRNL_ORG_TYP_CD	External Organization Type Code
CMPNY_EMP_SZ_BND_CD	Enterprise Customer Employee Size Band Code

Table 11-30   (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Value

Attribute	Description
CMPNY_RVN_BND_CD	Enterprise Customer Revenue Band Code
NBR_EMP_SNC_CUST	Numbers of Employees Since Customer
PREF_PYMT_MTHD_TYP_CD	Preferred Payment Method Type Code
PRTY_TYP_CD	Party Type Code, e.g. Individual, Large Enterprise, Medium Enterprise, etc.
BSNS_LEGAL_STAT_CD	Legal Status Code of Enterprise Customers, e.g. Public, Private
HH_SZ	Household Size
LANG_CD	Language Code
EFF_FROM_DT_NBR	Customer Effective From Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
ESTMTD_ACQSTN_COST	Customer Acquisition Estimated Cost
BRDBND_IND	Indicates whether Customer has Broadband connection
PAY_TV_IND	Indicates whether Customer has Pay TV connection
IDD_IND	Indicates whether Customer subscribed to International Direct Dialing
HOMTEL_IND	Indicates whether Customer has Home Telephone
WRLS_IND	Indicates whether Customer has Wireless Internet connection
NEW_ACCT_IND	Indicates whether Customer is New
PORT_IN_FROM	Service Provide from who the customer ported out from
PORT_IN_CNT	Number of times the customer ported in
PORT_OUT_CNT	Number of times the customer ported out
CRDT_CTGRY_KEY	Customer Credit Category
ARPU_BND_CD	Customer ARPU Band Code
SL_CHNL_KEY	Sales Channel
SL_CHNL_RPRSTV_KEY	Sales Channel Representative
CUST_RVN_BND_CD	Customer Revenue Band Code
LIFE_SPN	Customer Life Span
CUST_TYP_CD	Customer Type Code

Table 11-30 (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Value

Attribute	Description
MULT_PRTY_ROLE_IND	Indicates whether customer has multiple party roles, e.g. both an employee and customer of Service Provider
PRMRY_STAT_CD	Customer Primary Status Code
PRMRY_STAT_RSN_CD	Customer Primary Status Reason Code
AGE_ON_NET_BND_CD	Customer Age on Net Band Code
AGE_ON_NET_NBR	Customer Age on Net expressed in number of months
AGE_BND_CD	Customer Age Band Code
CNCT_ADDR_EFF_DT_NBR	Customer Contact Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
MAIL_ALWD_IND	Indicates whether Customer allows Service Provider to send mail
LVNG_AT_CURR_ADDR_SINCE _NBR	Since When Customer Living at Current Address expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
END_OF_JB_AGRMNT_NBR	End of Job Agreement expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
STRT_OF_EMPMNT_NBR	Customer Start of Employment expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
NO_MTHS_POSN	Number of months an Individual Customer is in his/her current Position
NO_MTHS_CMPNY	Number of months an Individual Customer is in his/her current Company
ECNMCLY_ACTV_IND	Indicates whether a customer is economically Active
ADDR_LOC_CD	Customer Address Location Code
CUST_SCR_CD	Customer SCR Code
GNDR_CD	Individual Customer Gender Code
MRTL_STAT_CD	Individual Customer Marital Status Code
NTNLTY_CD	Customer Nationality Code
ETHNIC_BCKGRND	Customer Ethnic Background

Table 11-30   (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Value

Attribute	Description
ETHNCTY	Customer Ethnicity
PLC_OF_BRTH	Place of Birth
JB_CD	Customer Job Code
JB_POSN	Customer Job Position
LEGAL_TTL_TO_HSNG	Legal Title to Housing
EDU_CD	Education Qualification Code
POSTCD_CD	Postcard Code
CITY	City
STATE	State
CNTRY	Country
NAME_PRFX	Name Prefix
FORM_OF_EMPMNT	Form of Employment
CUST_BRANCH_CD	Customer Branch Code
NAME_OF_WKPLC	Name of Workplace
JB_AGRMNT_TYP	Job Agreement Type
BARNG_RSN_CD	Customer Barring Reason Code
SRC_OF_INCM	Source of Income
DWLNG_OWNER	Dwelling Owner
DWLNG_STAT	Dwelling Status
DWLNG_TYP	Dwelling Type
DWLNG_TENR	Dwelling Tenure
DWLNG_SZ	Dwelling Size
CAR_DRVR_LICNS_IND	Indicates whether customer has Car Driving License
OTH_DRVR_LICNS_IND	Indicates whether customer has other vehicle License
SPRT_IND	Indicates whether customer plays Sports
SPRT_TYP_CD	Sport Type Code
NBR_OF_CHLDRN	Total Number of Children
NBR_OF_DPNDNT	Total Number of Dependents
TOT_AGE_CHLDRN	Total Age of Children

Table 11-30   (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Value

Attribute	Description
NBR_CHLDRN_AT_SCHL	Total Number of Children at School
SCHL_ZIP_CD	School ZIP Code
NBR_CHLDRN_AT_COLL	Total Number of Children at College
COLL_ZIP_CD	College ZIP Code
NBR_CHLDRN_AT_UNIV	Total Number of Children at University
UNIV_ZIP_CD	University ZIP Code
CAR_TYP_CD	Car Type Code
CNTCT_ALLWD_IND	Indicates whether customer allows to contact
PREF_CNTCT_MDM	Preferred Contact Medium
ACCPT_NWSLTR_IND	Indicates whether customer accepts News Letter
PREF_GVN_IND	Indicates whether customer given any preference
PREF_SPRT_IND	Indicates whether customer given any sport preference
PREF_ENTMNT_IND	Indicates whether customer given any Entitlement preference
PREF_TRVL_IND	Indicates whether customer given any Travel preference
PREF_MSC_IND	Indicates whether customer given any Music preference
SCL_NTWK_USR_IND	Indicates whether customer uses any Social Network site
LIKE_SCP_IN_FCBK_IND	Indicates whether customer likes Service Provide page in Facebook
TOT_CALL_CNT_LFTM	Total number of calls to Call center made by customer in his/her life span
CMPLNT_CNT_LFTM	Number of complaints made by customer in his/her life span
DRPD_CALLS_CNT_LFTM	Number of dropped calls in customer life span
HNGUP_CALLS_CNT_LFTM	Number of hangup calls in customer life span
RLSD_CALLS_CNT_LFTM	Number of released calls in customer life span
TOT_QUE_DRTN_LFTM	Total queue duration in customer life span in seconds
TOT_HLD_DRTN_LFTM	Total hold duration in customer life span in seconds
TOT_TALK_DRTN_LFTM	Total talk duration in customer life span in seconds

Table 11-30   (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Value

Attribute	Description
RMRK_CNT_LFTM	Numbers of remarks made against customer in his/her life span
PRTY_AGE	Customer Age expressed as number of years
TOT_CALL_CNT_LAST_3MO	Total number of calls to Call center made by customer in last 3 months
CMPLNT_CNT_LAST_3MO	Number of complaints made by customer in last 3 months
DRPD_CALLS_CNT_LAST_3MO	Number of dropped calls in last 3 months
HNGUP_CALLS_CNT_LAST_3MO	Number of hang-up calls in last 3 months
RLSD_CALLS_CNT_LAST_3MO	Number of released calls in last 3 months
TOT_QUE_DRTN_LAST_3MO	Total queue duration in in last 3 months in seconds
TOT_HLD_DRTN_LAST_3MO	Total hold duration in in last 3 months in seconds
TOT_TALK_DRTN_LAST_3MO	Total talk duration in in last 3 months in seconds
RMRK_CNT_LAST_3MO	Numbers of remarks made against customer in last 3 months
TOT_CALL_CNT_LAST_MO	Total number of calls to Call center made by customer in this month
CMPLNT_CNT_LAST_MO	Number of complaints made by customer in this month
DRPD_CALLS_CNT_LAST_MO	Number of dropped calls this month
HNGUP_CALLS_CNT_LAST_MO	Number of hang-up calls this month
RLSD_CALLS_CNT_LAST_MO	Number of released calls this month
TOT_QUE_DRTN_LAST_MO	Total queue duration this month in seconds
TOT_HLD_DRTN_LAST_MO	Total hold duration this month in seconds
TOT_TALK_DRTN_LAST_MO	Total talk duration this month in seconds
RMRK_CNT_LAST_MO	Numbers of remarks made against customer in this month
TOT_RCHRG_AMT_LFTM	Total recharge amount in customers life time
TOT_RCHRG_AMT_LAST_MO	Total recharge amount in last 3 months
TOT_RCHRG_AMT_LAST_3MO	Total recharge amount this month
LAST_RCHRG_AMT	Last recharge amount
MIN_RCHRG_AMT	Minimum recharge amount

Table 11-30   (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Value

Attribute	Description
MAX_RCHRG_AMT	Maximum recharge amount
TOT_RCHRG_CNT_LFTM	Number of recharges made in customer life time
TOT_RCHRG_CNT_LAST_MO	Number of recharges made this month
TOT_RCHRG_CNT_LAST_3MO	Number of recharges made in last 3 months
TOT_EXP_AMT_EQVLT_VAL	Total amount expired in customers life time
TOT_UTILZD_EQVLT_VAL	Total utilized monetary value in customers life time
TOT_CNTRBTN_LFTM	Sum of total payments and total recharges made in customers life time
TOT_CNTRBTN_LAST_MO	Sum of total payments and total recharges made in the last one month
TOT_DRTN_OF_USG	Total durations of usage in customer life time
DAYS_BFR_FIRST_RCHRG	Days between first payment and first recharge
DAYS_BFR_FIRST_USE	Days between payment and first use
AVG_DRTN_BTWN_RCHRG	Average duration between two recharges - in days
TOT_DAYS_ON_USE	Total days on use
TOT_DAYS_ACTVTY	Total days of activity
TOT_DAYS_OUTGOING_ACTVTY	Total days of outgoing activity
LAST_OUTGOING_USG_DT_NBR	When was last outgoing call occurred
LAST_INCOMING_USG_DT_NBR	When was last incoming call occurred
VOI_NAT_AIRTIME_LFTM	National voice air time in minutes over customer's life time
VOI_NAT_AIRTIME_LAST_MO	National voice air time in minutes in last one month
VOI_NAT_AIRTIME_LAST_3MO	National voice air time in minutes in last three month
VOI_INTERNAT_AIRTIME_LFTM	International voice air time in minutes including roaming over customer's life time
VOI_INTERNAT_AIRTIME_LAST_MO	International voice air time in minutes including roaming in last one month
VOI_INTERNAT_AIRTIME_LAST_3MO	International voice air time including roaming in minutes in last three month
SMS_CNT_LFTM	SMSs sent over customer's lifetime

Table 11-30 (Cont.) Source Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Value

Attribute	Description
SMS_CNT_LAST_MO	SMSs sent in last 1 month
SMS_CNT_LAST_3MO	SMSs sent in last 3 months
MMS_CNT_LFTM	MMSs sent over customer's lifetime
MMS_CNT_LAST_MO	MMSs sent in last 1 month
MMS_CNT_LAST_3MO	MMSs sent in last 3 months
DWNLD_DATA_LFTM	Data downloaded in KBs in lifetime
DWNLD_DATA_LAST_MO	Data downloaded in KBs in last 1 month
DWNLD_DATA_LAST_3MO	Data downloaded in KBs in last 3 months
UPLD_DATA_LFTM	Data uploaded in KBs in lifetime
UPLD_DATA_LAST_MO	Data uploaded in KBs in last 1 month
UPLD_DATA_LAST_3MO	Data uploaded in KBs in last 3 months
OFFNET_CALLS_LFTM	Number of offnet calls in lifetime
OFFNET_CALLS_LAST_MO	Number of offnet calls in last 1 month
OFFNET_CALLS_LAST_3MO	Number of offnet calls in last 3 months
ONNET_CALLS_LFTM	Number of onnet calls in lifetime
ONNET_CALLS_LAST_MO	Number of onnet calls in last 1 month
ONNET_CALLS_LAST_3MO	Number of onnet calls in last 3 months
OFFNET_AIRTIME_LFTM	Total offnet airtime in minutes in lifetime
OFFNET_AIRTIME_LAST_MO	Total offnet airtime in minutes in last 1 month
OFFNET_AIRTIME_LAST_3MO	Total offnet airtime in minutes in last 3 months
ONNET_AIRTIME_LFTM	Total onnet airtime in minutes in lifetime
ONNET_AIRTIME_LAST_MO	Total onnet airtime in minutes in last 1 month
ONNET_AIRTIME_LAST_3MO	Total onnet airtime in minutes in last 3 months

Data Model Mining Target Attribute

TOT_PYMT_RVN_LAST_MO

11.8 Customer Lifetime Survival Value

Customer Lifetime Survival Value
Service Provider wants to know how long a customer uses the services offered, rather than leaving. This is a regression model, where a continuous value is predicted and the source data is all those customers who have been on net for at least n years. n could be 3 or 5 years.
Algorithms Used

- Generalized Linear Model Regression

Table 11-31   Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Survival Value

Attribute	Description
CUST_CD	Customer Identifier
ACCT_TYP_CD	Account Type Code, e.g. PSTPD - Postpaid, PRPD - Prepaid
FUTRE_AGRMNT_CNT_LAST_3MO	Number of Future Agreements in last 3 months
AGRMNT_CNT_LAST_3MO	Number of Agreements in last 3 months
AGRMNT_LFT_DAYS_LAST_3MO	Agreement Left Days in last 3 months
FUTRE_AGRMNT_DAYS_LAST_3MO	Future Agreement Days in last 3 months
DEBT_VAL_LAST_3MO	Debt Value in last 3 months
TOT_PYMT_RVN_LAST_3MO	Total Payment Revenue as of 3 months ago
MO_RVN_LAST_3MO	Monthly Revenue as of 3 months ago
DEBT_AGNG_BND_CD_LAST_3MO	Debt Ageing Band Code in last 3 months
FUTRE_AGRMNT_CNT_LAST_MO	Number of Future Agreements in last 1 month
AGRMNT_CNT_LAST_MO	Number of Agreements in last 1 month
AGRMNT_LFT_DAYS_LAST_MO	Agreement Left Days in last 1 month
FUTRE_AGRMNT_DAYS_LAST_MO	Future Agreement Days in last 1 month
DEBT_VAL_LAST_MO	Debt Value in last 1 month
TOT_PYMT_RVN_LAST_MO	Total Payment Revenue as of 1 month ago
MO_RVN_LAST_MO	Monthly Revenue as of 1 month ago
DEBT_AGNG_BND_CD_LAST_MO	Debt Ageing Band Code in last 1 month

Table 11-31   (Cont.) Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Survival Value

Attribute	Description
BNKRPT_STRT_DT_NBR	Bankrupt Start Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
BNKRPT_STAT	Bankrupt Status
BLLG_ADDR_EFF_DT_NBR	Billing Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
PYMT_ACCT_OPEN_DT_NBR	Payment Account Open Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
CUST_PYMT_RESPBL_IND	Indicates whether customer is responsible for making payments
CMPNY_TYP_CD	Company Type Code
SOC_JB_CD	SOC Job Code
EXTRNL_ORG_TYP_CD	External Organization Type Code
CMPNY_EMP_SZ_BND_CD	Enterprise Customer Employee Size Band Code
CMPNY_RVN_BND_CD	Enterprise Customer Revenue Band Code
NBR_EMP_SNC_CUST	Numbers of Employees Since Customer
PREF_PYMT_MTHD_TYP_CD	Preferred Payment Method Type Code
PRTY_TYP_CD	Party Type Code, e.g. Individual, Large Enterprise, Medium Enterprise, etc.
BSNS_LEGAL_STAT_CD	Legal Status Code of Enterprise Customers, e.g. Public, Private
HH_SZ	Household Size
LANG_CD	Language Code
EFF_FROM_DT_NBR	Customer Effective From Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
ESTMTD_ACQSTN_COST	Customer Acquisition Estimated Cost
BRDBND_IND	Indicates whether Customer has Broadband connection
PAY_TV_IND	Indicates whether Customer has Pay TV connection

Table 11-31   (Cont.) Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Survival Value

Attribute	Description
IDD_IND	Indicates whether Customer subscribed to International Direct Dialing
HOMTEL_IND	Indicates whether Customer has Home Telephone
WRLS_IND	Indicates whether Customer has Wireless Internet connection
NEW_ACCT_IND	Indicates whether Customer is New
PORT_IN_FROM	Service Provide from who the customer ported out from
PORT_IN_CNT	Number of times the customer ported in
PORT_OUT_CNT	Number of times the customer ported out
CRDT_CTGRY_KEY	Customer Credit Category
ARPU_BND_CD	Customer ARPU Band Code
SL_CHNL_KEY	Sales Channel
SL_CHNL_RPRSTV_KEY	Sales Channel Representative
CUST_RVN_BND_CD	Customer Revenue Band Code
LIFE_SPN	Customer Life Span
CUST_TYP_CD	Customer Type Code
MULT_PRTY_ROLE_IND	Indicates whether customer has multiple party roles, e.g. both an employee and customer of Service Provider
PRMRY_STAT_CD	Customer Primary Status Code
PRMRY_STAT_RSN_CD	Customer Primary Status Reason Code
AGE_ON_NET_BND_CD	Customer Age on Net Band Code
AGE_ON_NET_NBR	Customer Age on Net expressed in number of months
AGE_BND_CD	Customer Age Band Code
CNCT_ADDR_EFF_DT_NBR	Customer Contact Address Effective Date expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
MAIL_ALWD_IND	Indicates whether Customer allows Service Provider to send mail
LVNG_AT_CURR_ADDR_SINCE_NBR	Since When Customer Living at Current Address expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.

Table 11-31 (Cont.) Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Survival Value

Attribute	Description
END_OF_JB_AGRMNT_NBR	End of Job Agreement expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
STRT_OF_EMPMNT_NBR	Customer Start of Employment expressed as number against a reference date, 1st January 2000. Oracle Data Mining does not accept DATE data type attributes, hence expressed as number.
NO_MTHS_POSN	Number of months an Individual Customer is in his/her current Position
NO_MTHS_CMPNY	Number of months an Individual Customer is in his/her current Company
ECNMCLY_ACTV_IND	Indicates whether a customer is economically Active
ADDR_LOC_CD	Customer Address Location Code
CUST_SCR_CD	Customer SCR Code
GNDR_CD	Individual Customer Gender Code
MRTL_STAT_CD	Individual Customer Marital Status Code
NTNLTY_CD	Customer Nationality Code
ETHNIC_BCKGRND	Customer Ethnic Background
ETHNCTY	Customer Ethnicity
PLC_OF_BRTH	Place of Birth
JB_CD	Customer Job Code
JB_POSN	Customer Job Position
LEGAL_TTL_TO_HSNG	Legal Title to Housing
EDU_CD	Education Qualification Code
POSTCD_CD	Postcard Code
CITY	City
STATE	State
CNTRY	Country
NAME_PRFX	Name Prefix
FORM_OF_EMPMNT	Form of Employment
CUST_BRANCH_CD	Customer Branch Code

Table 11-31   (Cont.) Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Survival Value

Attribute	Description
NAME_OF_WKPLC	Name of Workplace
JB_AGRMNT_TYP	Job Agreement Type
BARNG_RSN_CD	Customer Barring Reason Code
SRC_OF_INCM	Source of Income
DWLNG_OWNER	Dwelling Owner
DWLNG_STAT	Dwelling Status
DWLNG_TYP	Dwelling Type
DWLNG_TENR	Dwelling Tenure
DWLNG_SZ	Dwelling Size
CAR_DRVR_LICNS_IND	Indicates whether customer has Car Driving License
OTH_DRVR_LICNS_IND	Indicates whether customer has other vehicle License
SPRT_IND	Indicates whether customer plays Sports
SPRT_TYP_CD	Sport Type Code
NBR_OF_CHLDRN	Total Number of Children
NBR_OF_DPNDNT	Total Number of Dependents
TOT_AGE_CHLDRN	Total Age of Children
NBR_CHLDRN_AT_SCHL	Total Number of Children at School
SCHL_ZIP_CD	School ZIP Code
NBR_CHLDRN_AT_COLL	Total Number of Children at College
COLL_ZIP_CD	College ZIP Code
NBR_CHLDRN_AT_UNIV	Total Number of Children at University
UNIV_ZIP_CD	University ZIP Code
CAR_TYP_CD	Car Type Code
CNTCT_ALLWD_IND	Indicates whether customer allows to contact
PREF_CNTCT_MDM	Preferred Contact Medium
ACCPT_NWSLTR_IND	Indicates whether customer accepts News Letter
PREF_GVN_IND	Indicates whether customer given any preference
PREF_SPRT_IND	Indicates whether customer given any sport preference

Table 11-31   (Cont.) Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Survival Value

Attribute	Description
PREF_ENTMNT_IND	Indicates whether customer given any Entitlement preference
PREF_TRVL_IND	Indicates whether customer given any Travel preference
PREF_MSC_IND	Indicates whether customer given any Music preference
SCL_NTWK_USR_IND	Indicates whether customer uses any Social Network site
LIKE_SCP_IN_FCBK_IND	Indicates whether customer likes Service Provide page in Facebook
TOT_CALL_CNT_LFTM	Total number of calls to Call center made by customer in his/her life span
CMPLNT_CNT_LFTM	Number of complaints made by customer in his/her life span
DRPD_CALLS_CNT_LFTM	Number of dropped calls in customer life span
HNGUP_CALLS_CNT_LFTM	Number of hangup calls in customer life span
RLSD_CALLS_CNT_LFTM	Number of released calls in customer life span
TOT_QUE_DRTN_LFTM	Total queue duration in customer life span in seconds
TOT_HLD_DRTN_LFTM	Total hold duration in customer life span in seconds
TOT_TALK_DRTN_LFTM	Total talk duration in customer life span in seconds
RMRK_CNT_LFTM	Numbers of remarks made against customer in his/her life span
PRTY_AGE	Customer Age expressed as number of years
TOT_CALL_CNT_LAST_3MO	Total number of calls to Call center made by customer in last 3 months
CMPLNT_CNT_LAST_3MO	Number of complaints made by customer in last 3 months
DRPD_CALLS_CNT_LAST_3MO	Number of dropped calls in last 3 months
HNGUP_CALLS_CNT_LAST_3MO	Number of hangup calls in last 3 months
RLSD_CALLS_CNT_LAST_3MO	Number of released calls in last 3 months
TOT_QUE_DRTN_LAST_3MO	Total queue duration in in last 3 months in seconds
TOT_HLD_DRTN_LAST_3MO	Total hold duration in in last 3 months in seconds
TOT_TALK_DRTN_LAST_3MO	Total talk duration in in last 3 months in seconds

Table 11-31   (Cont.) Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Survival Value

Attribute	Description
RMRK_CNT_LAST_3MO	Numbers of remarks made against customer in last 3 months
TOT_CALL_CNT_LAST_MO	Total number of calls to Call center made by customer in this month
CMPLNT_CNT_LAST_MO	Number of complaints made by customer in this month
DRPD_CALLS_CNT_LAST_MO	Number of dropped calls this month
HNGUP_CALLS_CNT_LAST_MO	Number of hangup calls this month
RLSD_CALLS_CNT_LAST_MO	Number of released calls this month
TOT_QUE_DRTN_LAST_MO	Total queue duration this month in seconds
TOT_HLD_DRTN_LAST_MO	Total hold duration this month in seconds
TOT_TALK_DRTN_LAST_MO	Total talk duration this month in seconds
RMRK_CNT_LAST_MO	Numbers of remarks made against customer in this month
TOT_RCHRG_AMT_LFTM	Total recharge amount in customers life time
TOT_RCHRG_AMT_LAST_MO	Total recharge amount in last 3 months
TOT_RCHRG_AMT_LAST_3MO	Total recharge amount this month
LAST_RCHRG_AMT	Last recharge amount
MIN_RCHRG_AMT	Minimum recharge amount
MAX_RCHRG_AMT	Maximum recharge amount
TOT_RCHRG_CNT_LFTM	Number of recharges made in customer life time
TOT_RCHRG_CNT_LAST_MO	Number of recharges made this month
TOT_RCHRG_CNT_LAST_3MO	Number of recharges made in last 3 months
TOT_EXP_AMT_EQVLT_VAL	Total amount expired in customers life time
TOT_UTILZD_EQVLT_VAL	Total utilized monetary value in customers life time
TOT_CNTRBTN_LFTM	Sum of total payments and total recharges made in customers life time
TOT_CNTRBTN_LAST_MO	Sum of total payments and total recharges made in the last one month
TOT_DRTN_OF_USG	Total durations of usage in customer life time
DAYS_BFR_FIRST_RCHRG	Days between first payment and first recharge
DAYS_BFR_FIRST_USE	Days between payment and first use

Table 11-31   (Cont.) Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Survival Value

Attribute	Description
AVG_DRTN_BTWN_RCHRG	Average duration between two recharges - in days
TOT_DAYS_ON_USE	Total days on use
TOT_DAYS_ACTVTY	Total days of activity
TOT_DAYS_OUTGOING_ACTVTY	Total days of outgoing activity
LAST_OUTGOING_USG_DT_NBR	When was last outgoing call occurred
LAST_INCOMING_USG_DT_NBR	When was last incoming call occurred
VOI_NAT_AIRTIME_LFTM	National voice air time in minutes over customer's life time
VOI_NAT_AIRTIME_LAST_MO	National voice air time in minutes in last one month
VOI_NAT_AIRTIME_LAST_3MO	National voice air time in minutes in last three month
VOI_INTERNAT_AIRTIME_LFTM	International voice air time in minutes including roaming over customer's life time
VOI_INTERNAT_AIRTIME_LAST_MO	International voice air time in minutes including roaming in last one month
VOI_INTERNAT_AIRTIME_LAST_3MO	International voice air time including roaming in minutes in last three month
SMS_CNT_LFTM	SMSs sent over customer's lifetime
SMS_CNT_LAST_MO	SMSs sent in last 1 month
SMS_CNT_LAST_3MO	SMSs sent in last 3 months
MMS_CNT_LFTM	MMSs sent over customer's lifetime
MMS_CNT_LAST_MO	MMSs sent in last 1 month
MMS_CNT_LAST_3MO	MMSs sent in last 3 months
DWNLD_DATA_LFTM	Data downloaded in KBs in lifetime
DWNLD_DATA_LAST_MO	Data downloaded in KBs in last 1 month
DWNLD_DATA_LAST_3MO	Data downloaded in KBs in last 3 months
UPLD_DATA_LFTM	Data uploaded in KBs in lifetime
UPLD_DATA_LAST_MO	Data uploaded in KBs in last 1 month
UPLD_DATA_LAST_3MO	Data uploaded in KBs in last 3 months
OFFNET_CALLS_LFTM	Number of offnet calls in lifetime

Table 11-31   (Cont.) Attributes Identified from DWD_CUST_DNA table for Customer Lifetime Survival Value

Attribute	Description
OFFNET_CALLS_LAST_MO	Number of offnet calls in last 1 month
OFFNET_CALLS_LAST_3MO	Number of offnet calls in last 3 months
ONNET_CALLS_LFTM	Number of onnet calls in lifetime
ONNET_CALLS_LAST_MO	Number of onnet calls in last 1 month
ONNET_CALLS_LAST_3MO	Number of onnet calls in last 3 months
OFFNET_AIRTIME_LFTM	Total offnet airtime in minutes in lifetime
OFFNET_AIRTIME_LAST_MO	Total offnet airtime in minutes in last 1 month
OFFNET_AIRTIME_LAST_3MO	Total offnet airtime in minutes in last 3 months
ONNET_AIRTIME_LFTM	Total onnet airtime in minutes in lifetime
ONNET_AIRTIME_LAST_MO	Total onnet airtime in minutes in last 1 month
ONNET_AIRTIME_LAST_3MO	Total onnet airtime in minutes in last 3 months

Data Mining Target Attribute

AGE_ON_NET_NBR

Oracle Data Miner Workflow - CUSTOMER_LTV_SRVL_VAL_GLMR
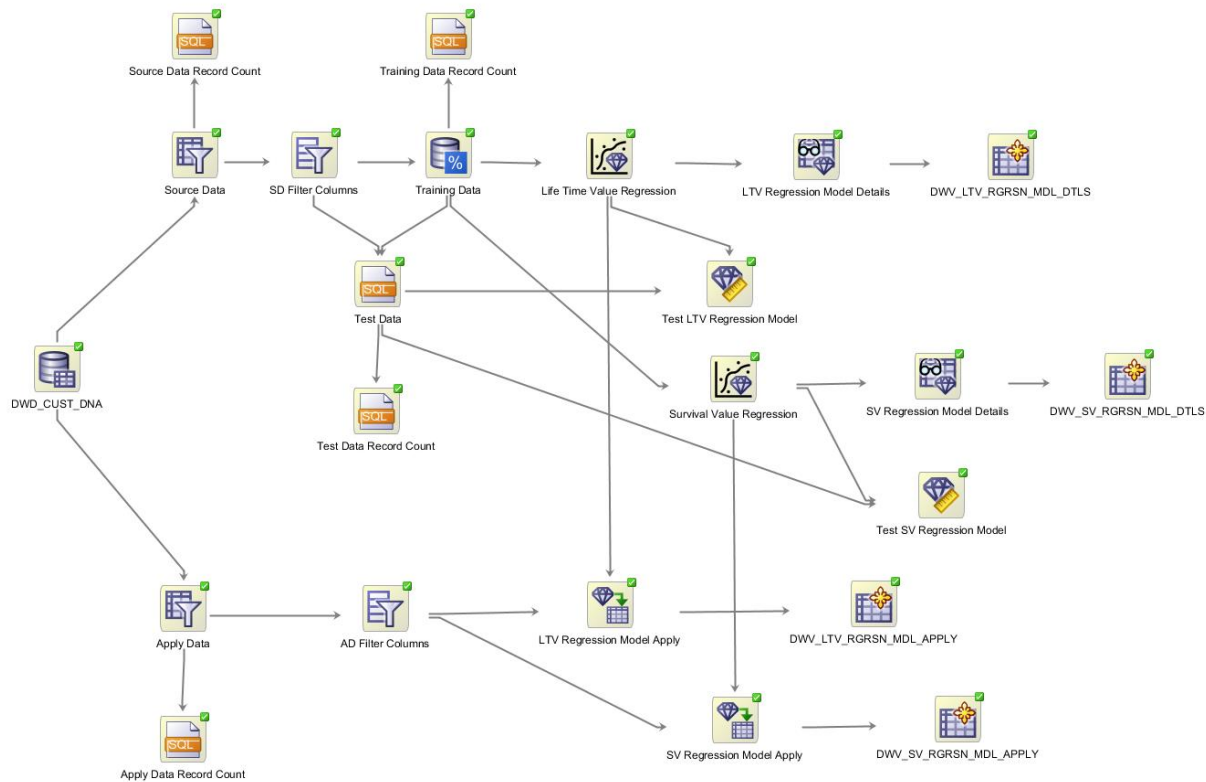
Workflow Description

1. In data miner workflow, relevant columns are selected from DWD_CUST_DNA in *Data Source* node

2. Data is split into *source* and *apply* datasets

3. *Source* dataset is further split into *training* and *test* datasets

4. *Training* dataset is used to train customer lifetime value and customer lifetime survival models using *Generalized Linear Model Regression* algorithm

5. Models are *CUST_LTV_RGRSN_GLMR* and *CUST_SRVL_RGRSN_GLMR*

6. *CUST_LTV_RGRSN_GLMR* model details are extracted and stored in *DWV_LTV_RGRSN_MDL_DTLS* database view

7. *CUST_SRVL_RGRSN_GLMR* model details are extracted and stored in *DWV_SV_RGRSN_MDL_DTLS* database view

8. *Apply* dataset is scored using trained customer lifetime value model. *CUST_LTV_RGRSN_GLMR* model apply results are stored in *DWV_LTV_RGRSN_MDL_APPLY* database view and *CUST_SRVL_RGRSN_GLMR* model apply results are stored in *DWV_SV_RGRSN_MDL_APPLY*.

Data Mining Target Tables

customer_ltv_srvl_val_glmr workflow is executed when
pkg_ocdm_mining_odmr_util.odmr_run_wf procedure invoked. Workflows status is
extracted and stored into *dwc_odmr_wf_exctn* table by invoking
pkg_ocdm_mining_odmr_util.odmr_wf_ltst_exctn_log procedure.

Invoke *pkg_ocdm_mining_odmr_util.odmr_wf_stat_chk_upd_trgt_tab* procedure to check
the status of workflow execution. If workflow is executed successfully without any
errors, then the procedure will invoke *pkg_ocdm_mining_util.updt_mnng_trgt_ltv* and
pkg_ocdm_mining_util.updt_mnng_trgt_srvl_val procedures to update mining target
tables for *CUST_LTV_RGRSN_GLMR* and *CUST_SRVL_RGRSN_GLMR* models.

Following table gives the list of target tables (columns) that get updated/loaded/
created:

Table 11-32   Data Mining Target Tables Customer Lifetime Survival Value

Model Name	Target Table Name	Database Operation	Columns
CUST_LTV_RGRSN_GLMR	DWD_CUST_DNA	Update	PRDCT_LTV_VALUE
	DWL_MNNG_LTV_BAND	Insert	No value
CUST_LTV_RGRSN_GLMR	DWD_CUST_DNA	Update	PRDCT_LT_SRVVL_VAL
CUST_LTV_RGRSN_GLMR	DWL_MNNG_LT_SRVVL_BAND	Insert	No value

11.9 Customer Sentiment

The business problem is to measure customer sentiment regarding the service quality
according to any text message received from the customer. Those text messages may
be emails from customer, or written down by call center agents during call center calls,
and so on.

Customer Sentiment

This model leverages Text mining capability provided by Oracle database. For more
information, see Oracle Data Mining Concepts

Algorithms Used

• Oracle Text

• Support Vector Machines

Source Tables and Attributes

There are following two steps in preparing data for *Customer Sentiment Analysis*:

1. Prepare customers comment data: *pkg_ocdm_mining_util* PL/SQL package has
   prepare_cust_cmmnt_data to prepare the data. This procedure takes *l_apply_day*
   parameter as an input and inserts concatenated customer comments (three
   months prior to *l_apply_day*) into *DM_CUST_CMMNT* table.

2. Score customers' comments using dictionary: *pkg_ocdm_mining_util* PL/SQL package has *cust_sntmnt_manual_score* to score customers' comments using dictionary. This procedure takes *p_training_pct* (by default 50%) as an input and updates *MANUAL_SCORE* column of *DM_CUST_CMMNT* table for *p_training_pct* (by default 50%) of customers.

Customer comments data preparation (*prepare_cust_cmmnt_data*) and customers' comments scoring (*cust_sntmnt_manual_score*) procedures are invoked by *pkg_ocdm_mining_odmr_util.odmr_run_wf* procedure.

DM_CUST_CMMNT is the main source table for Customer Sentiment classification model. The data in this table further transformed using Oracle Text to make it ready to be accepted by Oracle Data Mining.

Attribute	Data Type	Description
DAY_KEY	NUMBER	Day key
CUST_CD	VARCHAR2(30)	Customer code
MANUAL_SCORE	VARCHAR2(10)	Manual scores or manually adjusted after reading
SENTIMENT	VARCHAR2(10)	Sentiment scored by Mining Model
PLUSPROB	NUMBER	The probability of customer belonging to happy group
MINUSPROB	NUMBER	The probability of customer belonging to un-happy group
CUST_CMMNT	VARCHAR2(4000)	The text messages all together from the customer.

Oracle Data Miner Workflow - CUSTOMER_SENTIMENT_SVM
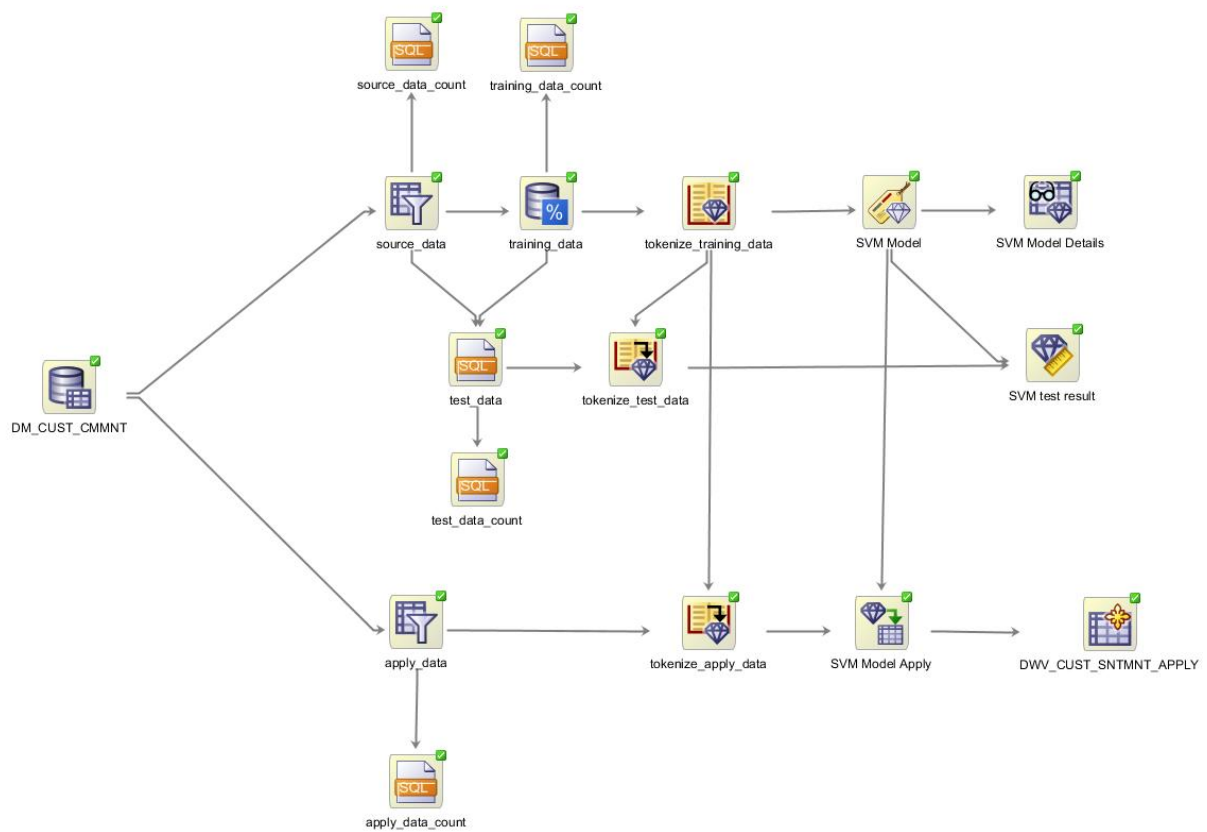
Workflow Description

1. Manually scored customer comments data is selected as *source* dataset and customer comments data with no manual score selected as *apply* dataset

2. *Source* dataset is further split into *training* and *test* datasets

3. *Training* dataset is tokenized using Oracle Text algorithm

4. *Tokenized Training* dataset is used to train customer sentiment model using *Support Vector Machines* algorithm

5. Model is *CUST_SNTMNT_SVM*

6. *Apply* dataset is scored using trained customer sentiment model. *CUST_SNTMNT_SVM* model apply results are stored in *DWV_CUST_SNTMNT_APPLY* database view

Mining Target Tables

customer_sentiment_svm workflow is executed when *pkg_ocdm_mining_odmr_util.odmr_run_wf* procedure invoked. Workflows status is extracted and stored into *dwc_odmr_wf_exctn* table by invoking *pkg_ocdm_mining_odmr_util.odmr_wf_ltst_exctn_log* procedure.

Invoke *pkg_ocdm_mining_odmr_util.odmr_wf_stat_chk_upd_trgt_tab* procedure to check the status of workflow execution. If workflow is executed successfully without any errors, then the procedure will invoke

pkg_ocdm_mining_util.updt_mnng_trgt_cust_sntmnt procedure to update mining target table for *CUST_SNTMNT_SVM* model.

Following table gives the list of target tables (columns) that get updated/loaded/ created:

Target Table Name	Database Operation	Columns
DWD_CUST_DNA	Update	SNTMNT_PROB
DWD_CUST_DNA	Update	SNTMNT_CTGRY_CD
DWD_CUST_DNA	Update	MANUAL_SNTMNT_CTGRY

11.10 Targeted Promotion

The business problem is to identify the patterns of which products are typically purchased together or one after another over the lifetime of a customer. This helps in providing recommendations about which products should be presented to customers according to their potential acceptance score. A typical scenario is call center can call certain customers with some specific purpose to cross-sell some products. Operators need the list of customers to save promotion cost and improve efficiency.

Targeted Promotion

The trained model generates recommendations about promotion target products. This is done based on what products the customer has subscribed to taking into account other factors such as customers credit history and the risk involved in offering the particular product to the customer.

Algorithms Used

- Support Vector Machines

Table 11-33   Attributes Identified from DWD_VAS_SBRP_QCK_SUMM, DWR_CUST, and DWD_CUST_DNA table for Target Promotion

Attribute	Description
CUST_CD	Customer Identifier
PRTY_TYP_CD	Party Type Code, e.g. Individual, Large Enterprise, Medium Enterprise, etc.
BSNS_LEGAL_STAT_CD	Legal Status Code of Enterprise Customers, e.g. Public, Private
MRTL_STAT_CD	Individual Customer Marital Status Code
HH_SZ	Household Size
JB_CD	Customer Job Code
NTNLTY_CD	Customer Nationality Code
EDU_CD	Education Qualification Code
GNDR_CD	Individual Customer Gender Code

Table 11-33   (Cont.) Attributes Identified from DWD_VAS_SBRP_QCK_SUMM, DWR_CUST, and DWD_CUST_DNA table for Target Promotion

Attribute	Description
JB_AGRMNT_TYP	Job Agreement Type
BARNG_RSN_CD	Customer Barring Reason Code
POSTCD_CD	Postcard Code
STATE	State
FUTRE_AGRMNT_CNT_LAST_MO	Number of Future Agreements in last 1 month
SBRP_CNT_LAST_MO	Subscription Count in last three months
SSPNSN_CNT_LAST_MO	Suspension Count in last three months
AGRMNT_CNT_LAST_MO	Number of Agreements in last 1 month
CMPLNT_CNT_LFTM	Number of complaints made by customer in his/her life span
CMPLNT_CNT_LAST_MO	Number of complaints made by customer in this month
LIFE_SPN	Customer Life Span
AGRMNT_LFT_DAYS_LAST_MO	Agreement Left Days in last 1 month
ACCT_LFT_VAL_LAST_MO	Account Left Value in last 1 month
REMNG_AGRMNT_AMT_LAST_MO	Remaining Agreement Amount in last 1 month
DEBT_VAL_LAST_MO	Debt Value in last 1 month
LYLTY_PROG_BAL_LAST_MO	Loyalty Program Balance in last 1 month
TOT_PYMT_RVN_LAST_MO	Total Payment Revenue as of 1 month ago
MO_RVN_LAST_MO	Monthly Revenue as of 1 month ago
LFTM_ARPU_LAST_MO	Lifetime ARPU as of 1 month ago
AGRMNT_ARPU_LAST_MO	Agreement ARPU as of 1 month ago
PORT_IN_FROM	Service Provide from who the customer ported out from
PORT_IN_CNT	Number of times the customer ported in
PORT_OUT_CNT	Number of times the customer ported out
CALL_CNFRN	Indicates whether Customer subscribed to Call Conference
CALL_TRNSFR	Indicates whether Customer subscribed to Call Transfer
CB	Indicates whether Customer subscribed to CB

Table 11-33   (Cont.) Attributes Identified from DWD_VAS_SBRP_QCK_SUMM, DWR_CUST, and DWD_CUST_DNA table for Target Promotion

Attribute	Description
CALL_BCK	Indicates whether Customer subscribed to Call Back
CF	Indicates whether Customer subscribed to Call Forward
CF_WHEN_BUSY	Indicates whether Customer subscribed to Call Forward When Busy
CF_WHEN_NO_RPLY	Indicates whether Customer subscribed to Call Forward When No Reply
CF_WHEN_NOT_RCHBLE	Indicates whether Customer subscribed to Call Forward When Not Reachable
CLI	Indicates whether Customer subscribed to Calling Line Identity
CLIR	Indicates whether Customer subscribed to Calling Line Identification Restriction
CW	Indicates whether Customer subscribed to Call Waiting
FAX	Indicates whether Customer subscribed to Fax
GPRS	Indicates whether Customer subscribed to GPRS
INTRNTL_CALL	Indicates whether Customer subscribed to International Call
MMS	Indicates whether Customer subscribed to MMS
SMS	Indicates whether Customer subscribed to SMS
WAP	Indicates whether Customer subscribed to WAP

Oracle Data Miner Workflow - TARGET_PROMOTION_SVM
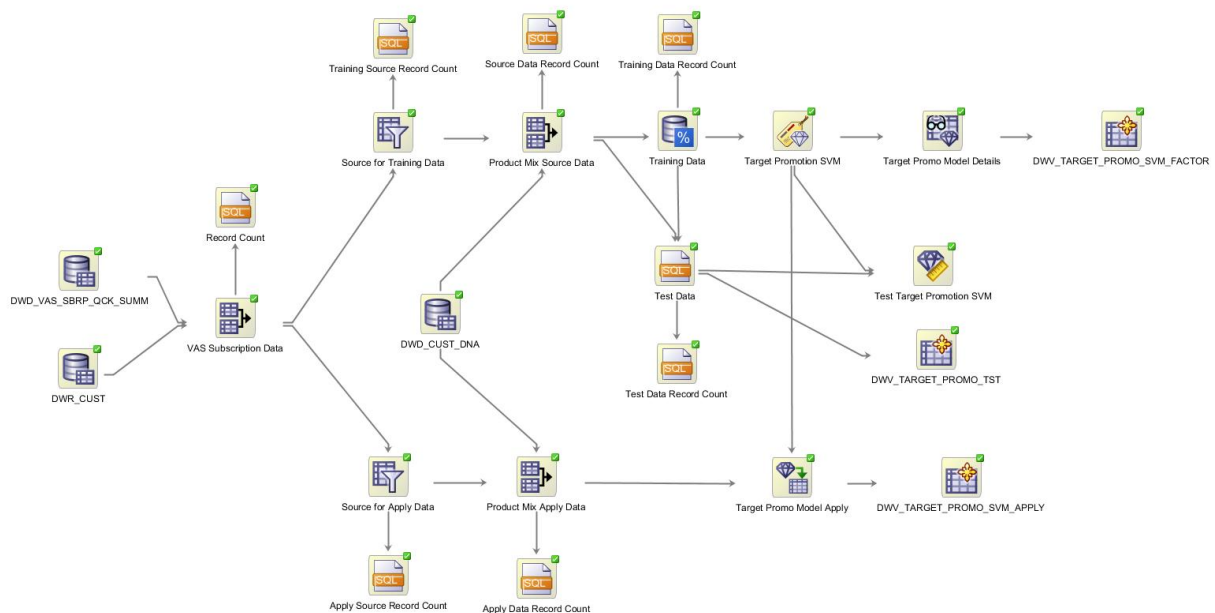
Workflow Description

1. VAS subscription data is selected from *DWD_VAS_SBRP_QCK_SUMM* table

2. VAS subscription data is split into *Source for Training* and *Source for Apply* datasets

3. *Source for Training* dataset is combined with *DWD_CUST_DNA* table to generate *source* dataset

4. *Source for Apply* dataset is combined with *DWD_CUST_DNA* table to generate *apply* dataset

5. *Source* dataset is further split into *training* and *test* datasets

6. *Test* dataset is stored in *DWV_TARGET_PROMO_TST* database view. This data is later used to extract ROC, LIFT, and Confusion Matrix from *Support Vector Machines model, TARGET_PROMO_SVM*

7. *Training* dataset is used to train target promotion model for selected product (in *Target Promotion SVM* node) using *Support Vector Machines* algorithm

8. Model is *TARGET_PROMO_SVM*

9. *Apply* dataset is scored using trained target promotion model. *TARGET_PROMO_SVM* model apply results are stored in *DWV_TARGET_PROMO_SVM_APPLY* database view

Update Mining Target Tables

target_promotion_svm workflow is executed when *pkg_ocdm_mining_odmr_util.odmr_run_wf* procedure invoked. Workflows status is extracted and stored into *dwc_odmr_wf_exctn* table by invoking *pkg_ocdm_mining_odmr_util.odmr_wf_ltst_exctn_log* procedure.

Invoke *pkg_ocdm_mining_odmr_util.odmr_wf_stat_chk_upd_trgt_tab* procedure to check the status of workflow execution. If workflow is executed successfully without any errors, then the procedure will invoke *pkg_ocdm_mining_util.updt_mnng_trgt_prod_prmtn* procedure to update mining target table for *CUST_SNTMNT_SVM* model.

Following table gives the list of target tables (columns) that get updated/loaded/created:

Target Table Name	Database Operation	Columns
DWD_PROMO_SVM_FACTOR	Insert	No value
DWD_CUST_PROD_AFFLTN	Insert	No value
DWD_CUST_PROD_AFFLTN	Update	AFFLTN_PROB
DWD_CUST_PROD_AFFLTN	Update	BUY_IND
DWD_TARGET_PROMO_SVM_ROC	Create	No value
DWD_TARGET_PROMO_SVM_LIFT	Create	No value

12

Oracle Communications Data Model Utility Scripts

This chapter describes the Oracle Communications Data Model utility scripts.

This chapter includes the following sections:

Calendar Population (page 12-1)

12.1 Calendar Population

The Calendar population scripts consist of two one-time installation packages.

Calendar Population Scripts (page 12-1)

How to Populate Calendar Data (page 12-2)

12.1.1 Calendar Population Scripts

The Calendar population scripts include the following packages:

- `calendar_population_header.sql`

- `calendar_population_body.sql`

Running these packages does the following:

1. Prepares necessary changes for the OCDM_SYS schema.

2. Creates the Calendar_Population package that contains the following procedures:

    - RUN(*in_setup_start_date*, *in_setup_no_years*) is the main procedure to populate everything about calendar.

    - RBIW_Base_Time_Tables_ddl creates the base table needed to support multiple hierarchies: Business or Calendar.

    - RBIW_Populate_Time_Hier_Bsns(*in_setup_start_date*, *in_setup_no_years*) sets up the data in base table for the Business hierarchy as specified in setup or install section.

    - RBIW_Populate_Time_Hier_Clndr(*in_setup_start_date*, *in_setup_no_years*) sets up the data in base table for the Calendar hierarchy as specified in setup or install section.

    - RBIW_Time_hier_Star sets up the Time hierarchy reporting layer tables.

    - RBIW_Time_Views sets up the Time hierarchy reporting layer views, star and hybrid snowflake views.

- RBIW_Populate_Time_Transform populates the Time transformation tables using the base Time tables or views created above. It populates transformation data for both hierarchies: Business and Calendar.

12.1.2 How to Populate Calendar Data

To populate calendar data:

1. Log in to OCDM_SYS user.

2. Execute the following SQL statement:

```
exec Calendar_Population.run(date,num_years);
```

where, *date* is the start date with which you want to populate calendar data. It is of type CHAR and should be input in the format 'YYYY-MM-DD' (for example,'2005-05-18'). *num_years* is the number of years to populate calendar data, which should be INTEGER.

Part III

Sample Reports

This part includes information on Oracle Communications Data Model sample reports.

Part III contains the following chapters:

13

Oracle Communications Data Model Reports

This chapter provides Oracle Communications Data Model reports.

> **Note:**
>
> Some of the reports shown may appear incomplete. The sample reports shown use manually generated data, and for data privacy and regulatory reasons, it shows only made up customers (with real data). Hence, if you notice data inconsistency between the reports, this is not due to Oracle Communications Data Model, but due to the sample data.
>
> The reports shown in this chapter appear as shown when you install Oracle Communications Data Model with the sample data.

This chapter includes the following sections:

13.1 Customer Management Reports

The customer management reports include the following areas:

13.1.1 Customer Acquisition

This area includes the reports:

Customer Acquisition (page 13-2)

Customer Acquisition Forecast (page 13-3)

13.1.1.1 Customer Acquisition

This report, as shown in Figure 13-1 (page 13-3) provides the yearly and monthly number of customers to be acquired compared with actual customers acquired by product and with respective to customers type. All time transformation variation of Customer Acquisition numbers are displayed, including Last Year (LY) and Year to Date (YTD). Users can select certain products, organizations, and customer's type to narrow down the customer numbers.

Report dimensions are:

- Business Time

- Product Spec

- Customer Type

Figure 13-1   Customer Acquisition Report
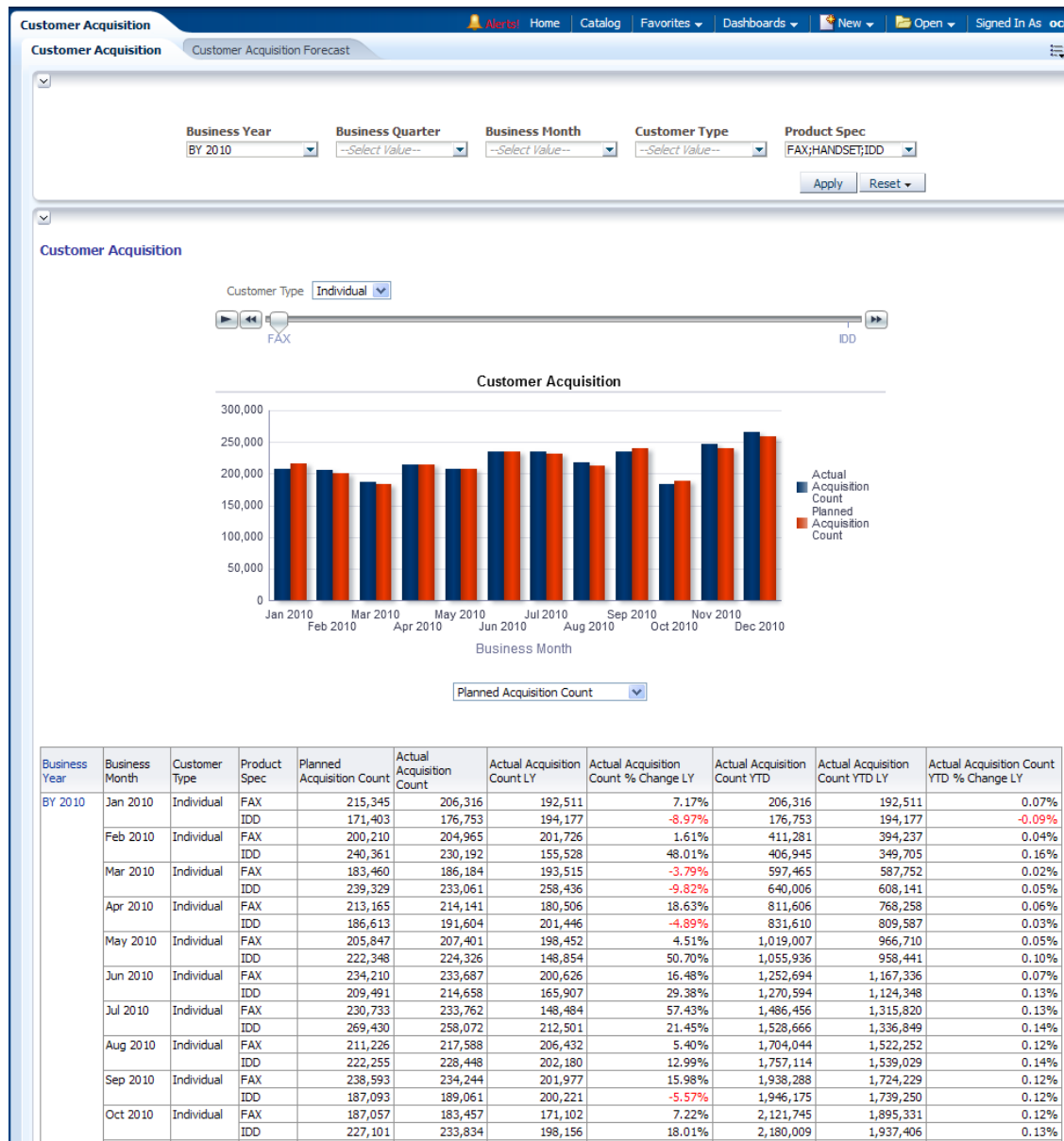
13.1.1.2 Customer Acquisition Forecast

This report, as shown in provides the yearly and monthly level forecasting of customers count to be acquired versus the actual customers acquired by product offering and customers type.

Report dimensions are:

- Business Time

- Product Offering

- Customer Type

- Product Spec

Figure 13-2 Customer Acquisition Forecast Report
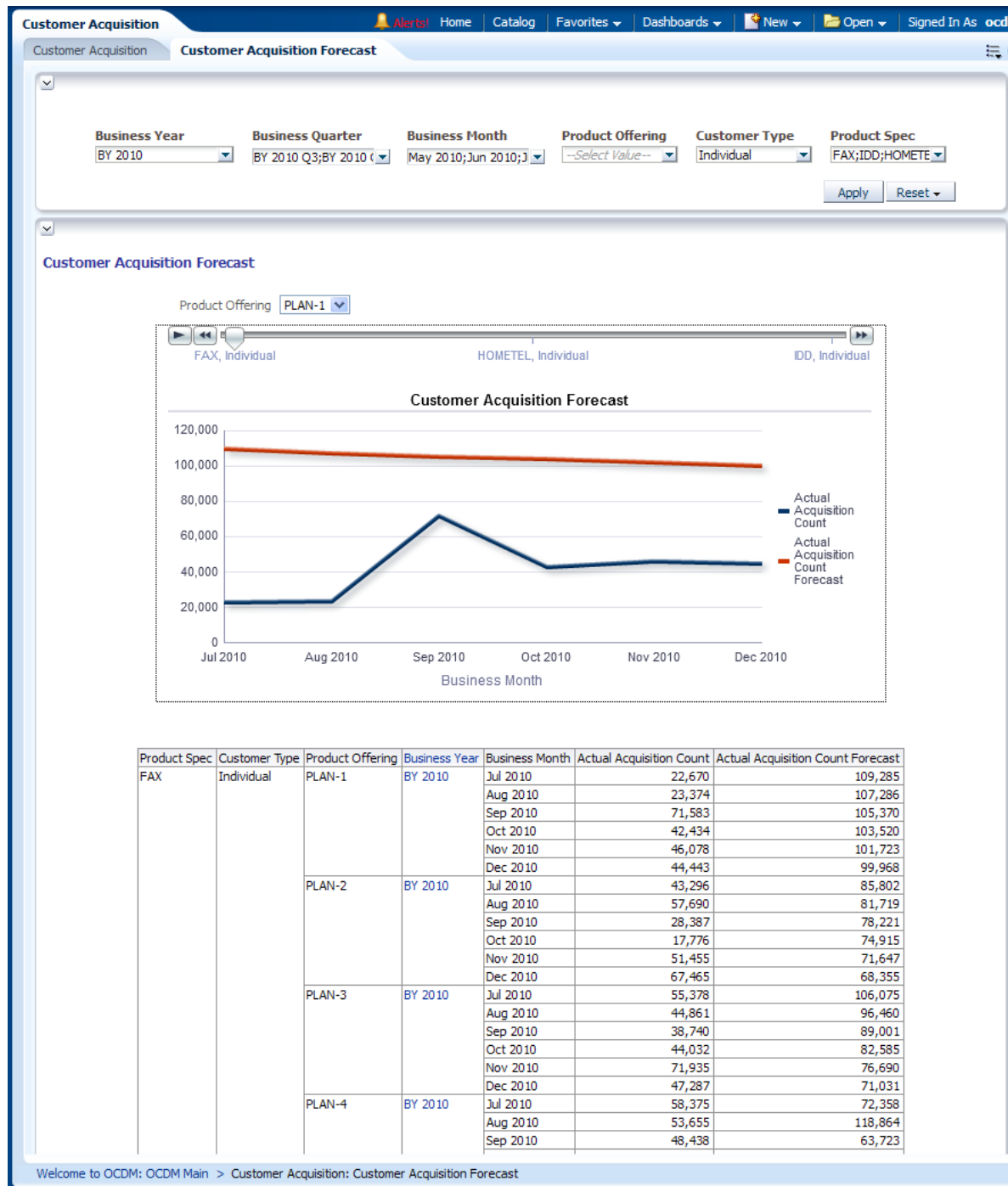
13.1.2 Customer Growth Rate

This area includes the reports:

Customer Growth Rate (page 13-5)

Customer Growth Trend Forecast (page 13-6)

13.1.2.1 Customer Growth Rate

This report, as shown in Figure 13-3 (page 13-6) provides the yearly and monthly customer count and revenue growth rate over products and geographical boundaries

Report dimensions are:

- Business Time

- Organization

- Customer Type

- Product Specification

Figure 13-3   Customer Growth Rate Report

Business Month	Product Spec	Org Business Unit	City	Customer Count	Customer Count LY	Customer Count % Change LY	Billed Revenue	Billed Revenue LY	Billed Revenue % Change LY
Sep 2010	FAX	SuperTelco East	SAN FRANCISCO	44,260	96,187	-53.99%	$587,810.31	$995,654.35	-40.96%
		SuperData East	SAN FRANCISCO	60,835	108,217	-43.78%	$685,895.69	$1,217,931.28	-43.68%
	HOMETEL	SuperTelco East	SAN FRANCISCO	60,565	74,051	-18.21%	$664,586.83	$811,841.49	-18.14%
		SuperData East	SAN FRANCISCO	57,962	60,055	-3.49%	$698,539.05	$776,031.07	-9.99%
	IDD	SuperTelco East	SAN FRANCISCO	83,491	74,127	12.63%	$1,018,717.00	$812,927.22	25.31%
		SuperData East	SAN FRANCISCO	44,048	89,222	-50.63%	$498,154.96	$1,070,234.80	-53.45%
Oct 2010	FAX	SuperTelco East	SAN FRANCISCO	45,414	88,984	-48.96%	$454,559.46	$932,610.38	-51.26%
		SuperData East	SAN FRANCISCO	79,114	80,567	-1.80%	$882,821.43	$881,483.29	0.15%
	HOMETEL	SuperTelco East	SAN FRANCISCO	63,268	45,442	39.23%	$796,089.01	$507,327.85	56.92%
		SuperData East	SAN FRANCISCO	43,646	64,189	-32.00%	$520,370.01	$736,241.84	-29.32%
	IDD	SuperTelco	SAN	32,264	68,950	-53.21%	$361,217.57	$760,314.21	-52.49%

Welcome to OCDM: OCDM Main > Customer Growth Rate: Customer Growth Rate

13.1.2.2 Customer Growth Trend Forecast

This report as shown in Figure 13-4 (page 13-7) provides the month level number of customers for organization, products, and geographical boundaries. The future number of customers forecast for the next six months, or twelve months, can be forecast by Oracle OLAP forecast settings.

Report dimensions are:

- Business Time

- Product Specification

- Geography

Figure 13-4   Customer Growth Trend Forecast Report
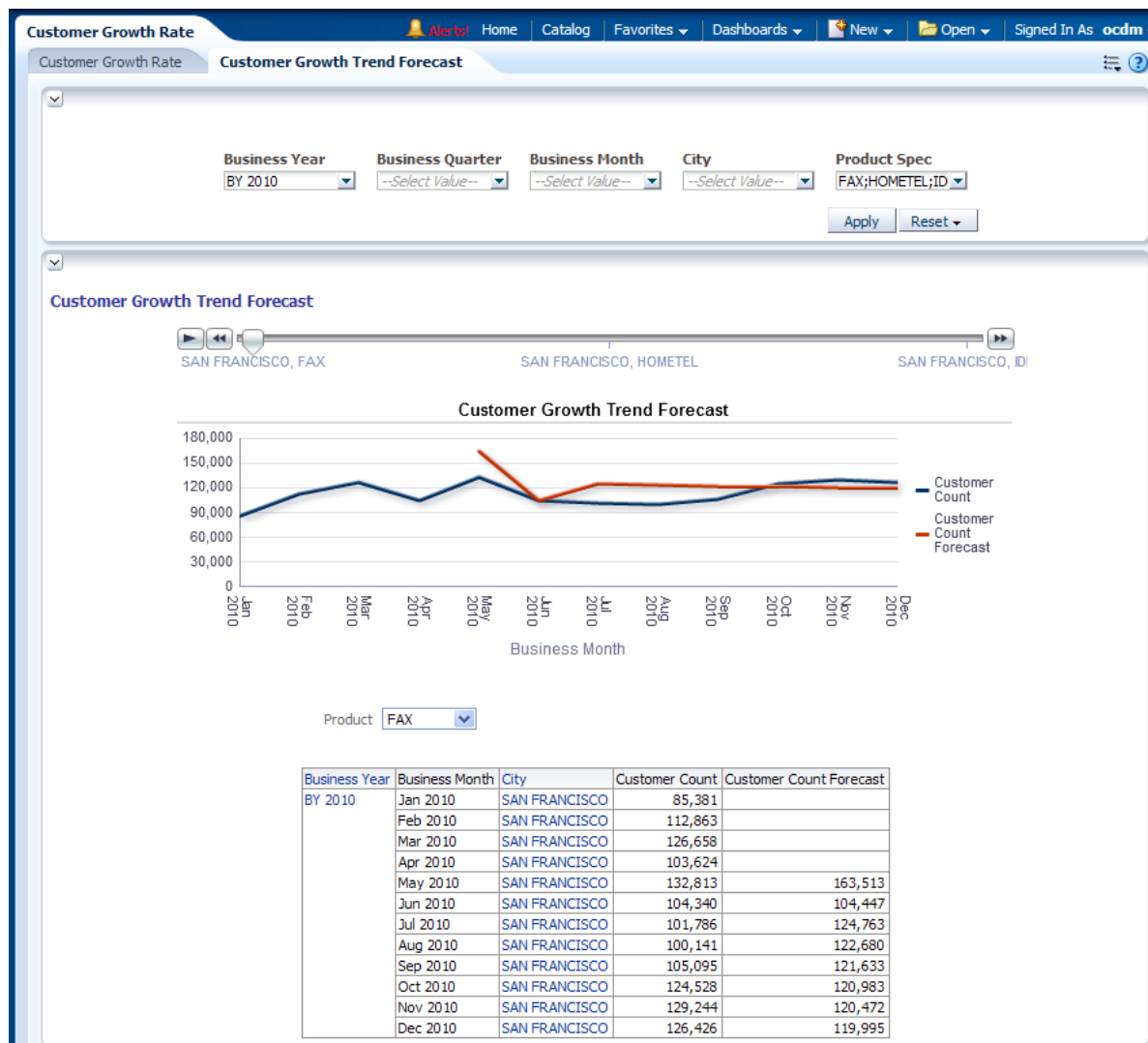
13.1.3 Customer Segmentation

This area includes the reports:

13.1.3.1 Customer Segments

This report, as shown in Figure 13-5 (page 13-9) shows customer segments.

This report displays the customer segmentation model result. The customer segmentation model groups customers into ten segments according to how similar they are to each other. The similarity is calculated based on customer demographic value (education, income, and so on), usage pattern and list of telecom products they subscribe to (customer subscriber history). The grouping rules are derived automatically by K-Means algorithm implemented inside Oracle Database. Business Analysts can look into each segment to further understand the customer group discovered by the algorithm and name each segments.

By default, the summary information about each segment is displayed in the bottom table. For each segment, the Average Contract Value, Avg Debt Value, and Avg monthly revenue (in last 6 months) are displayed. Those three values are depicted in three pie charts above the table respectively, to show the distribution among customer segments.

The prompt "SVM Predict Churner Indicator" can be used to filter the customer. If user select "1", then for each segment, only those customer who were predicted as "churner" by SVM churn model is counted in. Then the number would be less than all customers in the segment.

Similarly, "DT Predict Churner Indicator" can filter customers to be only those who were predicted as "churner" by Decision Tree churn model

Note: This groups all the customers, not only churners.

Report dimensions are:

- Customer

Figure 13-5   Customer Segments Report
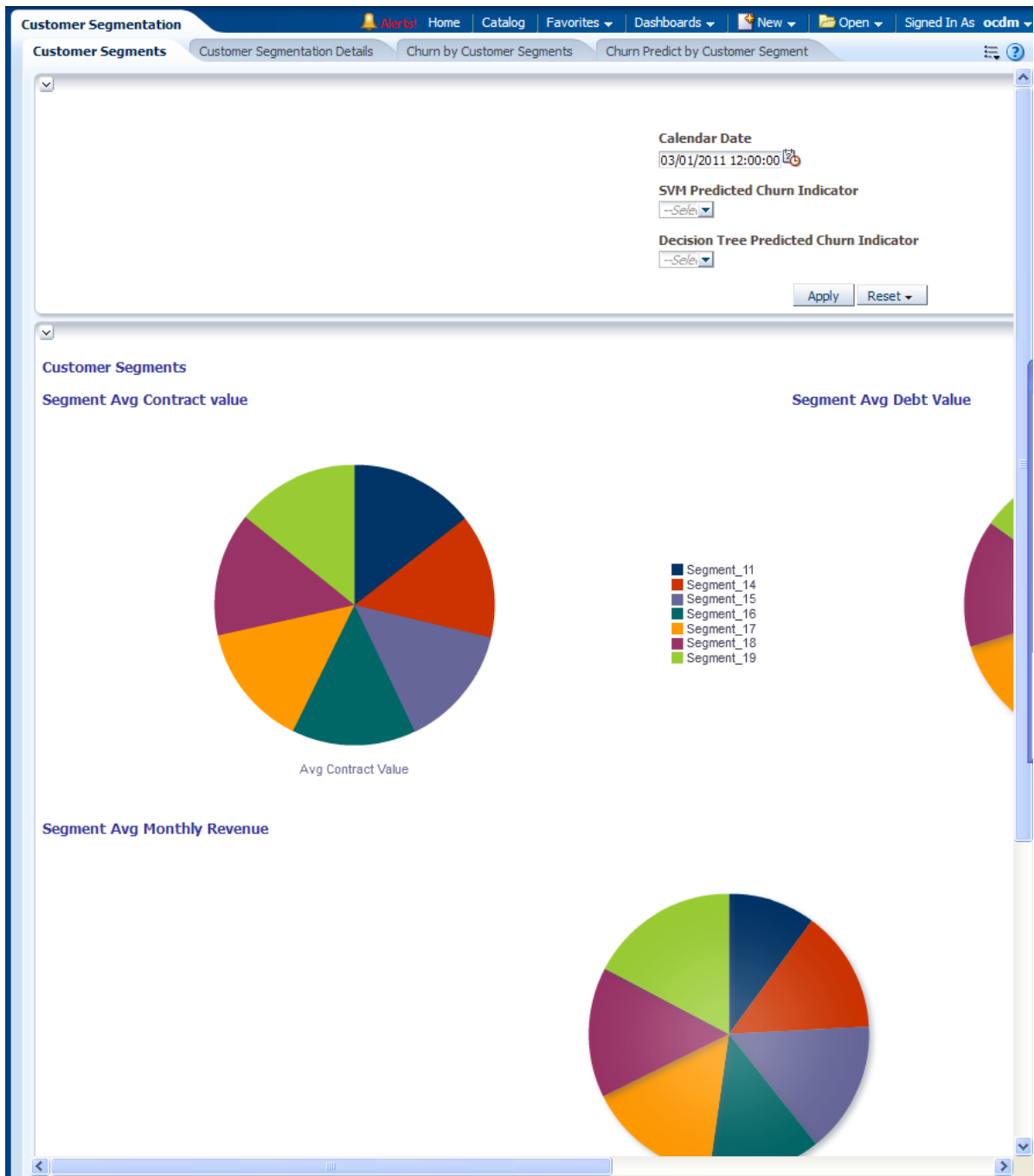
13.1.3.2 Customer Segmentation Details

This report, as shown in Figure 13-6 (page 13-10) provides the customer segmentation details on basis of certain customer statistical metrics such as contract value, month revenue, debt value and so on.

For the given customer, the report also displays the contract value, month revenue, debt value and so on. In fact, the end user can easily extend this report by adding any relational aggregated information about the customer into this report. For example, number of calls, number of complaints, and so on. They can use BIEE Answers to add those additional measures into the report.

Report dimensions are:

- Customer

Figure 13-6   Customer Segmentation Details Report
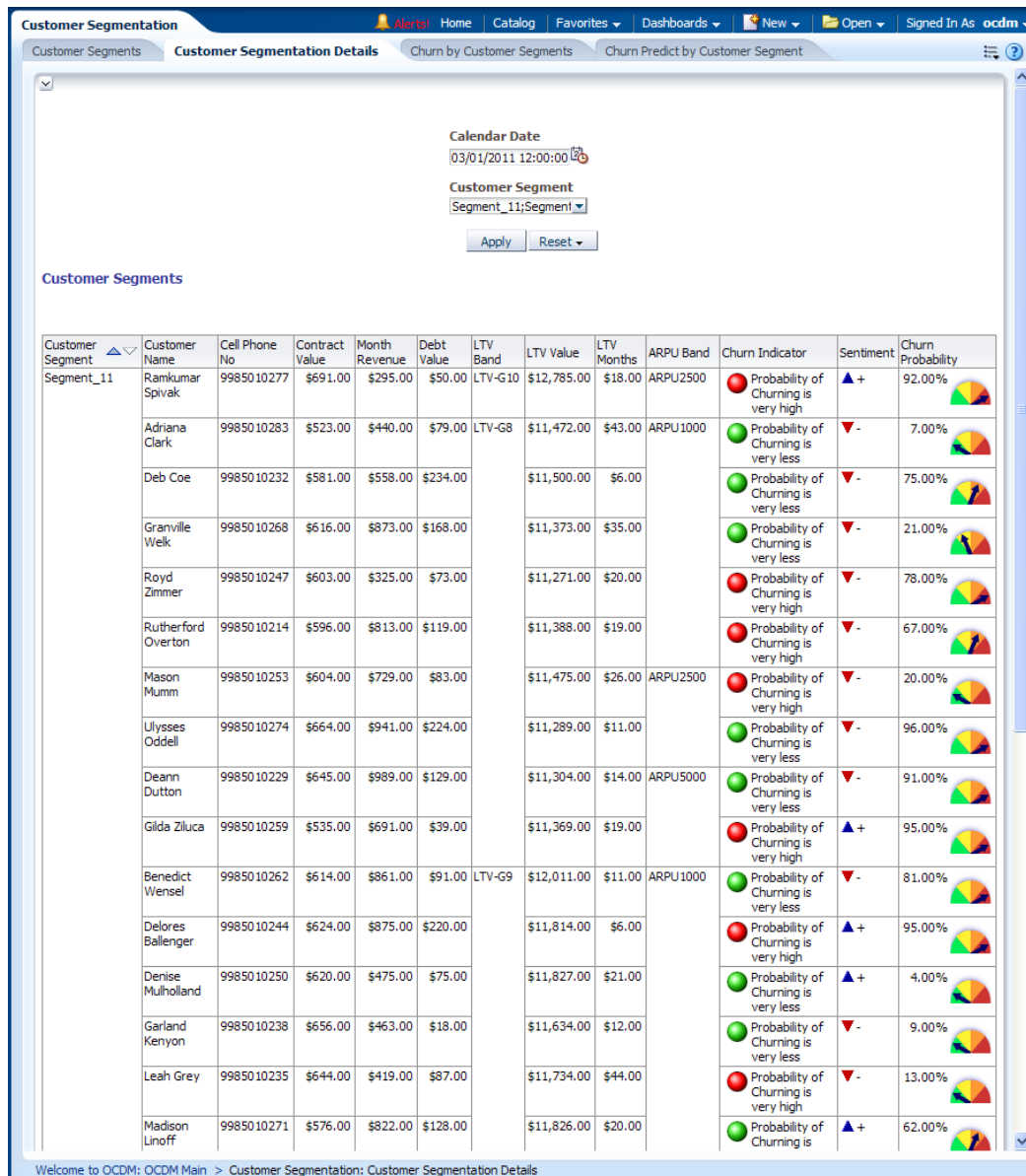
13.1.3.3 Churn by Customer Segments

This report, as shown in Figure 13-7 (page 13-11) shows customer segments.

This report displays the customer segmentation model result. The customer segmentation model groups customers into ten segments according to how similar they are to each other. The similarity is calculated based on customer demographic value (education, income, and so on), usage pattern and list of telecom products they subscribe to (customer subscriber history). The grouping rules are derived automatically by K-Means algorithm implemented inside Oracle Database. Business Analysts can look into each segment to further understand the customer group discovered by the algorithm and name each segments.

Report dimensions are:

- Customer

Figure 13-7 Customer Segmentation Churn by Customer Segments Report

13.1.3.4 Churn Predict by Customer Segment

This report, as shown in shows customer segments.

This report displays the customer segmentation model result. The customer segmentation model groups customers into ten segments according to how similar

they are to each other. The similarity is calculated based on customer demographic value (education, income, and so on), usage pattern and list of telecom products they subscribe to (customer subscriber history). The grouping rules are derived automatically by K-Means algorithm implemented inside Oracle Database. Business Analysts can look into each segment to further understand the customer group discovered by the algorithm and name each segments.

Report dimensions are:

- Customer

Figure 13-8   Churn Predict by Customer Segment Report
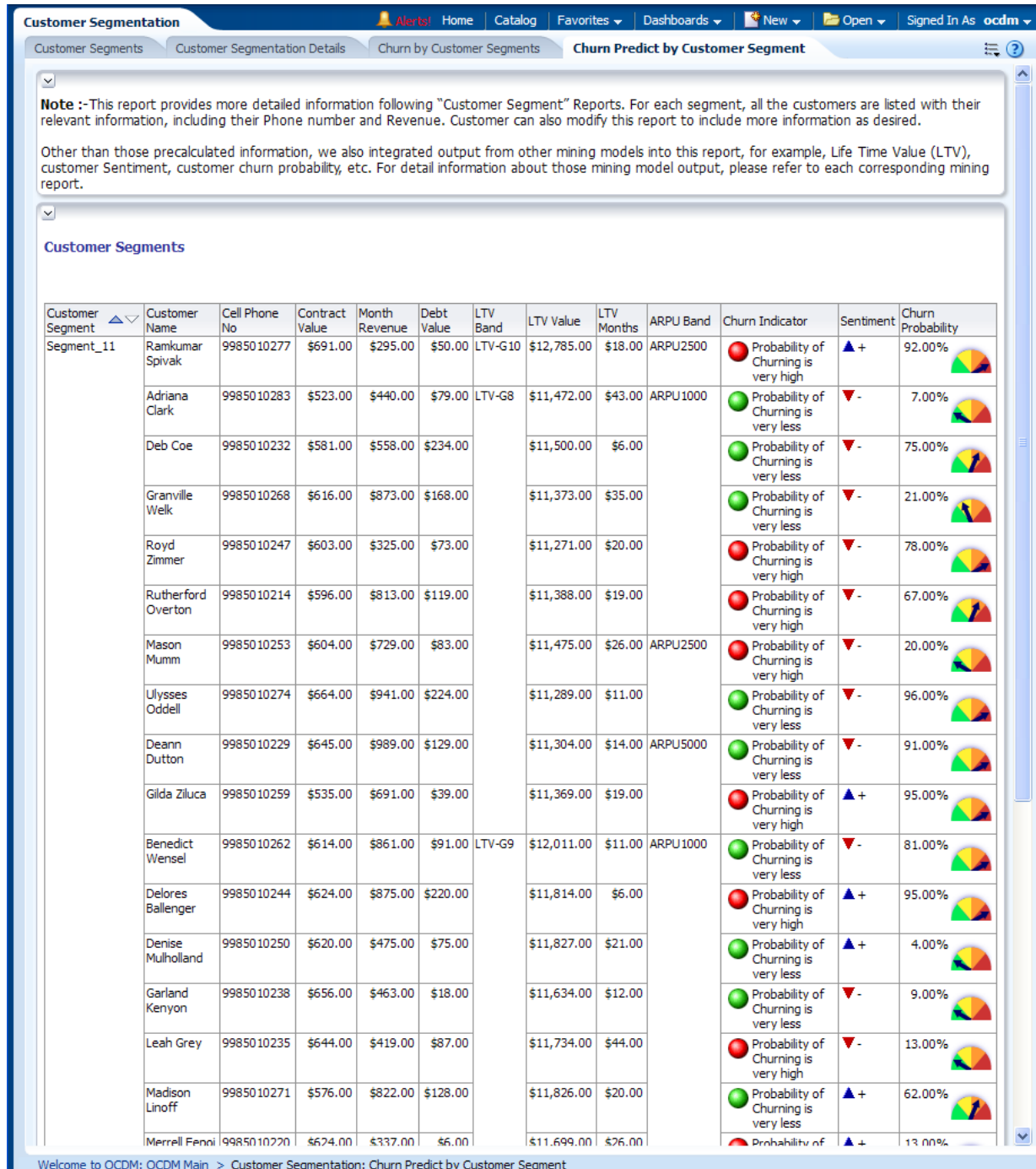
13.1.4 Customer Life Time Value

This area includes the reports:

Customer Life Time Value (page 13-13)

Customer by Life Time Value Band (page 13-14)

Customer by Life Time Span Category (page 13-15)

Customer Life Time Span Detail (page 13-16)

13.1.4.1 Customer Life Time Value

This report as shown in Figure 13-9 (page 13-14) provides the predicted Life Time Value (LTV) for all customers grouped by LTV Band Code. It also shows some additional aggregated information about the customer.

Report dimensions are:

- Customer

- Customer Mining

Figure 13-9   Customer Life Time Value Report

13.1.4.2 Customer by Life Time Value Band

This report, as shown in Figure 13-10 (page 13-15) provides the churn prediction result for the customers belonging to a certain Life time Value Band (that is, the customers likely to be with the service provider compared with the customers that already left the service provider.)

Report dimensions are:

- Customer

- Customer Mining

Figure 13-10   Customer by Life Time Value Band Report
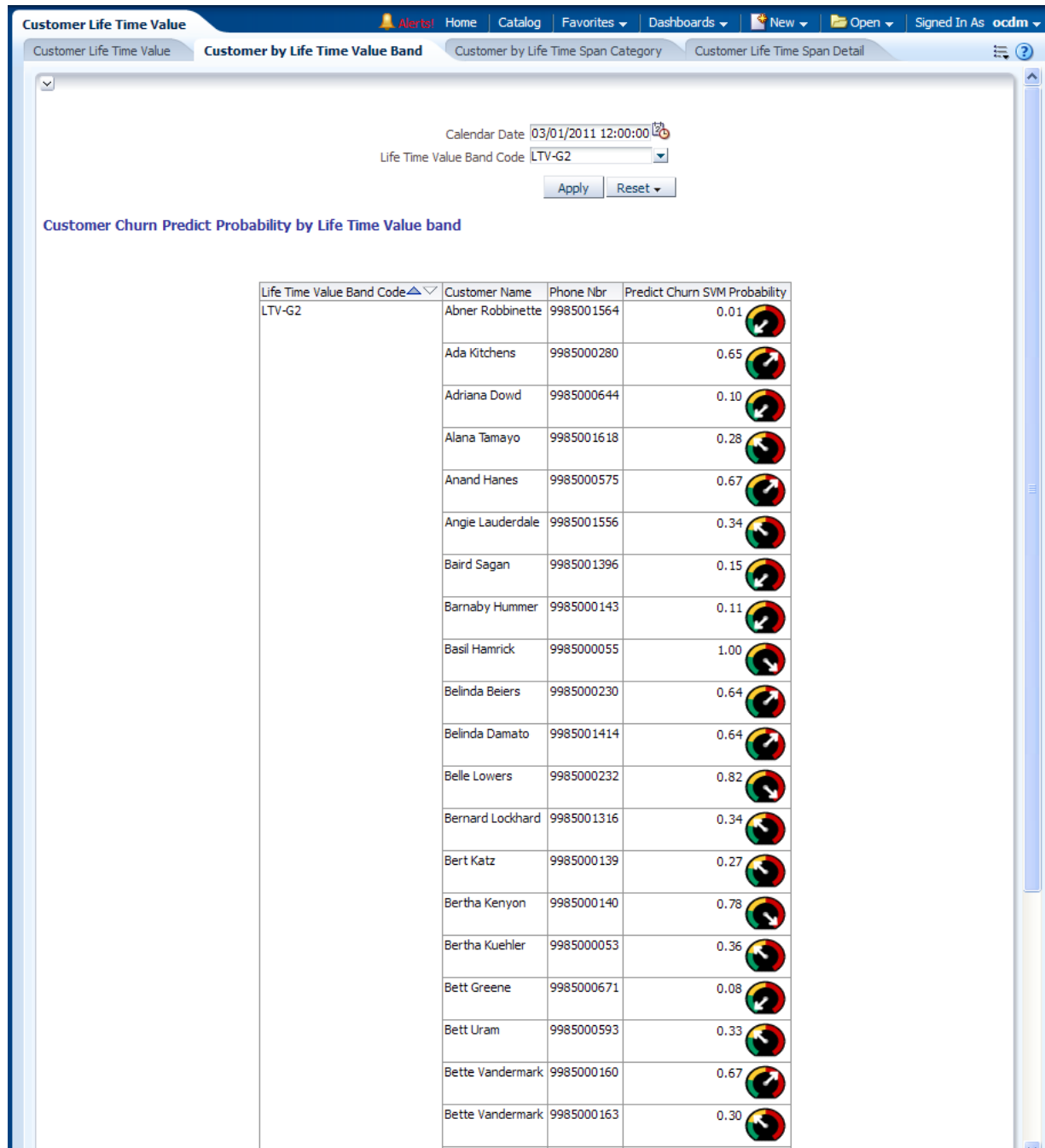
13.1.4.3 Customer by Life Time Span Category

This report, as shown in Figure 13-11 (page 13-16) provides the customer life time span with the service provider on the basis of certain mining metrics such as average life time span months, total month revenue, contract Average Revenue Per User (ARPU) and so on. The Life time span value is measured by Months, therefore, a value of "22" in "Avg Life Time Span Months" means the customer is very likely to use the services for at least 22 months. The customers are binned into Life Time Span Category according to the value of Life time span.

Report dimensions are:

- Customer

- Customer Mining

Figure 13-11   Customer by Life Time Span Category Report

Life Time Span Category	Customer Count	Total Month Revenue	Contract ARPU	Debt Value	Average Life Time Span Months
LT-G0	265	$277,390.00	$159,026.00	$33,319.00	4
LT-G1	914	$847,423.00	$548,355.00	$117,781.00	7
LT-G10	48	$38,511.00	$28,219.00	$6,545.00	48
LT-G2	1,381	$1,285,985.00	$832,605.00	$169,721.00	12
LT-G3	1,386	$1,349,665.00	$832,633.00	$175,877.00	17
LT-G4	481	$612,439.00	$287,828.00	$59,543.00	22
LT-G5	508	$420,109.00	$303,070.00	$64,791.00	26
LT-G6	493	$496,546.00	$293,874.00	$61,192.00	31
LT-G7	487	$416,558.00	$292,423.00	$61,015.00	36
LT-G8	486	$380,640.00	$290,410.00	$60,065.00	41
LT-G9	431	$384,966.00	$258,759.00	$53,453.00	46

Note :- Together with LTV value, we also want to tell for how long customer will likely to continue to use the service (Survival), rather than leaving. This is a regression model. The source data are those customers on net at least 5 years ago, and the model target is the age of customer. The difference of this model to the Model 1 – churn is that this is a regression model rather than classification. The target Lifetime is a continuous real value. Once the Life time span for each customer is predicted, the Number of months is binned into 10 groups from shortest span to longest span. Then for each Life Time span category, statistics about customer belonging to the category are displayed, including count, revenue sum, debt sum, etc.

Welcome to OCDM: OCDM Main > Customer Life Time Value: Customer by Life Time Span Category

13.1.4.4 Customer Life Time Span Detail

This report, as shown in provides more information about the customers in each life time span category.

Report dimensions are:

- Customer

- Customer Mining

Figure 13-12   Customer Life Time Span Detail Report

13.1.5 Customer Churn Analysis

This area includes the reports:

Customer Churn Rate (page 13-18)

13.1.5.1 Customer Churn Rate

This report, as shown in Figure 13-13 (page 13-19) provides year-level churn rate information of an organization based on Customer type. It also shows the Last year information for the user to see differences.

Report dimensions are:

- Organization

- Business Time

- Customer

Figure 13-13   Customer Churn Rate Report
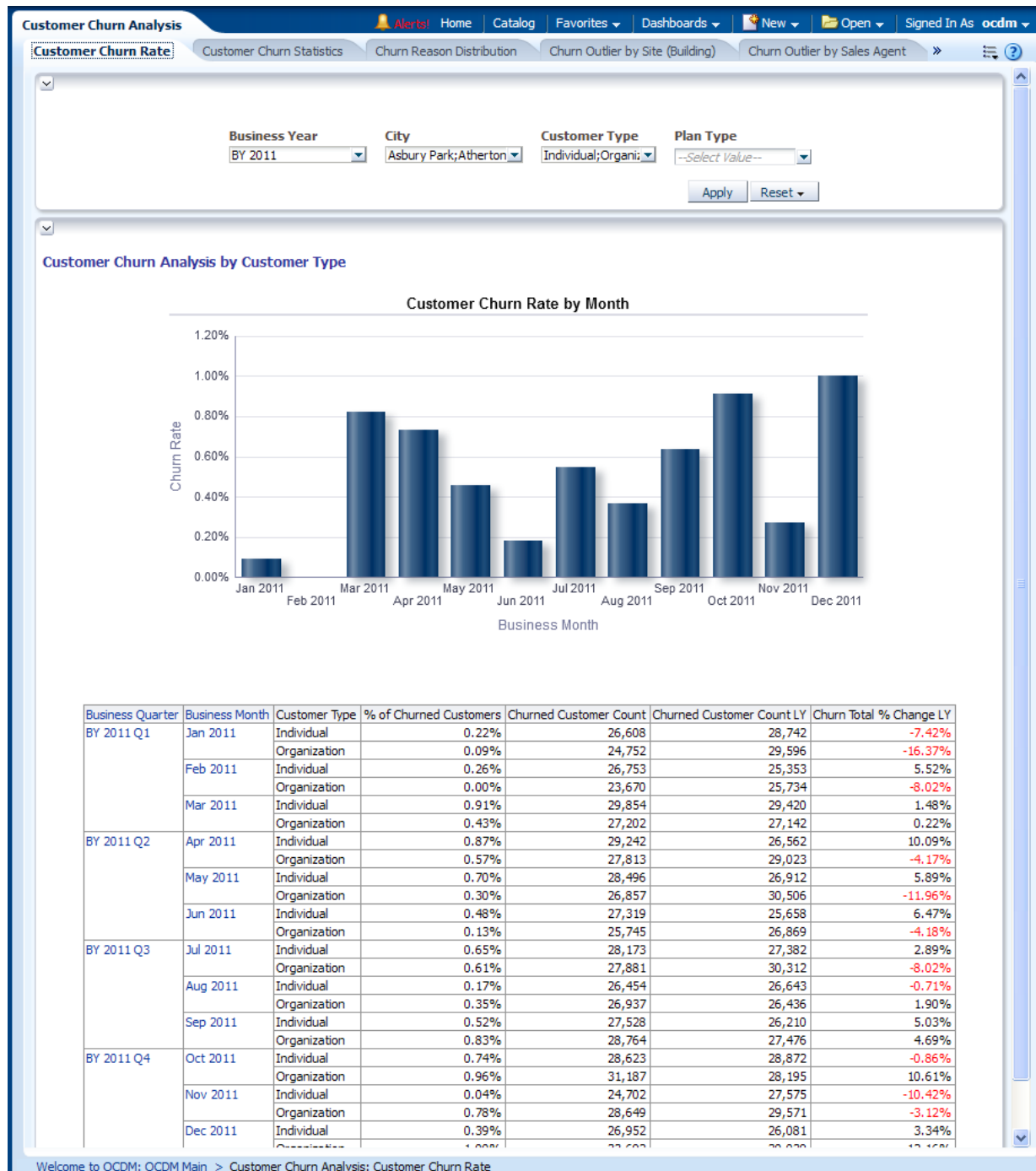
13.1.5.2 Customer Churn Statistics

This report, as shown in provides year-level subscription performance based on churn statistics relating to a Customer, such as high churn rate analysis for a subscription, and so on. Oracle Communications Data Model provides certain operational measures such as forecasting, prediction, and so on, to over come this problem This data can be analyzed with LY and YTD data.

Report dimensions are:

- Organization

- Business Time

- Customer

Figure 13-14   Customer Churn Statistics Report
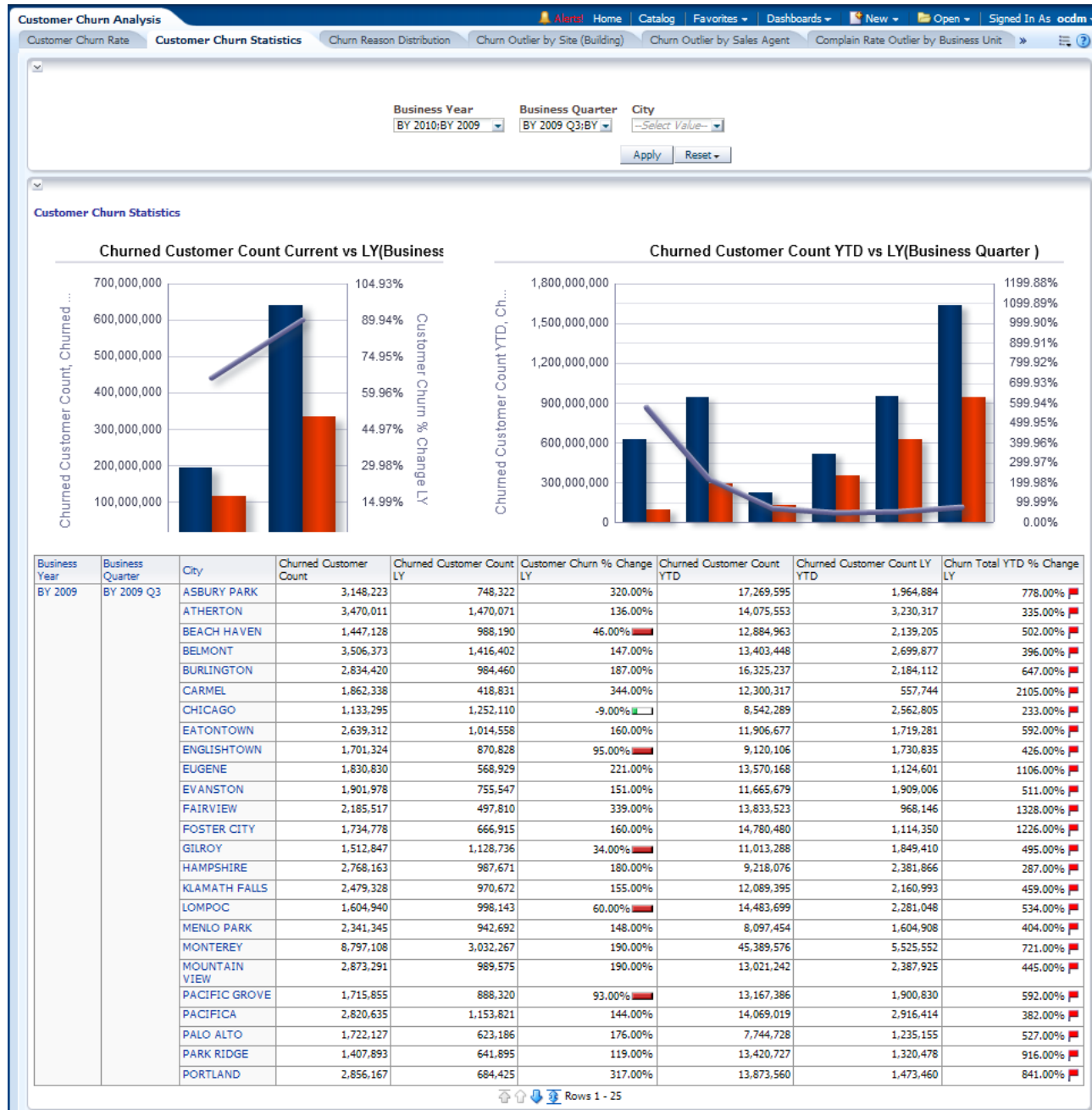
13.1.5.3 Churn Reason Distribution

This report as shown in Figure 13-15 (page 13-21) identifies the year level top reasons that lead the customers to move out of the service providers. It also gives the flexibility to compare the same with last year churn information. Thus, it gives the service

providers a way to analyze the churn situation according to customer stated churn reasons.

Report dimensions are:

- Business Time

- Churn Reason

Figure 13-15   Churn Reason Distribution Report
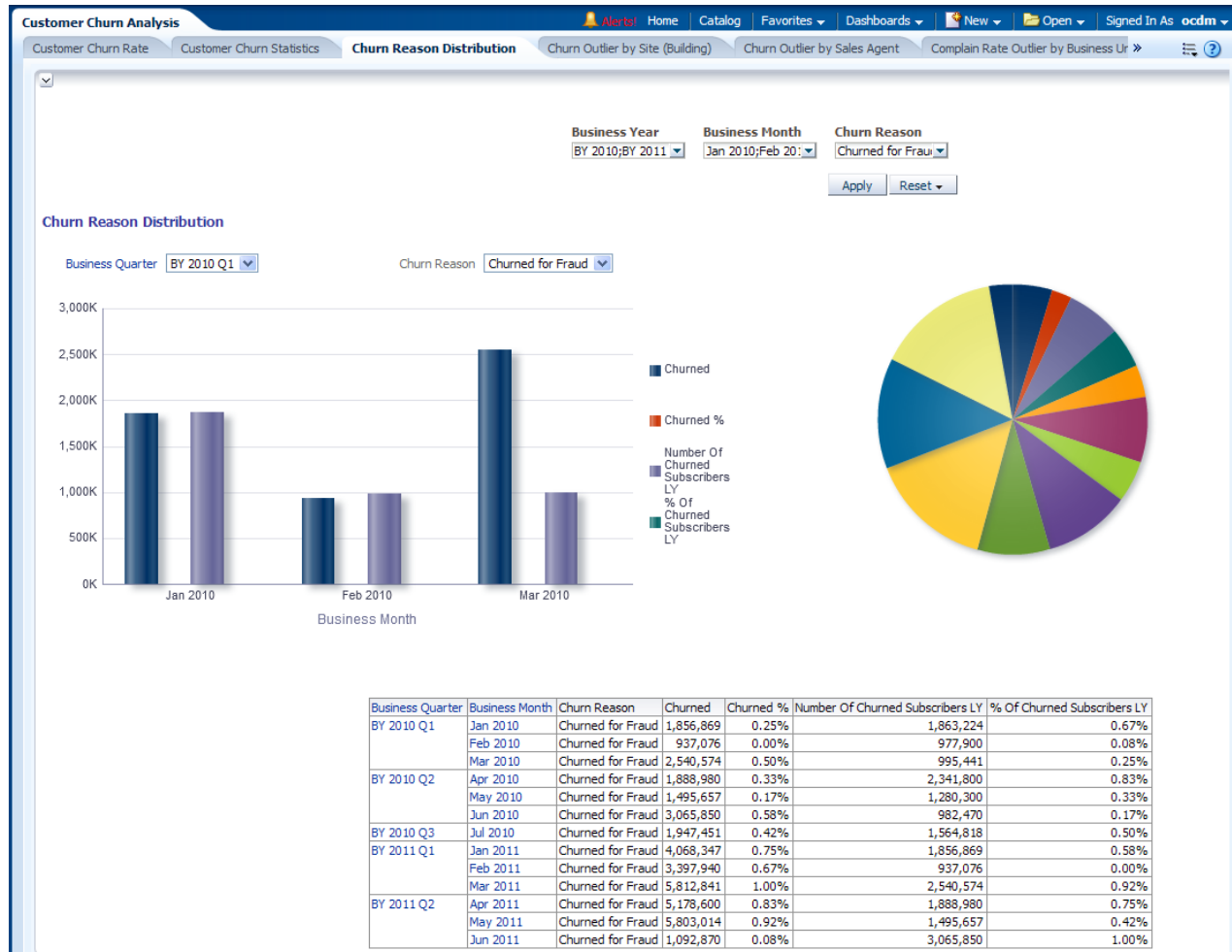
13.1.5.4 Churn Outlier by Site (Building)

This report, as shown in Figure 13-16 (page 13-22) mainly speaks about the broadband or Fix Line related churn analysis pertaining to one building or an area. The churn rates are displayed for all building in selected area, and those extremely high churn rates are identified as "Churn Outlier" beside the churn rate, marked by number "1" and background as RED.

It can help identify the churn related problem such as network problems, arrival of new competitors, and so on. For example, when competitors launch a promotion or your network fails, the churn rate may go up. This report can help identify the problem before revenue loss occurs.

Report dimensions are:

- Business Time

- Geography

- Product Offering

Figure 13-16   Churn Outlier by Site (Building) Report
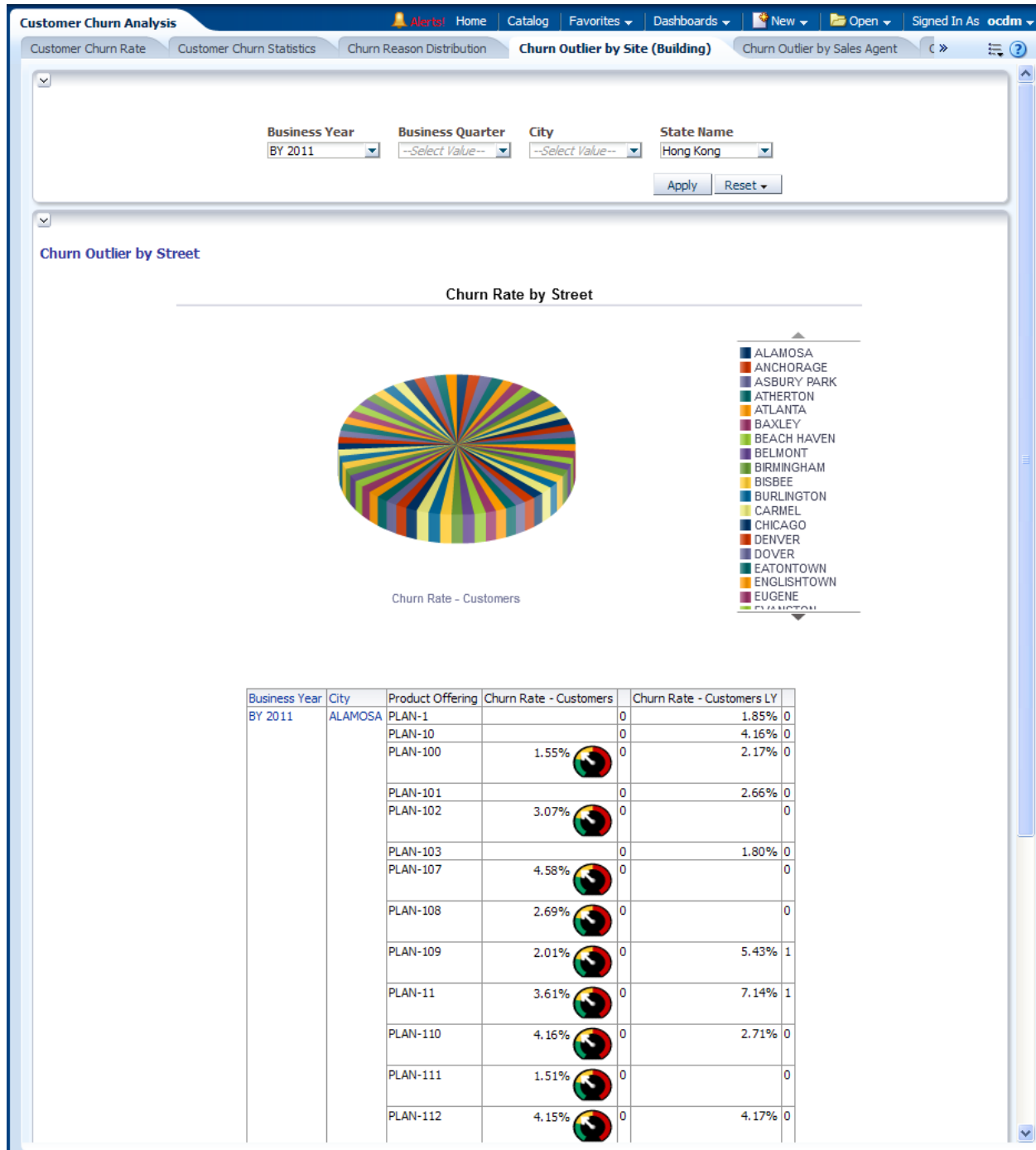
13.1.5.5 Churn Outlier by Sales Agent

This report, as shown in Figure 13-17 (page 13-23) identifies the extremely high churn rate in the customers brought in by certain sales representative agents. For example,

the sales agent may introduce the package to those incapable of paying the bill, or to his friends who churn right after acquiring the promotion gifts. Thus it enables a service providers to identify fraud cases by sales agents.

Report dimensions are:

- Business Time

- Organization

- Product Offering Type

- Sales Channel Representative

Figure 13-17   Churn Outlier by Sales Agent Report
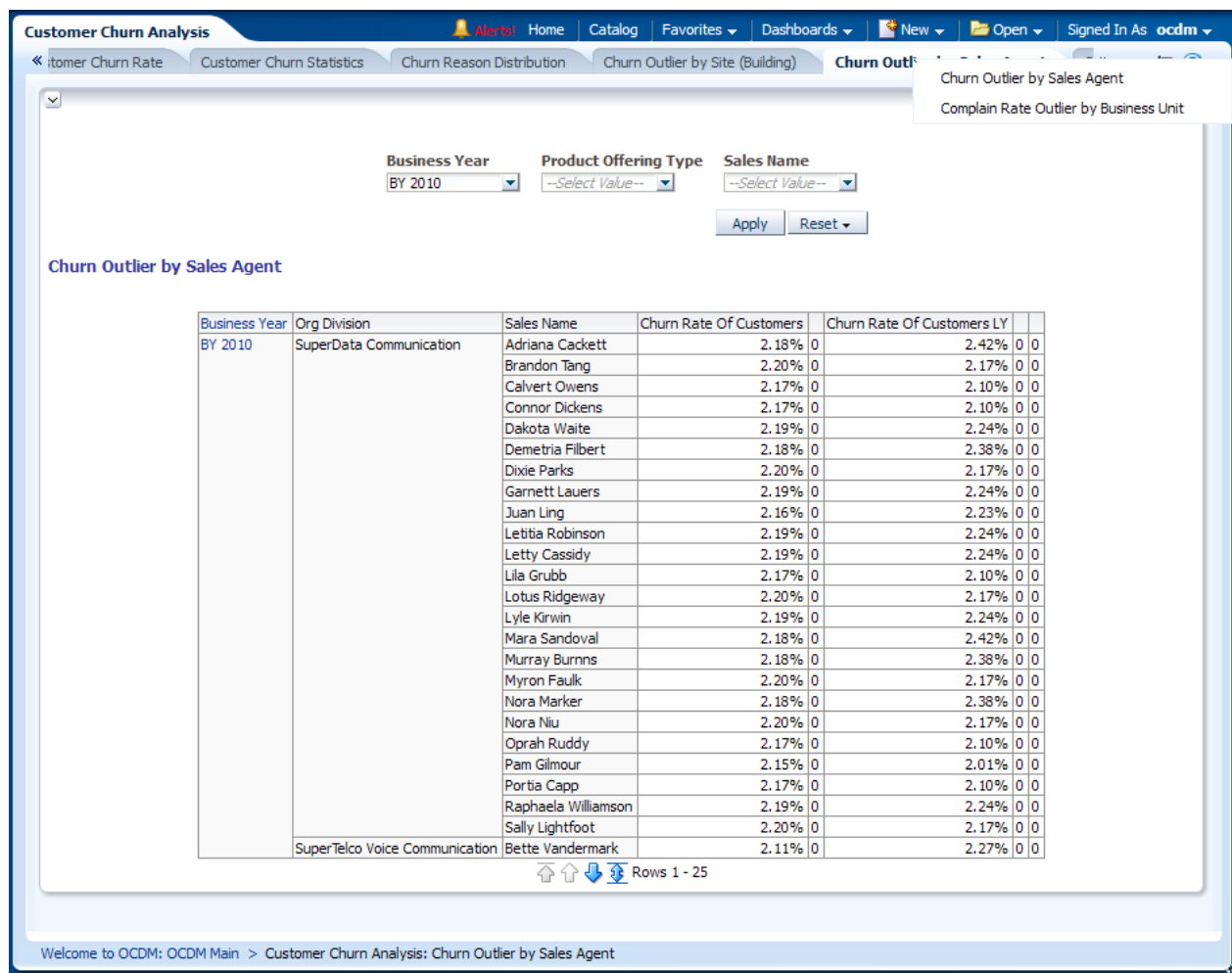
13.1.5.6 Complain Rate Outlier by Business Unit

This report, as shown in works in the same way as the report "Churn Outlier by Building". However, instead of detecting a high churn rate, which already incurred revenue loss, this report tries to identify those areas where an extremely high compliant rate is observed. The report also shows the complaint rate in LY, YTD and LY YTD.

Report dimensions are:

- Business Time

Figure 13-18 Complain Rate Outlier by Business Unit
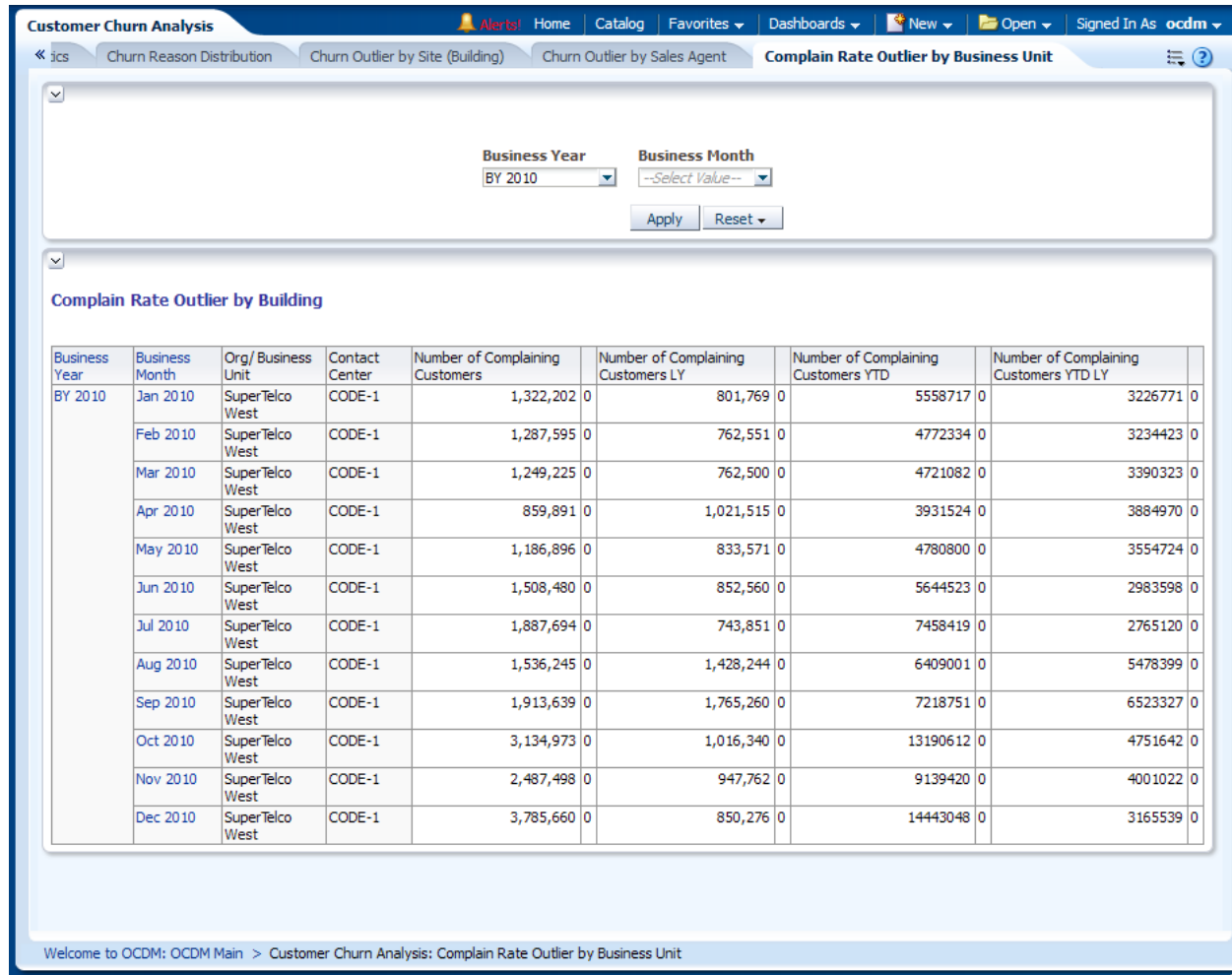
13.1.6 Customer Churn Prediction

This area includes the reports:

13.1.6.1 Retention Cumulative Gain

This report as shown in Figure 13-19 (page 13-25) shows the Oracle Communications Data Model Churn prediction Model performance; this helps you determine a threshold for the percent of customers to run in the retention program. This retention can be done using phone calls or email. For example, according to the details in Figure 13-19 (page 13-25), if the service provider selects 20% of MOST Likely churners according to the Oracle Communications Data Model Churn Prediction model, they can cover about 74% of real churners.

The chart here shows the accuracy of customers so identified under retention program prediction rather than picking on random selection of customers (shown as a straight line).

Report dimensions are:

- Churn SVM ROC

Figure 13-19   Retention Cumulative Gain Report
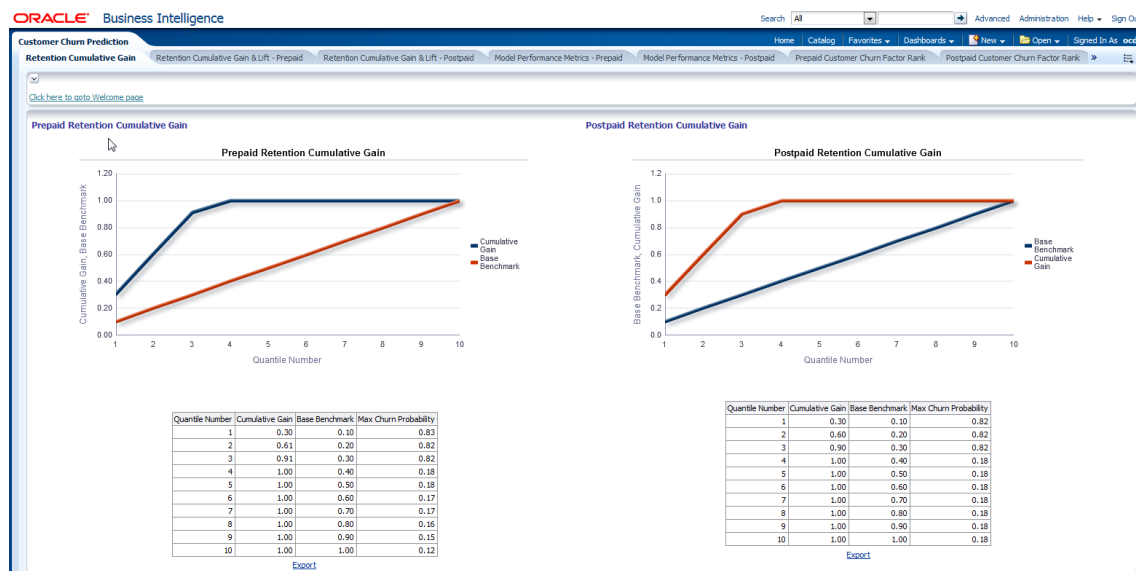
13.1.6.2 Retention Cumulative Gain & Lift Prepaid

This report as shown in Figure 13-20 (page 13-26)shows the Oracle Communications Data Model Customer Churn prediction Model retention and cumulative gain and lift prepaid; this helps you determine a threshold for the percent of customers to run in the retention program.

Gain and Lift: Gain or lift is a measure of the effectiveness of a classification model calculated as the ratio between the results obtained with and without the model . Gain and lift charts are visual aids for evaluating performance of classification models.

Lift chart: The lift chart shows how much more likely we are to receive positive responses than if we contact a random sample of customers. For example, by contacting only 10% of customers based on the predictive model we will reach 3 times as many respondents as that of if we use no mode l(random guess).

Report dimensions are:

- Churn SVM ROC

Figure 13-20   Customer Churn Prediction:: Retention Cumulative Gain and Lift Prepaid
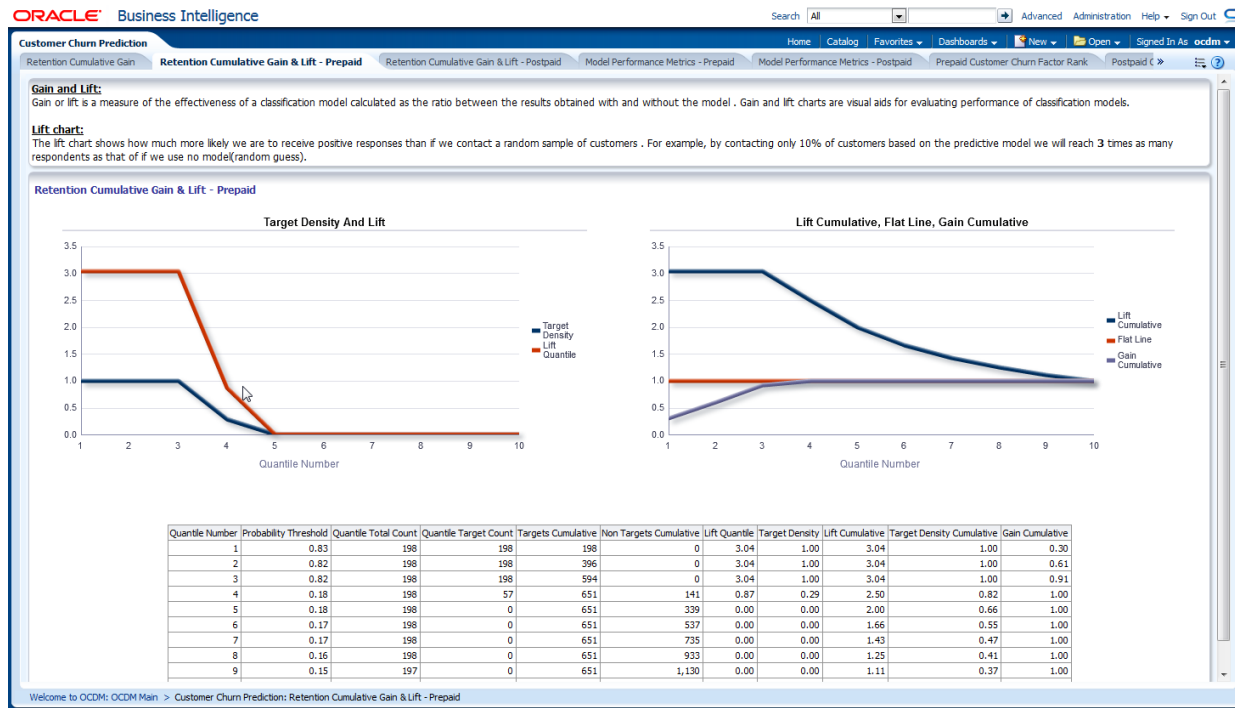
13.1.6.3 Retention Cumulative Gain & Lift Postpaid

This report as shown in shows the Oracle Communications Data Model Customer Churn prediction Model retention and cumulative gain and lift postpaid; this helps you determine a threshold for the percent of customers to run in the retention program.

Gain and Lift: Gain or lift is a measure of the effectiveness of a classification model calculated as the ratio between the results obtained with and without the model . Gain and lift charts are visual aids for evaluating performance of classification models.

Lift chart: The lift chart shows how much more likely we are to receive positive responses than if we contact a random sample of customers . For example, by contacting only 10% of customers based on the predictive model we will reach 3 times as many respondents as that of if we use no model(random guess).

Report dimensions are:

- Churn SVM ROC

Figure 13-21   Customer Churn Prediction: Retention Cumulative Gain and Lift Postpaid
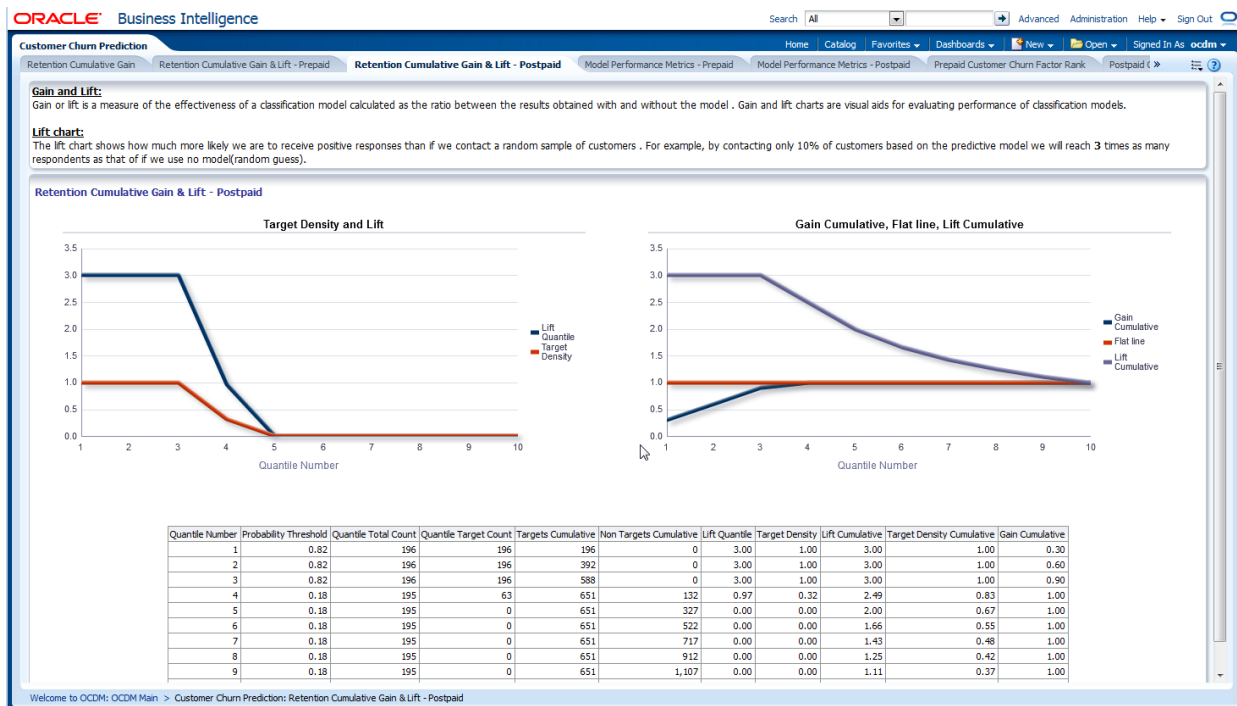
13.1.6.4 Model Performance Metrics Prepaid

This report as shown in Figure 13-22 (page 13-28)shows the Oracle Communications Data Model Customer Churn prediction Model retention and cumulative gain and lift postpaid; this helps you determine a threshold for the percent of customers to run in the retention program.

Confusion Matrix: A confusion matrix shows the number of correct and incorrect predictions made by the classification model compared to the actual outcomes (target value) in the data. The matrix is NxN, where N is the number of target values (classes). Performance of such models is commonly evaluated using the data in the matrix. For Churn classification, there are two target values (1 - Churner, 0 - Active). So, confusion matrix is a 2x2 matrix for two classes (Churner and Active).

Accuracy: The proportion of the total number of predictions those were correct. **Sensitivity or Recall:** The proportion of actual positive cases which are correctly identified.

Specificity: The Proportion of actual negative cases which are correctly identified. Customer is predicted to churn if churn prediction probability is greater than OR equal to

Probability Threshold. The **Probability Threshold** can be chosen by analyzing LIFT and ROC data. **Probability Threshold** should be chosen such that it will result in low **Misclassification Cost** and **High Efficiency** mining model . *Efficiency = (Sensitivity + Specificity) / 2 Sensitivity = #True Positives / (#true Positives + #False Negatives) Specifitity= #True Negatives / (#True Negatives + #False Positives) Accuracy = (#True Positives + #True Negatives) / #Total Customers* For this model, **Probability Threshold** = 0.5

Report dimensions are:

- Churn SVM ROC

Figure 13-22   Customer Churn Prediction Model Performance Metrics Prepaid
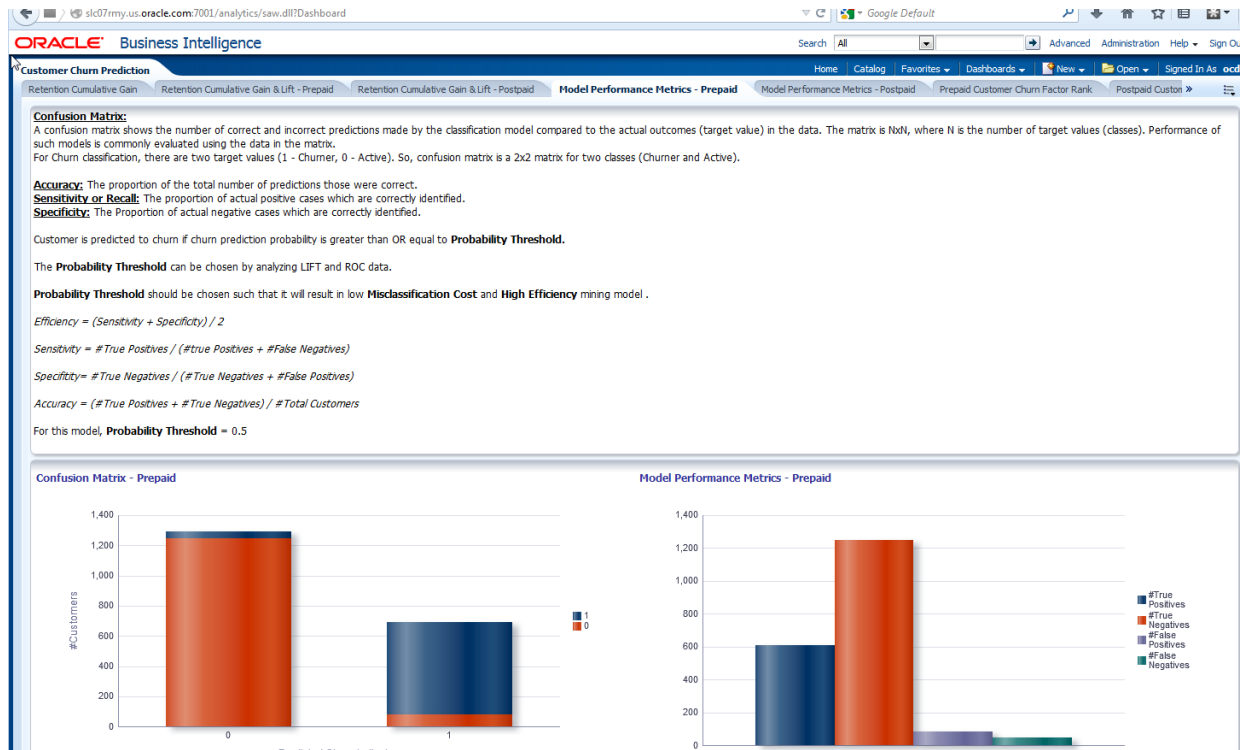
13.1.6.5 Model Performance Metrics Postpaid

This report as shown in shows the Oracle Communications Data Model Customer Churn prediction Model retention and cumulative gain and lift postpaid; this helps you determine a threshold for the percent of customers to run in the retention program.

Confusion Matrix: A confusion matrix shows the number of correct and incorrect predictions made by the classification model compared to the actual outcomes (target value) in the data. The matrix is NxN, where N is the number of target values (classes). Performance of such models is commonly evaluated using the data in the matrix. For Churn classification, there are two target values (1 - Churner, 0 - Active). So, confusion matrix is a 2x2 matrix for two classes (Churner and Active). **Accuracy:** The proportion of the total number of predictions those were correct. **Sensitivity or Recall:**

The proportion of actual positive cases which are correctly identified. **Specificity:** The Proportion of actual negative cases which are correctly identified. Customer is predicted to churn if churn prediction probability is greater than OR equal to **Probability Threshold.** The **Probability Threshold** can be chosen by analyzing LIFT and ROC data. **Probability Threshold** should be chosen such that it will result in low **Misclassification Cost** and **High Efficiency** mining model . *Efficiency = (Sensitivity + Specificity) / 2 Sensitivity = #True Positives / (#true Positives + #False Negatives) Specifitity= #True Negatives / (#True Negatives + #False Positives) Accuracy = (#True Positives + #True Negatives) / #Total Customers* For this model, **Probability Threshold** = 0.5

Report dimensions are:

- Churn SVM ROC

Figure 13-23 Customer Churn Prediction Model Performance Metrics Postpaid
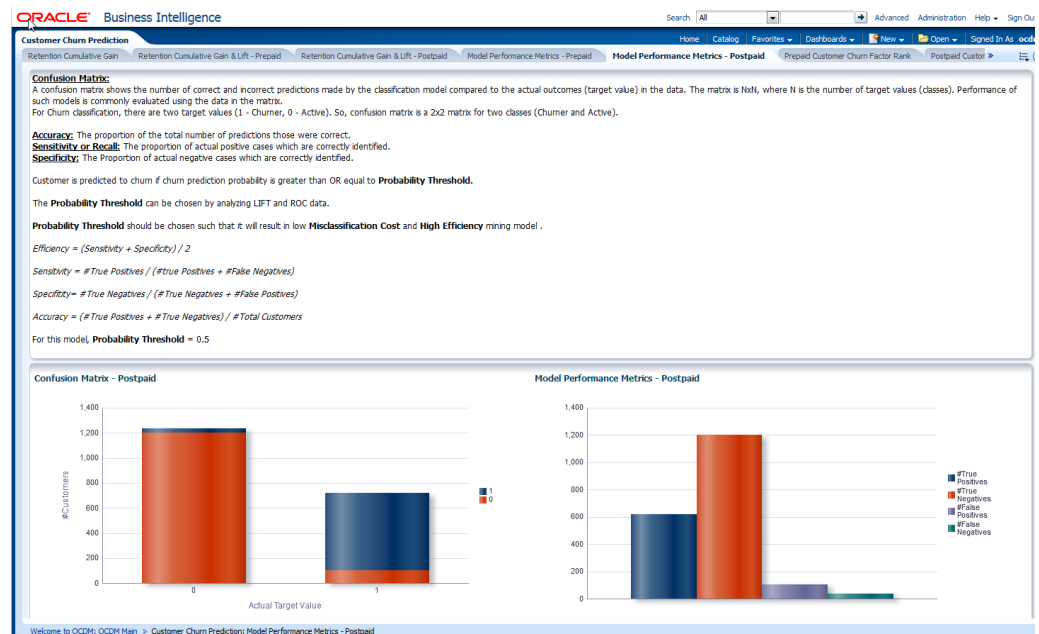
13.1.6.6 Prepaid Customer Churn Factor Rank

This as shown in can help you understand which attribute is more important in determining a prepaid customer churning pattern. The factors are ranked according to the SVM Coefficients from the Churn prediction model. The chart can help marketing understand the customers for a better campaign strategy.

Report dimensions are:

- Churn SVM ROC

Figure 13-24   Prepaid Customer Churn Factor Rank Report
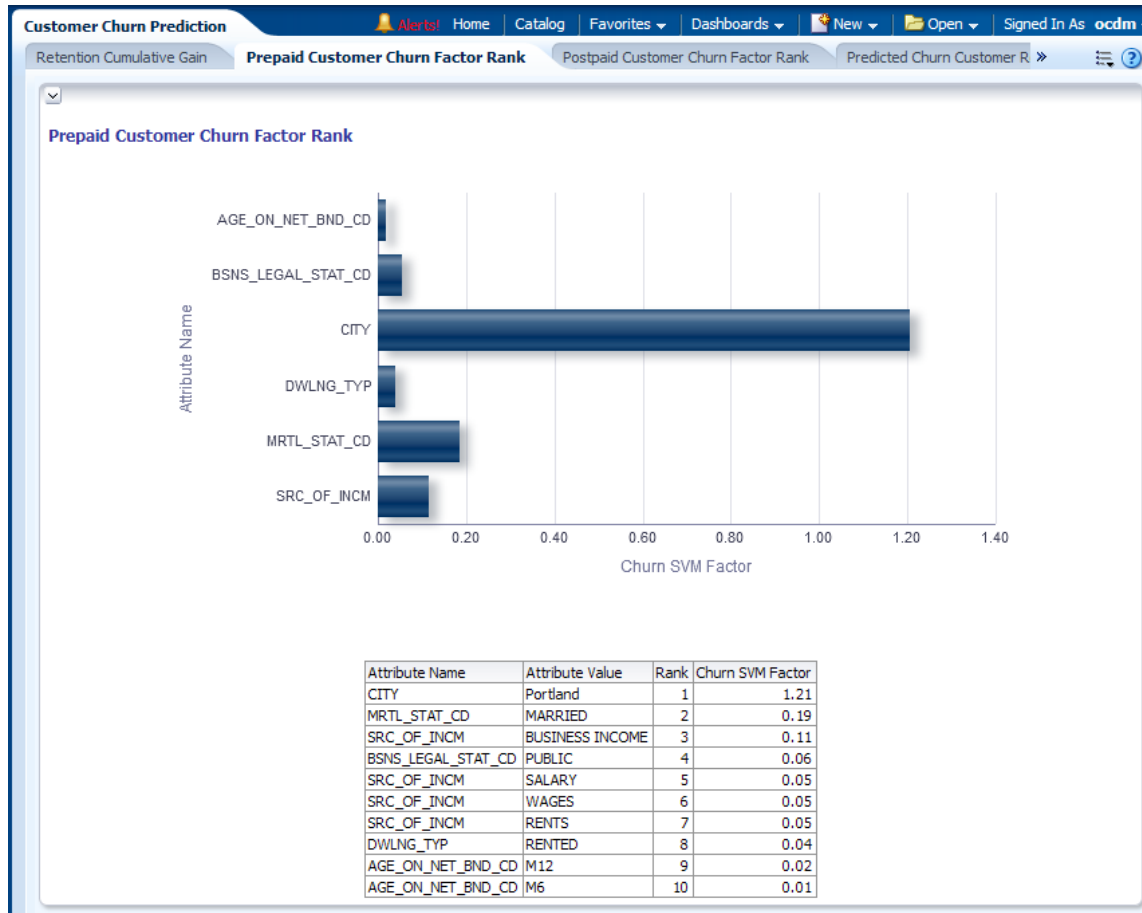
13.1.6.7 Postpaid Customer Churn Factor Rank

This as shown in Figure 13-25 (page 13-31) can help you understand which attribute is more important in determining a postpaid customer churning pattern. The factors are ranked according to the SVM Coefficients from the Churn prediction model. The chart can help marketing understand the customers for a better campaign strategy.

Report dimensions are:

- Churn SVM ROC

Figure 13-25   Postpaid Customer Churn Factor Rank Report
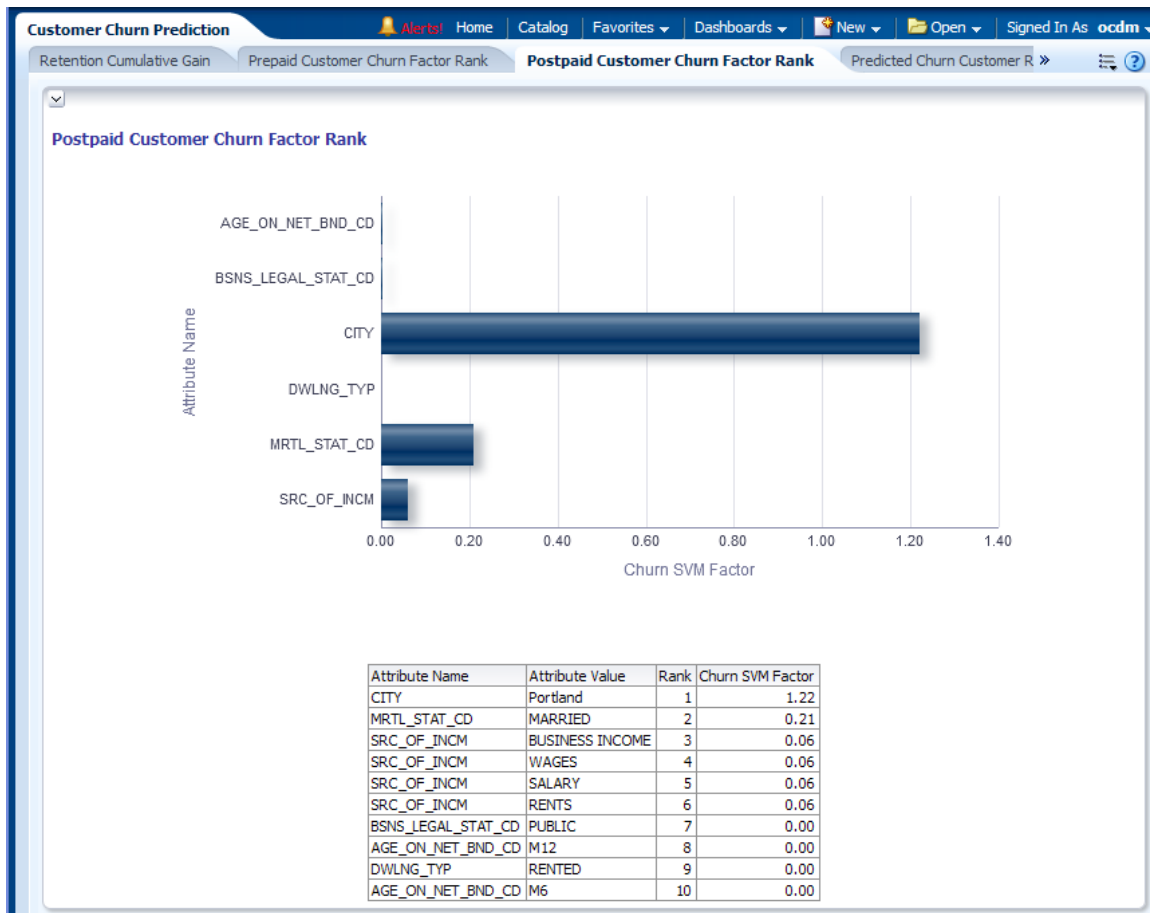
13.1.6.8 Predicted Churn Customer Report by Revenue Band

This report, as shown in Figure 13-26 (page 13-32) shows the summary of customers and the summary of who may churn in the next month. The customers are binned into ARPU Band according to their last month revenue ARPU. In each ARPU band, the total revenue, debt value and Number of Predicted churners are displayed.

You can drill down into each ARPU band by clicking the ARPU band to see a customer list belonging to that ARPU band.

Report dimensions are:

- ARPU Band

Figure 13-26   Predicted Churn Customer Report by Revenue Band Report

Note :- The business problem is to predict the likelihood of customers churning (leaving) one telecom operator for another, based on customer information such as customer demographic information, service quality, last tariff plan, calling usage etc. With trained mining model and new customer data, the mining model can be applied to new customer to predict who is more likely to CHURN, therefore, customers are classified into 2 groups, churners and non-churners.

In this report, customers are first grouped according to their ARPU value last month. In each ARPU group, number of predicted churners is given. Users should pay more attention to those high ARPU groups with high predicted churn rate.

13.1.6.9 Churn Profile DT (Decision Tree) Rule

This report as shown in , mainly speaks about the customers churn profiling for each Decision Tree node generated by the decision tree Churn Prediction model.

Figure 13-27   Churn Profile DT (Decision Tree) Rule Report
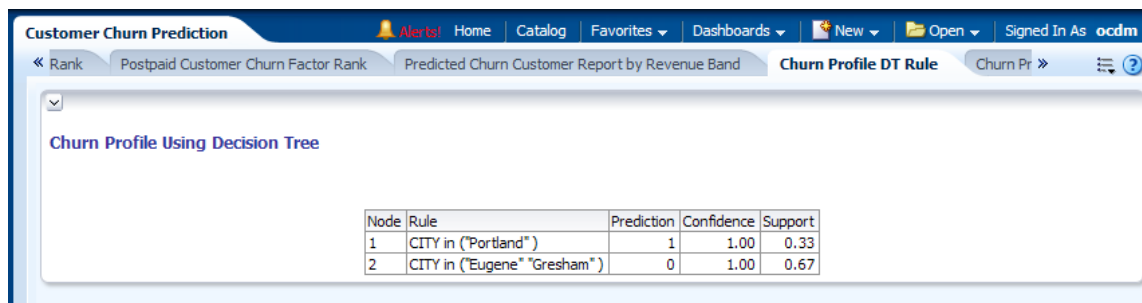
13.1.6.10 Churn Prediction by (SVM result)

This as shown in Figure 13-28 (page 13-33), identifies the patterns of customers churning (leaving) based on customer information such as customer demographic information, service quality, last tariff plan, calling usage, and other factors. Base lining on these patterns, the model can also do the calculation over current customer base (called 'Apply') to predict who the customers are mostly like to churn in next few months. With these predictions, operators can initiate certain retention programs to reduce the customer churn rate.

Report dimensions are:

- Business Time
- Organization
- Customer

Figure 13-28   Churn Prediction by (SVM Result) Report

13.2 Revenue Management Reports

The revenue reports show the following areas:

13.2.1 Revenue Analysis and Forecast

This area includes the reports: Monthly Revenue (page 13-34), Revenue Forecast (page 13-35), Average Revenue per User (ARPU) (page 13-36), and Average Revenue per Employee (page 13-37).

13.2.1.1 Monthly Revenue

This report, as shown in Figure 13-29 (page 13-35) provides month-level transaction activity information based on revenue measures, for one or more organizations and products and for one or more locations.

Report dimensions are:

- Business Time

- Customer Type

- Product Specification

- Geography

- Organization

Figure 13-29 Monthly Revenue Report
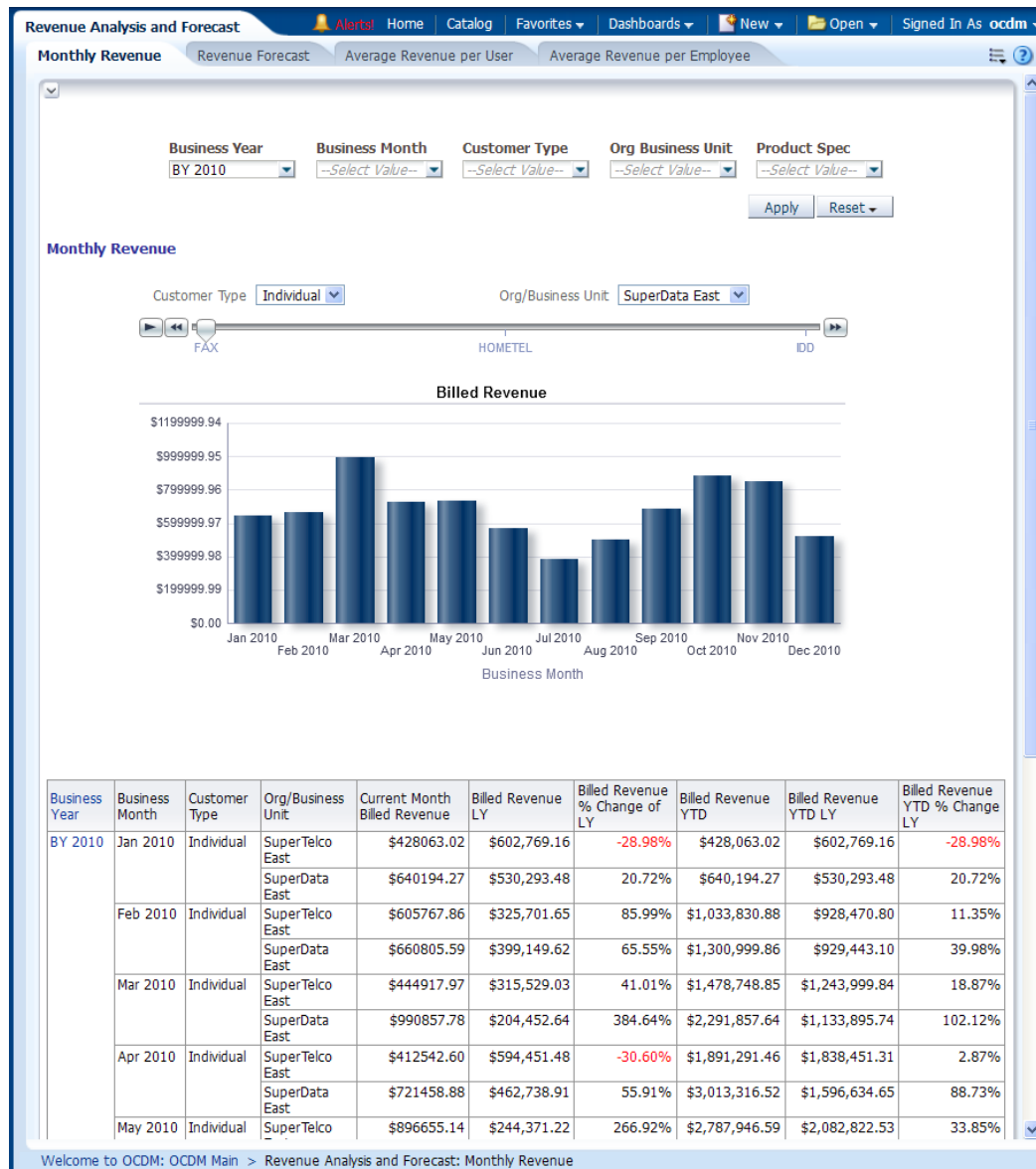
13.2.1.2 Revenue Forecast

This report, as shown in Figure 13-30 (page 13-36) provides month-level transaction activity information based on revenue measures, for one or more locations.

Report dimensions are:

- Business Time

- Customer Type

- Product

- Geography

- Organization

Figure 13-30   Revenue Forecast Report
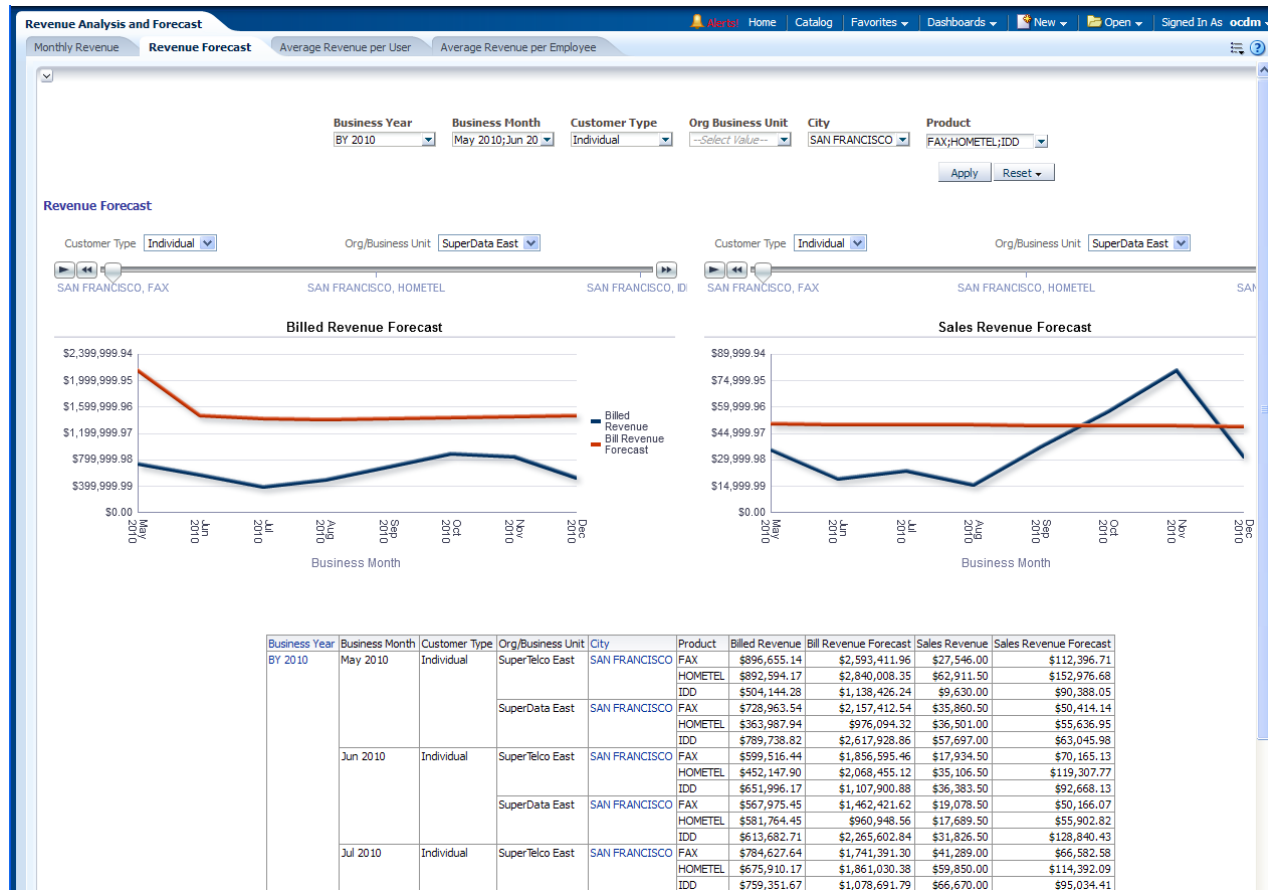
13.2.1.3 Average Revenue per User (ARPU)

This report, as shown in provides month-level transaction activity information based on ARPU measures, for one or more stores and this is a calculation often used to determine the overall value of an application. This report used to generate revenue for a particular customer by comparing someone's account to the overall average.

Report dimensions are:

• Business Time

• Organization

Figure 13-31   Revenue Average Revenue per User (ARPU) Report
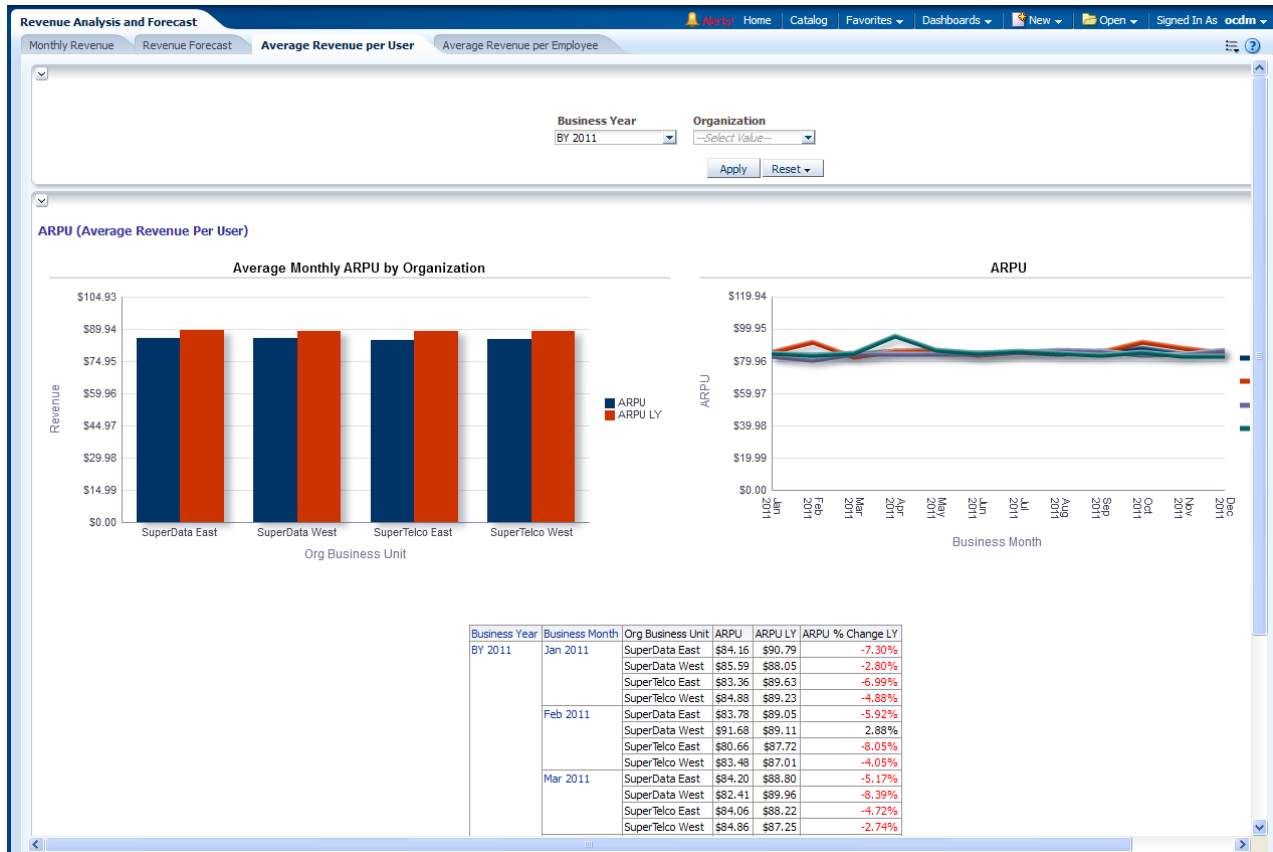
13.2.1.4 Average Revenue per Employee

This report, as shown in Figure 13-32 (page 13-38) shows the average revenue per Business Unit. The average revenue is calculated as total revenue of that organization divided by the number of employees.

Report dimensions are:

- Business Time

- Organization

Figure 13-32   Revenue Average Revenue per Employee Report
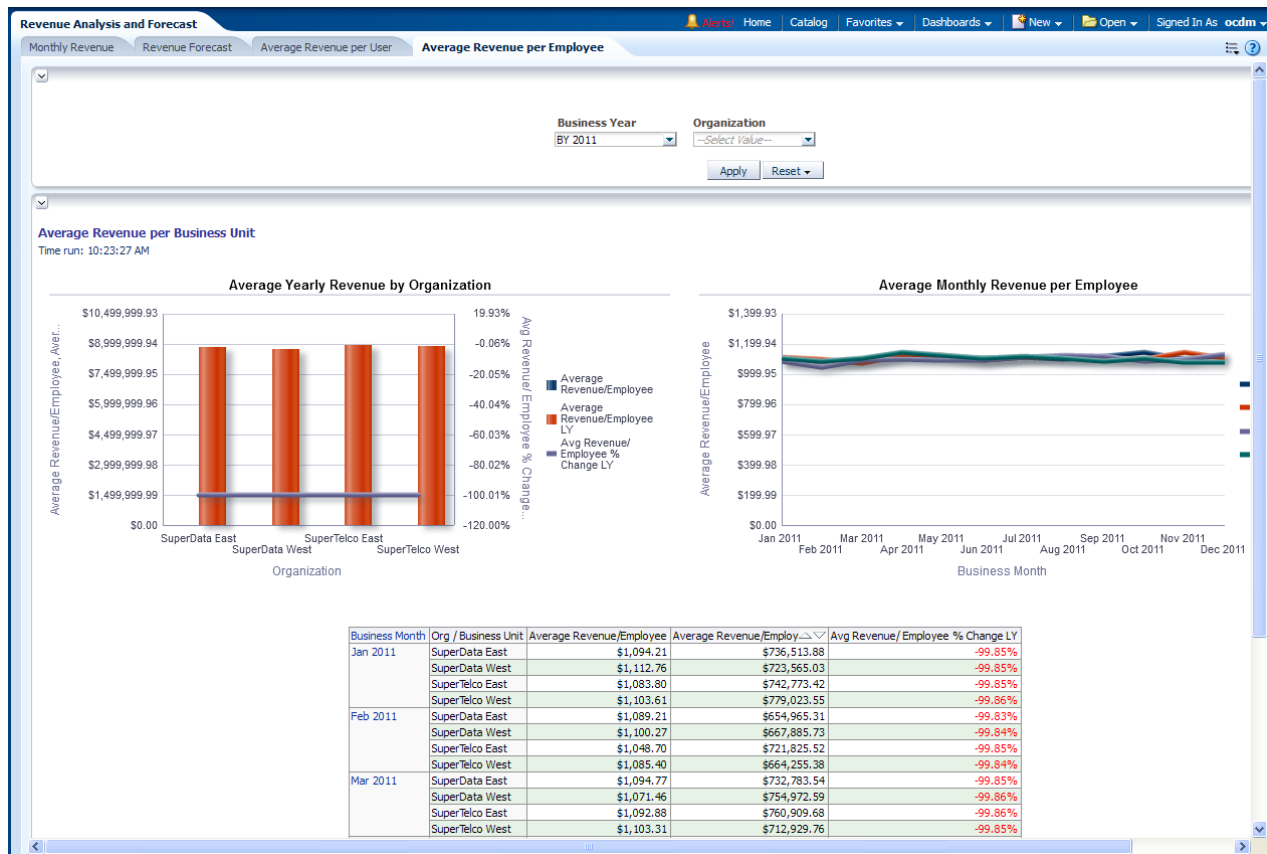
13.2.2 Revenue Assurance

This area includes the reports: CDR Revenue Compared to Collected Revenue (page 13-38), Percent of Suspended xDRs (page 13-39), Uncollected Revenue Percentage (page 13-40), and Revenue Assurance (page 13-41).

CDR Revenue Compared to Collected Revenue (page 13-38)

Percent of Suspended xDRs (page 13-39)

Uncollected Revenue Percentage (page 13-40)

Revenue Assurance (page 13-41)

13.2.2.1 CDR Revenue Compared to Collected Revenue

This report, as shown in Figure 13-33 (page 13-39) analyzes CDR revenue, and compares, billed revenue with collected revenue for a product specification.

Report dimensions are:

- Business Time

- Organization

- Product Specification

Figure 13-33   CDR Revenue Compared to Billed Revenue Report
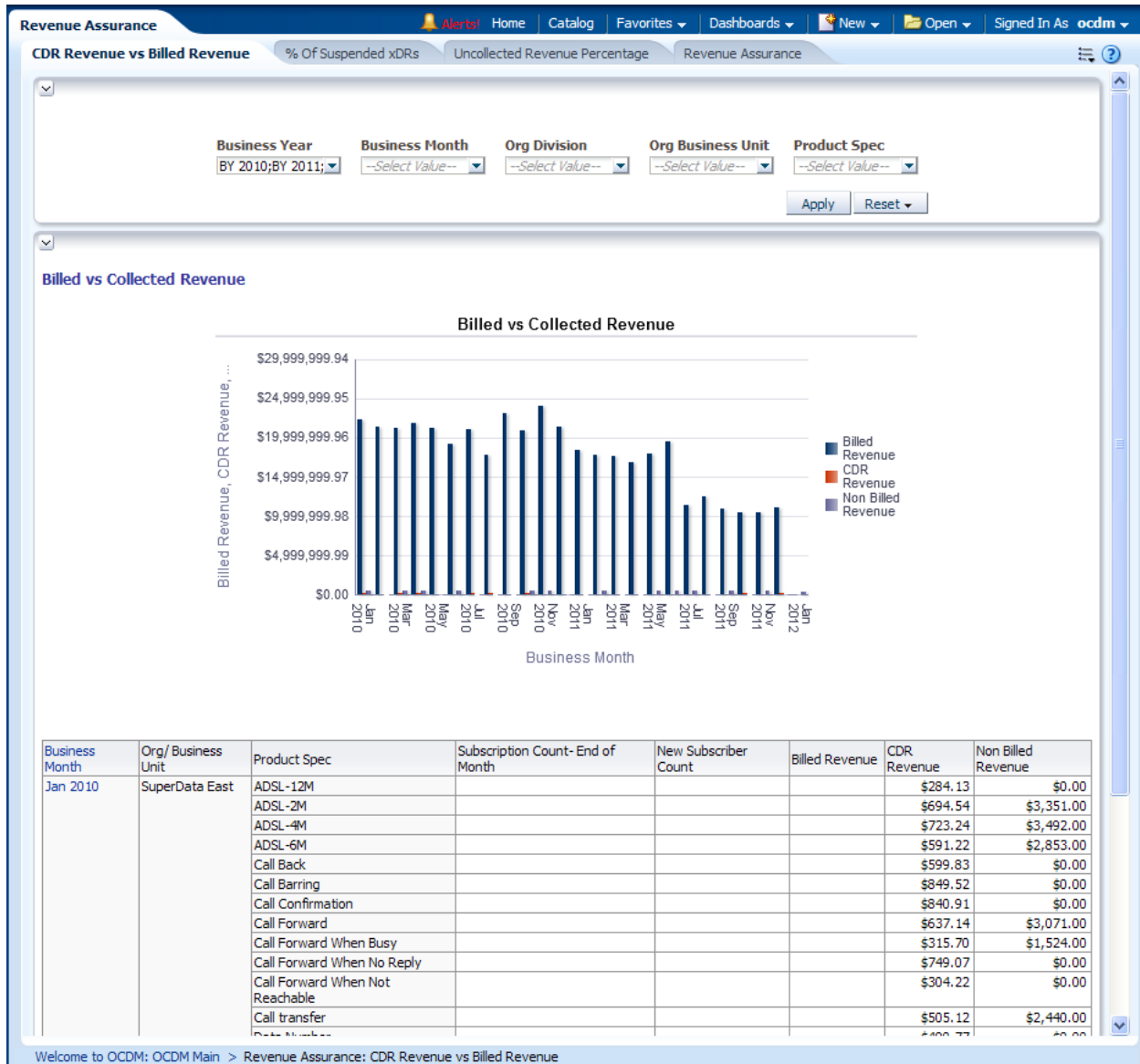
13.2.2.2 Percent of Suspended xDRs

This report, as shown in Figure 13-34 (page 13-40) shows analyzes suspended or errored billable xDRs. Those CDRs cannot be billed successfully and cause revenue leakage compared with the total xDRs.

Report dimensions are:

- Business Time

- Geography

Figure 13-34   Revenue Assurance Percent of Suspended xDRs Report
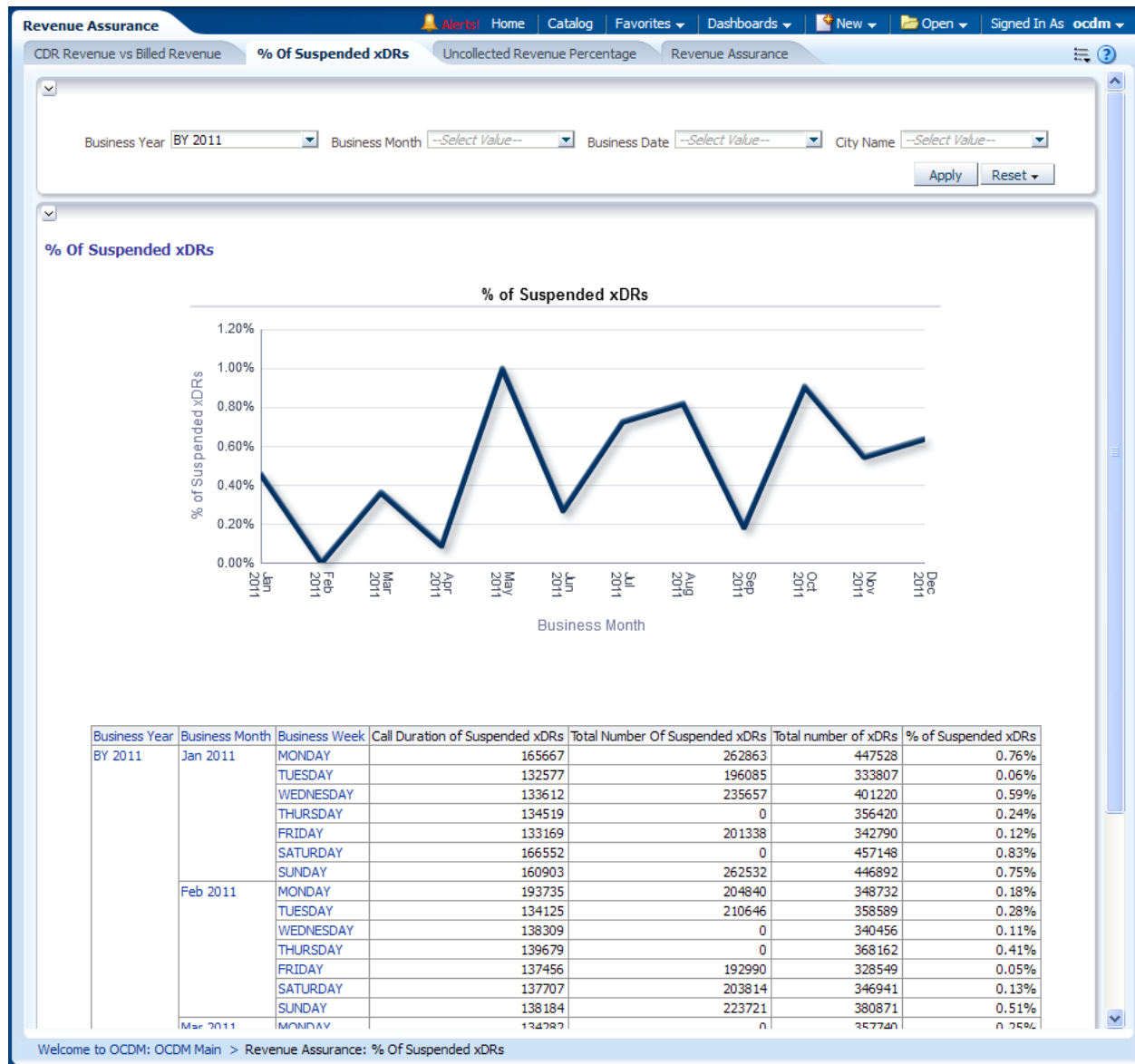
13.2.2.3 Uncollected Revenue Percentage

This report, as shown in Figure 13-35 (page 13-41) analyzes the collected invoice amount and the uncollected amount for each Month. This is also a way to monitor the revenue leakage.

Report dimensions are:

- Business Time

- Organization

- Customer Type

- Geography

- Product

Figure 13-35   Revenue Assurance Uncollected Revenue Percentage Report
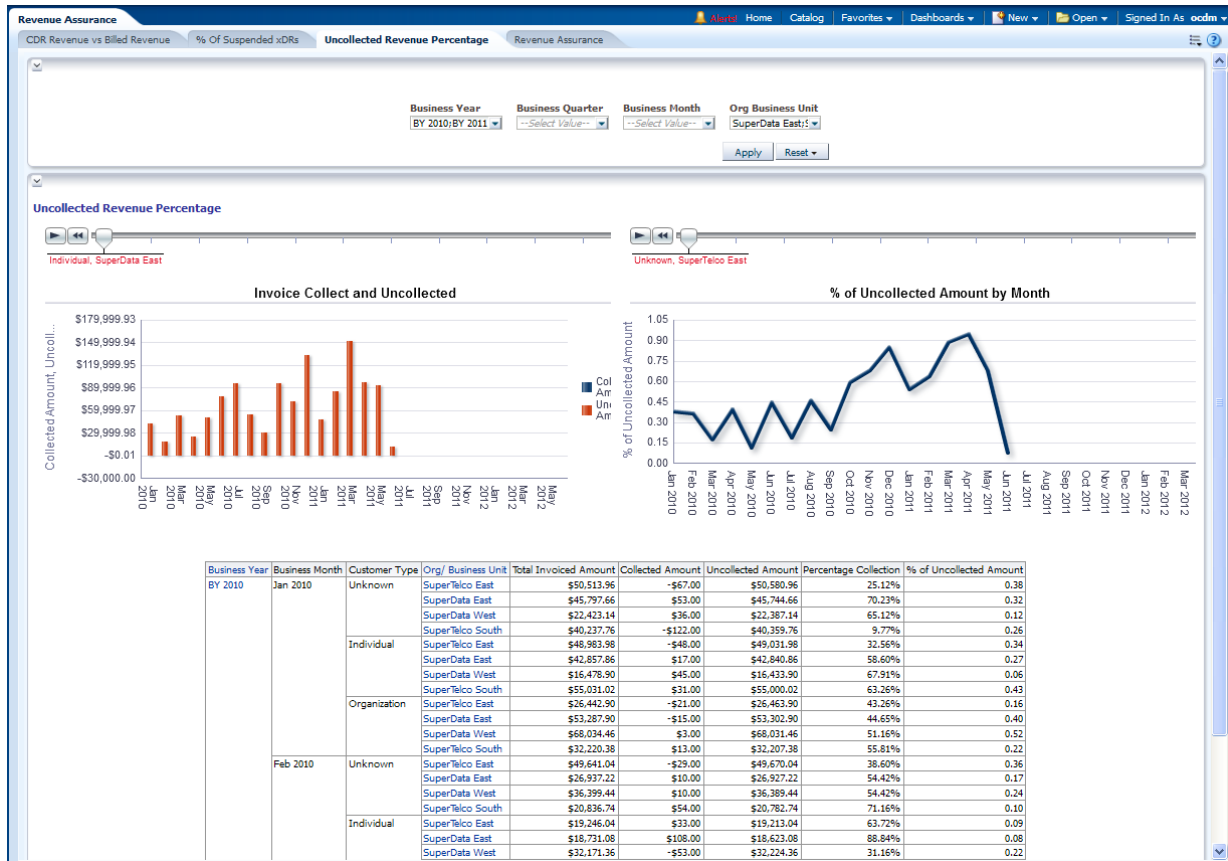
13.2.2.4 Revenue Assurance

This report, as shown in Figure 13-36 (page 13-42) determines how to best to assure that all of the revenue is earned. This is done by analyzing the revenue related information such as Remaining contract SUM, Retention count, and so on.The remaining contract Sum indicates how much revenue can be expected in next six months or one year for a given product or organization business unit.

Report dimensions are:

- Business Time

- Organization

- Product Offering

- Geography

Figure 13-36   Revenue Assurance Report
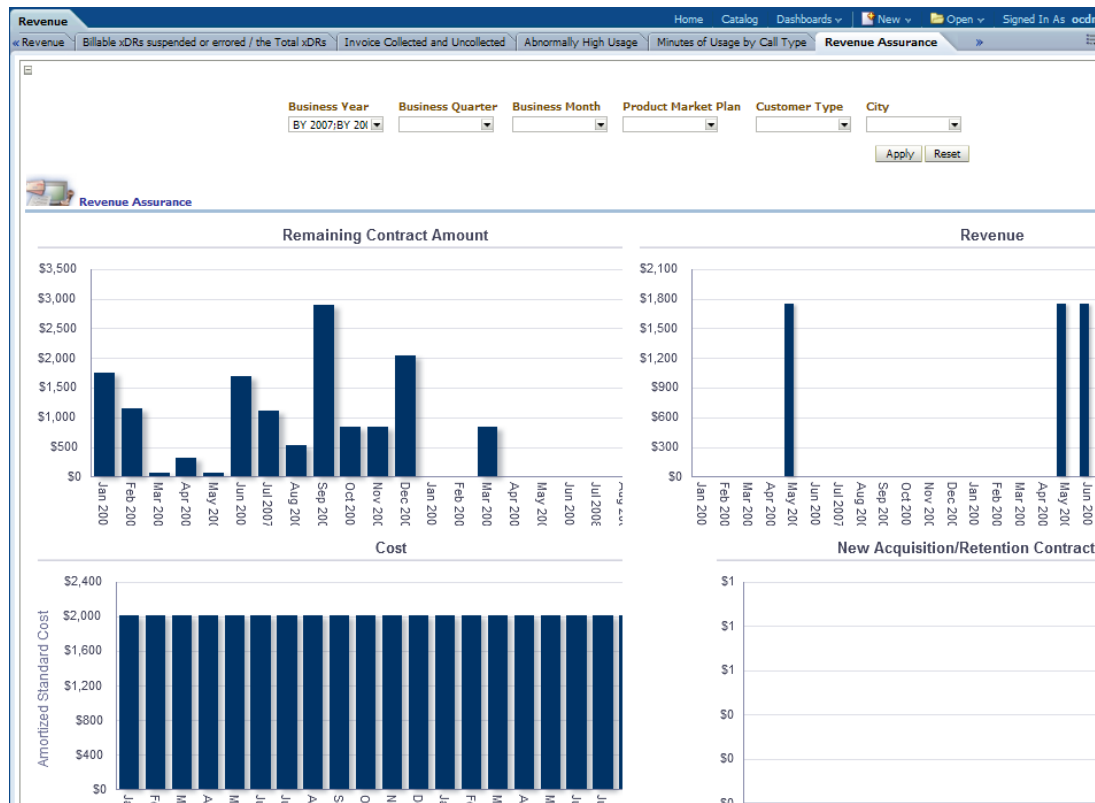
13.2.3 Sales Analysis

This area includes the reports: Gross Sales (page 13-42) and Net Sales (page 13-43).

13.2.3.1 Gross Sales

This report, as shown in Figure 13-37 (page 13-43) provides month-level sales summary information, for one or more locations.

Report dimensions are:

- Business Time

- Product

- Geography

Figure 13-37   Gross Sales Report
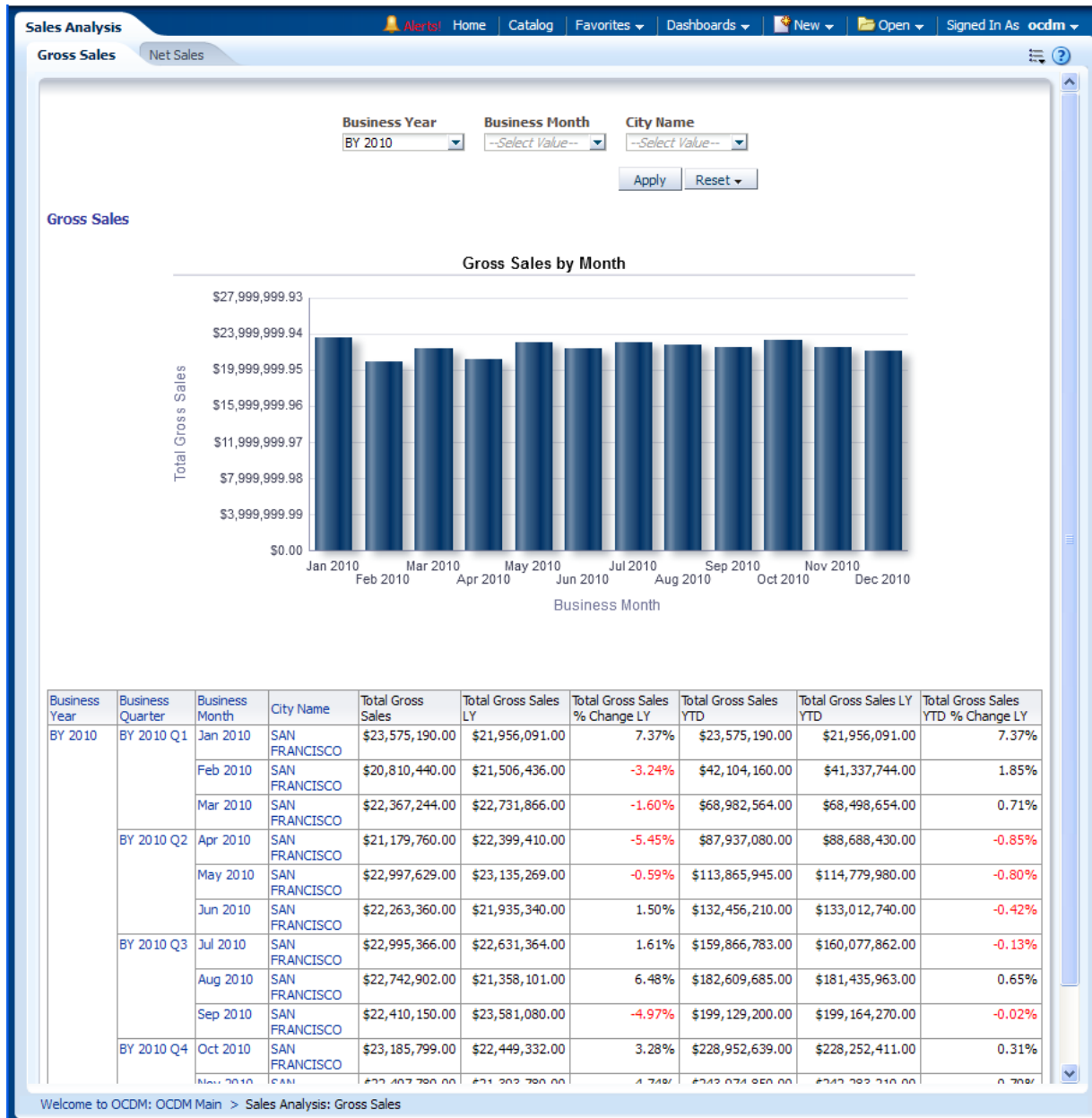
13.2.3.2 Net Sales

This report, as shown in provides month-level net sales summary, for one or more locations. The exact definitions of net sales can be refined by the service operator, while the default definition is the sales amount deducted by the cost of handset, human resources, and so on.

Report dimensions are:

- Business Time

- Product

- Geography

Figure 13-38   Net Sales Report
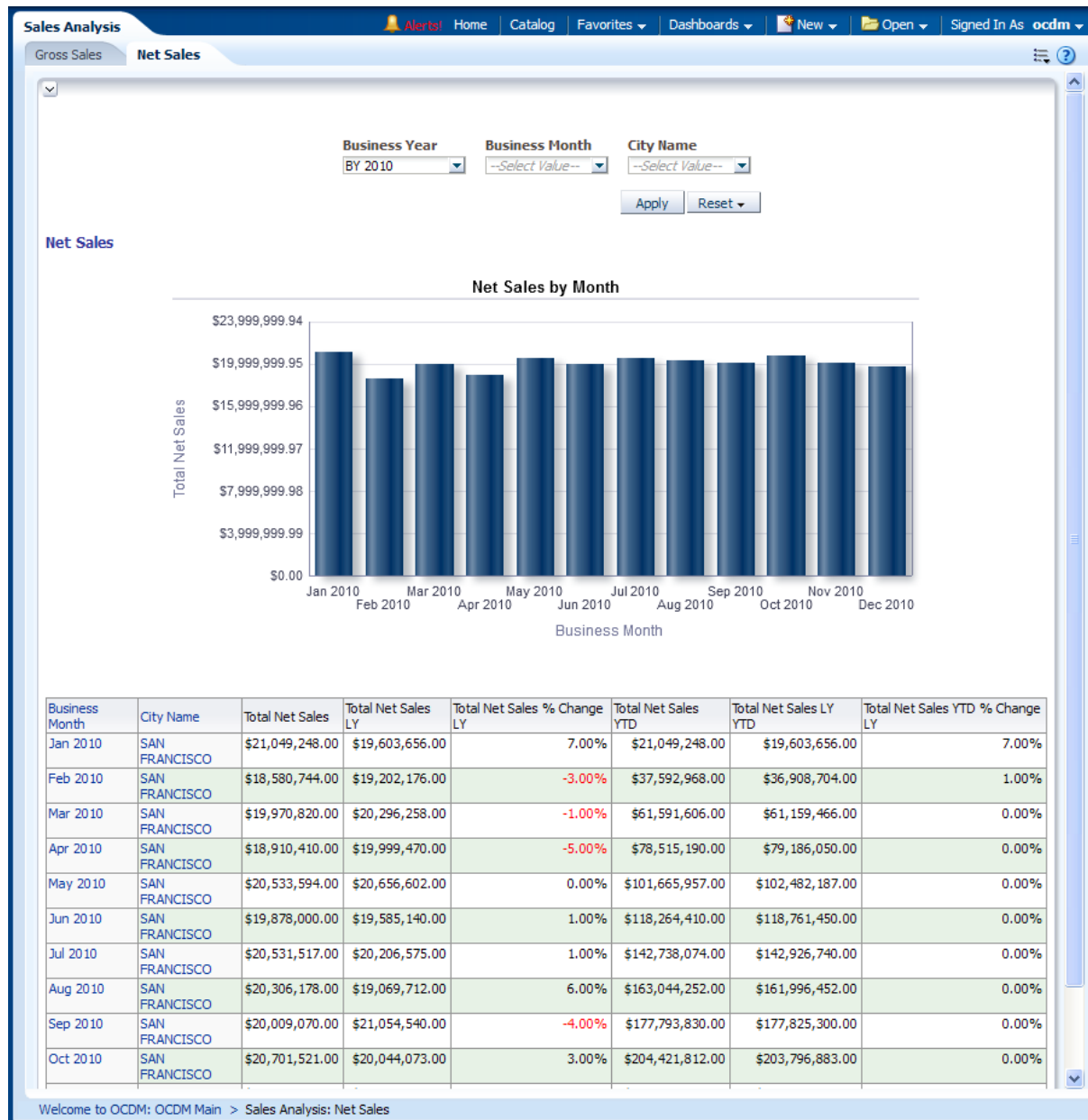
13.2.4 Debt Collection

This area includes the reports: Debt Aging (page 13-45), Recovered Revenue Value (page 13-45), External Debt Collection (page 13-46), and Adjustment to Customer (page 13-47).

13.2.4.1 Debt Aging

This report, as shown in Figure 13-39 (page 13-45) generates debt aging details for the customers currently in debt.

Report dimensions are:

- Business Time

- Organization

- Debt Aging Band

- Customer Type

- Collection Agency

Figure 13-39   Debt Aging Report
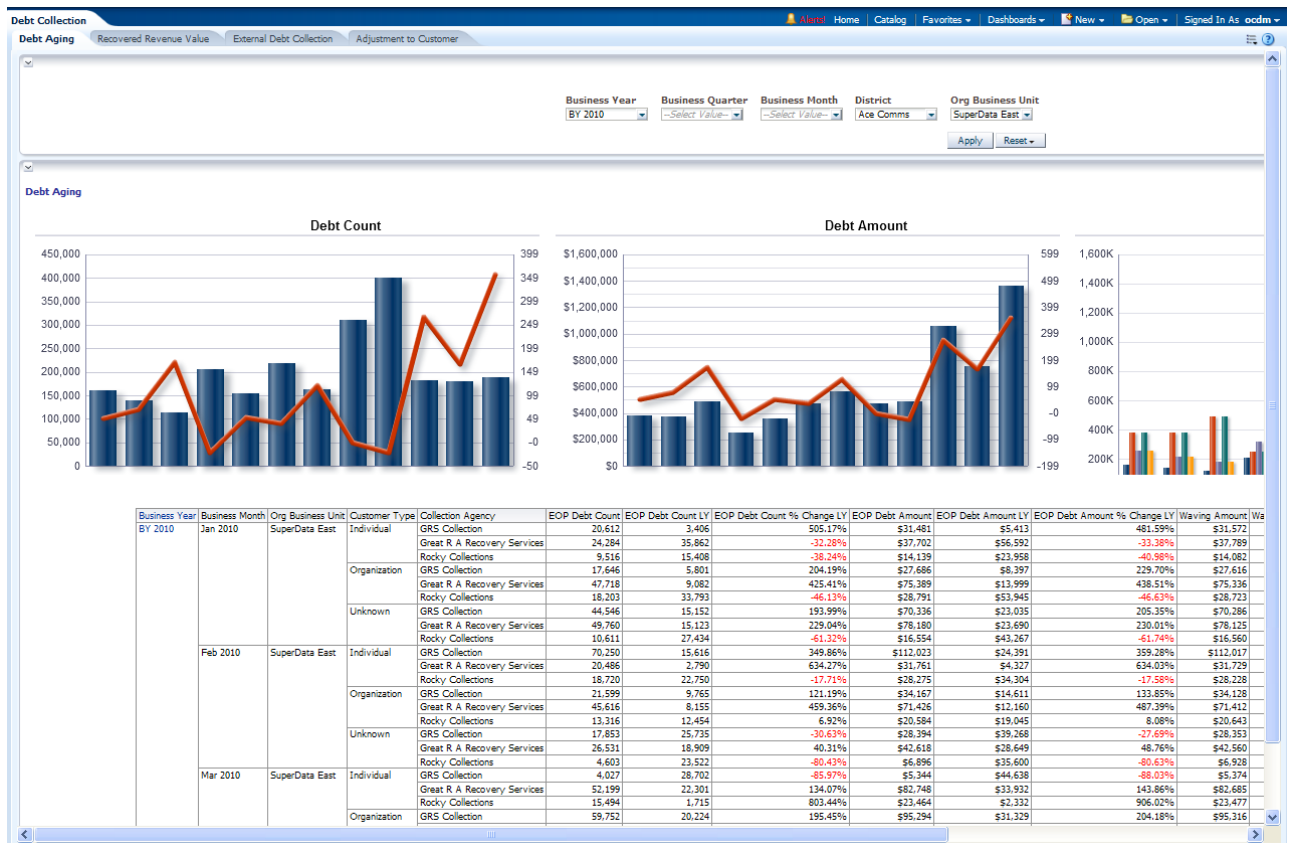
13.2.4.2 Recovered Revenue Value

This report, as shown in Figure 13-40 (page 13-46) analyzes percentage of the recovered revenue value. After a certain period, if customer still cannot pay the bill, the collection begins. This report can analyze, for all collection amounts, how much is recovered and how much is abandoned.

Report dimensions are:

- Business Time

- Organization

- Collection Agency

Figure 13-40   Revenue Debt Collection Recovered Revenue Value Sample Report
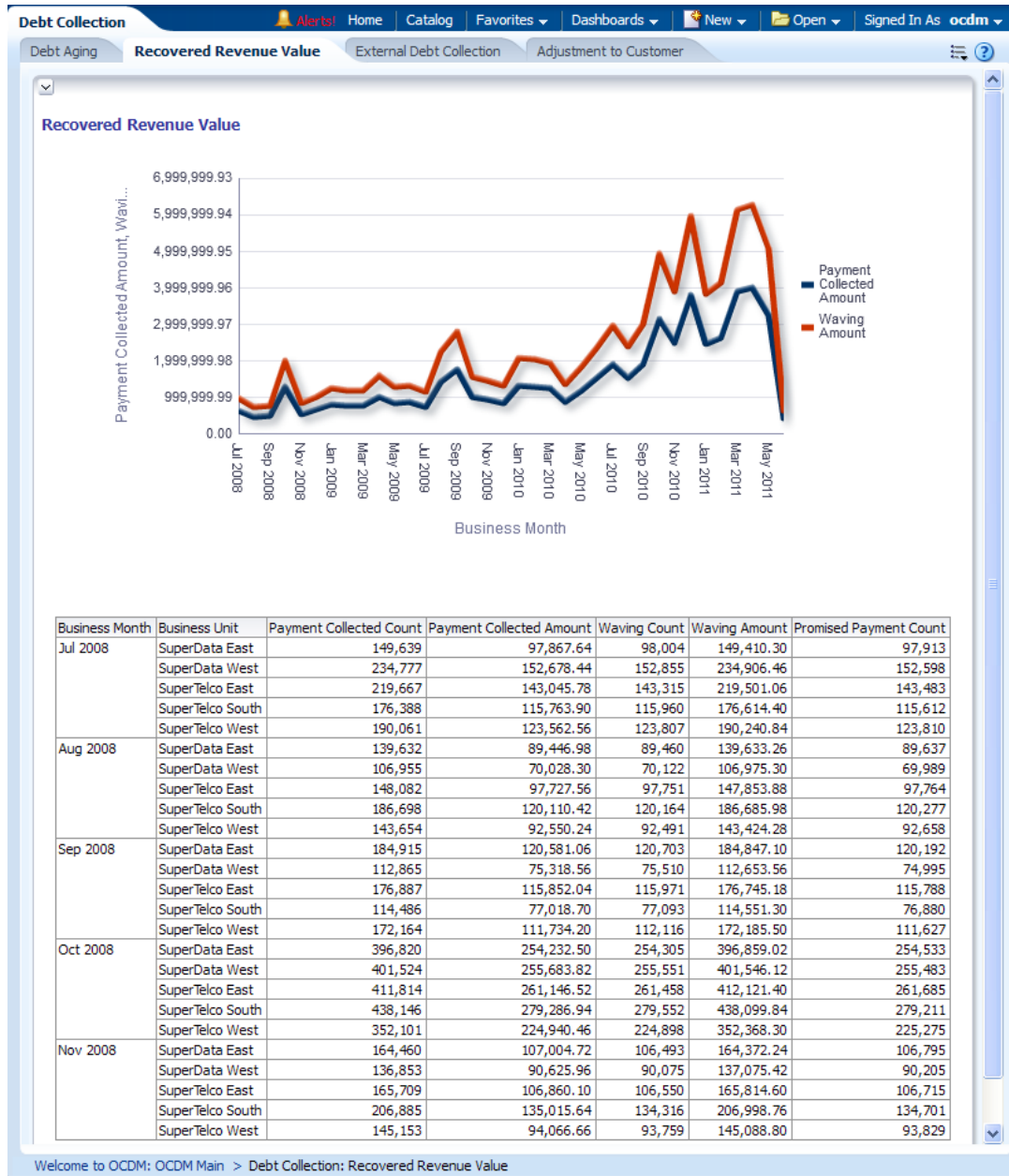
13.2.4.3 External Debt Collection

This report, as shown in shows collection agency wise debt collected amount waiving amount.

Report dimensions are:

- Business Time

- Organization

- Collection Agency

Figure 13-41   Revenue Debt Collection External Debt Collection Report
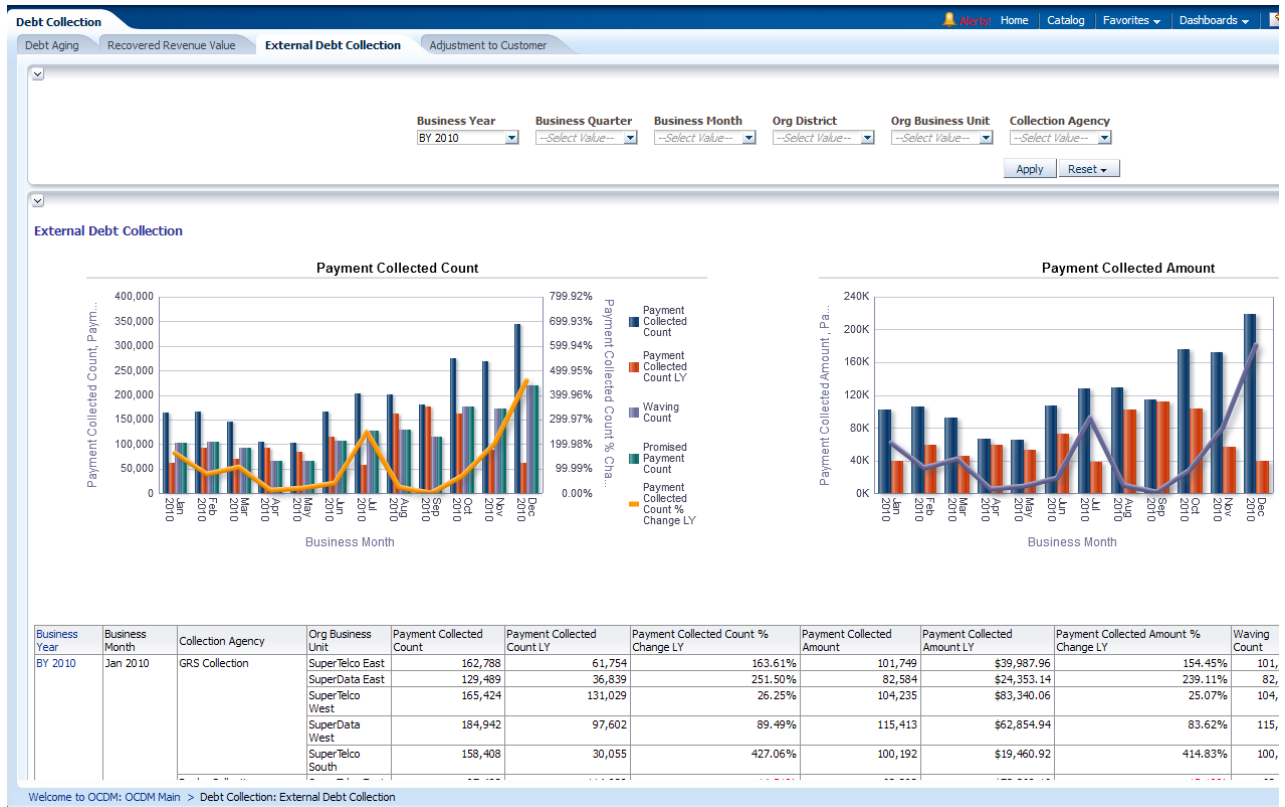
13.2.4.4 Adjustment to Customer

This report, as shown in describes the adjustment value and count for each product.

Report dimensions are:

- Business Time

- Product

Figure 13-42   Revenue Debt Collection Adjustment to Customer Report
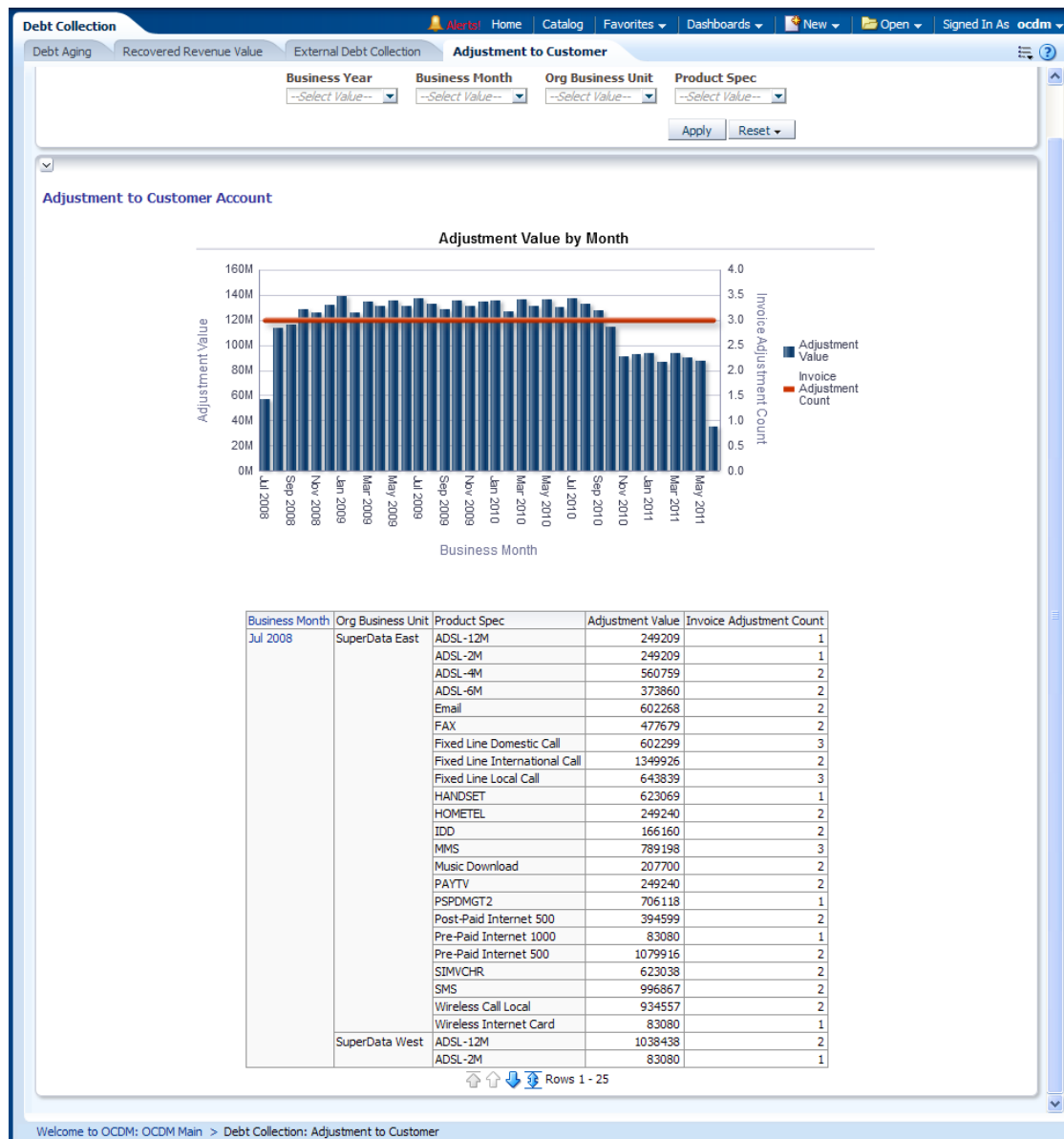
13.2.5 Refund and Adjustment

This area includes the reports: Refund to Customer (page 13-48) and Invoice Adjustment (page 13-49).

13.2.5.1 Refund to Customer

This report, as shown in Figure 13-43 (page 13-49) provides summary information about all the refunds made to the customer. for one or more locations.

Report dimensions are:

- Business Time

- Customer Type

- Geography

- Organization

Figure 13-43   Revenue Refund and Adjustment Refund to Customer Report
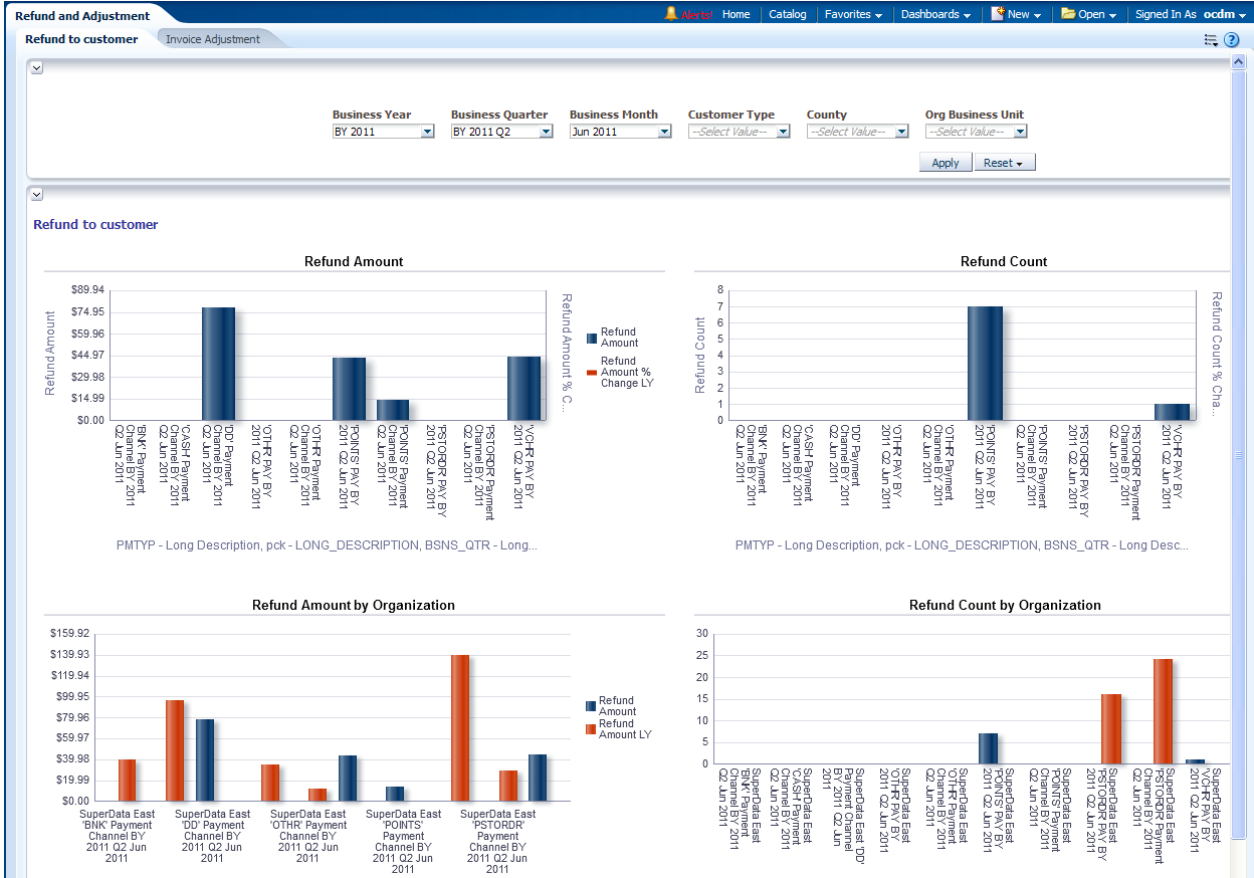
13.2.5.2 Invoice Adjustment

This report, as shown in describes adjustment value and count for each product.

Report dimensions are:

- Business Time

- Product

Figure 13-44   Invoice Adjustment Report

13.2.6 Customer Agreements

This area includes the reports: Customer Sum of Future Plans (page 13-50), Monthly Future Plan Drop-Out (page 13-51), and Monthly Contract Sum Loss (page 13-53).

Customer Sum of Future Plans (page 13-50)

Monthly Future Plan Drop-Out (page 13-51)

Monthly Contract Sum Loss (page 13-53)

13.2.6.1 Customer Sum of Future Plans

This report, as shown in Figure 13-45 (page 13-51) analyzes year and month level contract sum of future plans for the customer type based on LM, % Change LM. The future plan are those contracts customer already signed but not started yet. For example, if today is Feb 20th 2011, and customer may sign a contract starting at Apr 1st 2011 for one year. This is called a Future plan.

Report dimensions are:

- Business Time

- Organization

- Product

- Geography

- Customer

Figure 13-45   Revenue Customer Agreements Customer Sum of Future Plans Report
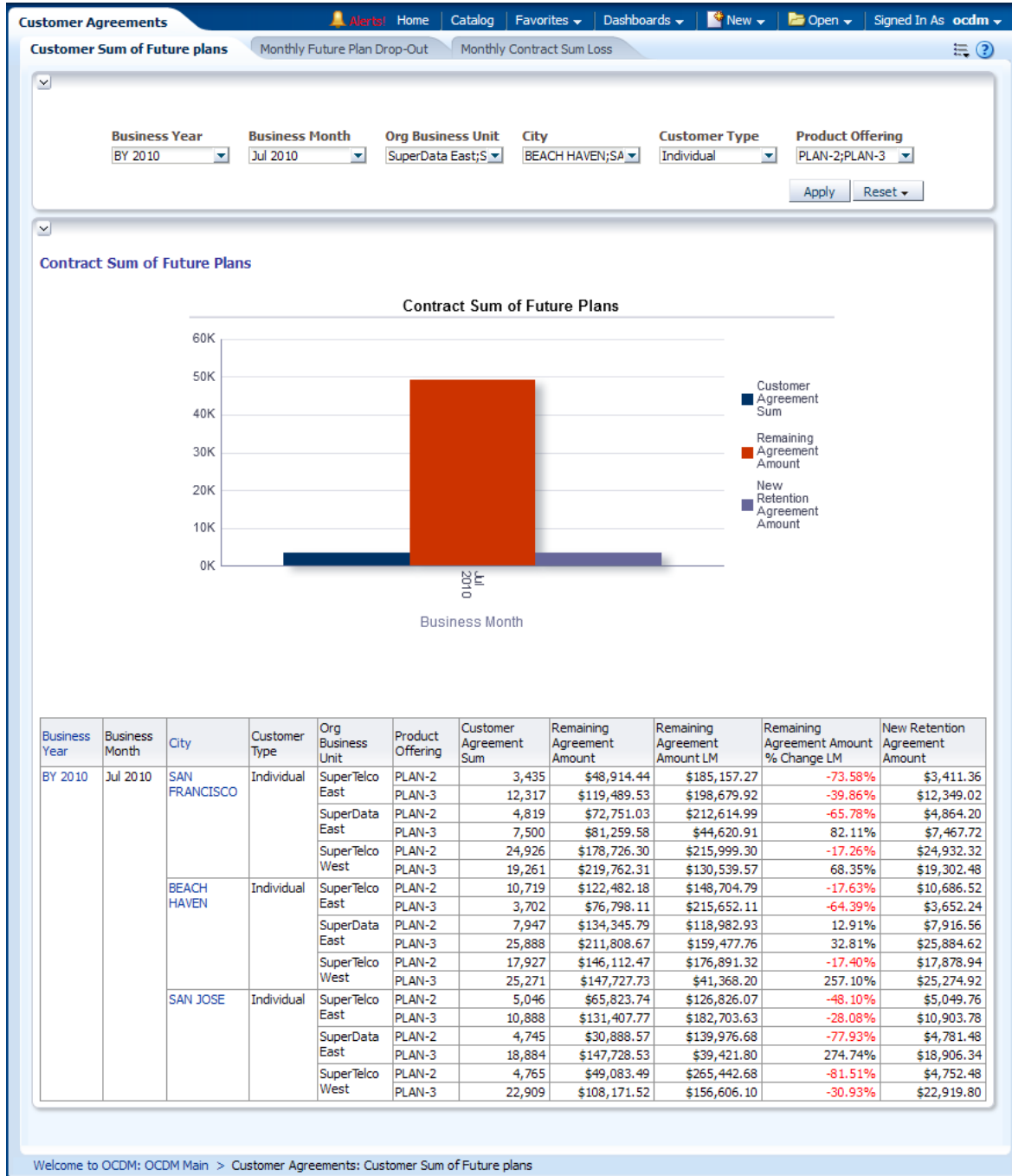
13.2.6.2 Monthly Future Plan Drop-Out

This report, as shown in Figure 13-46 (page 13-52) describes product offering wise dropped contract amount and contract loss amount.

Report dimensions are:

- Business Time

- Customer Type

- Product

- Customer

Figure 13-46   Revenue Customer Agreements Monthly Future Plan Drop-Out Report

Business Year	Business Month	City	Customer Type	Product Offering	Dropped Future Agreement Amount	Dropped Future Agreement Amount LY	Dropped Future Agreement Amount % Change LY	Agreement Loss Amount	Agreement Loss Amount LY	Agreement Loss Amount % change LY
BY 2010	Feb 2010	SAN FRANCISCO	Individual	PLAN-1	$23,063.72	$18,674.36	0.24%	$249,112.96	$192,070.43	29.70%
				PLAN-2	$26,164.18	$1,980.12	12.21%	$129,237.05	$57,709.69	123.94%
				PLAN-3	$7,545.72	$9,004.68	-0.16%	$100,279.03	$90,811.86	10.43%
				PLAN-4	$21,490.46	$20,972.60	0.02%	$213,638.25	$179,742.41	18.86%
				PLAN-5	$26,585.24	$18,139.42	0.47%	$293,676.50	$236,531.96	24.16%
			Organization	PLAN-1	$34,233.30	$14,973.84	1.29%	$206,320.41	$111,175.29	85.58%
				PLAN-2	$11,854.06	$18,767.92	-0.37%	$113,108.54	$210,608.52	-46.29%
				PLAN-3	$64,925.40	$841.56	76.15%	$447,399.56	$27,802.47	1509.21%
				PLAN-4	$36,335.42	$21,953.88	0.66%	$212,146.86	$265,904.22	-20.22%
				PLAN-5	$19,168.92	$35,513.30	-0.46%	$203,567.48	$217,678.34	-6.48%
		BEACH HAVEN	Individual	PLAN-1	$24,319.94	$19,733.52	0.23%	$131,523.62	$226,594.04	-41.96%
				PLAN-2	$13,629.72	$29,822.56	-0.54%	$152,893.10	$275,672.26	-44.54%
				PLAN-3	$69,694.50	$16,099.58	3.33%	$447,539.56	$205,163.97	118.14%
				PLAN-4	$17,045.68	$28,053.88	-0.39%	$136,223.95	$185,083.33	-26.40%

13.2.6.3 Monthly Contract Sum Loss

This report, as shown in Figure 13-47 (page 13-53) shows month level replaced contract analysis and terminated contract analysis. If a customer downgrades their subscription, for example, using a new USD 186 package to replace original USD286 package, this is deemed as a contract loss in "replaced contract analysis".

Report dimensions are:

- Business Time

- Organization

- Product

- Customer

Figure 13-47   Revenue Customer Agreements Monthly Contract Sum Loss Report
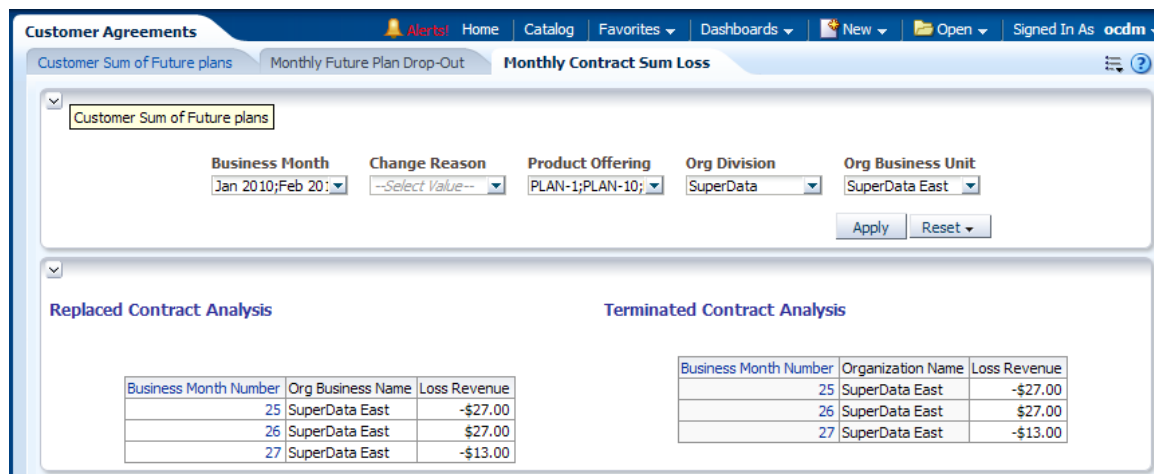
13.3 Product Management Reports

The product management reports include the following areas:

Product Management (page 13-53)

Average Profit per Customer (page 13-54)

13.3.1 Product Management

This area includes the report Product Performance (page 13-53).

Product Performance (page 13-53)

13.3.1.1 Product Performance

This report, as shown in Figure 13-48 (page 13-54) provides year-level transaction activity information based on total bill amount measures, for one or more products.

Report dimensions are:

- Business Time

- Product

Figure 13-48   Product Performance Report
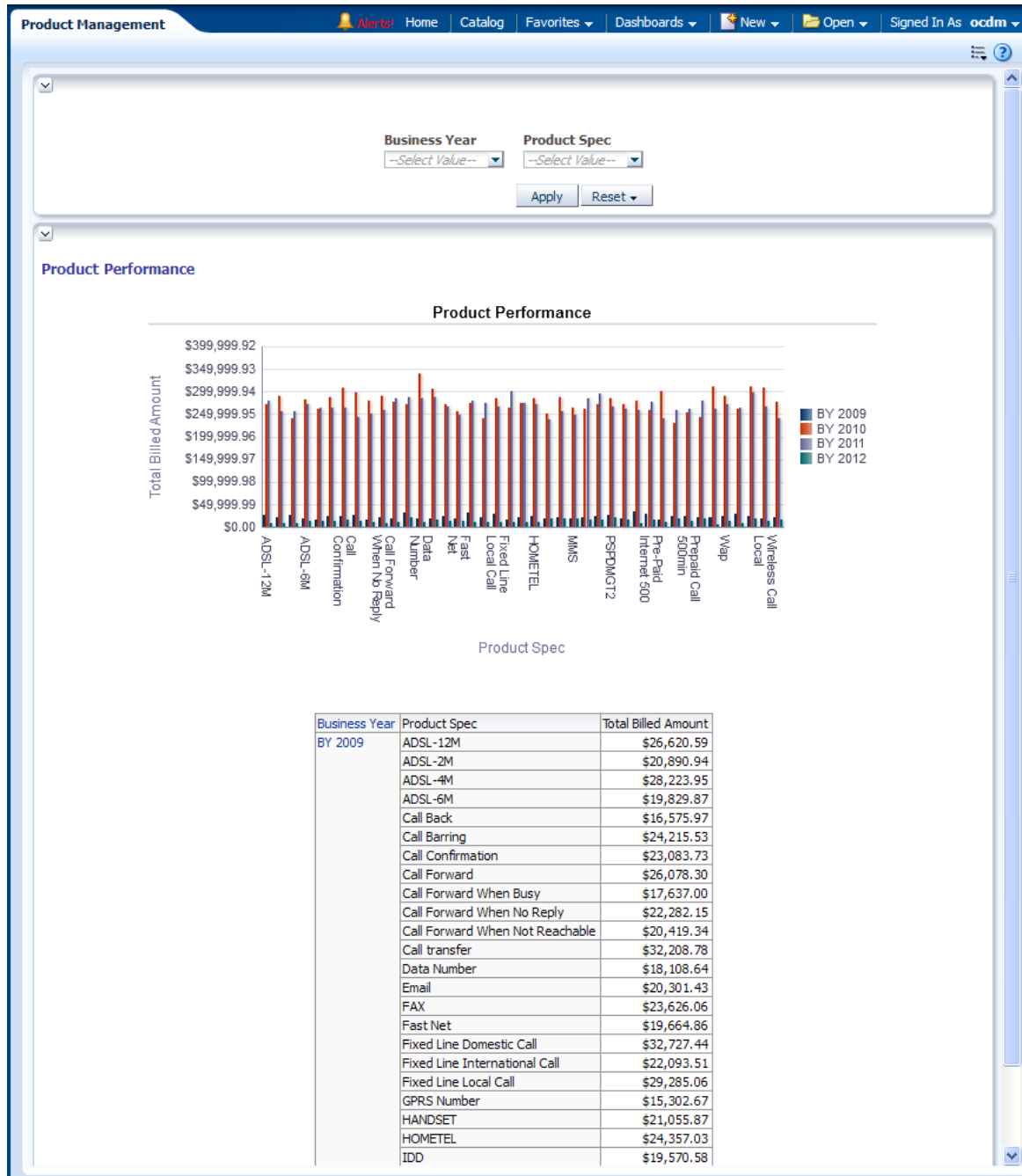
13.3.2 Average Profit per Customer

This report, as shown in shows average profit per customer.

Report dimensions are:

- Business Time

- Organization

- Product

- Customer

Figure 13-49   Average Profit Per Customer
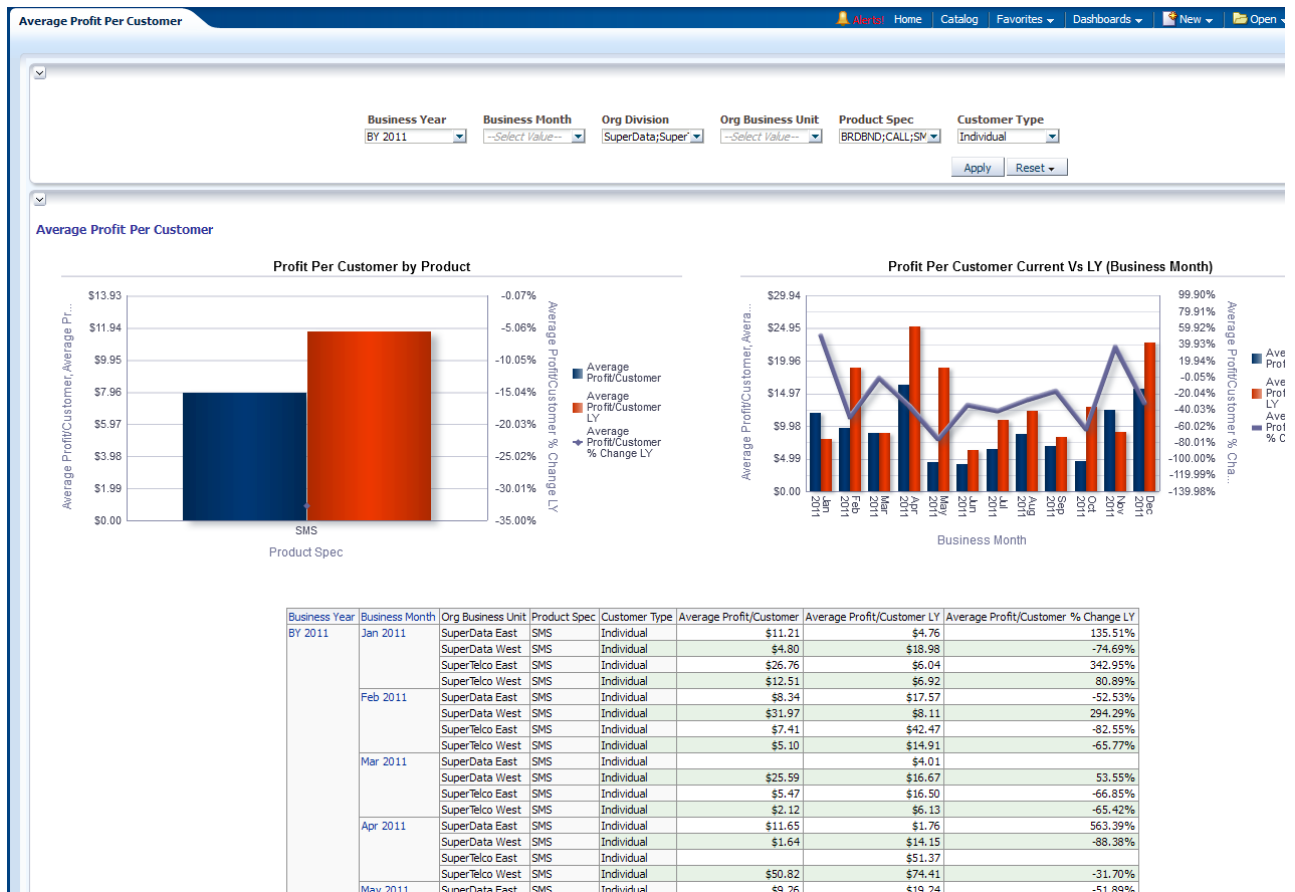
13.4 Service Fulfillment Reports

The service fulfilment and reports show the following areas:

Activations and Services (page 13-55)

Customer Order Analysis (page 13-56)

13.4.1 Activations and Services

This area includes the report Activation and Service Orders (page 13-55).

Activation and Service Orders (page 13-55)

13.4.1.1 Activation and Service Orders

This report, as shown in Figure 13-50 (page 13-56) provides business year and business date-level transaction activity information based on contract ARPU.

Report dimensions are:

- Business Time

- Product Specification

Figure 13-50   Activation and Service Orders Report

13.4.2 Customer Order Analysis

This area includes the report: Order Volume by Order Status (page 13-56), Order Volume by Order Type (page 13-57), Order Volume by Product Specification (page 13-58), Order Change per Quarter (page 13-59), Order Volume by Product Specification Type (page 13-60), and Fall Out Rate by Product Specification Type (page 13-62).

13.4.2.1 Order Volume by Order Status

This as shown in Figure 13-51 (page 13-57), provides business year, business quarter, and business month-level information based on order volume by order status.

Report dimensions are:

- Business Time

Figure 13-51   Customer Order Analysis Order Volume by Order Status
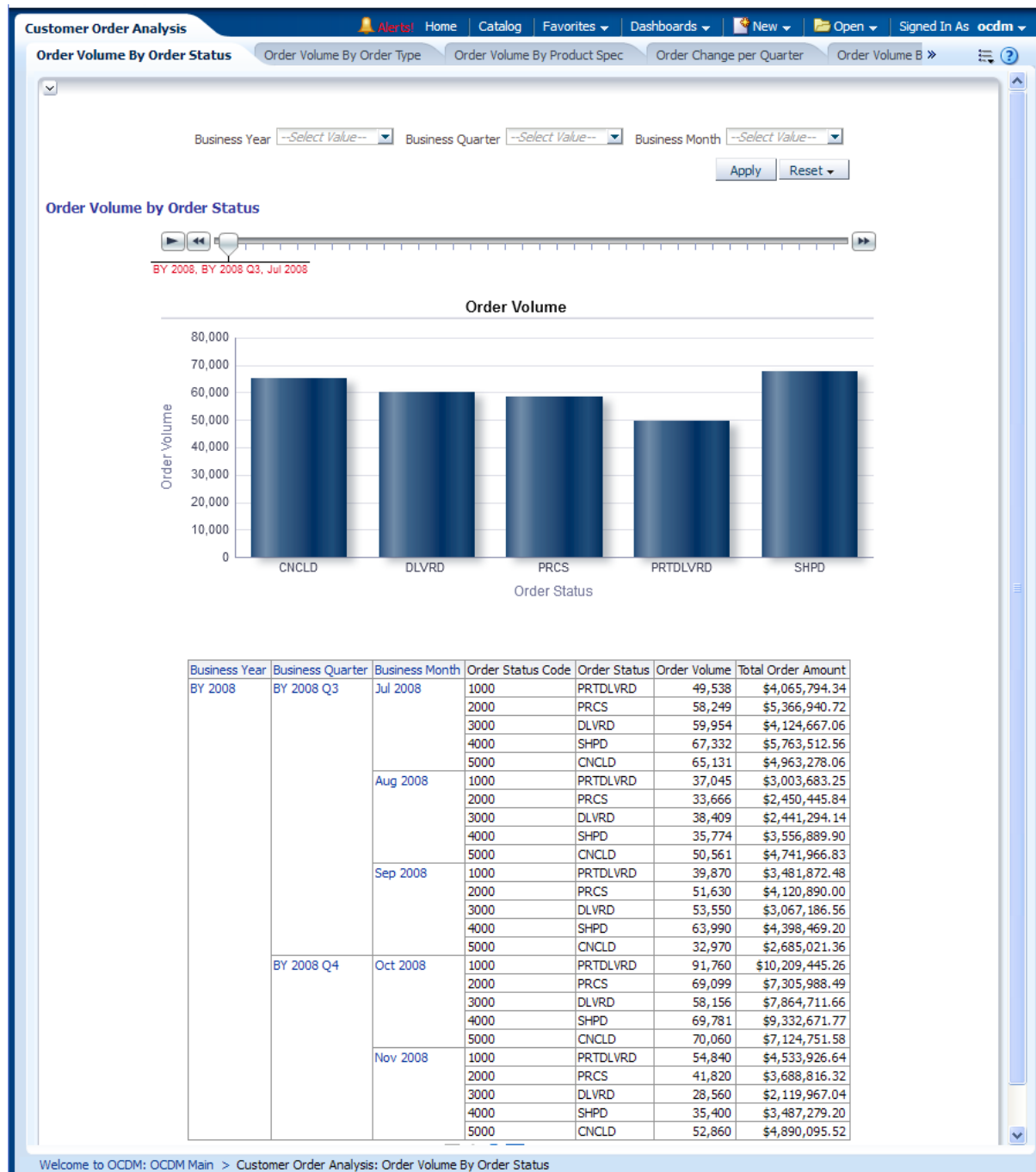
13.4.2.2 Order Volume by Order Type

This report, as shown in provides business year, business quarter, and business month-level information based on order volume by order type.

Report dimensions are:

- Business Time

Figure 13-52   Customer Order Analysis Order Volume by Order Type Report

13.4.2.3 Order Volume by Product Specification

This report, as shown in business year, business quarter, and business month-level information based on order volume by product.

Report dimensions are:

- Business Time

- Product Specification

Figure 13-53   Customer Order Analysis Order Volume by Product Specification Report
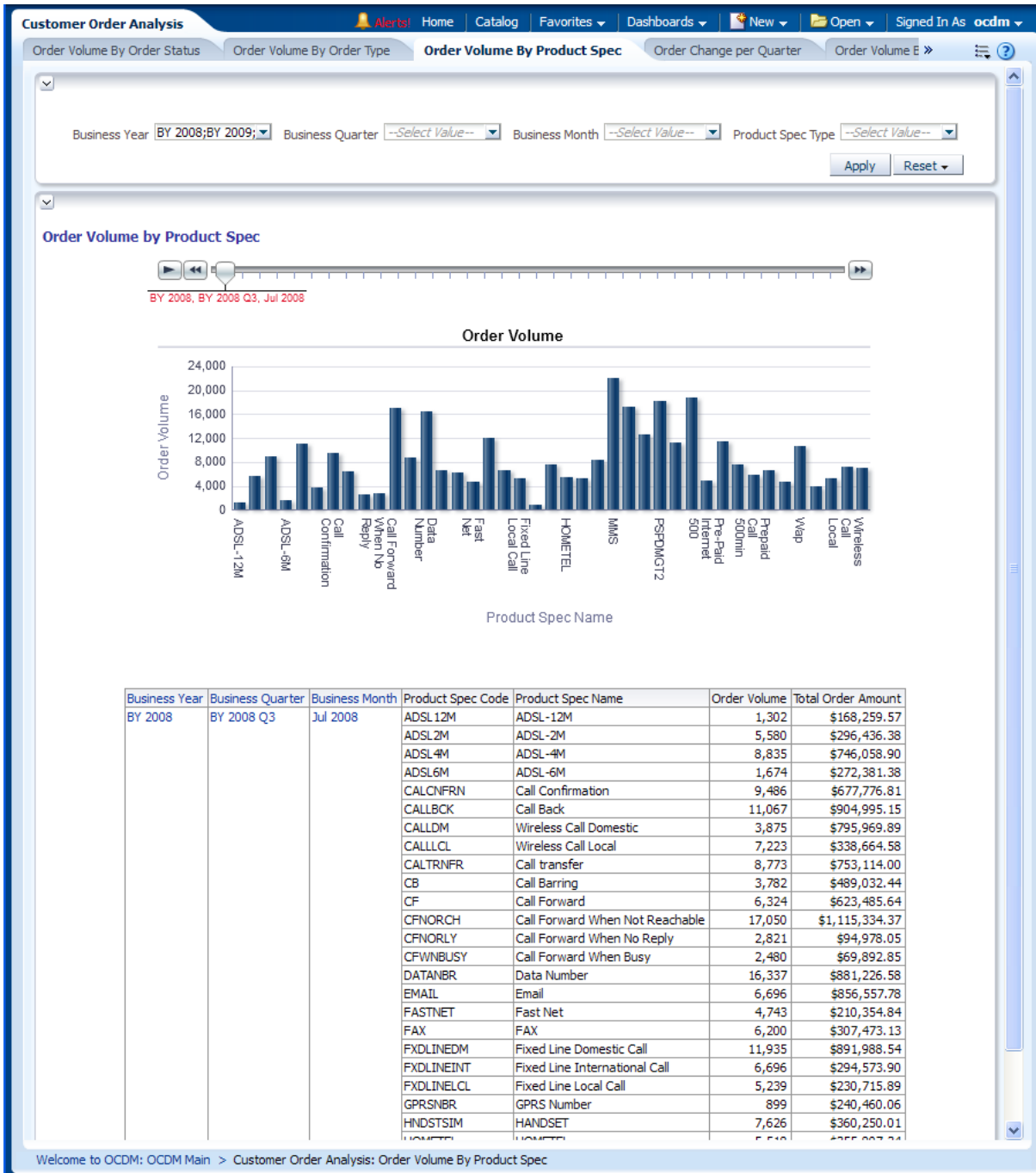
13.4.2.4 Order Change per Quarter

This report, as shown in Figure 13-54 (page 13-60) provides business year, business quarter-level information based on order volume change per quarter.

Report dimensions are:

- Business Time

- Product Specification Type

Figure 13-54   Customer Order Analysis Prior Quarter Change Report
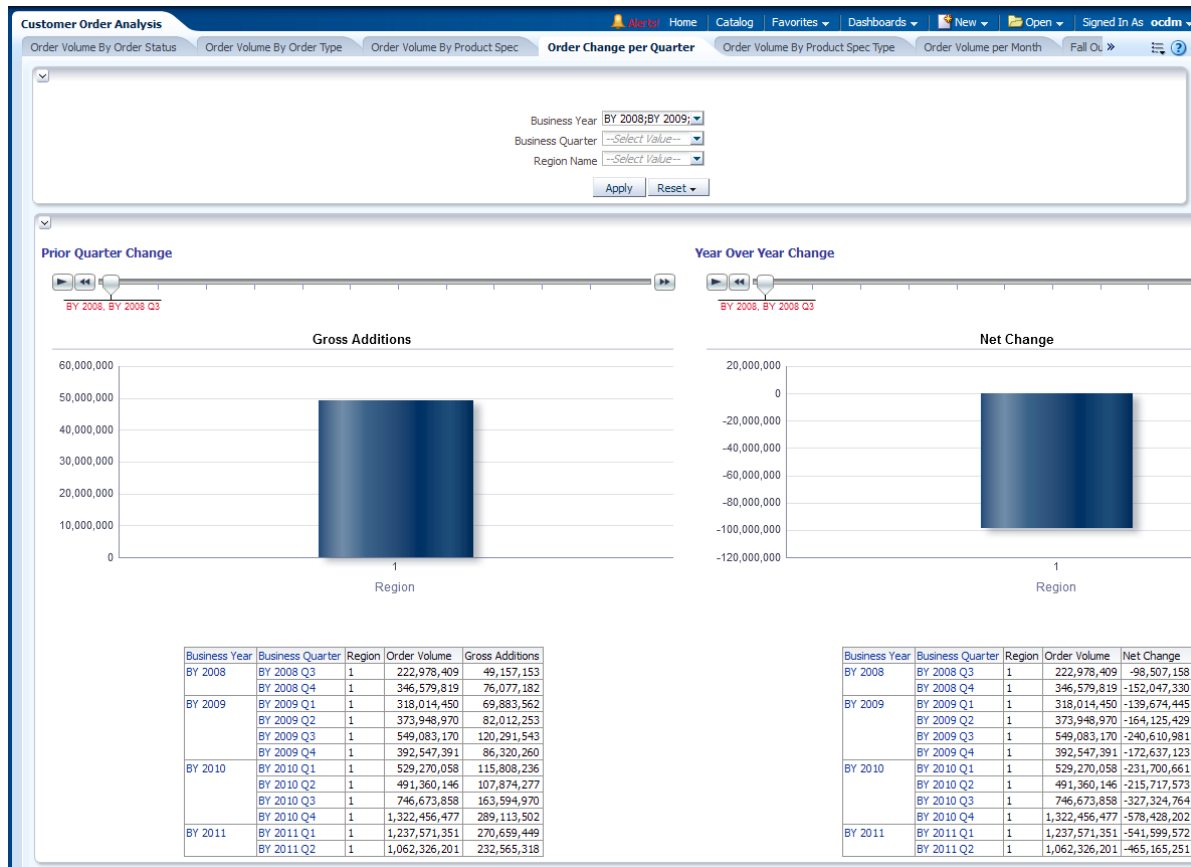
13.4.2.5 Order Volume by Product Specification Type

This report, as shown in Figure 13-55 (page 13-61) provides business year, business quarter, and business month-level information based on order volume by product type.

Report dimensions are:

- Business Time

Figure 13-55   Customer Order Analysis Order Volume by Product Specification Type Report
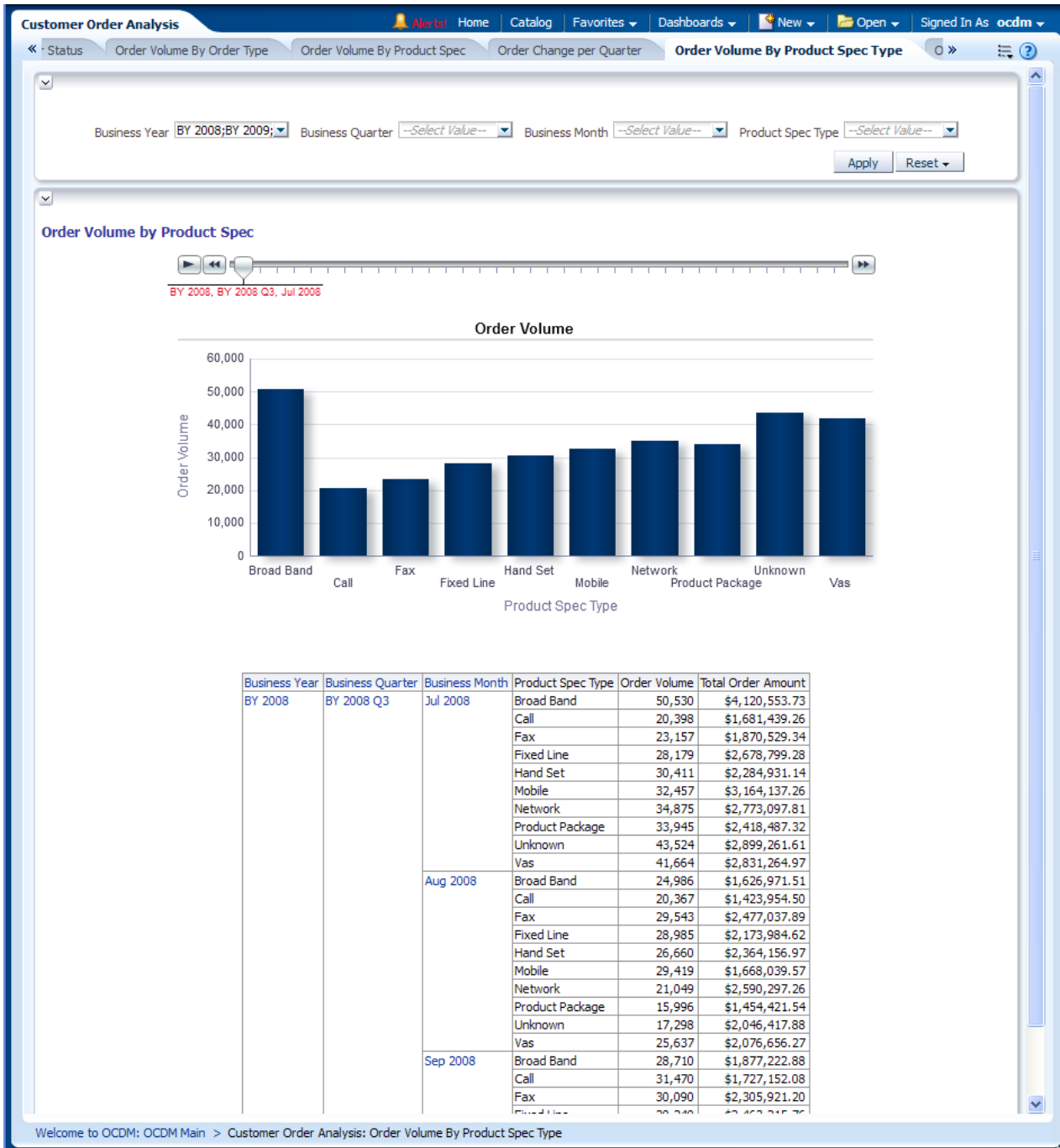
13.4.2.6 Order Volume per Month

This report, as shown in Figure 13-56 (page 13-62) provides business year, business quarter, and business month-level information based on order volume per month.

Report dimensions are:

- Business Time

- Organization Unit

Figure 13-56   *Customer Order Analysis Order Volume per Month Report*
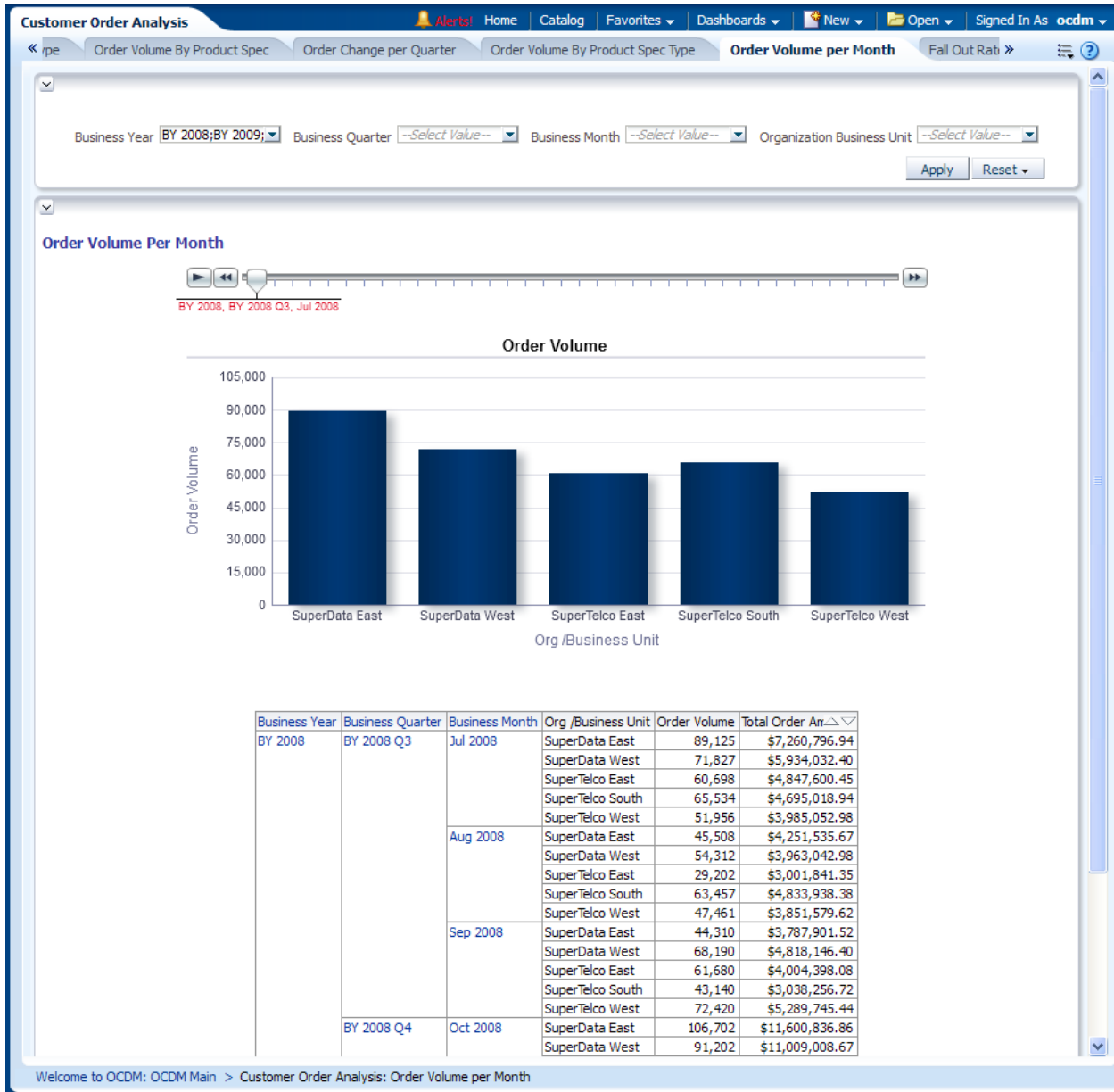
13.4.2.7 Fall Out Rate by Product Specification Type

This report, as shown in provides business year, business quarter, and business month-level information based on fall out rate by product specification type.

Report dimensions are:

• Business Time

Figure 13-57   Customer Order Analysis Fall Out Rate by Product Specification Type Report
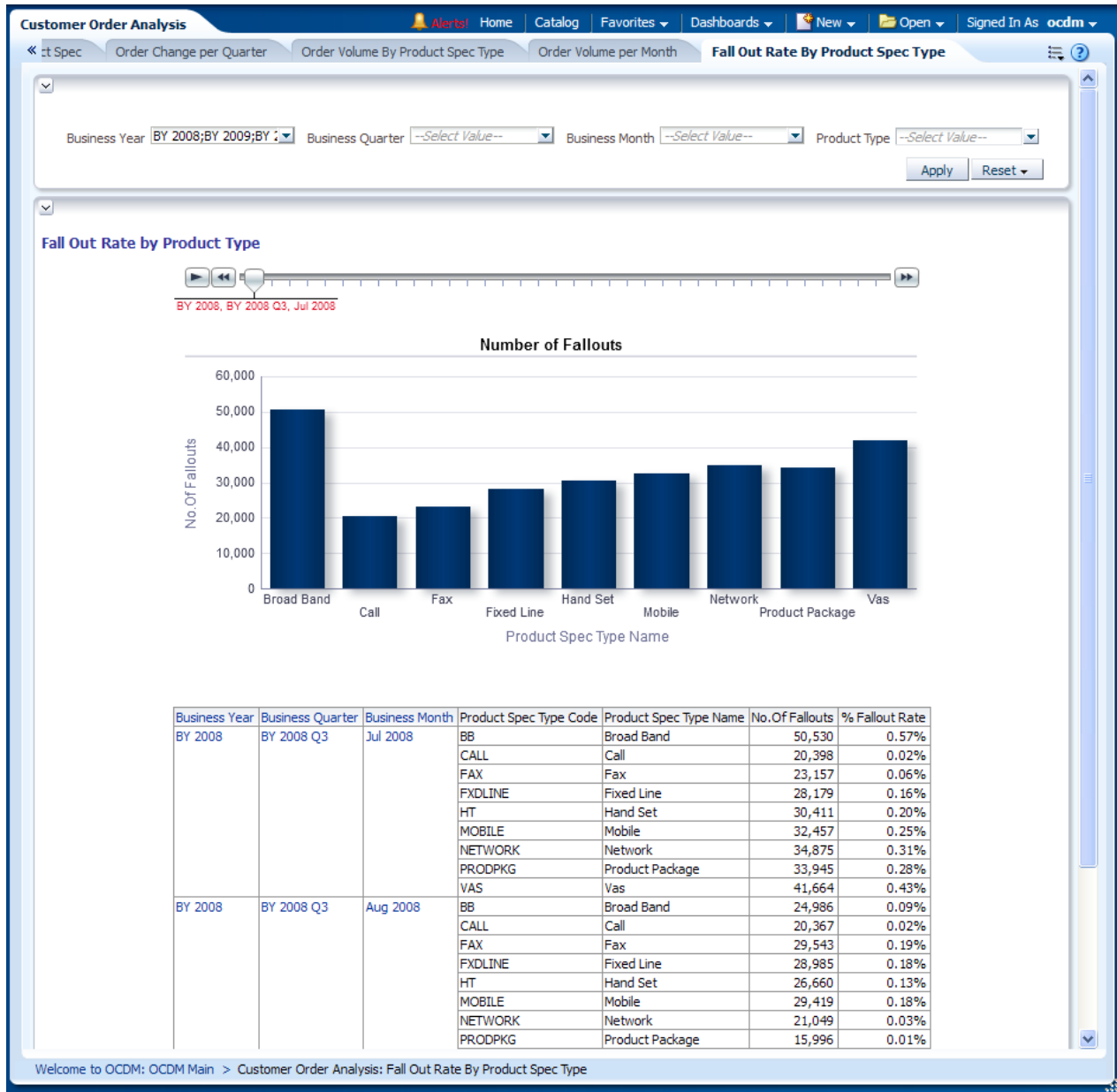
13.5 Network Management Reports

The network management area reports include the following areas:

13.5.1 Network Analysis

This area includes the reports: Network Capacity (page 13-64), Minutes of Usage (page 13-65), Airtime per Subscription (page 13-66), and Load During Busy Hours (page 13-67).

Network Capacity (page 13-64)

Minutes of Usage (page 13-65)

Airtime per Subscription (page 13-66)

Load During Busy Hours (page 13-67)

13.5.1.1 Network Capacity

This report, as shown in Figure 13-58 (page 13-65) provides month-level transaction activity information based on network capacity measures, for one or more locations.

Report dimensions are:

- Business Time

- Geography

- Network Element

Figure 13-58   Network Capacity Report
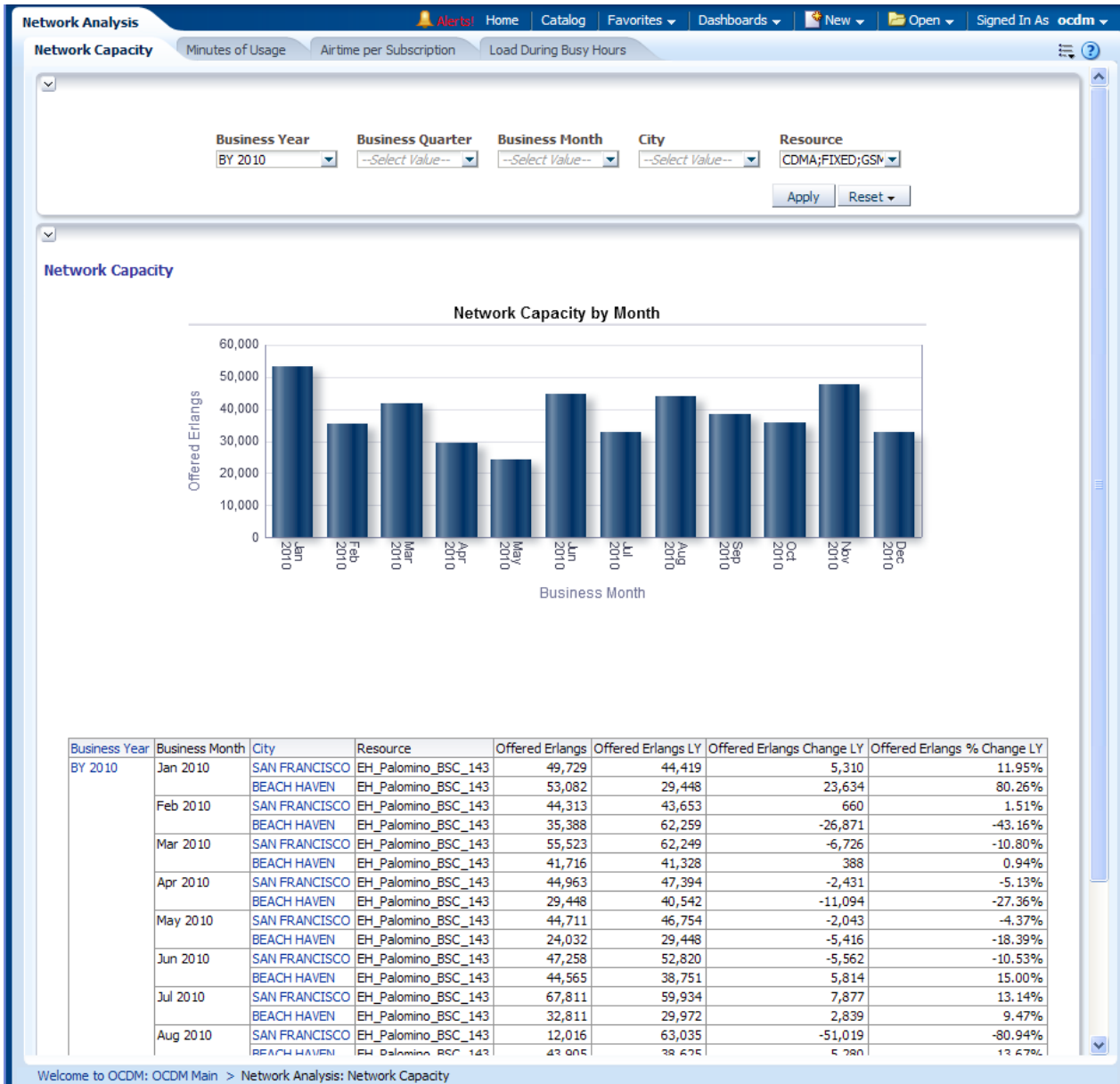
13.5.1.2 Minutes of Usage

This as shown in Figure 13-59 (page 13-66) provides month-level call usage summary information based on call duration in minutes, in certain areas and the network elements.

Report dimensions are:

- Business Time

- Network Element

Figure 13-59 Minutes of Usage Report
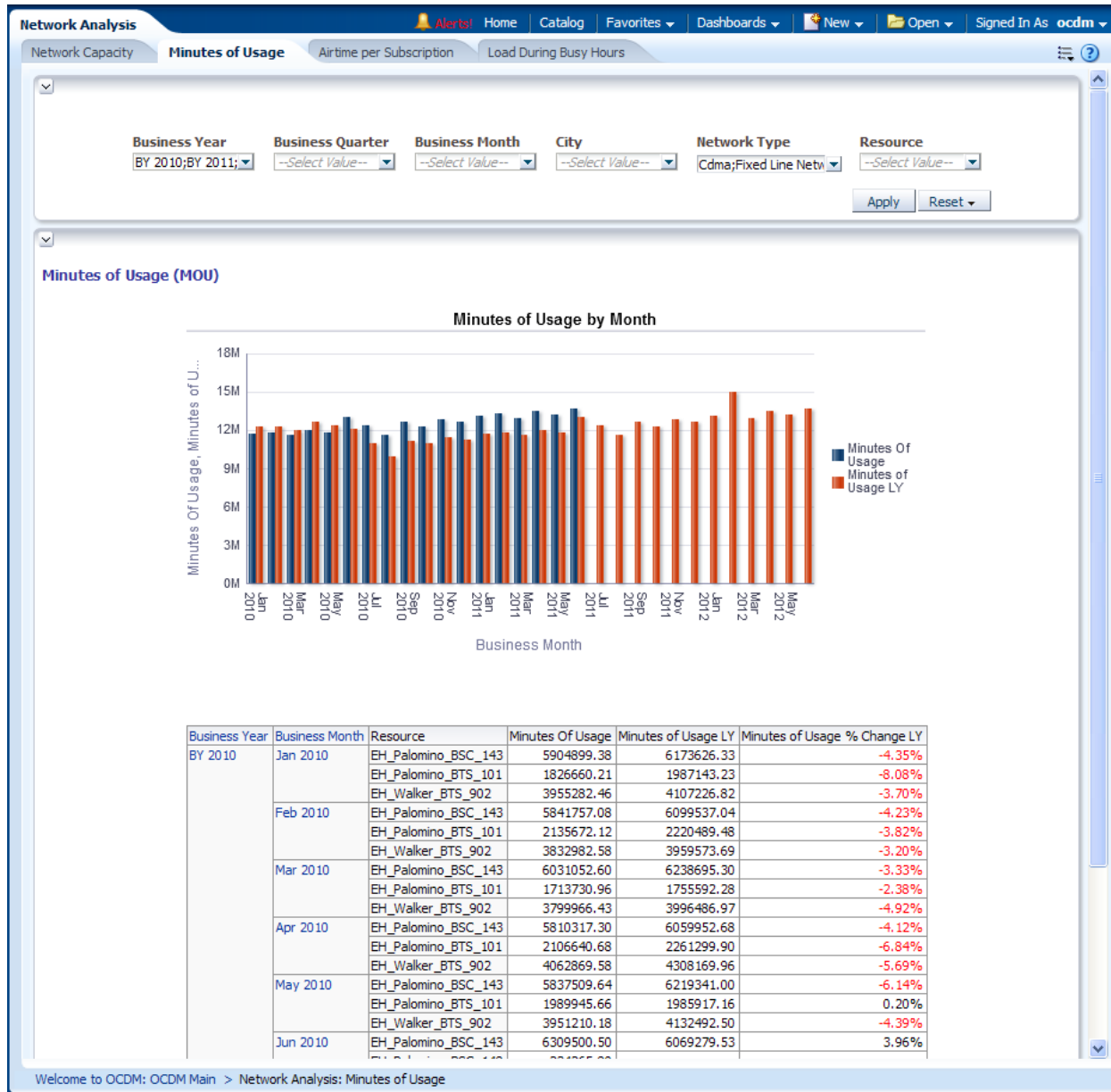
13.5.1.3 Airtime per Subscription

This as shown in provides month-level transaction activity information based on airtime per subscription connection measures, for one or more location.

Report dimensions are:

- Business Time

- Network Element

- Geography

- Peak Off peak Time

Figure 13-60   Airtime per Subscription Report
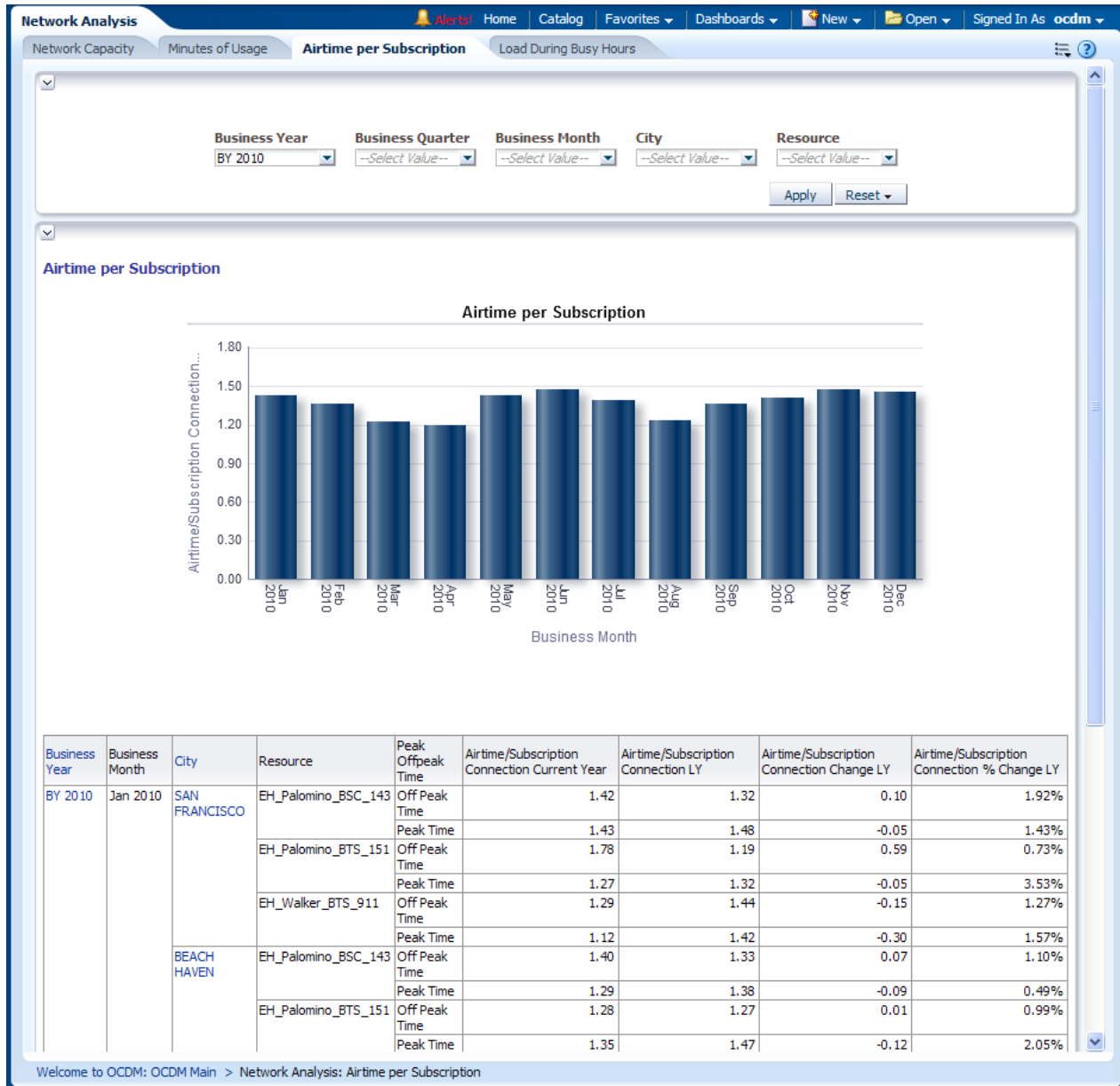
13.5.1.4 Load During Busy Hours

This report, as shown in provides month-level transaction activity information based on calls count during busy hours measures, for one or more location.

Report dimensions are:

- Business Time

- Network Element

- Geography

- Peak Off peak Time

Figure 13-61   Load During Busy Hours Report
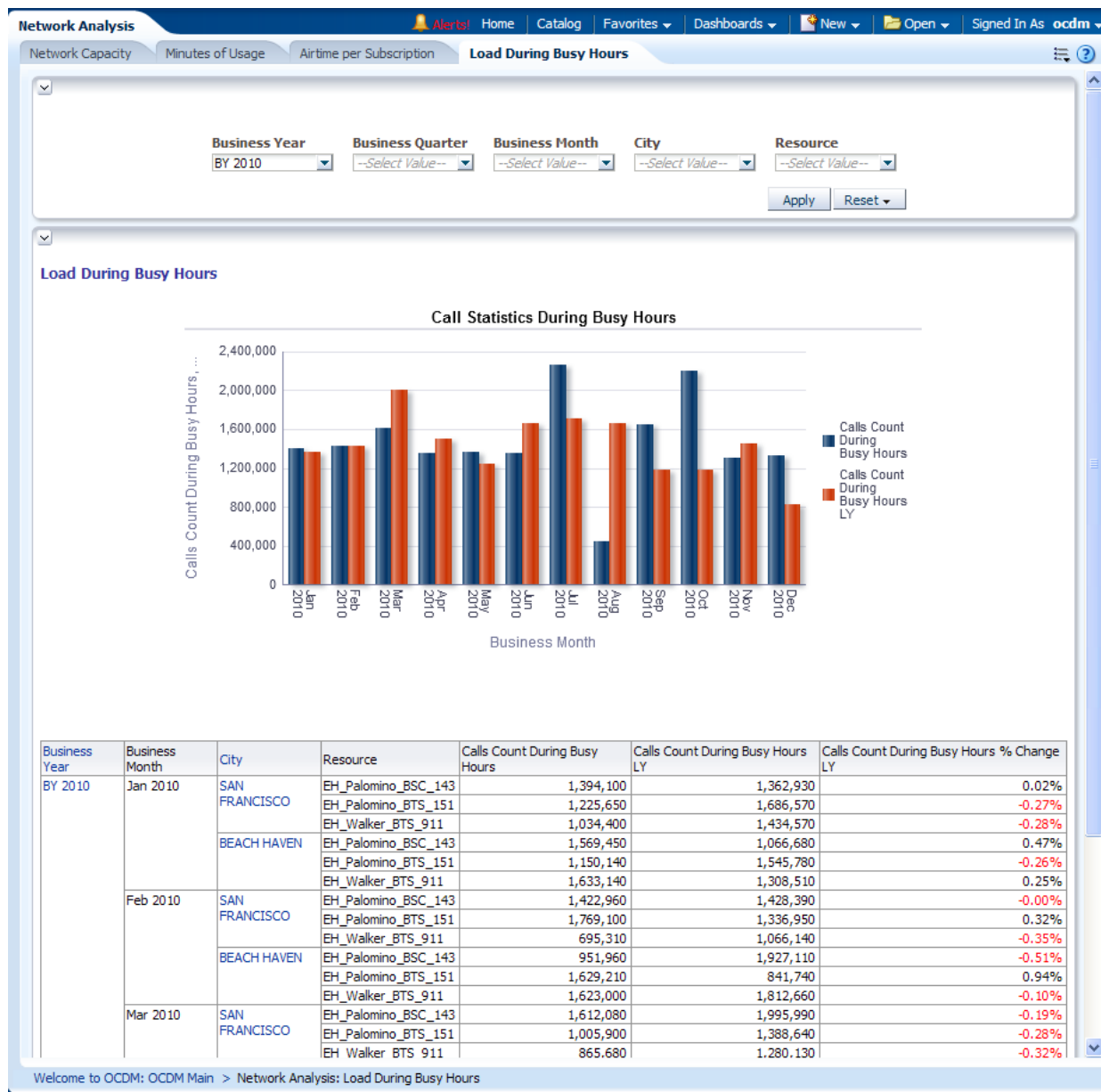
13.5.2 Network Health Analysis

This area includes the reports: Traffic by Connection (page 13-69), Connections per Site (page 13-70), Dropped Call Rate (page 13-71), Call Failure Rate (page 13-72), Congestion (page 13-73), Connection by Geography (page 13-74), and Connection by Voice Channel (page 13-75).

Traffic by Connection (page 13-69)

Connections per Site (page 13-70)

Dropped Call Rate (page 13-71)

Call Failure Rate (page 13-72)

Congestion (page 13-73)

Connection by Geography (page 13-74)

Connection by Voice Channel (page 13-75)

13.5.2.1 Traffic by Connection

This report, as shown in Figure 13-62 (page 13-70) provides month-level transaction activity information based on traffic by connection measures, for one or more location.

Report dimensions are:

- Business Time

- Network Element

- Geography

- Peak Off peak Time

Figure 13-62   Traffic by Connection Report
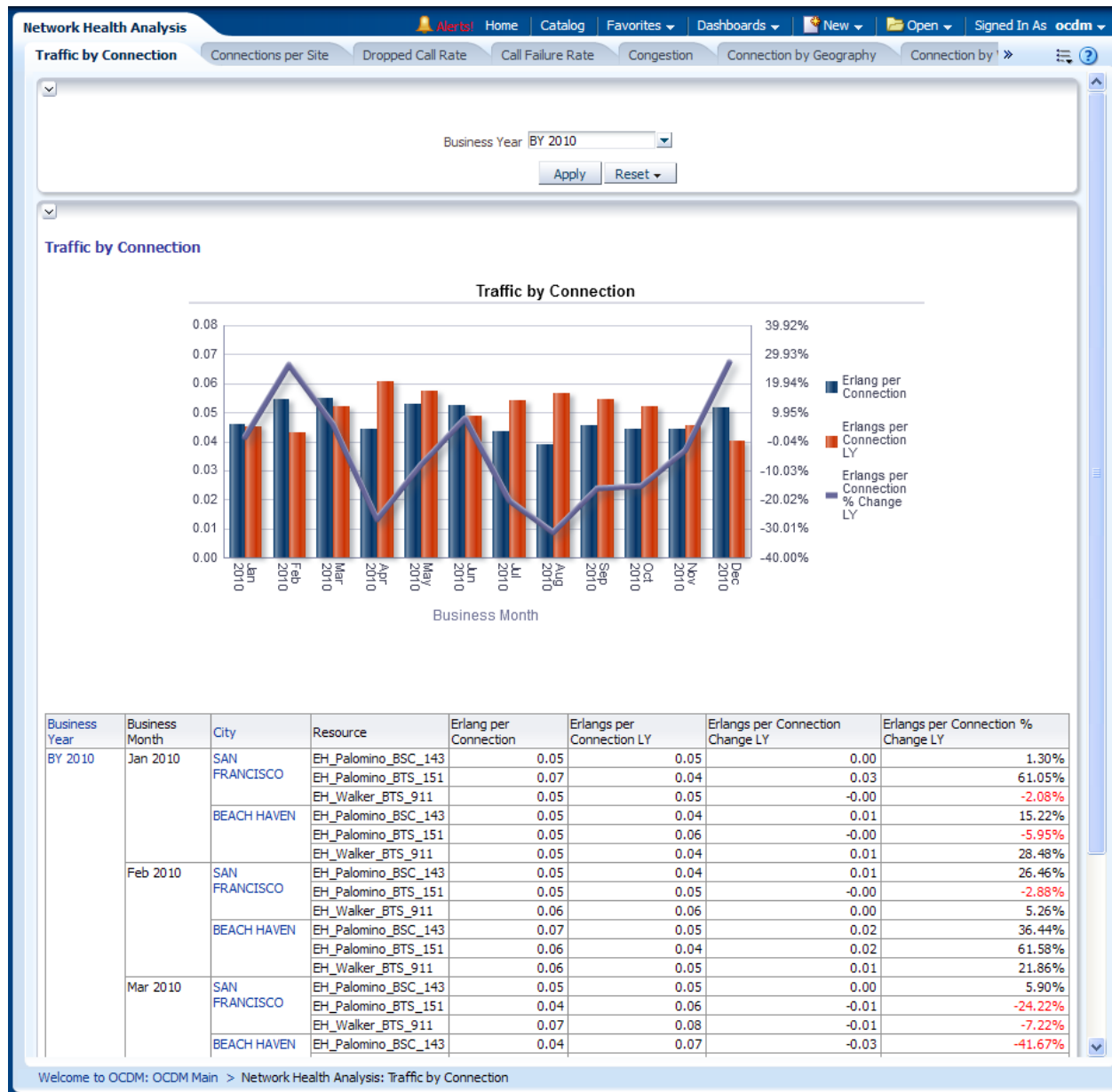
13.5.2.2 Connections per Site

This report, as shown in provides month-level transaction activity information based on subscriptions per channel measures, for one or more location.

Report dimensions are:

- Business Time

- Resource

- Geography

Figure 13-63 Connections per Site Report
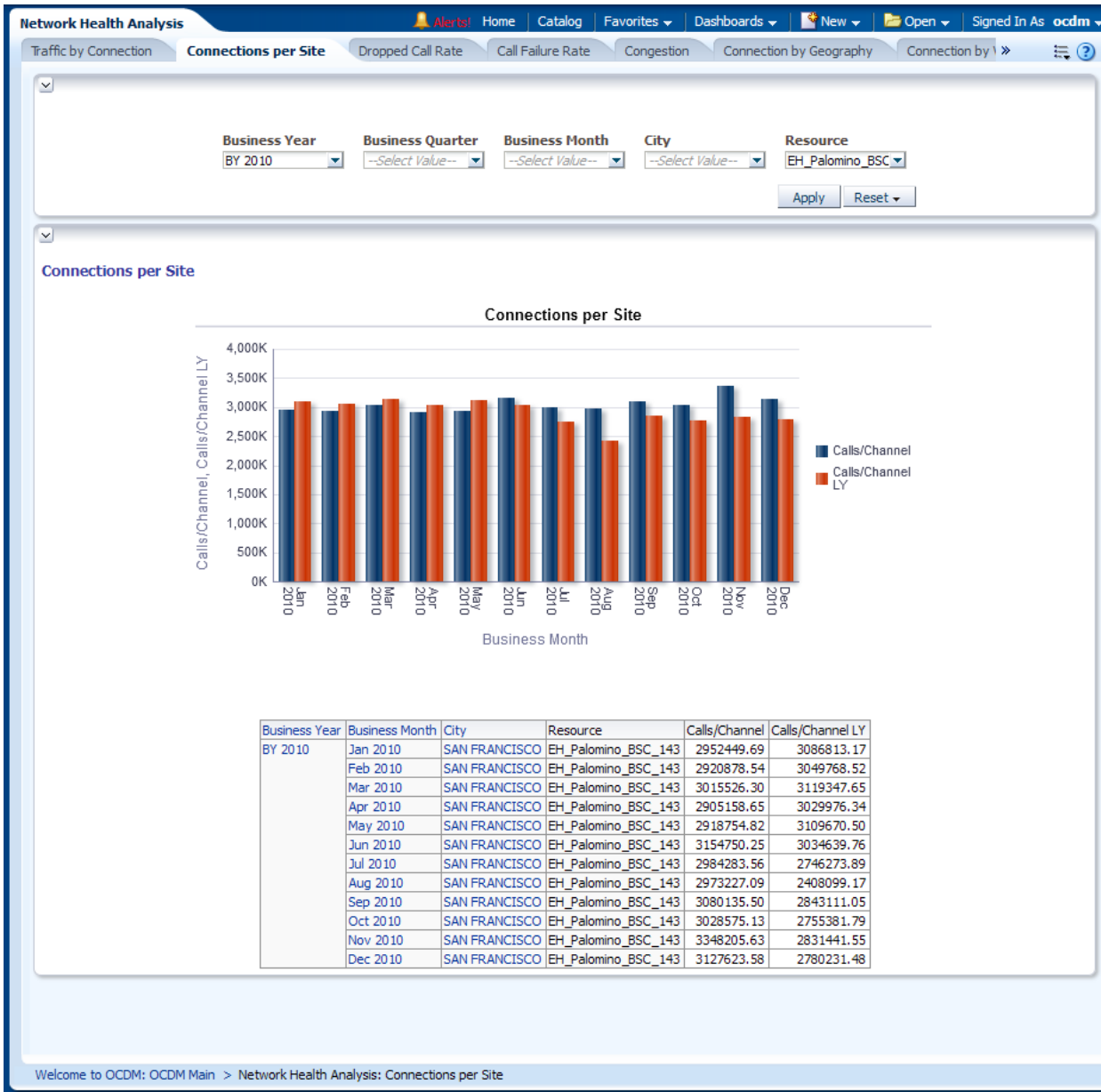
13.5.2.3 Dropped Call Rate

This report, as shown in Figure 13-64 (page 13-72) provides month-level transaction activity information based on dropped call rate measures, for one or more location.

Report dimensions are:

- Business Time

- Network Element

- Geography

Figure 13-64   Dropped Call Rate Report
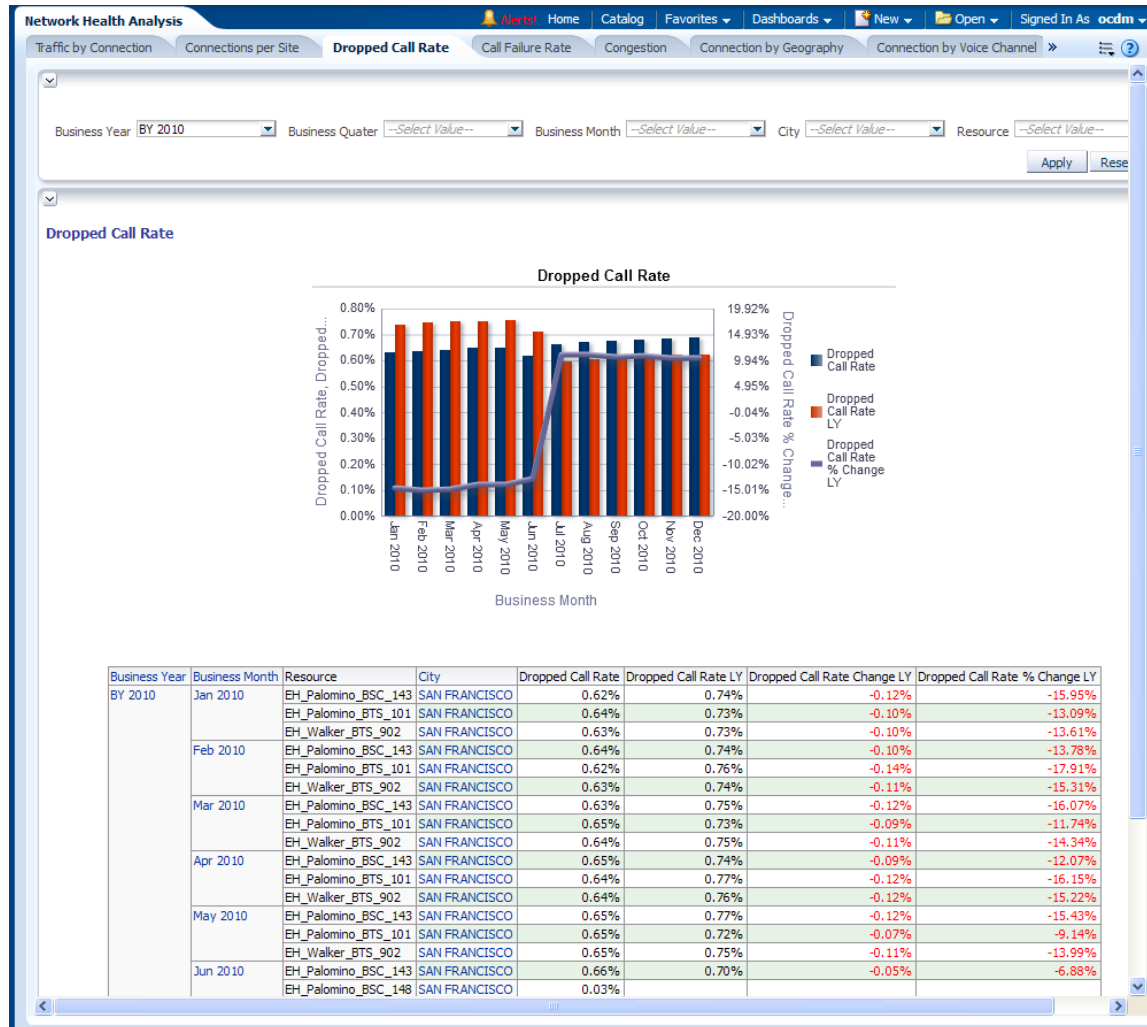
13.5.2.4 Call Failure Rate

This report, as shown in Figure 13-65 (page 13-73) provides month-level transaction activity information based on network congestion measures, for one or more location.

Report dimensions are:

- Business Time

- Network Element

- Geography

Figure 13-65   Call Failure Rate Report
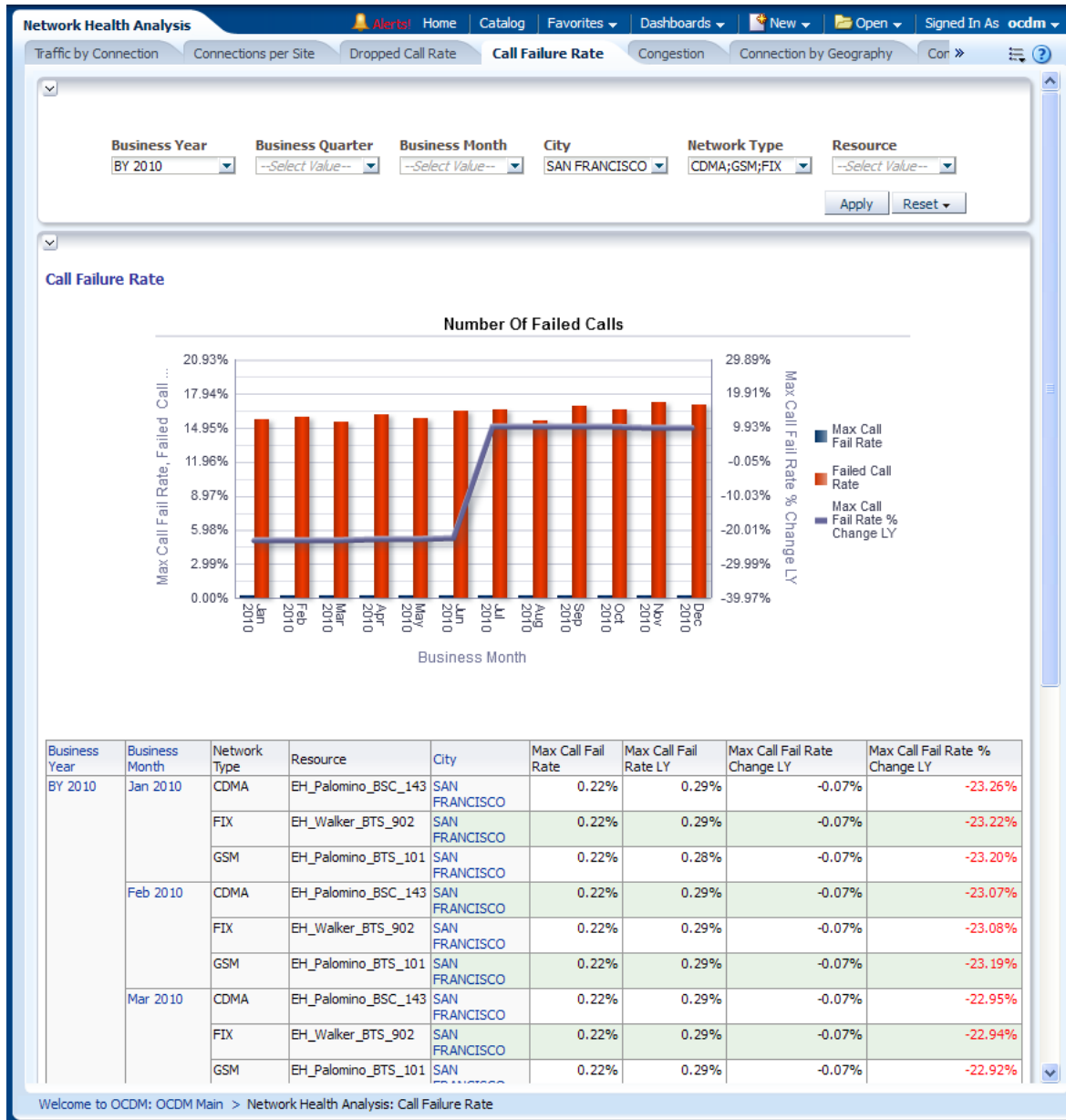
13.5.2.5 Congestion

This report, as shown in provides month-level transaction activity information based on end of period cell offered erlangs measures, for one or more location.

Report dimensions are:

- Business Time

- Network Element

- Geography

- Time Slot

  - Peak Offpeak Time

Figure 13-66   Congestion Report
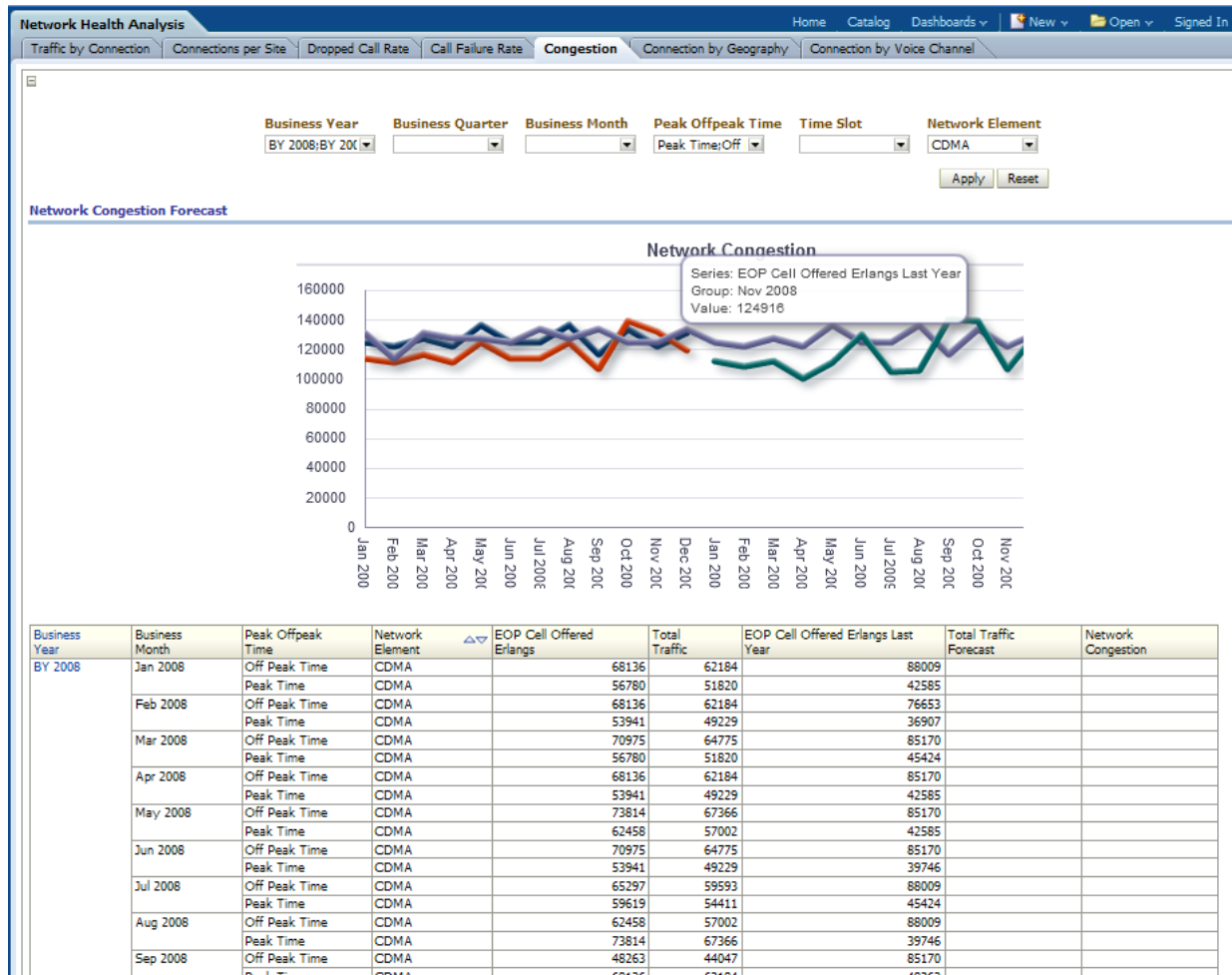
13.5.2.6 Connection by Geography

This report, as shown in provides month-level transaction activity information based on connections measures, for one or more location.

Report dimensions are:

  - Business Time

  - Network Element

  - Geography

  - Peak Offpeak Time

Figure 13-67 Connection by Geography Report
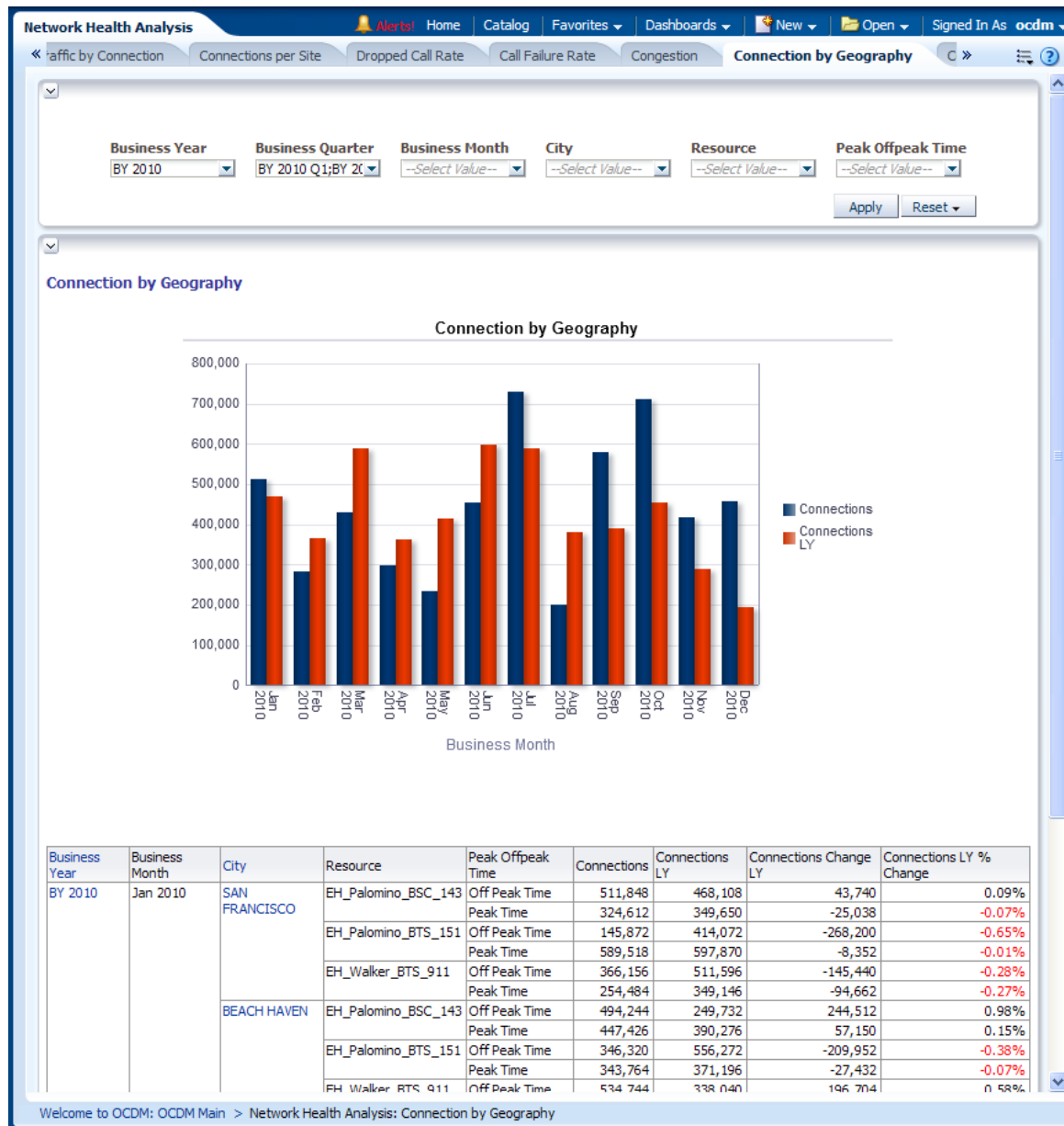
13.5.2.7 Connection by Voice Channel

This report, as shown in Figure 13-68 (page 13-76) provides month-level transaction activity information based on connections by voice channel measures, for one or more location. This report shows will be used to collect most of the cell parameters.

Report dimensions are:

- Business Time

- Network Element

- Geography

- Peak Offpeak Time

Figure 13-68   Connection by Voice Channel Report
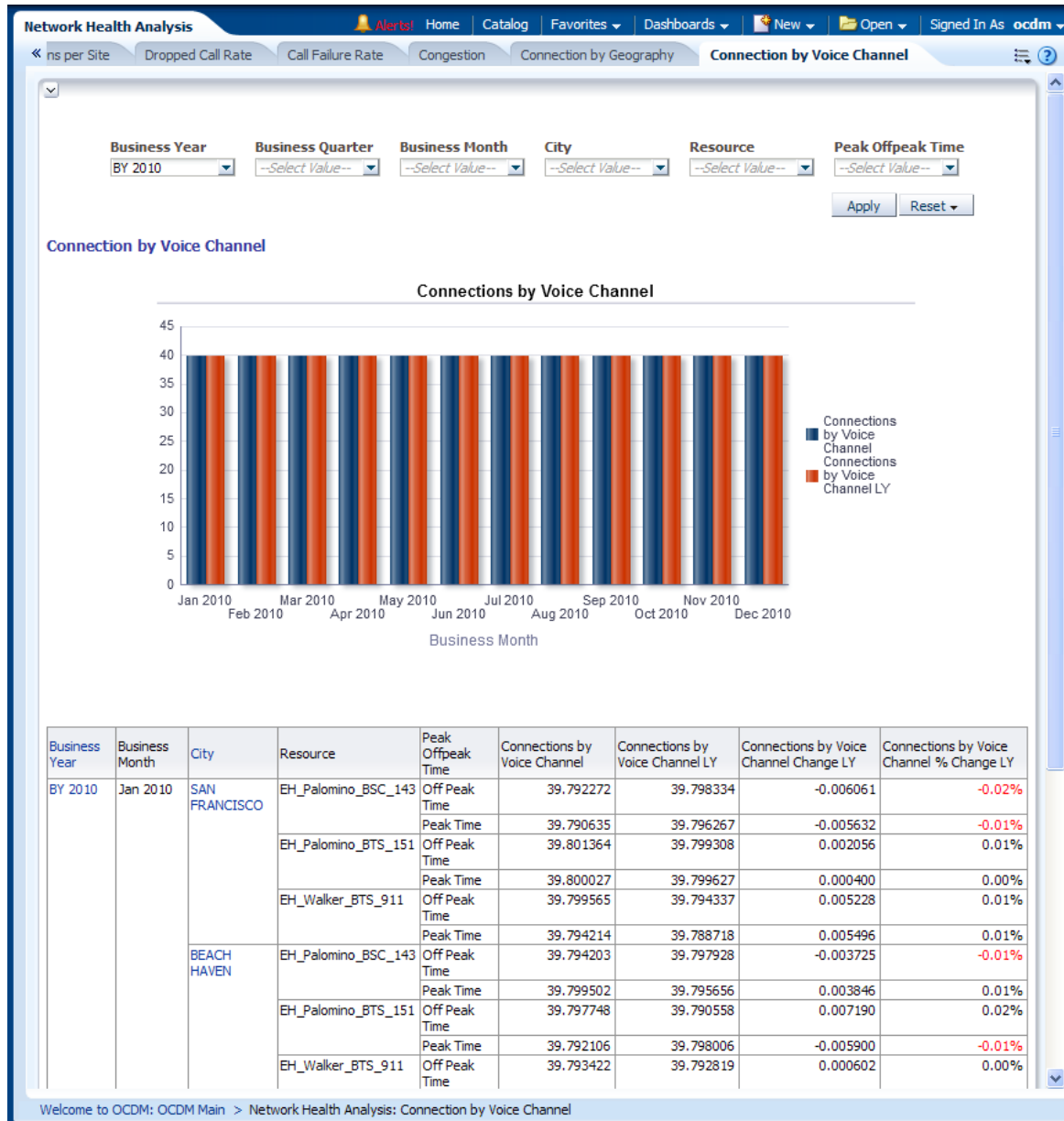
13.5.3 Network Usage

This area includes the reports: Number of Emergency Calls (page 13-77), Number of Call by Call Service Type (page 13-78), Number of Calls by Roaming Type (page 13-79), and Minutes of Usage by Call Type (page 13-80).

Number of Emergency Calls (page 13-77)

Number of Call by Call Service Type (page 13-78)

Number of Calls by Roaming Type (page 13-79)

Minutes of Usage by Call Type (page 13-80)

13.5.3.1 Number of Emergency Calls

This report, as shown in Figure 13-69 (page 13-78) provides the number of emergency calls.

Report dimensions are:

- Organization

- Business Time

- Customer

- Product

- Call Service Type

- Call Routing Type

Figure 13-69   Network Number of Emergency Calls Report
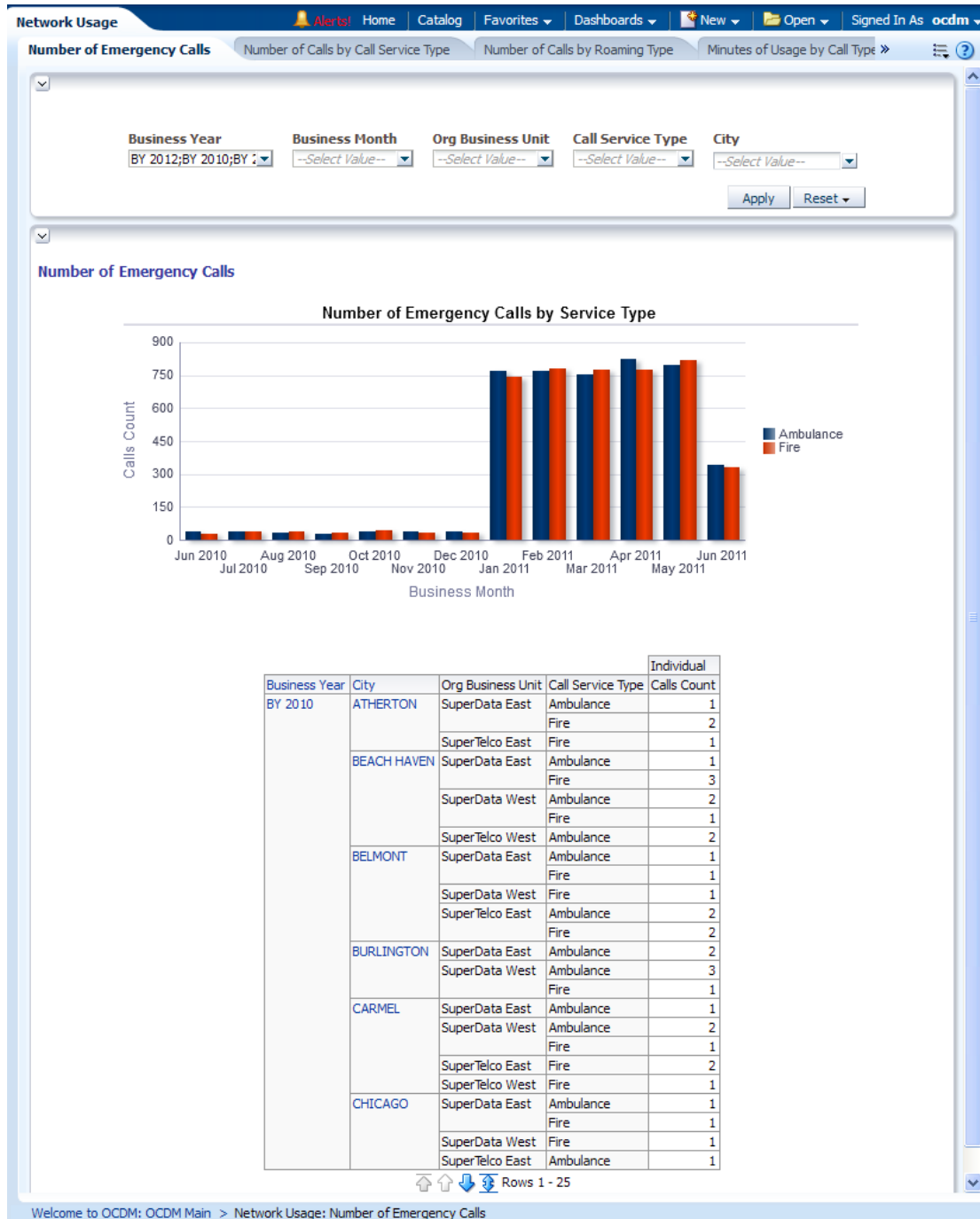
13.5.3.2 Number of Call by Call Service Type

This shown in Figure 13-70 (page 13-79) provides year-level transaction activity information based on number of calls measures, for different types of call services.

Report dimensions are:

- Business Time

- Call Category

Figure 13-70   Network Number of Call by Call Service Type Report
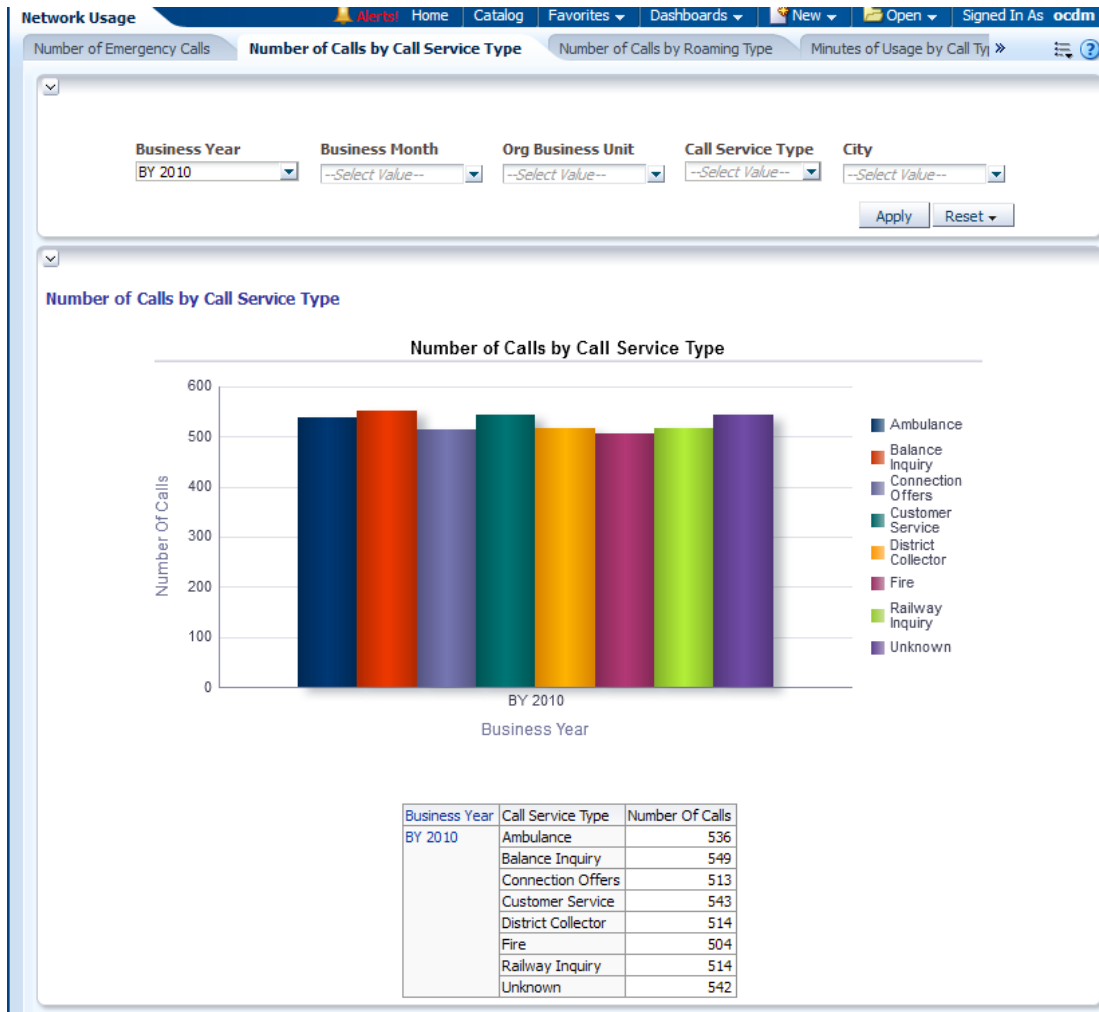
13.5.3.3 Number of Calls by Roaming Type

This shown in Figure 13-71 (page 13-80) provides year-level transaction activity information based on the number of calls measures, for different types of call roaming.

Report dimensions are:

- Business Time

- Call Routing Type

Figure 13-71   Network Number of Calls by Roaming Type Report
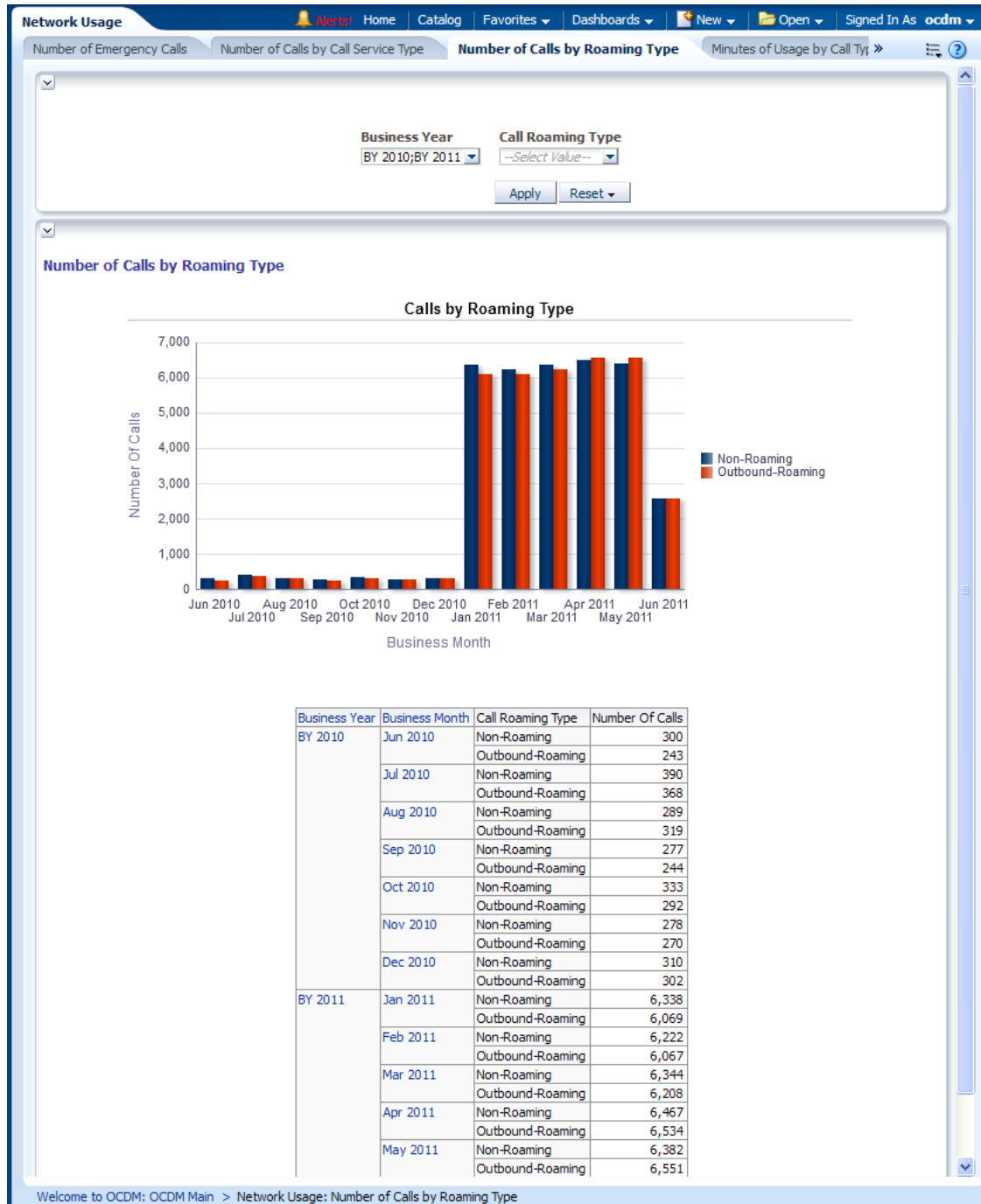
13.5.3.4 Minutes of Usage by Call Type

This as shown in Figure 13-72 (page 13-81) provides year-level transaction activity information based on no of calls measures, for different types of call categories.

Report dimensions are:

- Business Time

- Call Category

Figure 13-72   Minutes of Usage by Call Type Report

13.6 Marketing Reports

The marketing area reports include the following areas:

13.6.1 Targeted Promotion Lift and List

This area includes the report Customer Promotion List (page 13-82) and

Customer Promotion List (page 13-82)

Response Cumulative Gain (page 13-83)

13.6.1.1 Customer Promotion List

This report, as shown in Figure 13-73 (page 13-83) provides a list of customers ranked by their probability of buying a product. For each customer, the life time value , ARPU, and Debt value are displayed for quick reference.

The buying probability of each customer on the product is calculated by Oracle Communications Data Model Targeted Promotion Mining model.

Report dimensions are:

- Customer

Figure 13-73 Customer Promotion List Report
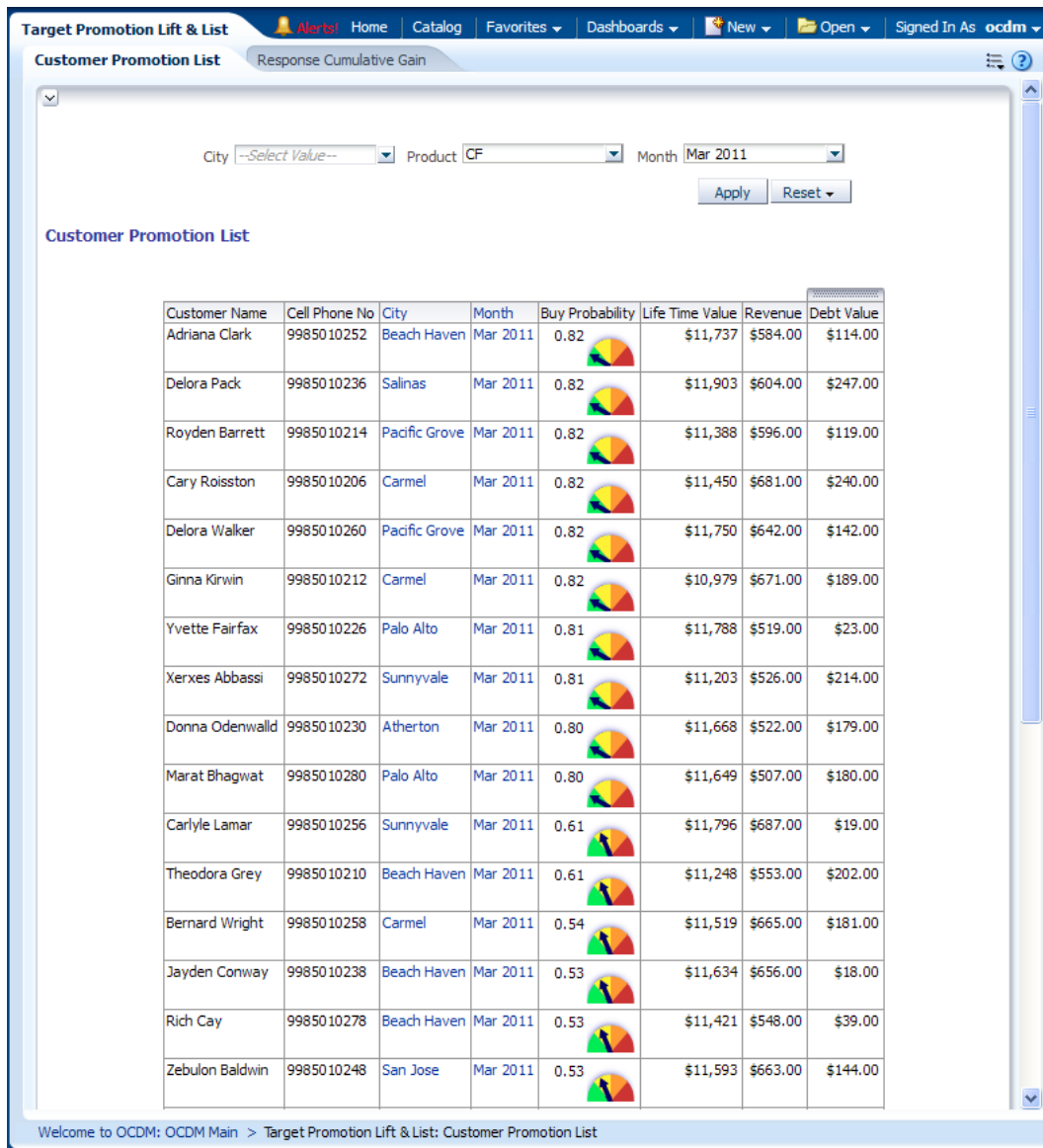
13.6.1.2 Response Cumulative Gain

This report as shown in Figure 13-74 (page 13-84) shows the Oracle Communications Data Model Churn prediction Model performance; this helps you determine a threshold for the percent of customers to run in the retention program. This retention can be done using phone calls or email. For example, according to the details in Figure 13-74 (page 13-84), if the service provider selects 20% of MOST Likely churners according to the Oracle Communications Data Model Churn Prediction model, they can cover about 74% of real churners.

The chart here shows the accuracy of customers so identified under retention program prediction rather than picking on random selection of customers (shown as a straight line).

Report dimensions are:

- Churn SVM ROC

Figure 13-74   Response Cumulative Gain Report
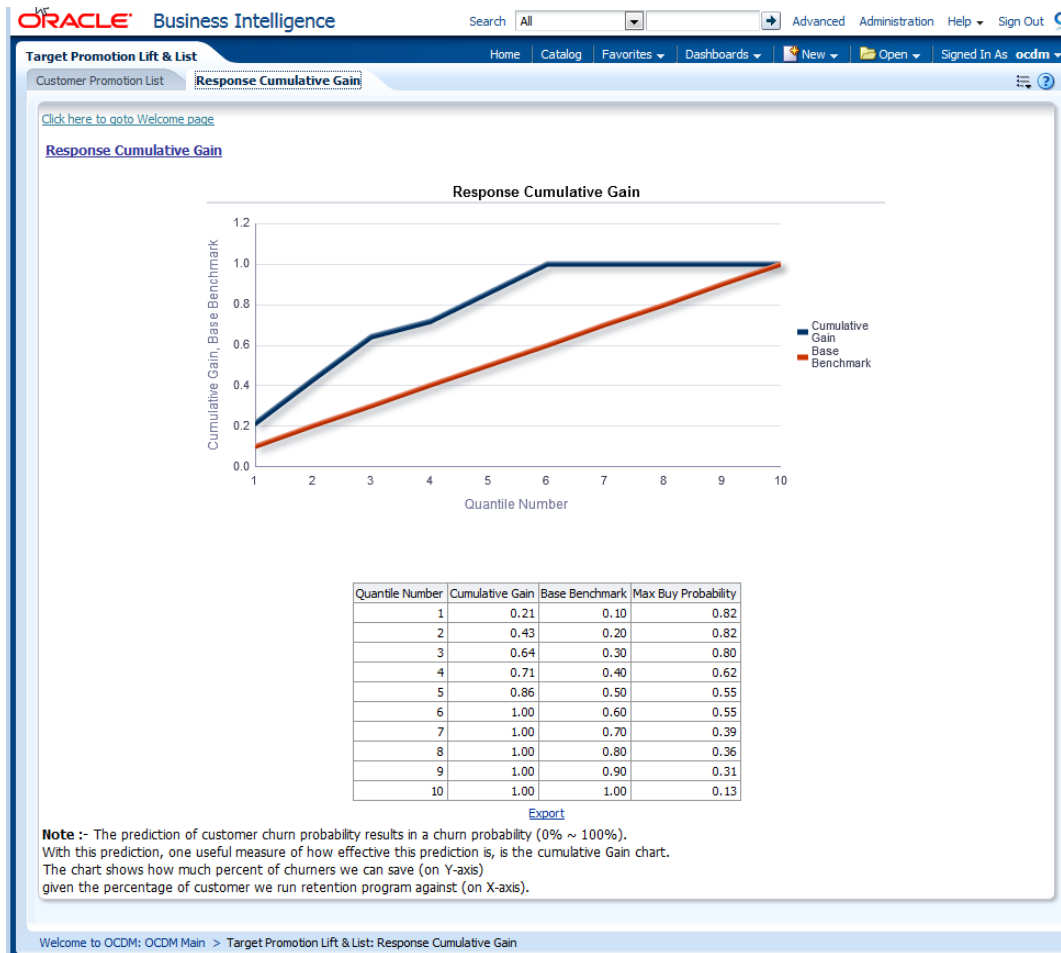
13.6.2 Customer Market Share Analysis

This area includes the report Customer Market Share Report (page 13-84).

Customer Market Share Report (page 13-84)

13.6.2.1 Customer Market Share Report

This report as shown in Figure 13-75 (page 13-85) shows month-level Customer Market share, comparing with competitors. The data is acquired from an external marketing source.

Report dimensions are:

- Business Time

- Organization

- Product Specification Type

Figure 13-75   Customer Market Share Analysis Report
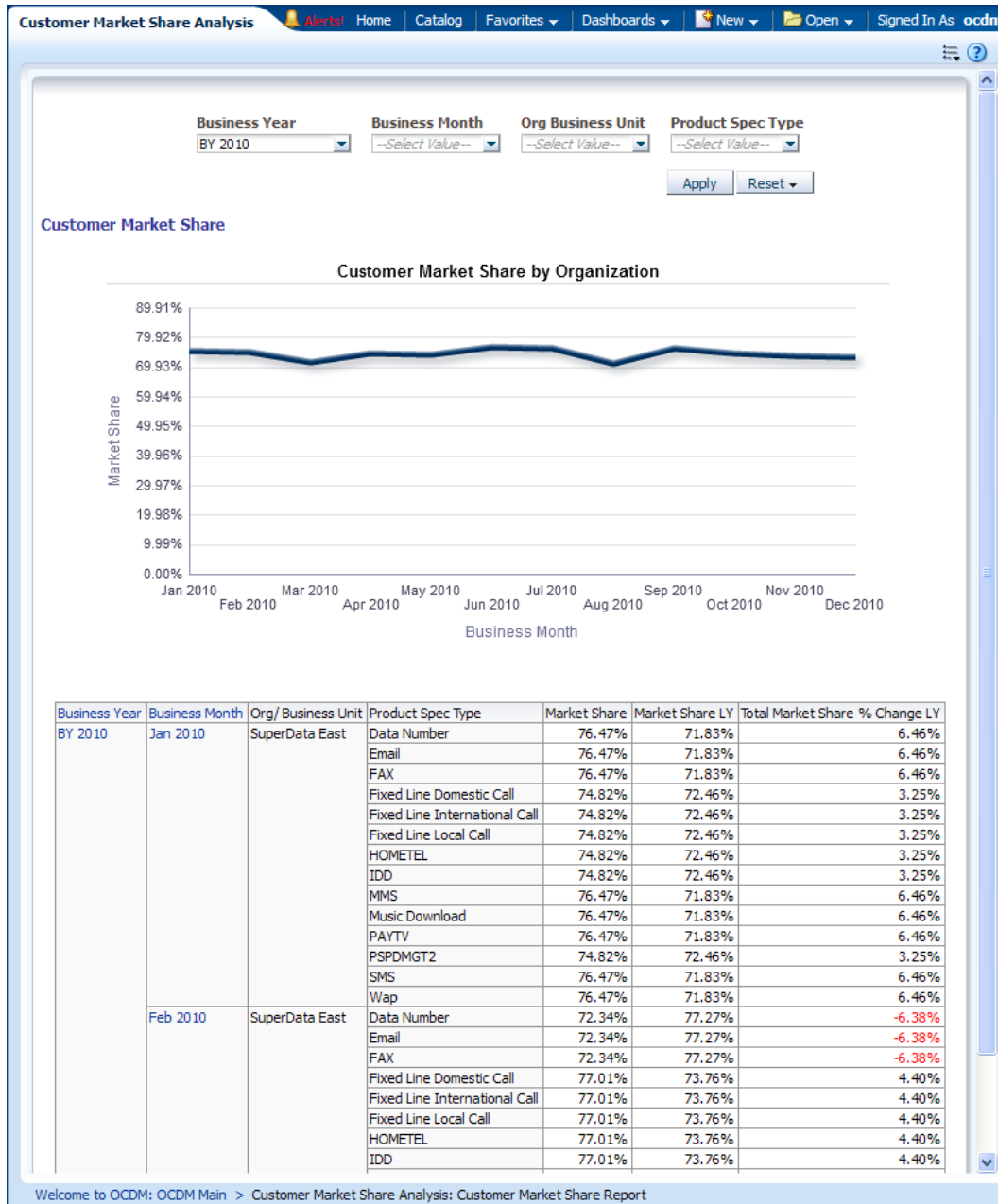
13.6.3 Current Customer Base Analysis

This area includes the reports: Current Customer Base (page 13-86), Customer Base Organization Share (page 13-87), and Customer Base Product Share (page 13-87).

13.6.3.1 Current Customer Base

This report, as shown in Figure 13-76 (page 13-86) provides month-level transaction activity information based on no of customer measures, for one or more locations.

Report dimensions are:

- Business Time

- Organization

- Product

- Geography

Figure 13-76   Current Customer Base Report
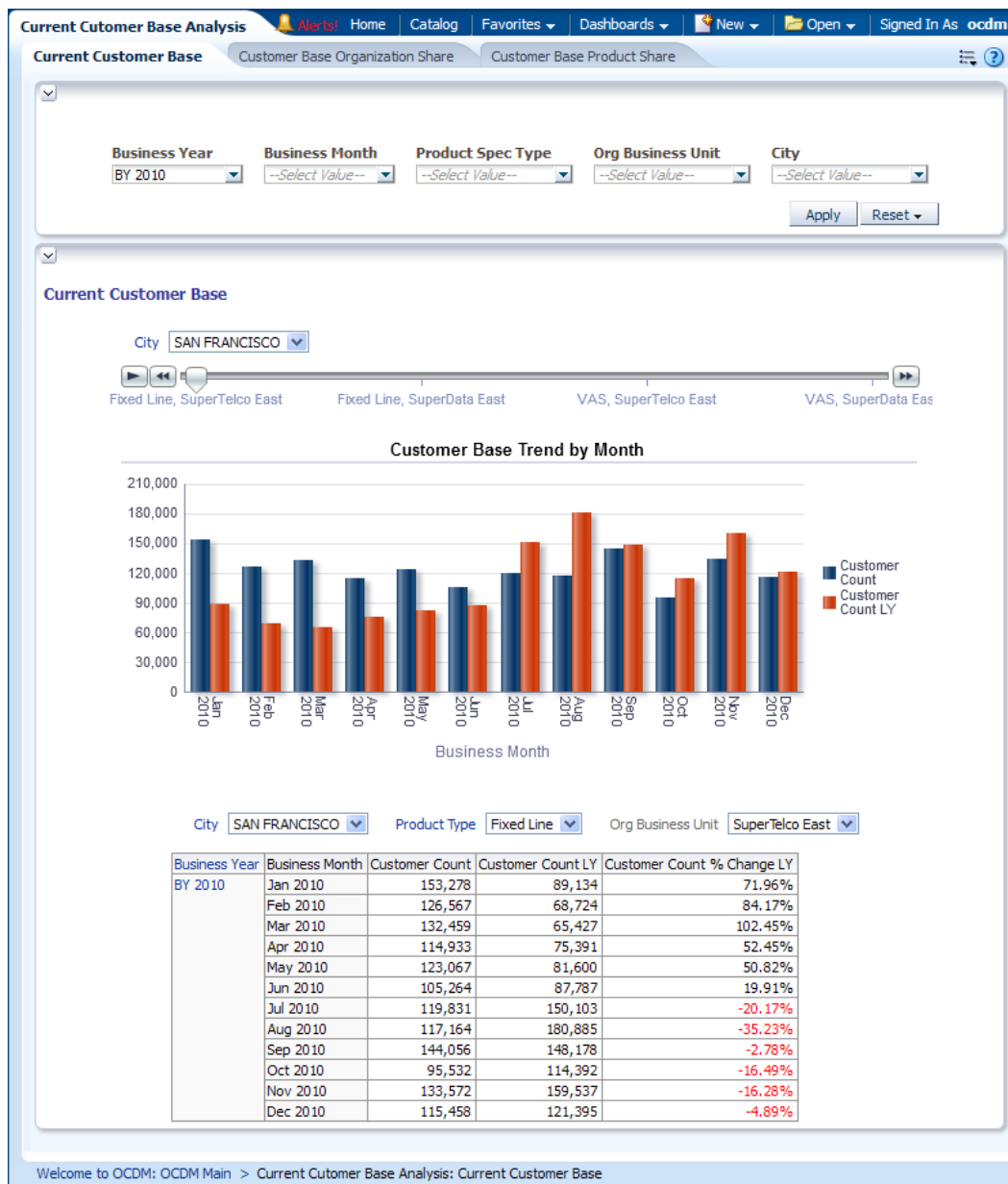
13.6.3.2 Customer Base Organization Share

This as shown in Figure 13-77 (page 13-87) provides month-level number of customers for each organization business unit, and also gives the share of customer count inside their parent organization.

Report dimensions are:

- Business Time

- Organization

- Product Type

Figure 13-77   Customer Base Organization Share Report
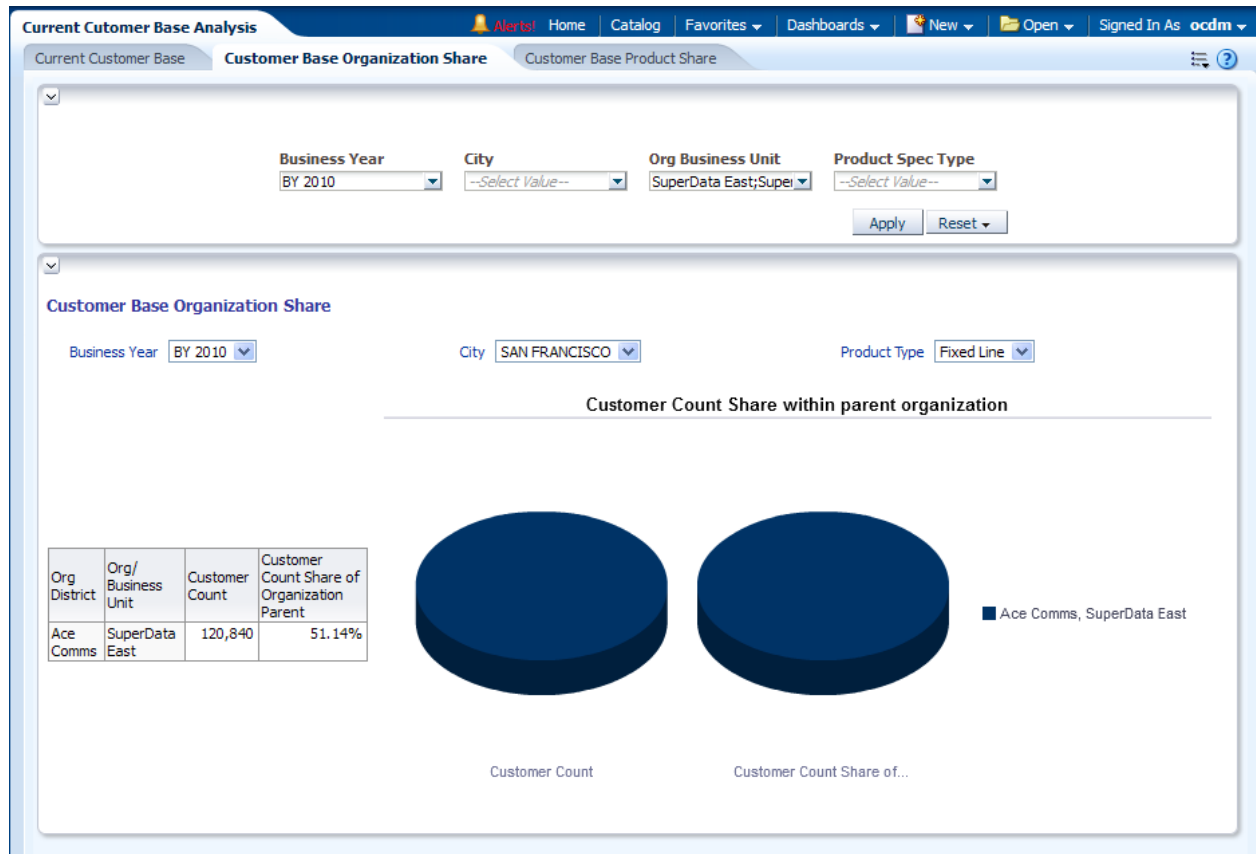
13.6.3.3 Customer Base Product Share

This as shown in Figure 13-78 (page 13-88) provides month-level number of customers for each products (subscription). The customer share of each product is listed for the selected products and organizations.

Report dimensions are:

- Business Time

- Organization

- Product Type

Figure 13-78 Customer Base Product Share Report
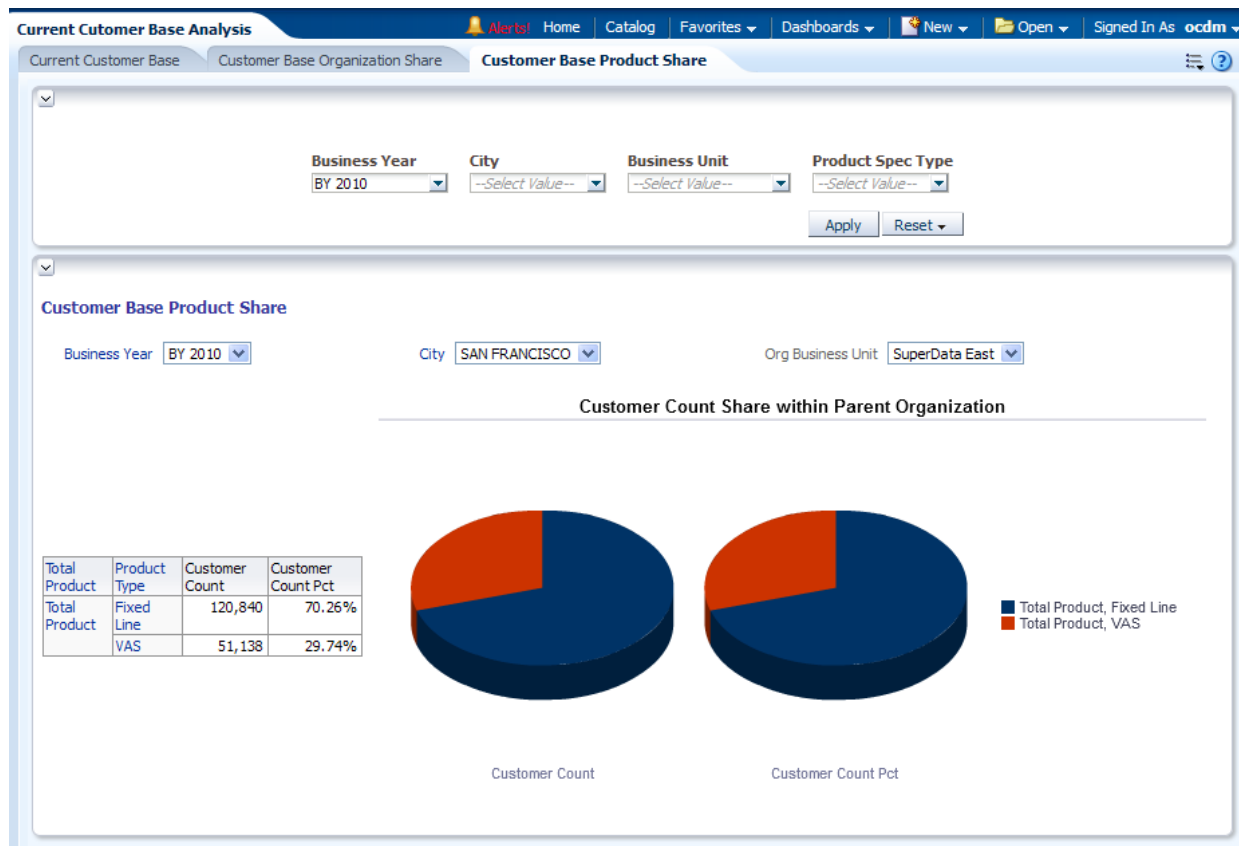
13.7 Finance Reports

The finance reports include the following areas: Operational Finance Analysis and Profitability Analysis.

This area includes the following:

Operational Finance Analysis (page 13-88)

Profitability Analysis (page 13-97)

13.7.1 Operational Finance Analysis

This area includes the reports: Operating Cost (page 13-89), Average Operating Cost per Customer (page 13-91), Average operating Cost per Employee (page 13-92), Investment Cost (page 13-93), Advertising Cost Report (page 13-94), and Average Cost of Controlling Attrition per Employee (page 13-95).

Operating Cost (page 13-89)

Average Operating Cost per Customer (page 13-91)

Average operating Cost per Employee (page 13-92)

Investment Cost (page 13-93)

Advertising Cost Report (page 13-94)

Average Cost of Controlling Attrition per Employee (page 13-95)

13.7.1.1 Operating Cost

This report, as shown in Figure 13-79 (page 13-90) and Figure 13-80 (page 13-91) provide the current year month-level "Operating Cost" information for each organization business unit. The report also ranks all organization business units according to their cost in their parent "Organization". The end user can compare the cost with last years metrics such as: LY, % Change LY, YTD, YTD LY, YTD % Change LY.

Report dimensions are:

- Business Time

- Organization

Figure 13-79   Operating Cost Report (left side of report)
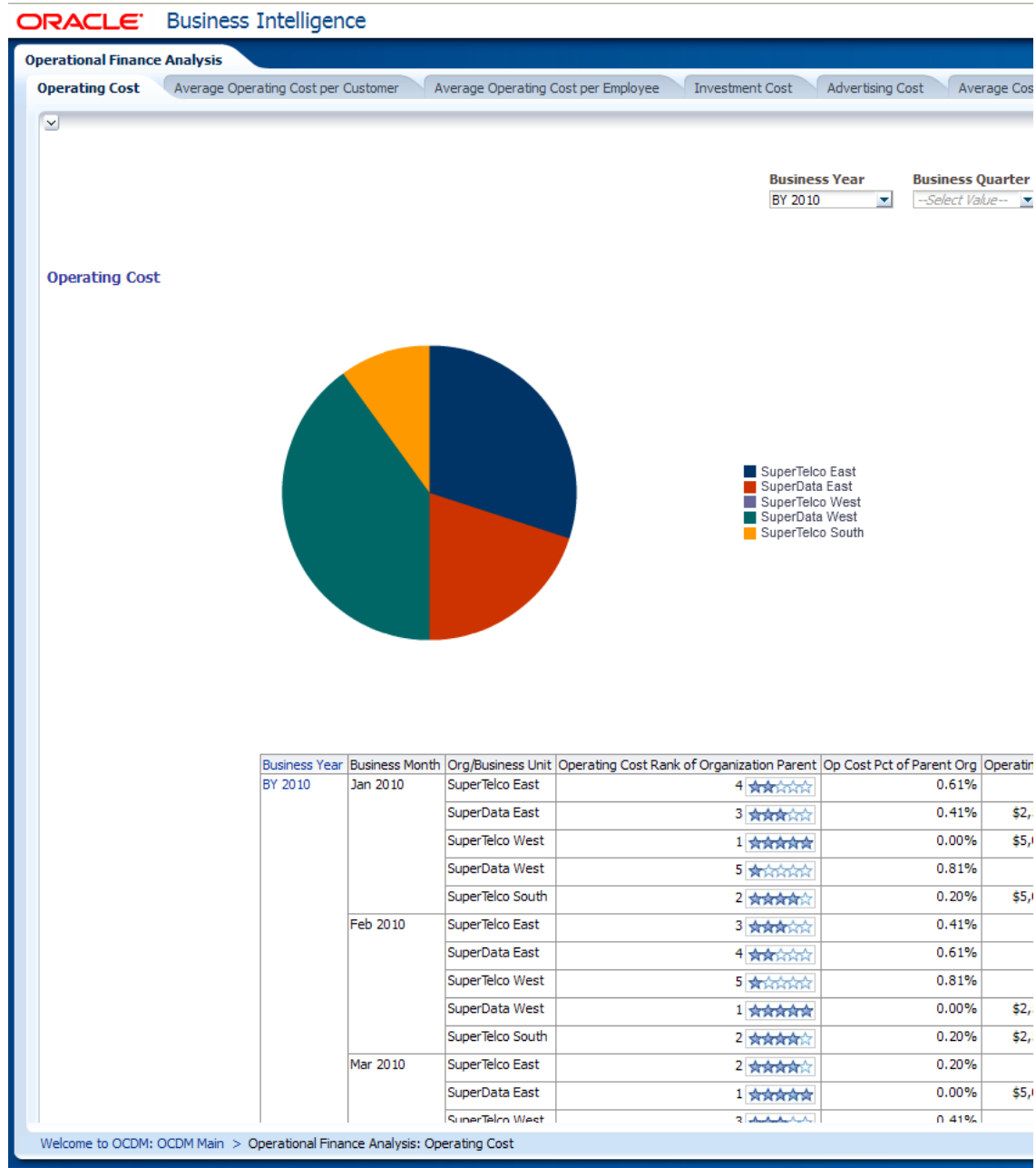
Figure 13-80   Operating Cost Report (right side of report)

st Pct of Parent Org	Operating Cost	Operating Cost LY	Operating Cost % Change LY	Operating Cost YTD	Operating Cost YTD LY	Operating Cost YTD% Change LY
0.61%	$0.00	$2,500.00	-100.00%	$0.00	$2,500.00	-1.00%
0.41%	$2,500.00	$0.00		$2,500.00	$0.00	
0.00%	$5,000.00	$0.00		$5,000.00	$0.00	
0.81%	$0.00	$2,500.00	-100.00%	$0.00	$2,500.00	-1.00%
0.20%	$5,000.00	$0.00		$5,000.00	$0.00	
0.41%	$0.00	$0.00		$0.00	$2,500.00	-1.00%
0.61%	$0.00	$2,500.00	-100.00%	$2,500.00	$2,500.00	0.00%
0.81%	$0.00	$7,500.00	-100.00%	$5,000.00	$7,500.00	-0.33%
0.00%	$2,500.00	$2,500.00	0.00%	$2,500.00	$5,000.00	-0.50%
0.20%	$2,500.00	$0.00		$7,500.00	$0.00	

13.7.1.2 Average Operating Cost per Customer

This report, as shown in provides the current year month-level "Average Operating Cost per Customer" information based on "Organization Unit" which can be compared with last years metrics like LY, % Change LY.

Report dimensions are:

*   Business Time

*   Organization

Figure 13-81   Average Operating Cost per Customer Report
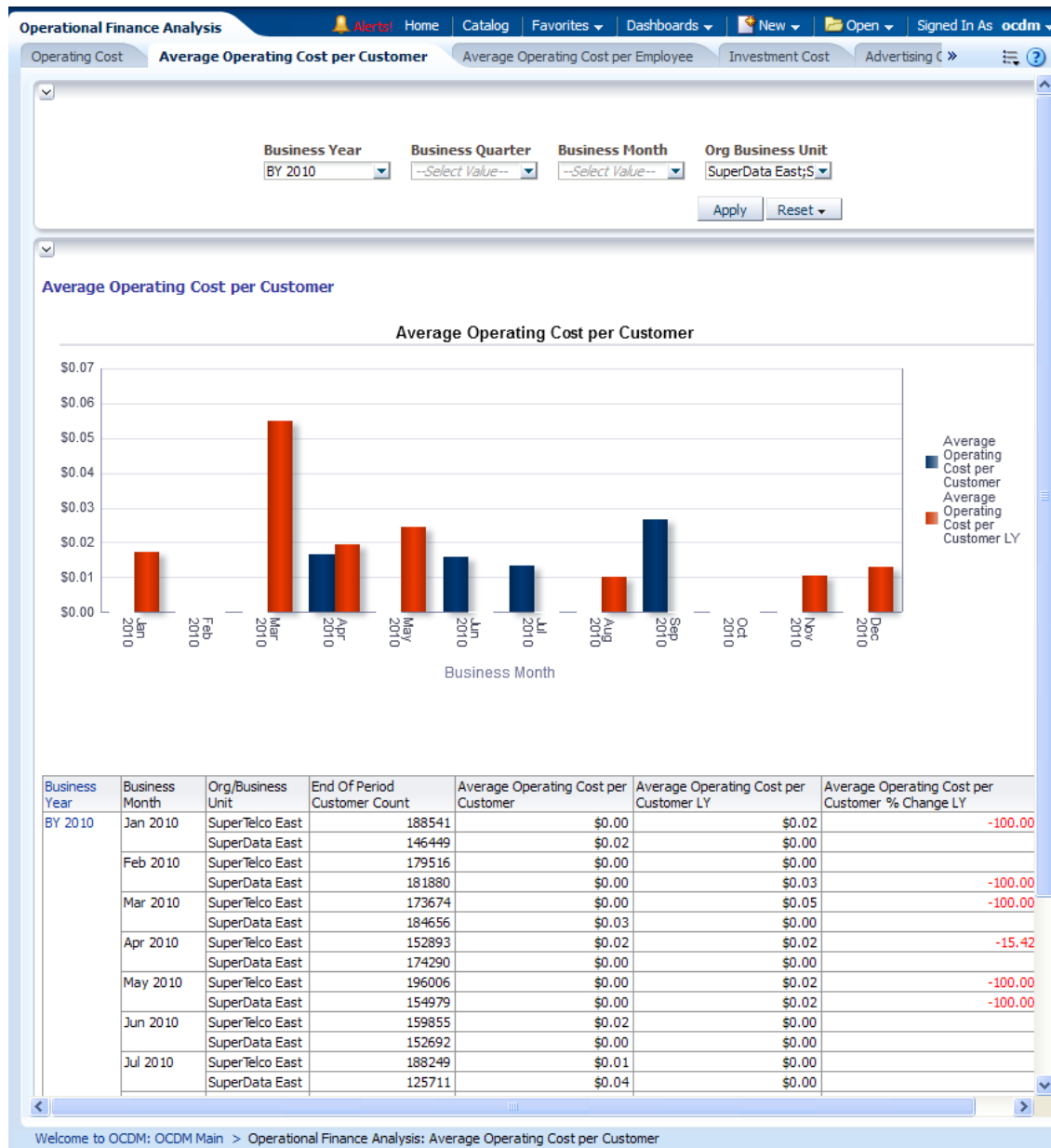
13.7.1.3 Average operating Cost per Employee

This report, as shown in Figure 13-82 (page 13-93) provides the current year "Average Operating Cost per Employee" information based on "Organization Business Unit" which can be compared with last years metrics such as: LY, % Change LY.

Report dimensions are:

- Business Time

- Organization

Figure 13-82   Cost: Average Operating Cost per Employee
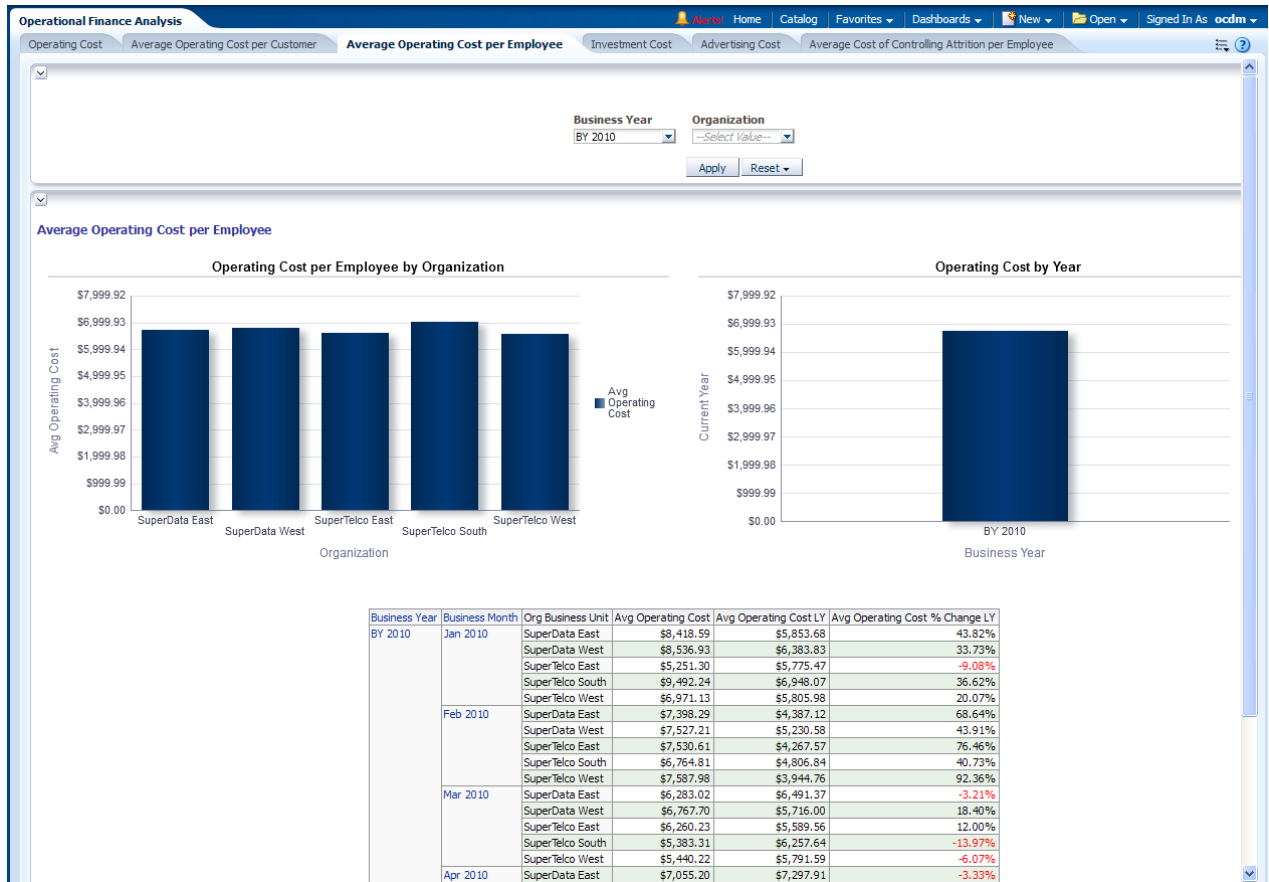
13.7.1.4 Investment Cost

This report, as shown in Figure 13-83 (page 13-94) provides the current year month-level "Investment Cost" and "Investment Cost share of parent Organization" information based on "Organization Unit and district" which can be compared with last years metrics like LY, % Change LY, YTD, YTD LY and YTD % Change LY.

Report dimensions are:

- Business Time

- Organization

Figure 13-83   Investment Cost Report
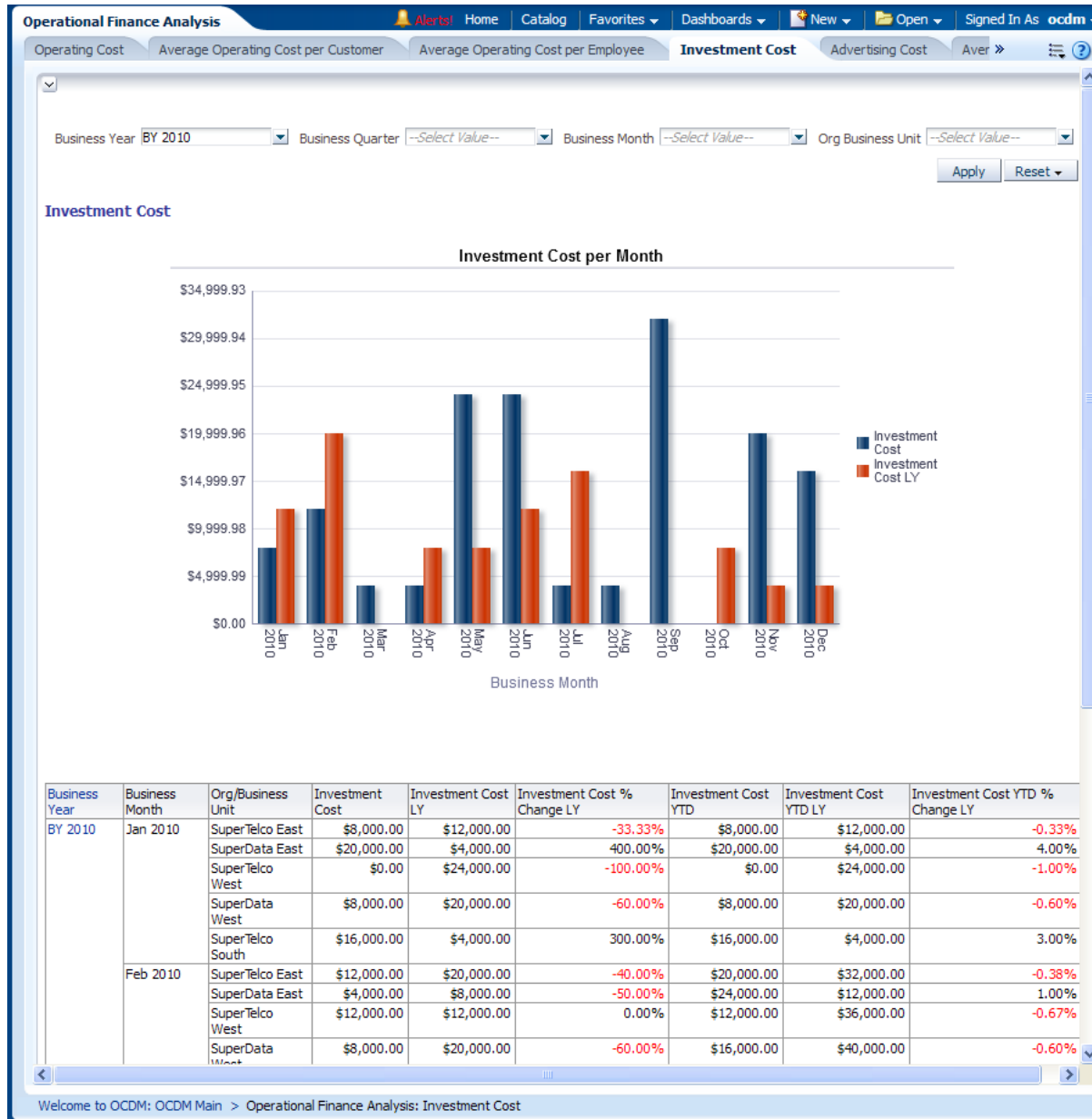
13.7.1.5 Advertising Cost Report

This report, as shown in Figure 13-84 (page 13-95) provides the current year month-level "Advertising Cost" information based on "Organization Parent" which internally can be compared with last years metrics like LY,% Change LY, YTD, YTD LY, YTD % Change LY.

Report dimensions are:

- Business Time

- Organization

Figure 13-84 Advertising Cost Report Report
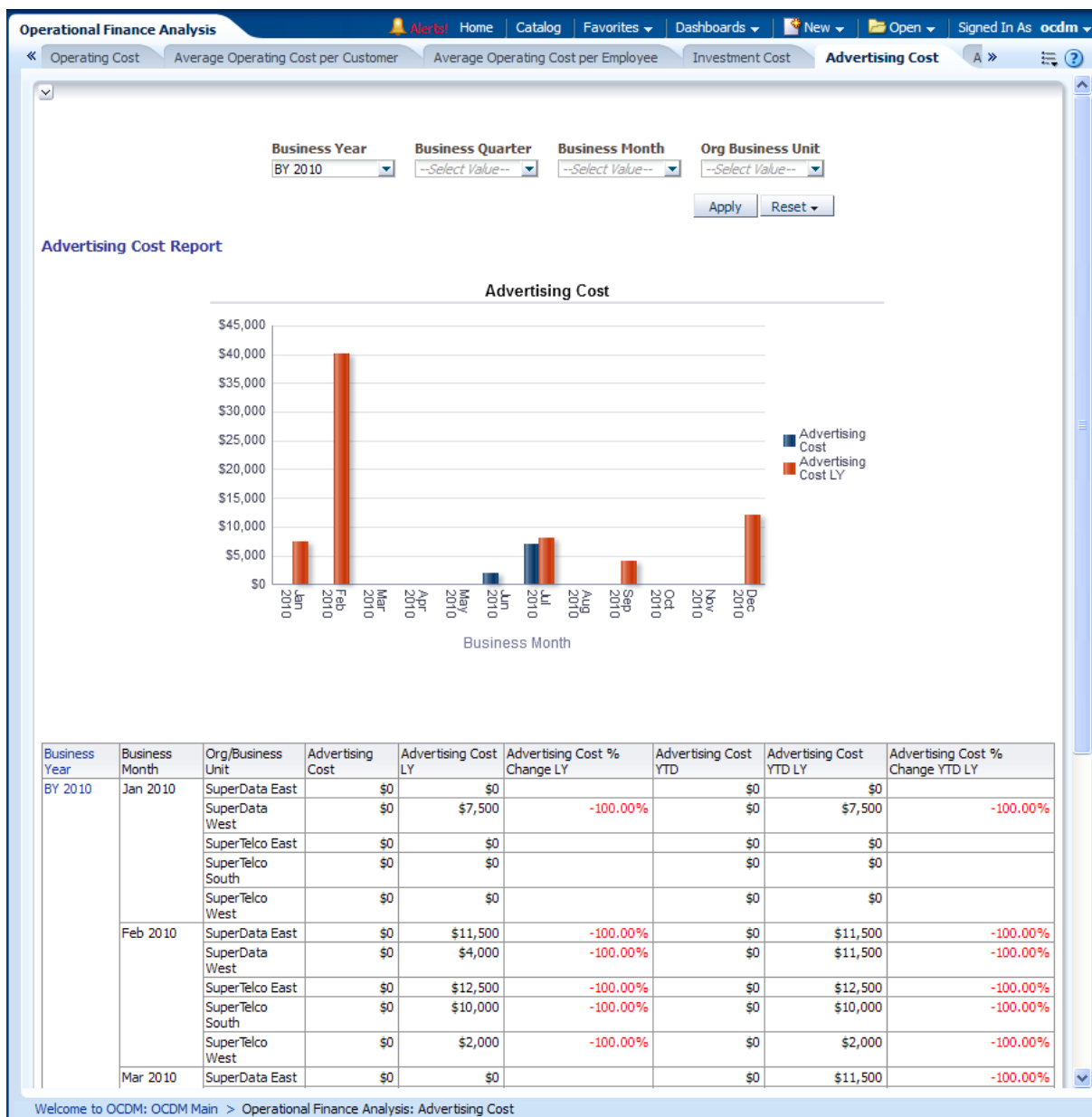
13.7.1.6 Average Cost of Controlling Attrition per Employee

This report, as shown in and provide the current year Level "Controlling Attribution by organization" and "Yearly Controlling Attribution" information based on "Organization" which can be compared with last years metrics like LY and % Change LY.

The attrition cost should be defined by the service operator.

Report dimensions are:

- Business Time

- Organization

- Product

Figure 13-85 Average Cost of Controlling Attrition per Employee (left side of screen)
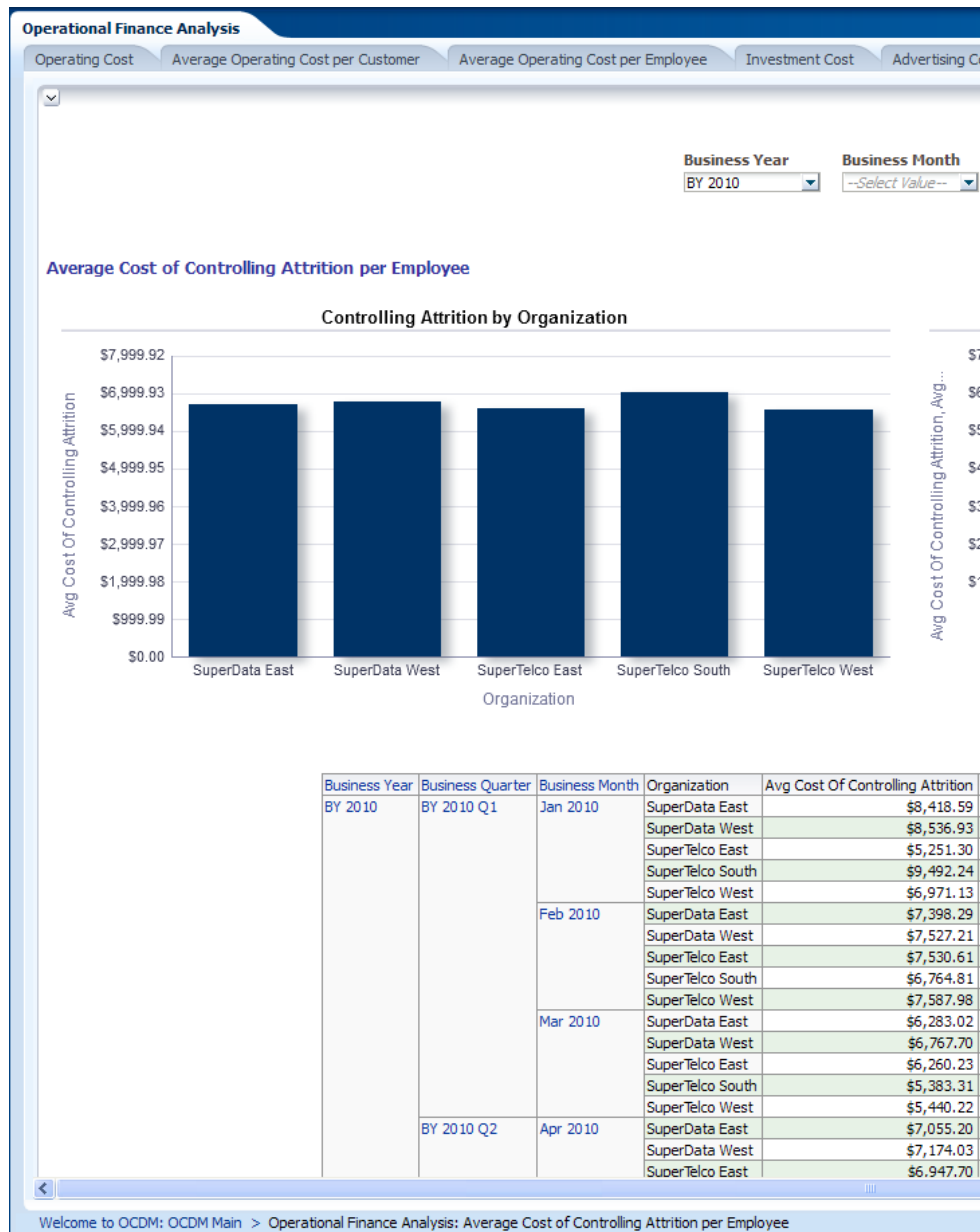
Figure 13-86   Average Cost of Controlling Attrition per Employee (right side of screen)
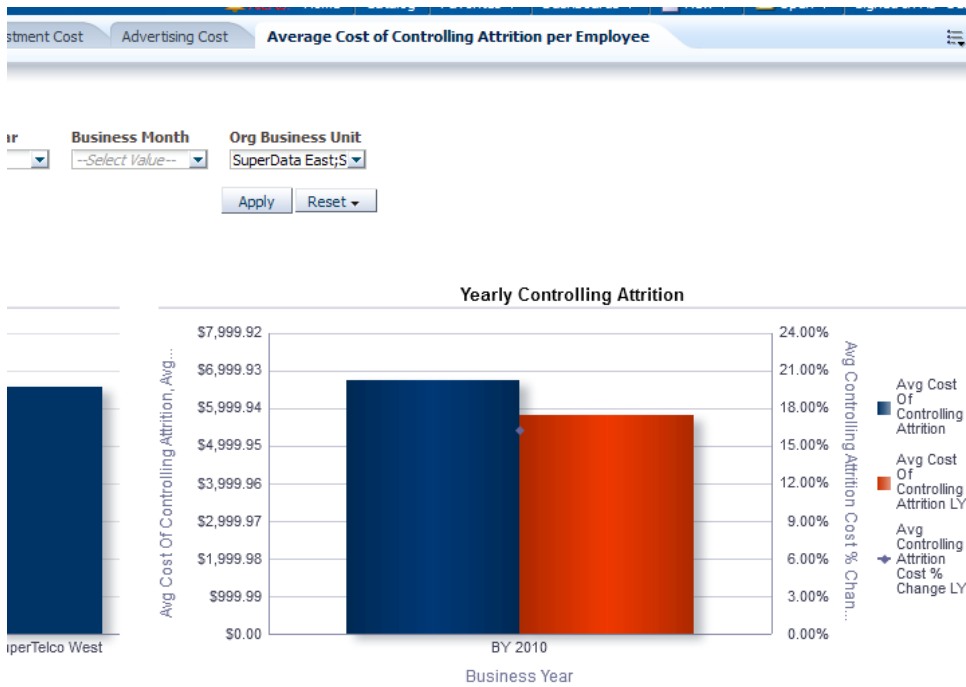
Avg Cost Of Controlling Attrition	Avg Cost Of Controlling Attrition LY	Avg Controlling Attrition Cost % Change LY
$8,418.59	$5,853.68	43.82%
$8,536.93	$6,383.83	33.73%
$5,251.30	$5,775.47	-9.08%
$9,492.24	$6,948.07	36.62%
$6,971.13	$5,805.98	20.07%
$7,398.29	$4,387.12	68.64%
$7,527.21	$5,230.58	43.91%
$7,530.61	$4,267.57	76.46%
$6,764.81	$4,806.84	40.73%
$7,587.98	$3,944.76	92.36%
$6,283.02	$6,491.37	-3.21%
$6,767.70	$5,716.00	18.40%
$6,260.23	$5,589.56	12.00%
$5,383.31	$6,257.64	-13.97%
$5,440.22	$5,791.59	-6.07%
$7,055.20	$7,297.91	-3.33%
$7,174.03	$7,869.68	-8.84%
$6,047.70	$6,333.55	0.87%

13.7.2 Profitability Analysis

This area includes the reports: Total Profit (page 13-97), Average Profit per Customer (page 13-99), and Average Profit per Employee (page 13-100).

Total Profit (page 13-97)

Average Profit per Customer (page 13-99)

Average Profit per Employee (page 13-100)

13.7.2.1 Total Profit

This report, as shown in Figure 13-87 (page 13-98) and Figure 13-88 (page 13-99) provide the current year and month-level "Total Profit" information based on "Organization" which internally can be compared with last years metrics like LY,% Change LY, YTD, YTD LY, YTD % Change LY.

Report dimensions are:

- Business Time

- Organization

Figure 13-87 Total Profit Report (left side of screen)
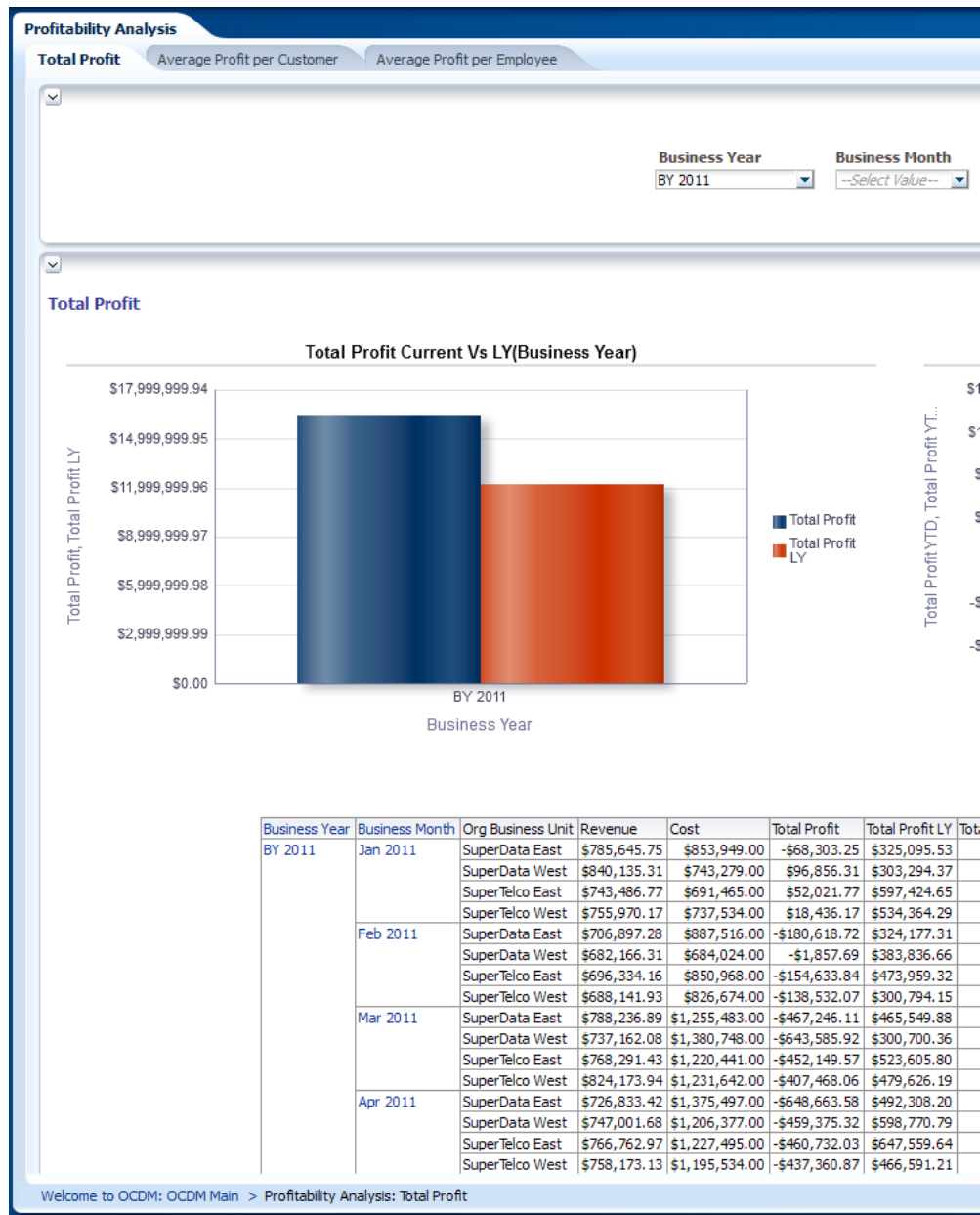
Figure 13-88   Total Profit Report (right side of screen)

13.7.2.2 Average Profit per Customer

This report, as shown in provides the current year and month-level "Average Profit" information based on "Customer" and "Customer by Product" which internally can be compared with metrics such as LY, % Change LY for last year.

Report dimensions are:

• Business Time

• Organization

• Product

• Customer Type

Figure 13-89   Profit: Average Profit per Customer Report
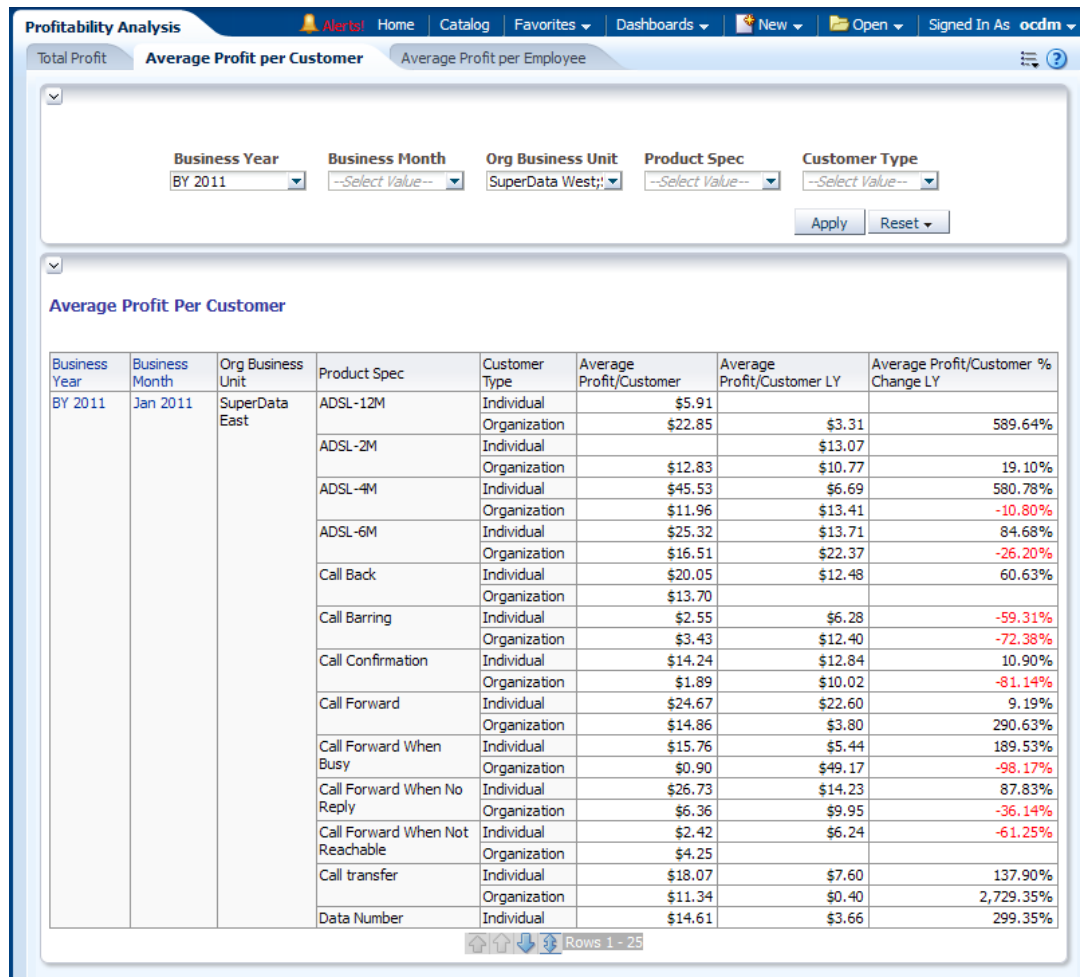
13.7.2.3 Average Profit per Employee

This report, as shown in Figure 13-90 (page 13-101) provides the current year and month-level "Average Profit" information based on "Employee" and "Org Business Unit" which can be compared with last years metrics like LY, % Change LY.

The average profit is calculated by dividing the total profit by the number of employees.

Report dimensions are:

- Business Time

- Organization

- Product

- Customer Type

Figure 13-90   Profit: Average Profit per Employee Report
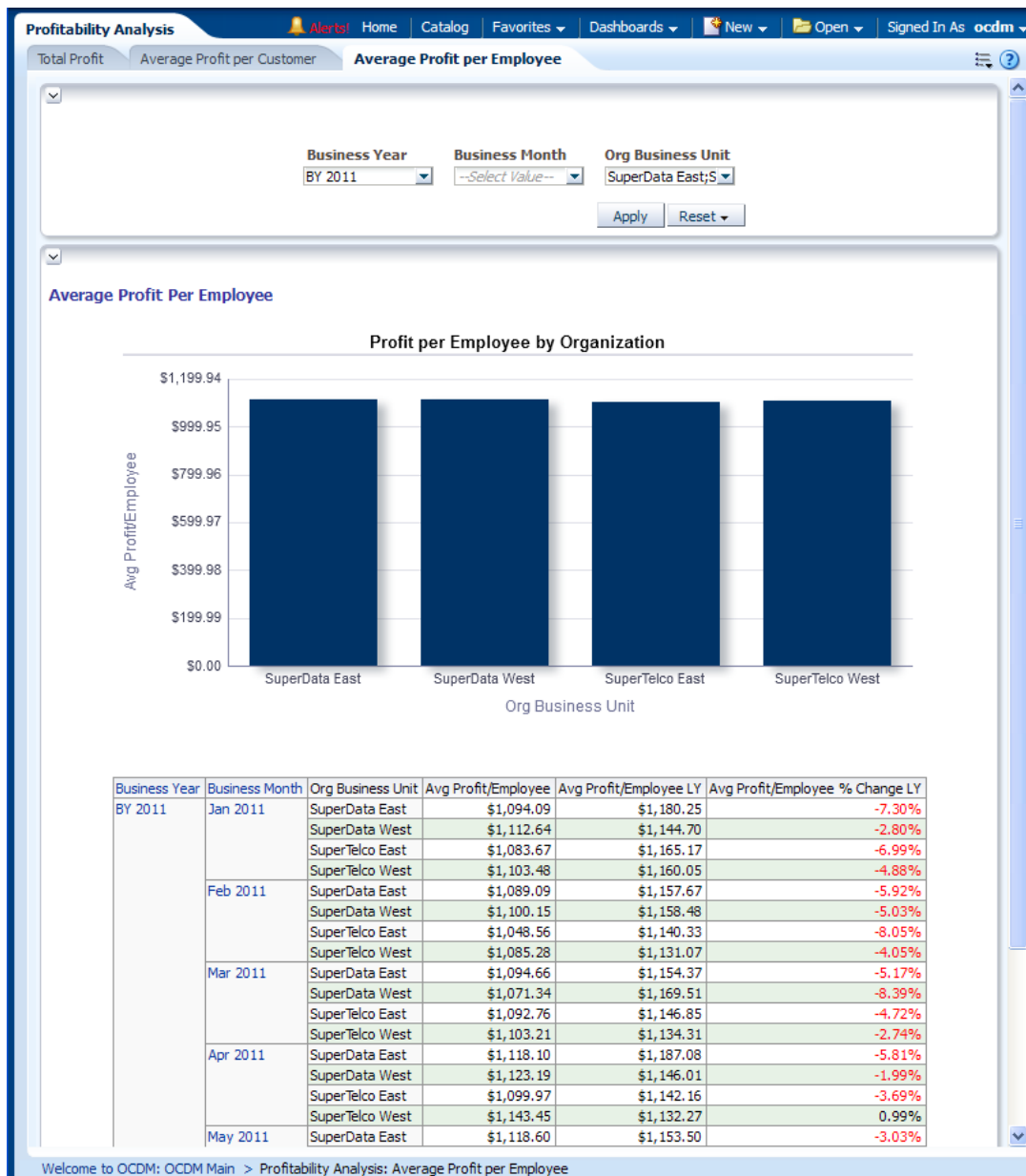
13.8 Partner Management Reports

The partner management reports include the following areas:

Roaming Partner Settlement (page 13-101)

Churn Outliner by Partner (page 13-103)

Partner Content Sales (page 13-104)

Commissions (page 13-105)

13.8.1 Roaming Partner Settlement

This area includes the report Roaming Partner Settlement Summary (page 13-102).

13.8.1.1 Roaming Partner Settlement Summary

This report, as shown in Figure 13-91 (page 13-103) provides month-level transaction activity information based on partner settlement measures, for one or more location. This report shows summary over financial settlement activities happened to partners.

Report dimensions are:

- Business Time

- Geography

- Billing Cycle

- Event Type

- Account

- Party

- Contract

Figure 13-91 Roaming Partner Settlement Summary Report

13.8.2 Churn Outliner by Partner

This area include the report: Churn Outliner by Partner (page 13-103) and Track Dealer Commission and Performance (page 13-105).

13.8.2.1 Churn Outliner by Partner

This report, as shown in Figure 13-92 (page 13-104) provides year-level transaction activity information based on average churn rate for customer measures, for one or more sales channel.

This demonstrates statistically significant anomalies in churn rate by sales channel or partners (for example which channel records maximum churn) This can help identify problem area domains and facilitates further drill down to identify the cause of the problems (network problems and other problems) and take remedial actions to

prevent churns. Actions could be further training or education to the partners, empowering them to offer additional incentives or discounts.

Report dimensions are:

- Business Time

- Sales Channel

Figure 13-92   Churn Outliner by Partner Report
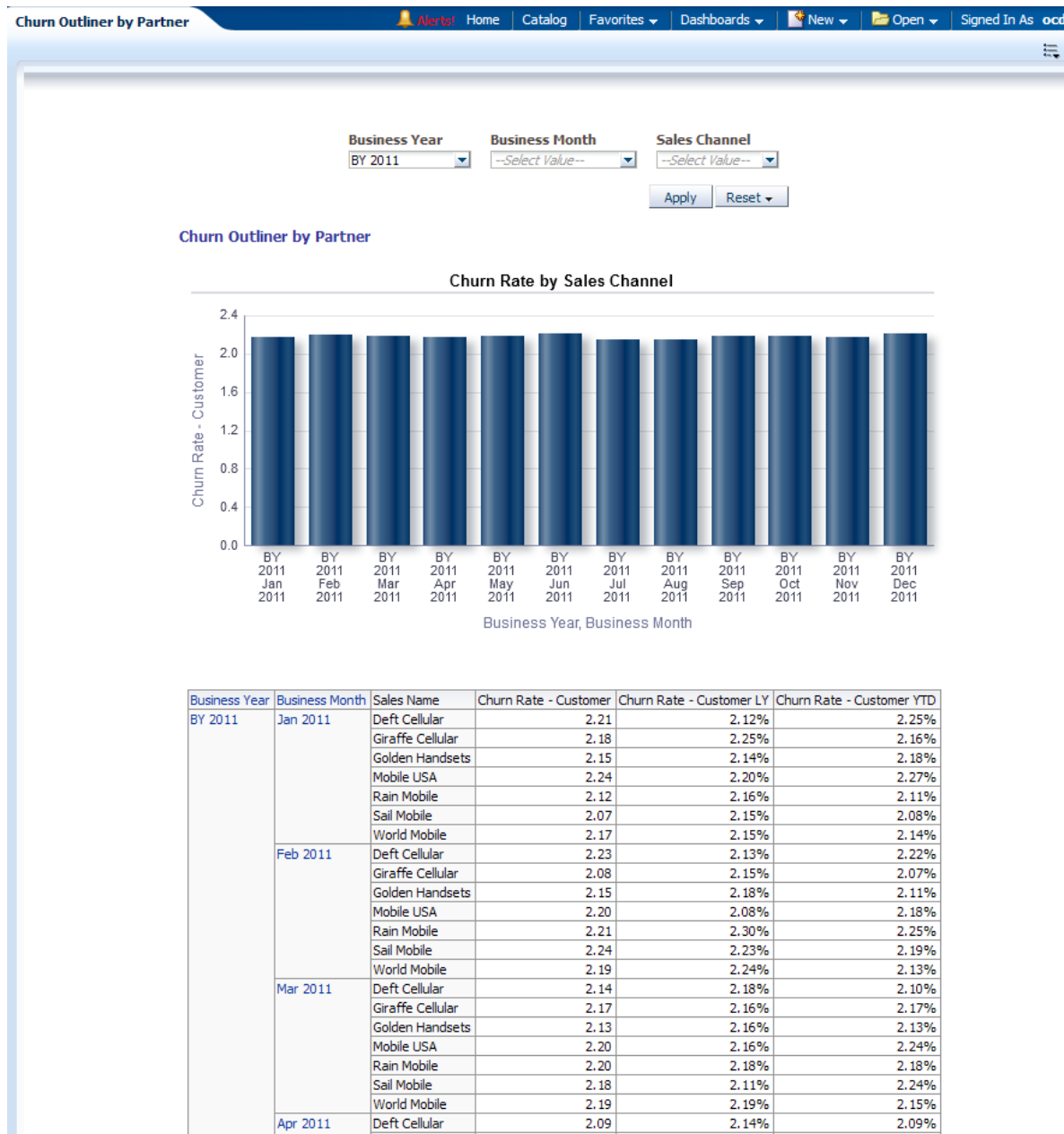
13.8.3 Partner Content Sales

This area includes the report Partner Content Sales (page 13-105).

Partner Content Sales (page 13-105)

13.8.3.1 Partner Content Sales

This report, as shown in Figure 13-93 (page 13-105) provides month-level transaction activity information based on data usage measures, for one or more content.

Report dimensions are:

- Business Time

- Content Type

Figure 13-93   Partner Content Sales Report
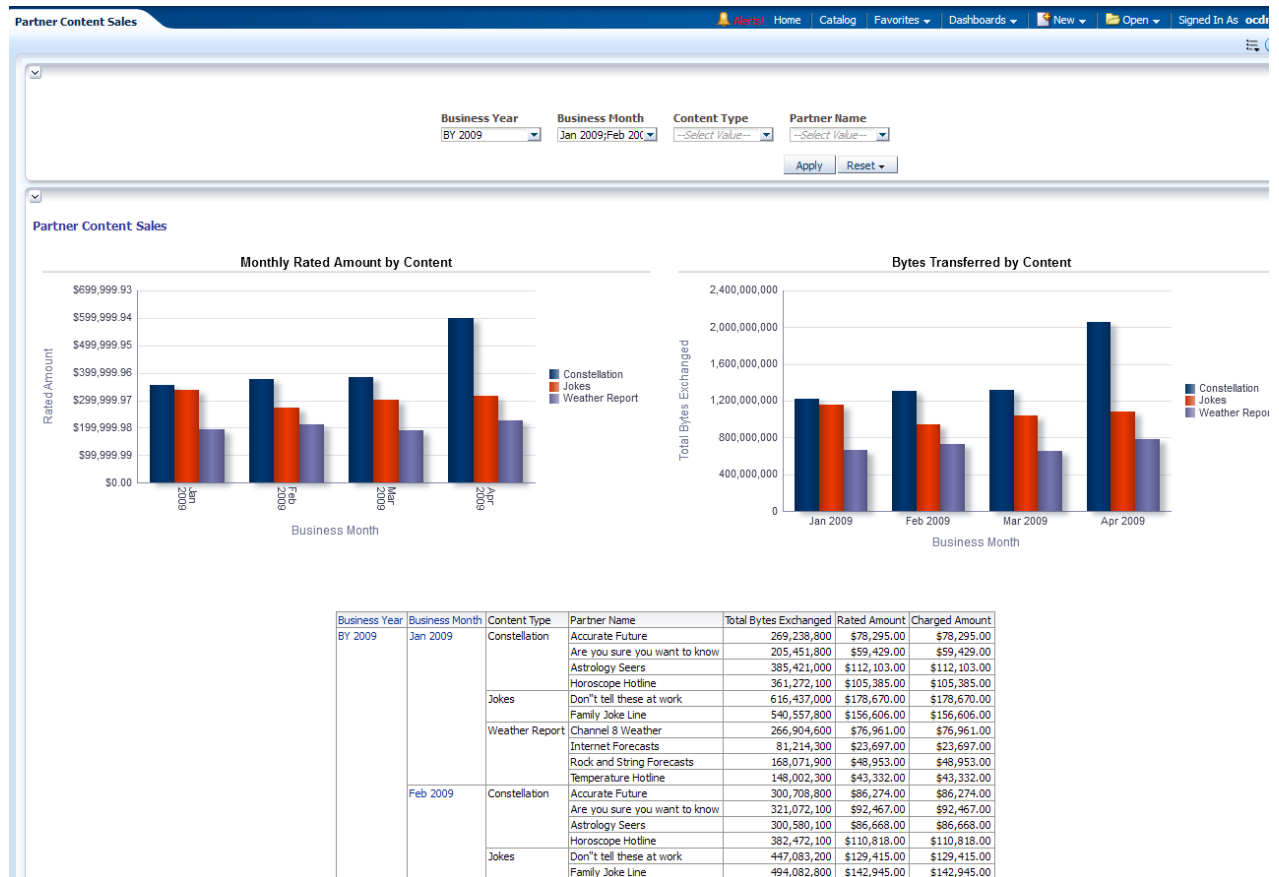
13.8.4 Commissions

This area includes the report: Track Dealer Commission and Performance (page 13-105).

13.8.4.1 Track Dealer Commission and Performance

This report, as shown in Figure 13-94 (page 13-106) gives the month level Dealer performance and commission generated based on a product.

Report dimensions are:

- Business Time

- Commission Type

- Product

Figure 13-94   Track Dealer Commission and Performance Report
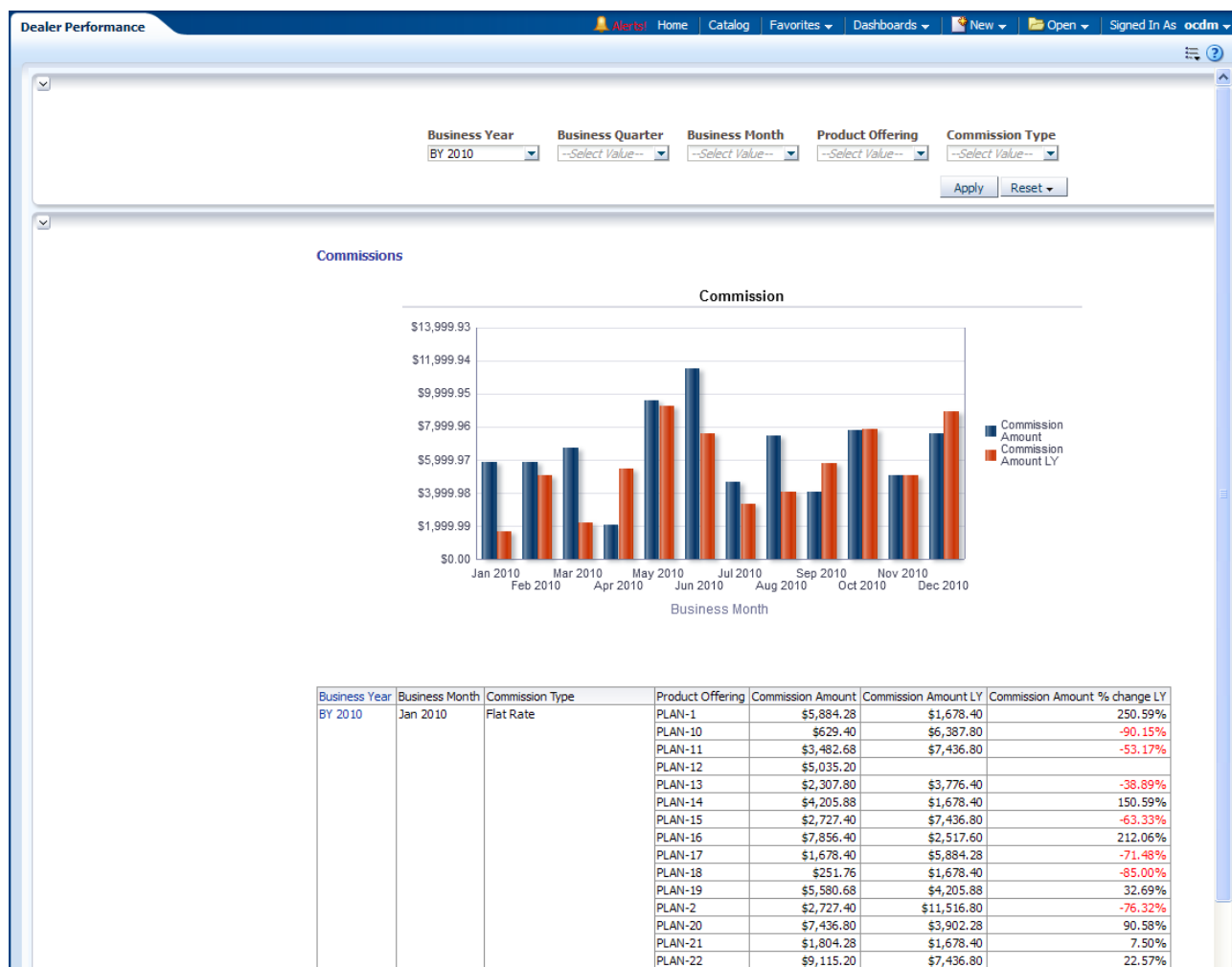
Part IV

Appendices

Part III contains the following Appendixes:

A

Control Tables

Some tables are defined in the `ocdm_sys` schema and use a DWC_ prefix, but are not part of Oracle Communications Data Model. You use the DWC_ control tables when processing the model. For example when loading data or when monitoring errors.

This appendix includes the following sections:

A.1 Intra-ETL Load Parameters Control Table

Use the `ocdm_execute_wf.sh` program to manually execute the Intra-ETL.

Before you run the Intra-ETL, for an incremental load, you must update the Oracle Communications Data Model Relational ETL parameters in `DWC_ETL_PARAMETER` table so that this information can be used when loading the relational data. This program prompts for several environment parameter values. And reads ETL parameters from `DWC_ETL_PARAMETER` table, as shown in Table A-1 (page A-1), and `DWC_OLAP_ETL_PARAMETER` table, as shown in Table A-2 (page A-2).

The PKG_DWD_*_MAP loads data from Oracle Communications Data Model base tables into the Oracle Communications Data Model derived tables. These packages read relational ETL parameters from the `DWC_ETL_PARAMETER` table.

You update the parameters in `DWC_ETL_PARAMETER` control table in the `ocdm_sys` schema so that this information can be used when loading the derived and aggregate tables and views.

Table A-1 (page A-1) describes the valid values for the `DWC_ETL_PARAMETER` table.

Table A-1   DWC_ETL_PARAMETER Table

Column	Description
Process_name	OCDM-INTRA-ETL
from_date_etl	The start date of ETL period.
to_date_etl	The end date of ETL period.
load_dt	The date when this record are populated.
last_updt_dt	The date when this record are last updated

Table A-1   (Cont.) DWC_ETL_PARAMETER Table

Column	Description
last_updt_by	The user who last updated this record

A.2 Intra-ETL OLAP Mapping Control Table

The OLAP MAP mapping that loads OLAP cube data invokes the analytic workspace build function from the `PKG_OCDM_OLAP_ETL_AW_LOAD` package. This package loads data from Oracle Communications Data Model aggregate materialized views into the Oracle Communications Data Model analytical workspace and calculates the forecast data. The `PKG_OCDM_OLAP_ETL_AW_LOAD` reads OLAP ETL parameters from the `DWC_OLAP_ETL_PARAMETER` table.

You update the Oracle Communications Data Model OLAP ETL parameters in `DWC_OLAP_ETL_PARAMETER` control table in the `ocdm_sys` schema so that this information can be used when loading the OLAP cube data.

Table A-2 (page A-2) describes the valid values for the `DWC_OLAP_ETL_PARAMETER` table. For more information on the values to specify when performing an initial load of OLAP cube data or when refreshing the OLAP cubes after an initial load, see *Oracle Communications Data Model Implementation and Operations Guide*.

Table A-2   ETL Parameters in the DWC_OLAP_ETL_PARAMETER Table

Column Name	Description
PROCESS_NAME	OCDM_OLAP_ETL
BUILD_METHOD	Cube build/refresh method specified by one of the following values: `C` specifies a complete refresh which clears all dimension values before loading. `?` specifies a fast refresh if possible; otherwise, a complete refresh. (Default) `P` specifies recomputation of rows in a cube materialized view that are affected by changed partitions in the detail tables. `S` specifies a fast solve of a compressed cube. A fast solve reloads all the detail data and re-aggregates only the changed values.
CUBENAME	Specifies the cubes you want to build: `ALL` builds all of the cubes in the Oracle Communications Data Model analytic workspace. *cubename*[[|*cubename*]...] specifies one or more cubes, as specified with *cubename*, to build.
MAXJOBQUEUES	A decimal value that specifies the number of parallel processes to allocate to this job. (Default value is 4.) The number of parallel processes actually allocated by a build is controlled by the smallest of these factors: - Number of cubes in the build and the number of partitions in each cube. - Setting of the MAXJOBQUEUES argument. - Setting of the JOB_QUEUE_PROCESSES database initialization parameter.
CALC_FCST	Whether or not to calculate forecast cubes: `Y` specifies calculate forecast cubes. `N` specifies do not calculate forecast cubes.

Table A-2 (Cont.) ETL Parameters in the DWC_OLAP_ETL_PARAMETER Table

Column Name	Description
NO_FCST_YRS	A decimal value that specifies how many years forecast data you want to calculate. (This parameter takes effect only if you set CALC_FCST to `'Y'`)
FCST_MTHD	`AUTO` which invokes the Geneva forecasting expert system which tests all of possible forecasting methods and options for these methods and chooses and uses the method that best fits the data.
FCST_ST_YR	A value specified as *yyyy* which is the "start business year" of a historical period. Forecast program will calculate the forecast data based on the historical data in this period.
FCST_END_YR	A value specified as *yyyy* which is the "end business year" of a historical period. Forecast program will calculate the forecast data based on the historical data in this period.
OTHER1	Reserved for future use. (Default value is `NULL`.)
OTHER2	Reserved for future use. (Default value is `NULL`.)

A.3 Intra-ETL Monitoring Process Control Tables

The two control table in the `ocdm_sys` schema, `DWC_INTRA_ETL_PROCESS` and `DWC_INTRA_ETL_ACTIVITY`, monitor the execution of the Intra-ETL process.

Table A-3 (page A-3) contains column name information for `DWC_INTRA_ETL_PROCESS`. Table A-4 (page A-4) contains column name information for `DWC_INTRA_ETL_ACTIVITY`.

Table A-3 DWC_INTRA_ETL_PROCESS Columns

Columns Name	Data Type	Not Null	Remarks
PROCESS_KEY	NUMBER(30)	Yes	Primary Key, System Generated Unique Identifier
PROCESS_START_TIME	DATE	Yes	ETL Process Start Date and Time
PROCESS_END_TIME	DATE	ETL Process End Date and Time	No value
PROCESS_STATUS	VARCHAR2(30)	Yes	Current status of the process
FROM_DATE_ETL	DATE	Start Date (ETL) - From Date of the ETL date range	No value
TO_DATE_ETL	DATE	End Date (ETL) - To Date of the ETL date range	No value

Table A-3   (Cont.) DWC_INTRA_ETL_PROCESS Columns

Columns Name	Data Type	Not Null	Remarks
LOAD_DT	DATE	Record Load Date - Audit Field	No value
LAST_UPDT_DT	NUMBER(30)	Last Update Date and Time - Audit Field	No value
LAST_ UPDT_BY	VARCHAR(30)	Last Update By - Audit Field	No value

Table A-4   DWC_INTRA_ETL_ACTIVITY Columns

Columns Name	Data Type	Not Null	Remarks
ACTIVITY_KEY	NUMBER(30)	Yes	Primary Key, System Generated Unique Identifier
PROCESS_KEY	NUMBER(30)	Yes	Process Key. FK to DWC_INTRA_ETL_ PROCESS table
ACTIVITY_NAME	VARCHAR2(50)	Yes	Activity Name or Intra ETL Program Name
ACTIVITY_DESC	VARCHAR2(500)	Activity description	No value
ACTIVITY_START_TIME	DATE	Yes	Intra ETL Program Start Date and Time
ACTIVITY_END_TIME	DATE	Intra ETL Program End Date and Time	No value
ACTIVITY_STATUS	VARCHAR2(30)	Yes	Current status of the process
ERROR_DTL	VARCHAR2(2000)	Error details if any	No value
LOAD_DT	DATE	Record Load Date - Audit Field	No value
LAST_UPDT_DT	NUMBER(30)	Last Update Date and Time - Audit Field	No value
LAST_ PDT_BY	VARCHAR(30)	Last Update By - Audit Field	No value

B

Oracle Communications Data Model Assumptions

This chapter describes the basic concepts and assumptions (or business rules) in the Oracle Communications Data Model.

This chapter is organized by subject area in the typical way you might feed data into Oracle Communications Data Model.

Oracle Communications Data Model is aligned with TM Forum's Information Framework (SID) Release 12. The TM Forum provides business-critical industry standards and expertise to enable the creation, delivery, and monetization of digital services. For more information on TM Forum, see

http://www.tmforum.org/

Most entity names conform to the TeleManagement Forum Shared Information Data (SID) model Business entities, to ease the mapping when dealing with TM Forum SID certified applications. In nearly all cases, the definitions exactly fit. Hence, several notions in the following can be reviewed and deepened by looking into the TM Forum SID documentation with their examples. From a content perspective however, they usually have more attributes specific to Oracle Communications Data Model.

B.1 Understanding General Entities

General entities shown in Table B-1 (page B-2) should be filled upfront either manually (standard Geography hierarchy, Organization Business Units) or automatically (calendars and time of day, geography through Address Location or external data, Standard Organization Business hierarchy through Human Resource (HR) or Enterprise Resource Planing (ERP) system as input).

Table B-1   General Entities

Model Area	Description
Business Unit Code and Business Unit Type Code	These attributes are leveraged for the ORGANIZATION (page 2-116) flexible Hierarchy, related to the Organization subject area. Please do not remove and do not mix with ORGANIZATION BUSINESS UNIT (page 2-117) CODE (or key).
CALENDAR	Calendars should be filled for 20 years starting with the "smallest" day for which Usage data (in aggregation) will be available (not customer data) and furthest day in the future.
GEOGRAPHY	The default geography of the country, for example, WORLD, REGION, COUNTRY, CITY should be defined upfront whenever possible. Create search functions to simplify the address validation (whether or not add a new CITY or COUNTY row when getting a new address). Addresses should be validated upfront in the source system or at the staging layer. Addresses are supposed to be correct and validated when in Oracle Communications Data Model.
TIME	Please fill the second, minutes, quarter of hours and hours.
TIME SLOT (page 2-206)	By default, TIME SLOT should correspond exactly to quarter of hours. You may extend this notion to a bigger time period (for customization), leveraging a time band.

B.2 Understanding Product Offering and Specification Entities

Table B-2   Product Offering and Specifications Entities

Entity	Description
PRODUCT OFFERING (page 2-154)	Represents what is externally presented to the market for the market's use. A PRODUCT OFFERING (page 2-154) can be assembled from a reusable PRODUCT SPECIFICATION (page 2-158) (sometimes referred to as "product spec"). PRODUCT OFFERING (page 2-154) is physically associated with DWR_PROD_OFR. Typical abbreviation for PRODUCT OFFERING (page 2-154) is "Prod Offer" or "Product Offer" or "Prod Offering".

Table B-2   (Cont.) Product Offering and Specifications Entities

Entity	Description
PRODUCT SPECIFICATION (page 2-158)	Represent a tangible object or something intangible provided to customers, realized as a 'service' but not to be confused with a network service (TMF SID). Basically, a PRODUCT SPECIFICATION (page 2-158) describes the characteristics of what the customer will be able to do once he purchases (the PRODUCT OFFERING (page 2-154) is the market vision, while the PRODUCT SPECIFICATION (page 2-158) is the effective Component description, from the perspective of a service provider, that are leveraged to compose the PRODUCT OFFERING (page 2-154)). It is physically associated with DWR_PROD_SPECIt is physically associated with DWR_PROD_SPEC.
PRODUCT SPECIFICATION VERSION (page 2-161)	A particular form or variety of a PRODUCT SPECIFICATION (page 2-158) that is different from others or from the original. The form represents differences in properties that characterize a PRODUCT SPECIFICATION (page 2-158), that are not significant enough for creating a new PRODUCT SPECIFICATION (page 2-158).
PRODUCT (page 2-152)	A PRODUCT SUBSCRIPTION (page 2-161) represents an instance of a PRODUCT SPECIFICATION (page 2-158), typically available for sales or sold (before or after being subscribed to).
	A Product is an Instance of a PRODUCT SPECIFICATION (page 2-158) associated with a PRODUCT OFFERING (page 2-154). In Oracle Communications Data Model, it would typically correspond to some hardware (prepaid card, cell phone, and so on) on the shelf (somewhere) with a specific Serial Number ready to be purchased and used. A PRODUCT SUBSCRIPTION (page 2-161) would be the realization of a PRODUCT SPECIFICATION (page 2-158) when a Service is associated with the PRODUCT SPECIFICATION (page 2-158) (for example a GSM service). PRODUCT (page 2-152) corresponds to DWR_PROD).

Table B-2   (Cont.) Product Offering and Specifications Entities

Entity	Description
PRODUCT SUBSCRIPTION (page 2-161)	Represents the subscription to a PRODUCT OFFERING (page 2-154) by a PARTY (page 2-120) playing a PARTY ROLE (page 2-124), such as a Customer. A PRODUCT SUBSCRIPTION (page 2-161) is an instance of a PRODUCT SPECIFICATION (page 2-158) associated with an ACCOUNT (page 2-25), and optionally (usually) with a service and an access method (same definition as PRODUCT (page 2-152) otherwise).
	PRODUCT SUBSCRIPTION (page 2-161) allows each part of a PRODUCT OFFERING (page 2-154) (typically based on COMPOSITE PRODUCT SPECIFICATION (page 2-53)) to be realized and instantiated separately, "atomic" product specification would be used to describe "trouble ticket" or "product subscription change", by atomic PRODUCT SPECIFICATION (page 2-158) to allow actions such as trouble ticket or product subscription change against specific ones (and not just the composite Spec). This is also necessary if a PRODUCT OFFERING (page 2-154) has a tariff (PRODUCT OFFERING PRICE (page 2-155)) depending on the flexible characteristic associated to a PRODUCT SPECIFICATION (page 2-158).
	In Oracle Communications Data Model the PRODUCT SUBSCRIPTION (page 2-161) will not carry the AGREEMENT (page 2-33) nor its agreement details (AGREEMENT ITEM (page 2-34)). AGREEMENT ITEM (page 2-34) holds the Product subscription Key. Through AGREEMENT ITEM (page 2-34), one can find out the Agreement Key. As a consequence, a change in PRODUCT SUBSCRIPTION (page 2-161) may imply a change in AGREEMENT ITEM (page 2-34) (typically for postpaid but not only) but not in AGREEMENT (page 2-33).
	The attributes "Product Subscription Status code" and "Status code" should always be filled and equal.
PRODUCT LINE (page 2-154)	A method used to group related PRODUCT SPECIFICATION (page 2-158)s marketed by the same company that differ only in size or style. This strict definition (TMF SID) is in fact open for any definition that fits the Communications Service Provider (CSP).
PRODUCT SPECIFICATION CATEGORY (page 2-158)	A method used to group a set of PRODUCT SPECIFICATION (page 2-158)s that are classified together because of common characteristics. This strict definition (TMF SID) is in fact open for any definition that fits the CSP.

Table B-2   (Cont.) Product Offering and Specifications Entities

Entity	Description
Plan Type	The attribute Plan Type in PRODUCT OFFERING (page 2-154) corresponds to either "Prepaid" or "Postpaid". It is used in the PRODUCT OFFERING (page 2-154) Hierarchy. Possible extensions are "Hybrid" but should be carefully looked at, especially with respect to the implications on some critical intra-ETLs such as COUNT DAY DRVD (page 2-61), REVENUE DAY DRVD (page 2-178) and others.
SKU ITEM (page 2-197)	SKU ITEM (page 2-197) tracks physical inventory. Hence, there must be one row (that is one key) per concrete object. SKU ITEM (page 2-197) can roll up to two hierarchies: ITEM SPECIFICATION (page 2-97) and PRODUCT SPECIFICATION (page 2-158). Those two hierarchy attributes are present in SKU ITEM (page 2-197).
ACCESSORIES (page 2-25), HANDSET MODEL (page 2-87) and EQUIPMENT (page 2-74)	These are a subset of SKU ITEM (page 2-197) with fewer attributes and some unique attributes. Just like SKU ITEM (page 2-197), they can roll up to ITEM SPECIFICATION (page 2-97) or PRODUCT SPECIFICATION (page 2-158). ACCESSORIES (page 2-25) are always add-ons to a main item. For each instances of ACCESSORIES (page 2-25), EQUIPMENT (page 2-74) and HANDSET MODEL (page 2-87) (in their respective DWR_XXX_INSTNC tables), do the following: • Add automatically 1 row to DWR_SKU_ITEM for each row of those instances with all the columns you can feed. • SKU_TYP_CD values should have additional lookup values such as: 'ACCESSORIES', 'EQUIPMENT', 'HANDSETMODEL';
SUPPLEMENTARY SERVICE (page 2-203)	In Oracle Communications Data Model, only Postpaid-related supplementary Services have been picked, leveraging any PRODUCT SPECIFICATION (page 2-158)s defined in DWR_SPLMNTR_SRVC. Note however that the supplementary service derived table only runs over PRODUCT SPECIFICATION (page 2-158), looking for specific Product Specification codes, instead of linking to DWR_SPLMNTR_SRVC, because the target attributes are fixed.

Table B-2   (Cont.) Product Offering and Specifications Entities

Entity	Description
VAS Service	Value-Added Service VAS applies only to WIRELESS CALL EVENT (page 2-216): the following tables should be taken. The current Intra-ETL version for VAS Usage derived, only uses DWB_ISP_USG_EVT, DWB_MMS_EVT, DWB_UDR_EVT, and DWB_SMS_EVT.DWB_UMS_EVT,
	DWB_WRLS_CALL_EVT
	DWB_WRLS_CALL_EVT
	DWB_SMS_EVT
	DWB_MMS_EVT
	DWB_WRLS_CNTNT_DNLDG_EVT
	DWB_CNTNT_DLVRY_EVT
	DWB_GPRS_USG_EVT
	DWB_ISP_USG_EVT
	DWB_UMS_EVT
	DWB_WRLS_RMNG_EVT

B.3 Understanding Party, Party Subtypes, and Party Role

Table B-3   Party and Party Subtype Entities

Entity	Description
CUSTOMER (page 2-62)	Customer has PROFILES and they have sub types of Individual and Business (termed as Organization). In addition Customer Contains PROSPECT (page 2-165) also plus other related reference entities such as Customer Financial and Non Financial relationship (Accounts, Affiliation, Group, Occasion, Preference, Demography). Some of the "Named" Demography attributes are kept in CUSTOMER (page 2-62) entity.

Table B-3 (Cont.) Party and Party Subtype Entities

Entity	Description
PARTY (page 2-120) and PARTY ROLE (page 2-124)	A party is an umbrella relationship across customer, vendor, employee and similar entities. For a given natural key, a Party ID ties up all these disparate entities and allows to leverage each other while maintaining their individual signatures. Remember PARTY (page 2-120) as an after thought which enables you to tie together the disparate entities with a common ID based on same Natural key. By definition all these disparate entities are created at a different time frame with diverse OLTP systems but all of them would carry same natural key if the same party is defined in the system as a customer, an employee and a vendor as well.
	By default, only two types of PARTY (page 2-120) are available in Oracle Communications Data Model: Individual and ORGANIZATION (page 2-116). This can be extended but consider extending and also updating the various tables associated with a PARTY ROLE (page 2-124) such as CUSTOMER (page 2-62) if they are impacted.
	The same party can play several party roles with respect to the CSP: A person could be customer, employee and dealer of the CSP at the same time. It would have the same party key. But for a given interaction or event, only one party role is typically used (unless he sells to himself a product offering, for example). Standard Party Roles like CUSTOMER (page 2-62), VENDOR (page 2-212), DEALER (page 2-69), EMPLOYEE (page 2-72), SALES CHANNEL REPRESENTATIVE (page 2-181) are pre-defined in Oracle Communications Data Model with their sub-types.

B.4 Understanding Events and Usage Entities

There are several types of events to distinguish in Oracle Communications Data Model:

- About Business Interactions (page B-8) describes business interactions in general (as super type) and Party Interaction Events.

- About Agreements (page B-11) describes agreements (as a subtype of Business Interaction but differing from Event Party Interaction).

- About BSS/OSS Interaction Events (page B-11) describes events related to BSS or OSS systems that are neither Business Interactions nor Agreements, that is, not defined either of these.

- About Usage Events (UDR Events) (page B-13) describes usage event, also called UDR Events, and their numerous subtypes.

- Network related events like ResourceAlarm, Service Problems and Performance Measurement events. There is no specific section in this document as their definition (as in the TMF SID) immediately provides the scope of data to be used.

Note that TROUBLE TICKET (page 2-208) is a sub-type of BUSINESS INTERACTION (page 2-40) that is (usually) related with one or more SERVICE PROBLEM (page 2-190)(s) and one or more RESOURCE ALARM (page 2-171)(s).

- About Process Events (page B-15) describes process events (from an application perspective) and describes any process in the telecommunication world that needs to be monitored: Billing, Service Fulfillment, and so on. Such events are usually directly related with KPIs.

    About Business Interactions (page B-8)

    About Agreements (page B-11)

    About BSS/OSS Interaction Events (page B-11)

    About Usage Events (UDR Events) (page B-13)

    About Process Events (page B-15)

B.4.1 About Business Interactions

Business Interactions are related to the transactions stored into back office applications. Table B-4 (page B-8) describes business interactions.

Table B-4   Business Interactions

Entity	Description
BUSINESS INTERACTION (page 2-40) and BUSINESS INTERACTION HISTORY (page 2-41)	Maintain these entities as two identical entities with identical structure. BUSINESS INTERACTION (page 2-40) is created once for a given interaction and should be subsequently updated with *the latest status*, whereas BUSINESS INTERACTION HISTORY (page 2-41) always has a new record created for the same interaction with different status code (STAT_CD) and transaction date (TRX_DT).
EVENT PARTY INTERACTION (page 2-78)	Use by default for all business interactions involving a PARTY (page 2-120), which are not AGREEMENT (page 2-33).
PURCHASE ORDER (page 2-166)	This is when the CSP sends a purchase order to a VENDOR (page 2-212). It has nothing to do with Customers (stored in CUSTOMER ORDER (page 2-66)).

The following lists the tables that are sub-types of BUSINESS INTERACTION (page 2-40) or related to business interactions.

Business Interaction Tables

DWB_AGRMNT_APRVL
DWB_AGRMNT_TERM
DWB_BSNS_INTRACN
DWB_BSNS_INTRACN_HIST
DWB_BSNS_INTRACN_ITEM
DWB_BSNS_INTRACN_ITEM_PRICE
DWB_BSNS_INTRACN_PYMT_ASGN
DWB_BSNS_INTRACN_RL
DWB_BSNS_INTRACN_VRSN
DWB_CNSEQ_PRFMNC_NTFCTN

DWB_CUST_ORDR
DWB_CUST_ORDR_LN_ITEM
DWB_INVC_ADJ
DWB_NP_RQST_HDR
DWB_NP_RQST_LN_ITEM
DWB_PCHSE_ORDR
DWB_PCHSE_ORDR_LN_ITEM
DWB_PCHSE_ORDR_LN_ITEM_STATE
DWB_PCHSE_ORDR_STATE
DWB_PRFMNC_NTFCTN
DWB_RSCE_BSNS_INTRACN_RL
DWB_RSCE_ORDR
DWB_RSCE_ORDR_ITEM
DWB_SRVC_ORDR
DWB_SRVC_ORDR_LN_ITEM
DWR_ACCT_BSNS_INTRACN_RL
DWR_AGRMNT
DWR_AGRMNT_ITEM
DWR_BSNS_INTRACN_CHAR_VAL
DWR_BSNS_INTRACN_LOC_ASGN
DWR_EQPMNT_RNTNG_AGRMNT
DWR_INSTLMNT_AGRMNT
DWR_PRTY_BSNS_INTRACN_RL
DWR_SRVC_LVL_AGRMNT
DWR_SRVC_LVL_AGRMNT_ITEM
DWR_VNDR_AGRMNT

Use the table DWB_BSNS_INTRACN for all business interaction cases not covered by EVENT PARTY INTERACTION (page 2-78) or AGREEMENT (page 2-33).

About Business Interaction Item Tables (page B-9)

About Event Party Interactions (page B-10)

B.4.1.1 About Business Interaction Item Tables

The ITEM CODE in this entity is only a sequential number for business interaction detail. It has nothing to do with ITEM SPECIFICATION (page 2-97) (DWR_ITEM_SPEC) or SKU ITEM (page 2-197). This also applied to AGREEMENT ITEM (page 2-34).

SEQ in Table B-5 (page B-9) means a number representing the rank in a series of objects is expected.

Table B-5   Business Interaction Items Tables

Table	Sequence Number
DWB_AGRMNT_TERM	SEQ
DWB_BSNS_INTRACN_ITEM	SEQ
DWB_BSNS_INTRACN_ITEM_PRICE	SEQ
DWB_CUST_FLD_SRVC_DTL	SEQ
DWB_CUST_ORDR_LN_ITEM	SEQ

Table B-5   (Cont.) Business Interaction Items Tables

Table	Sequence Number
DWB_EVT_PRTY_INTRACN_ITEM	SEQ
DWB_NP_RQST_LN_ITEM	SEQ
DWB_PCHSE_ORDR_LN_ITEM	SEQ
DWB_PCHSE_ORDR_LN_ITEM_STATE	SEQ
DWB_RSCE_ORDR_ITEM	SEQ
DWB_SRVC_ORDR_LN_ITEM	SEQ
DWB_TRBLE_TCKT_ITEM	SEQ
DWR_AGRMNT_ITEM	SEQ
DWR_SRVC_LVL_AGRMNT_ITEM	SEQ
DWR_BSNS_INTRACN_LOC_ASGN	SEQ
DWR_BSNS_INTRACN_CHAR_VAL	SEQ

B.4.1.2 About Event Party Interactions

The event party interactions stores all interactions with a party, whether by phone, letter or fax, on-site visit (whether a party enters a shop or gets the visit of a sales representative), chat on the web or simple web navigation.

The EVENT PARTY INTERACTION (page 2-78) should be used by default for all business interactions involving a PARTY (page 2-120), which are not AGREEMENT (page 2-33).

The related EVENT PARTY INTERACTION ID should point to the first EVENT PARTY INTERACTION (page 2-78) related to the same subject ("Thread"). Hence, to have the list of interaction related to each other, they will ALL have the same RLTD_INTRACN_ID except the 1st one (empty).

The assumed logical hierarchy is: EVENT (page 2-76) => BUSINESS INTERACTION (page 2-40) => EVENT PARTY INTERACTION (page 2-78).

When no specific table for a given EVENT PARTY INTERACTION (page 2-78) is available in Oracle Communications Data Model,, use the generic EVENT PARTY INTERACTION (page 2-78).

When no specific tables for a given BUSINESS INTERACTION (page 2-40) which is neither EVENT PARTY INTERACTION (page 2-78), AGREEMENT (page 2-33), or CUSTOMER ORDER (page 2-66), use generic BUSINESS INTERACTION (page 2-40).

When no specific tables for a given EVENT (page 2-76) (see list in EVENT_BSNS_INTRACN_INFORMATION worksheet), use generic EVENT (page 2-76) table (DWB_EVT).

The following lists shows the entities related to EVENT PARTY INTERACTION (page 2-78).

Event Party Interaction Tables

DWB_APNMNT
DWB_CUST_FLD_SRVC_ACTVTY
DWB_CUST_FLD_SRVC_DTL
DWB_EVT_PRTY_INTRACN
DWB_EVT_PRTY_INTRACN_CHAT_DTL
DWB_EVT_PRTY_INTRACN_ITEM
DWB_EVT_PRTY_INTRACN_PRTCPTN
DWB_INTRACN_NAVGTN_HIST
DWB_INTRACN_QUES_RESPN
DWB_INTRACN_TRNSFR_HIST
DWB_IVR_INTRACN_NAVGTN_HIST
DWB_PRTY_PRMTN_RESPN
DWB_SRVC_RQST
DWB_TRBLE_TCKT
DWB_TRBLE_TCKT_FLD_SPPRT_ASGN
DWB_TRBLE_TCKT_ITEM
DWB_WEB_INTRACN_NAVGTN_HIST
DWR_EVT_PRTY_INTRACN_CHAR_VAL

The trouble ticket is more the result of an interaction but, since it could be directly created by a third party or the customer itself (typical by support request systems).

EVENT PARTY INTERACTION ITEM (page 2-78) is a subtype of BUSINESS INTERACTION ITEM (page 2-41) (as EVENT PARTY INTERACTION (page 2-78) is a subtype of BUSINESS INTERACTION (page 2-40)).

If, for any reason, some entities related to the super-type (BUSINESS INTERACTION (page 2-40)) are required to add information to EVENT PARTY INTERACTION (page 2-78) that are not available otherwise, the creation of a row in BUSINESS INTERACTION (page 2-40) is then required with EVENT CODE (EVT_CD) and INTERACTION ID (INTRACN_ID) in BUSINESS INTERACTION (page 2-40) being copied from EVENT PARTY INTERACTION (page 2-78). Only the required keys shall be copied (and the Business Interaction type = "EVENT PARTY INTERACTION"). The hierarchy is EVENT (page 2-76) => BUSINESS INTERACTION (page 2-40) => EVENT PARTY INTERACTION (page 2-78). This duplication of information is only required to avoid customization and benefit, only where needed, of the super-type/subtype relationships.

B.4.2 About Agreements

Agreement (DWR_AGRMNT) shall be used by default for all agreements, prepaid (tacit or explicit), postpaid, interconnection and roaming, reseller, and so on.

Agreement KEY and INTERACTION ID should have identical value. The interaction ID field is just to ensure that it is a child of BUSINESS INTERACTION (page 2-40) (similarly for AGREEMENT ITEM (page 2-34)).

An invoice requires an agreement but an agreement may have 0 to n invoices related.

B.4.3 About BSS/OSS Interaction Events

Any events which are not a Business interaction nor an AGREEMENT (page 2-33) as such, shall be a subtype of EVENT (page 2-76). It could typically be a purely technical event (Activation, suspension, deactivation and so on).

For example, a EVENT PRODUCT SUBSCRIPTION WIRELESS (page 2-79) (DWB_EVT_PROD_SBRP_WRLS) could be used to store information of the EVENT (page 2-76) of activation, suspension and deactivation. It shall not prevent updating

the status of the corresponding PRODUCT SUBSCRIPTION (page 2-161) (DWR_PROD_SBRP).

Table B-6 (page B-12) lists the tables that would correspond to such an event with their sources (assumed). Please note that BLLG stands for Billing Application, TXN for Transaction, CRM for Customer Relationship Management Application, FIN for Finance Application (such as JD Edwards, ERP or other), and HR for Human Resource applications (like PeopleSoft or others). NTWK stands for Network Applications (typically the network monitoring or Server control applications).

Table B-6   BSS/OSS Interaction Event Tables

EVENT TABLES (HR/Billing/Financial/CRM) Transactions not result	Source TYPE
DWB_ACCT_BAL_IMPC	BLLG TXN
DWB_ACCT_PYMT	BLLG TXN
DWB_BLK_LST_HIST	CRM TXN
DWB_EMP_EXP_RPT	HR/FIN TXN
DWB_EMP_EXP_RPT_ITEM	HR/FIN TXN
DWB_EMP_EXP_RPT_STATE	HR/FIN TXN
DWB_EVT	CRM TXN a priori
DWB_EVT_ACCS_MTHD_ACTVTY	CRM TXN
DWB_EVT_ACCT	CRM TXN
DWB_EVT_AGRMNT	CRM TXN
DWB_EVT_CMPST_PROD_SPEC	CRM TXN
DWB_EVT_COST	FIN TXN
DWB_EVT_CRCUT_RNTL	CRM TXN
DWB_EVT_EMP_ACTVTY	HR TXN
DWB_EVT_EMP_PYRL	HR TXN
DWB_EVT_EQPMNT_INSTNC	CRM TXN
DWB_EVT_FINCL	FIN TXN
DWB_EVT_GEO	CRM TXN
DWB_EVT_LYLTY_PROG	CRM TXN
DWB_EVT_PROD_SBRP_WRLS	CRM TXN
DWB_EVT_PRPD_MBL	CRM TXN
DWB_EVT_PRTY_ASGN	CRM TXN
DWB_EVT_PRTY_PRFL	CRM TXN
DWB_EVT_SBRP_CHNG	CRM TXN

Table B-6   (Cont.) BSS/OSS Interaction Event Tables

EVENT TABLES (HR/Billing/Financial/CRM) Transactions not result	Source TYPE
DWB_EVT_SIM_CARD	CRM TXN
DWB_EVT_STAT	CRM TXN
DWB_EXP_RPT_PRTY_ASGN	HR/FIN TXN
DWB_PRICE_EVT	BLLG TXN
DWB_PRPD_RCHRG	BLLG TXN
DWB_PTV_FULL_CHNL_ACTVTN	CRM TXN
DWB_SL_CMISN_DTL	HR/FIN TXN
DWB_SL_CMISN_PYRL	HR/FIN TXN
DWR_EVT_LOC	CRM Reference
DWR_ISP_USER	NTWK Reference
DWR_PRCE_EVT_PRODOFR_PRCE_ASGN	BLLG Reference

B.4.4 About Usage Events (UDR Events)

There are many pre-defined types of usage event data records. Call Data Records or any usage data records should be loaded into the corresponding UDR EVENT (page 2-208) table (or any of its sub-entities that are more or less directly corresponding to the considered data record).

There are important assumptions for UDR Events:

- A UDR shall be stored in one table only. It is not required to repeat it in the super entity.

- It is recommended to create a sub-entity of UDR EVENT (page 2-208) for each group of usage with their specific characteristics if they are not already pre-defined in Oracle Communications Data Model. Otherwise, use the corresponding tables. The Intra-ETL should be correspondingly expanded to take those new tables into account (where relevant).

- A UDR EVENT (page 2-208) shall be stored in daily partitions (or lower) leveraging the starting date of the usage event (EVT_STRT_DT). In particular, if late CDRs (like Roaming) are loaded, they have to be loaded in the older partitions!

  The BILLING DATE field shall be used to flag WHEN the UDR EVENT (page 2-208) was loaded to the Billing System (if any). It means "BILLING SYSTEM DATE". It is not the necessarily date at which the event has been billed (put to an invoice). Note that for Prepaid, BILLING SYSTEM DATE and EVT_STRT_DT should be very similar if not equal (or maybe equal to EVT_END_DT!).

- For the Intra-ETL treatment in Oracle Communications Data Model, the current time windows considered applies on the EVENT START DATE. An alternative

(customization) would be to use the UDR EVENT BILLING_DATE to determine which CDRs are to be considered.

Whenever a new type of usage data record is available, you have several choices:

- Map it to an existing table that match the definition, adding as many missing fields as required (but knowing that those fields will not be considered by default by the intra ETLs).

- Map what is possible to the UDR EVENT (page 2-208) table (or any sub-table) to only keep track of its presence in Oracle Communications Data Model as well as the fields used by the Intra-ETL but do not extend the other fields (quickest way for out-of-the-box implementation of Oracle Communications Data Model, knowing the data will not allow detailed and complete analysis on fields that are not stored).

- Create a subtype of the UDR Event table adding all the fields required and modifying the Intra ETLs to take it into account where required

The best alternative depends on the project condition. But keeping as much atomic information as possible is usually preferred unless the data amount or effort to load it is not worth the potential business value. In such case, a pre-processing in the staging area or through big data might be worth considering (for example, for network signaling data).

Table B-7 (page B-14) lists the pre-defined tables for UDR Events.

Table B-7   Predefined UDR Event Tables

UDR EVENT TABLES (Network Transactions)	Source TYPE
DWB_BRDBND_USG_EVT	UDR EVT
DWB_CNTNT_DLVRY_EVT	UDR EVT
DWB_DATA_SRVC_EVT	UDR EVT
DWB_ERRD_MDTD_CALL_EVT	UDR EVT
DWB_ERRD_RAW_WRLS_CALL_EVT	UDR EVT
DWB_ERRD_RTD_WRLS_CALL_EVT	UDR EVT
DWB_FIXED_LN_CALL_EVT	UDR EVT
DWB_GPRS_USG_EVT	UDR EVT
DWB_IDD_CALL_EVT	UDR EVT
DWB_INTRNT_ACCS_EVT	UDR EVT
DWB_ISP_USG_EVT	UDR EVT
DWB_MDTD_CALL_EVT	UDR EVT
DWB_MMS_EVT	UDR EVT
DWB_PTV_QPI_SRVC_EVT	UDR EVT
DWB_PTV_USG_EVT	UDR EVT

Table B-7   (Cont.) Predefined UDR Event Tables

UDR EVENT TABLES (Network Transactions)	Source TYPE
DWB_RAW_MMS_EVT	UDR EVT
DWB_RAW_WRLS_CALL_EVT	UDR EVT
DWB_RTD_UDR_EVT	UDR EVT
DWB_SMS_EVT	UDR EVT
DWB_TAP_IN_WRLS_RMNG_EVT	UDR EVT
DWB_TAP_OUT_WRLS_RMNG_EVT	UDR EVT
DWB_UDR_EVT	UDR EVT
DWB_UMS_EVT	UDR EVT
DWB_VOIP_CALL_EVT	UDR EVT
DWB_WRLS_CALL_EVT	UDR EVT
DWB_WRLS_CNTNT_DNLDG_EVT	UDR EVT
DWB_WRLS_RMNG_EVT	UDR EVT

B.4.5 About Process Events

Process events are meant to store and manage the various eTOM ("enhanced Telecommunications Operations Mapping") processes run in the Telecommunications industry, from a process perspective. Process events are mainly aimed to measure Operational Excellence.

A complete generalized model of processes has been created, with default parameters (such as Manual Indicator, Customer Type, Billing Cycle, and so on). You can use the default parameters and an open parameter list with "operators" (GREATER THAN, BETWEEN, LIKE...) and values to cover many changeable processes.

Similar to other areas, Oracle Communications Data Model uses a PROCESS (page 2-150) (definition) and PROCESS SPECIFICATION (page 2-152) (for the grouping of similar processes with similar characteristics), with their relationships. And an instance or run of a given process occurs through a PROCESS EVENT (page 2-151), referring to a PROCESS (page 2-150). PROCESS EVENT (page 2-151) that are sequentially related should be stored in PROCESS EVENT ASSIGNMENT (page 2-151), normally illustrating the PROCESS RELATIONSHIP (page 2-152) previously defined. However, since nothing runs necessarily fine forever, the PROCESS EVENT ASSIGNMENT (page 2-151) allows relationships between PROCESS EVENT (page 2-151)s that are normally not related. For example, after several tentative of automatic invoice recycling, a manual invoice review could take place. All those processes are expected to be stored and related through this entity.

Oracle Communications Data Model is not designed to act as a Process Management Tool. Oracle Communications Data Model shall only be the information collector to enable end-users to improve their daily tasks by providing them the relevant or right information at the right time in the breadth they need, and allowing them to deepen their analysis down to atomic level of any area they are entitled to search.

Oracle Communications Data Model provides an example and illustration for the following processes: the billing cycle from invoice generation and printing (issuing) to invoice dispatching.

PROCESS (page 2-150)es also measure some of the TMF KPIs with respect to Billing Operational efficiency. For those specific measures in particular, one has to look into the generation process for all invoice-related processes that occurred in a given month.

One can create a specific subtype of process event table to make sure all the statistics related to the process is stored - if the default statistics are not sufficient. One must be aware however that the multiplication of sub-tables for processes may tend to confuse the reader or make the model hard to follow and keen to error (by forgetting to link or check one or the other sub-table). As always, it is a matter of balance.

With respect to the derived layer, do not mix INVOICE DAY DRVD (page 2-93) (DWD_INVC_DAY) and PROCESS INVOICE DAY DRVD (page 2-151) (DWD_INVC_PRCS_DAY). The first summarize the invoice information available at a given day (equal to BILLING DATE) while the other collects information about the end-to-end process, observed from the end-date of the Dispatching process. Recall that not only the invoice generation process but any type of process could be monitored if the information is fed to the process tables.

B.5 Understanding Account and Agreement Entities

Oracle Communications Data Model defines a hierarchy between the ACCOUNT (page 2-25), AGREEMENT (page 2-33), and PRODUCT SUBSCRIPTION (page 2-161):

- Account: The financial vision of a customer or the payer (in TMF SID, it corresponds to CustomerAccount). An account can have sub-accounts (through ACCOUNT RELATIONSHIP) if required.

- AGREEMENT (page 2-33): an agreement must be associated with ACCOUNT (page 2-25). They must be defined for Postpaid (typically equivalent to contract) and can be defined for Prepaid (possibly as instance of a tacit pre-defined agreement). It is the implementor's choice (and a business decision). It is however expected in most Intra-ETLs that a dummy agreement is created with the main PRODUCT OFFERING (page 2-154) associated for each Prepaid account.

B.6 Data Model and Entity Notes

Notes on data model entities.

Table B-8   Notes Table

Entity	Description
Invoice	If Invoice Creation Date is not defined, BILLING DATE shall be used. Note that BILLING DATE must be present as it is used for several Intra-ETLs and several links. Outstanding Invoices are Invoices to be paid, not necessarily overdue, but at least dispatched. Overdue invoices are invoices not being paid by (end of) DUE DATE.

Table B-8 (Cont.) Notes Table

Entity	Description
Age On Net	AGE_ON_NET can be defined for whatever "entity" (Agreement, customer, product subscription) one considers. By default, the creation date (CRT_DT) or start date (STRT_DT) shall be used and not worry too much about "holes" (approximation).
	The following lists the various "ages" Oracle Communications Data Model could consider (only the first choice is used by default):
	• CONTRACT AGE: Age of the current (or considered) contract. it starts on contract start date and stops increasing when contract is churned.
	• CUSTOMER AGE ON NET: to calculate it correctly, one would require that the following should be stored at CUSTOMER level (customization):
	• AGE_ON_NET_START_DATE: earliest date of any(!) agreement (postpaid or prepaid) at which the customer started being active.
	• AGE_ON_NET_TOT_MISSINGMONTHS: Total number of months (decimal) where the customer was absent (not active, without any agreements) to cover any holes, and so on.
	The formula should then be: AGE_ON_NET (default in months) =
	CEIL(MONTHS_BETWEEN(SYSDATE,AGE_ON_NET _START_DATE) MINUS AGE_ON_NET_TOT_MISSINGMONTHS).
	To simplify this in Oracle Communications Data Model: AGE_ON_NET (default in months) =
	CEIL(MONTHS_BETWEEN(MIN(SYSDATE, nvl(CHRN_DT, to_date('20990101','yyyymmdd'))),CRT_DT))
	Please note the approximation that CUSTOMER effective start date is considered to be its CREATION date. Similarly, CONTRACT AGE (default in months) =
	MONTHS_BETWEEN(MIN(SYSDATE, nvl(END_DT, to_date('20990101','yyyymmdd'))), STRT_DT).

Table B-8   (Cont.) Notes Table

Entity	Description
Loyalty	Loyalty is a specific subject area as such. In Oracle Communications Data Model the Loyalty program and balances are associated with a specific MEMBERSHIP ACCOUNT (page 2-108), which is only associated to customer (and not to ACCOUNT (page 2-25)). Any event that could impact Loyalty points should be stored in EVENT LOYALTY PROGRAM (page 2-78) (DWB_EVT_LYLTY_PROG) and from there, the ETL (not the intra-ETL!) should also feed DWB_ACCRUAL_EVT (points winning) and DWB_REDEM_EVT (redemption, expiration)
	ACCOUNT BALANCE IMPACT (page 2-26) records with ACCT_BAL_TYP Like '%LYLTY%' should have a corresponding event created into DWB_LYLTY_PROG_EVT records.
	MEMBERSHIP ACCOUNT BALANCE HISTORY (page 2-108) is a snapshot (similar to ACCOUNT BALANCE (page 2-25))
	The events that could feed EVENT LOYALTY PROGRAM (page 2-78) as earning points should all come from Billing System, whatever their origin (usage, customer order, payment...).
	It is however possible to also link a pure retail transaction but this has to be done explicitly in Oracle Communications Data Model (Customization).
	The events that could feed LOYALTY PROGRAM EVENT as redemption are of 3 types:
	• Retail transaction
	• Customer Order
	• Account Payment (Payment with points)
	Please not that the Derived Loyalty table is only at LOYALTY PROGRAM level.
	Table B-9 (page B-19) provides information on a Loyalty events

Table B-8   (Cont.) Notes Table

Entity	Description
Count Day	The COUNT DAY DRVD (page 2-61) stores all counts with respect to customer, account, agreement, product subscriptions, to be able to get at any day in time the effective count of the entity status at the end of a given day.
	Oracle Communications Data Model assumes that if either Customer Surrogate Key, Account Surrogate Key or Agreement Surrogate key changes, the associated product subscriptions (Product subscription key) shall also change.
	If for Customer and ACCOUNT (page 2-25), it is clear due to the (forced) links between account/customer and product subscription, this link is not compulsory between agreement and product subscription. (It could easily be made as customization). The link between agreement and Product subscription is only through AGREEMENT ITEM (page 2-34), and agreement can change in principle without impacting product subscription.

Table B-9   Loyalty Event Additional Information

Physical Column Name In DWB_EVT_LYLTY_PROG	Logical Column Name (and comments) In DWB_EVT_LYLTY_PROG	Redemption	Earning
ACCT_BAL_TYP _CD	Account Balance Type Code	RTL_TNDR_LI(retail receipt is not part of Invoice) => NULL/ CUST_ORDR => no INVC_CD => NULL Acct_Pymt. ACCT_BAL_TYP_CD	ACCT_BAL_TYP_CD of ACCT_BAL_IMPC_BAL
ACCT_KEY	Account Key	ACCT_KEY from all 3 transactions	ACCT_KEY of ACCT_BAL_IMPC_BAL
CRNCY_CD	Currency Code	Retail: ISO_CRNCY_CD CUST_ORDR: ISO_CRNCY_CD ACCT_PYMT: CRNCY_CD	Not applicable.
EVT_CD	Event Code Code of the event that caused the impact to the loyalty points	CUST_ORDR_NBR / RTL_TNDR_LI_TRX_NBR / Acct_Pymt_CD	whatever is in EVT_CD (+ acct_key+ acct_bal_typ_key) of ACCT_BAL_IMPC_BAL

Table B-9   (Cont.) Loyalty Event Additional Information

Physical Column Name In DWB_EVT_LYLTY_PROG	Logical Column Name (and comments) In DWB_EVT_LYLTY_PROG	Redemption	Earning
INVC_CD	Invoice Code	RTL_TNDR_LI(if retail receipt is not part of Invoice) => NULL CUST_ORDR => no INVC_CD => NULL Acct_Pymt.INVC_CD otherwise	Only if relevant and available.
LYLTY_PROG_EVT _TYP_CD	Type of Event Number stored as text to give some flexibility in event type. You may add at least 999 different codes if required.	'3000' or '3xxx'	'2000' or '2XXX'
PRMTN_KEY	Promotion	What is bought through redemption is always a Promotion: RTL_TNDR_LI: CPN_TNDR_PRMTN_KEY CUST_ORD : PRMTN_KEY ACCT_PYMT: PRMTN_KEY	
PRTY_LYLTY_PROG _PRTCPTN_KEY	PARTY Participation to the Loyalty Program One can choose which party one wants to store here: The partner or the customer.	Best way: access DWR_LYLTY_ACCT_ID NTFR table (through MEMBERSHIP ACCOUNT ACCOUNT IDENTIFIER = FREQ SHOPPR NBR for RETAIL and CUST ORDR and MEMBERSHIP ACCOUNT ACCOUNT IDENTIFIER for PAYMNT) + get LYLTY_PROG from this table Alternative: Use through CUST_KEY (PRTY_KEY) and find LYLTY_PROG in DWR_PRTY_LYLTY_PRO G_PRTCPTN	Similar as earning is not immediately available in the event.
RDMPTN_TYP_CD	Redemption Type Code	RTL_tndr_LI & Cust ORDR => "Amount Redeemed" ACCT_PYMT=> ACCT_PYMT_RSN_TYP_ CD	null

Table B-9   (Cont.) Loyalty Event Additional Information

Physical Column Name In DWB_EVT_LYLTY_PROG	Logical Column Name (and comments) In DWB_EVT_LYLTY_PROG	Redemption	Earning
REDMD_AMT	Redeemed Amount	RTL_tndr_LI: TNDR_AMT Cust_ord: EXTND_AMT ACCT_PYMT:PYMT_AMT	Not applicable.
SL_CHNL_KEY	Sales Channel Key	RTL_tndr_LI: Use null or ORG_BSNS_UNIT_TYP_CD Cust_ord: SL_CHNL_KEY ACCT_PYMT:PYMT_CHNL_KEY	Not applicable.
SL_CHNL_RPRSTV _KEY	Sales Channel Representative	Retail: OPRTR_EMP_KEY CUST_ORDR: SL_CHNL_RPRSTV_KEY ACCT_PYMT: EMP_KEY	Not applicable.
TRX_DT	Transaction Date	CUSt_ordr. INTRACN_DT rtl_tndr_li: END_DT_TIME acctpymt: pymt_DT	Event start date that caused the increase in loyalty points.

B.7 Major Subject Areas and Related Entities

The following describes the main entities related to some major or typical subject areas in Oracle Communications Data Model:

> **Note:**
>
> The entity-relationship figures of the major reference entities in those subject areas are available with the Oracle Communications Data Model IP Patch. The IP Patch includes additional documentation. To obtain the IP Patch and for the latest information about Oracle Communications Data Model patch sets, go to My Oracle Support at https://support.oracle.com.

B.7.1 Subject Area: Account

This section lists the entities associated with the subject area Account.

Entities of Subject Area: Account

B.7.2 Subject Area: Agreement

This section lists the entities associated with the subject area Agreement.

Entities of Subject Area: Agreement

B.7.3 Subject Area: Billing

This section lists the entities associated with the subject area Billing.

Entities of Subject Area: Billing

B.7.4 Subject Area: Business Interaction

This section lists the entities associated with the subject area Business Interaction.

Entities of Subject Area: Business Interaction

B.7.5 Subject Area: Click Stream

This section lists the entities associated with the subject area Click Stream.

Entities of Subject Area: Click Stream

B.7.6 Subject Area: Cost

Entities of Subject Area: Cost

This section lists the entities associated with the subject area Cost.

B.7.7 Subject Area: Customer

This section lists the entities associated with the subject area Customer.

B.7.8 Subject Area: Customer Field

Entities of Subject Area: Customer Field

This section lists the entities associated with the subject area Customer Field.

B.7.9 Subject Area: Employee

This section lists the entities associated with the subject area Employee.

Entities of Subject Area: Employee

B.7.10 Subject Area: Event

Entities of Subject Area: Event

This section lists the entities associated with the subject area Event.

B.7.11 Subject Area: Financial GL Cost and Asset

Entities of Subject Area: Financial GL Cost and Asset

This section lists the entities associated with the subject area Financial GL Cost and Asset.

B.7.12 Subject Area: Flexible Characteristics

Entities of Subject Area: Flexible Characteristics

This section lists the entities associated with the subject area Flexible Characteristics.

B.7.13 Subject Area: Loyalty Program

Entities of Subject Area: Loyalty Program

This section lists the entities associated with the subject area Loyalty Program.

B.7.14 Subject Area: Number Porting

Entities of Subject Area: Number Porting

This section lists the entities associated with the subject area Number Porting.

B.7.15 Subject Area: Party

Entities of Subject Area: Party

This section lists the entities associated with the subject area Party.

B.7.16 Subject Area: Party Partners Vendor Roaming Content

This section lists the entities associated with the subject area Party Partners Vendor Roaming Content.

B.7.17 Subject Area: Payment

Entities of Subject Area: Payment

This section lists the entities associated with the subject area Payment.

B.7.18 Subject Area: Prepaid-Balance and Voucher

Entities of Subject Area: Prepaid Balance and Voucher

This section lists the entities associated with the subject area Prepaid Balance and Voucher.

B.7.19 Subject Area: Problem

Entities of Subject Area: Problem

This section lists the entities associated with the subject area Problem.

B.7.20 Subject Area: Process

Entities of Subject Area: Process

This section lists the entities associated with the subject area Process.

B.7.21 Subject Area: Product Offering and Product Subscription

Entities of Subject Area: Product Offering and Product Subscription

This section lists the entities associated with the subject area Product Offering and Product Subscription.

B.7.22 Subject Area: Product Subscription

This section lists the entities associated with the subject area Product Subscription.

B.7.23 Subject Area: Product and Product Specification

Entities of Subject Area: Product and Product Specification

This section lists the entities associated with the subject area Product and Product Specification.

B.7.24 Subject Area: Promotion and Campaign

Entities of Subject Area: Promotion and Campaign

This section lists the entities associated with the subject area Promotion and Campaign.

B.7.25 Subject Area: QoS

Entities of Subject Area: QoS

This section lists the entities associated with the subject area Quality of Service (QoS).

B.7.26 Subject Area: Resource

Entities of Subject Area: Resource

This section lists the entities associated with the subject area Resource.

B.7.27 Subject Area: Service and Service Specification

Entities of Subject Area: Service and Service Specification

This section lists the entities associated with the subject area Service and Service Specification.

B.7.28 Subject Area: UDR Event

Entities of Subject Area: UDR Event

This section lists the entities associated with the subject area UDR Event.

C

Oracle Communications Data Model Business Use Case

This appendix provides an overview and examples of Oracle Communications Data Model business use case scenarios.

This appendix includes the following sections:

C.1 Sample Use Case: Introduction

The sample business use case for Oracle Communications Data Model includes the following:

- A Multi-play telecom Carrier, including:

    - SuperTelcoGroup

    - SuperTelcoCommunications

    - SuperData

The SuperTelco Communications organization comprises two business units:

- Mobile

- Broadband: The broadband unit, named SuperData, is an acquired company; this organization has a different hierarchy. The broadband unit includes both video and broadband data services.

Their Product Offering includes (among others):

- Broadband Services for B2C and B2B

- Video on Demand

- Mobile (for example 3G) services

Their prospects and then customers will be Tom Daniels and his family (Mary Daniels and their children) and some companies.

C.2 Sample Use Case 1: Setting Up the Business Unit Organization

This business use case, describes how to build up the organization SuperTelco as a PARTY (page 2-120) in the data model. In particular, the two main business units (Mobile with SuperTelco and Broadband with SuperData) will be modeled into Oracle Communications Data Model corresponding Subject Area, shown in Figure C-1 (page C-2).

Figure C-1   Organization Business Units in Sample Use Case
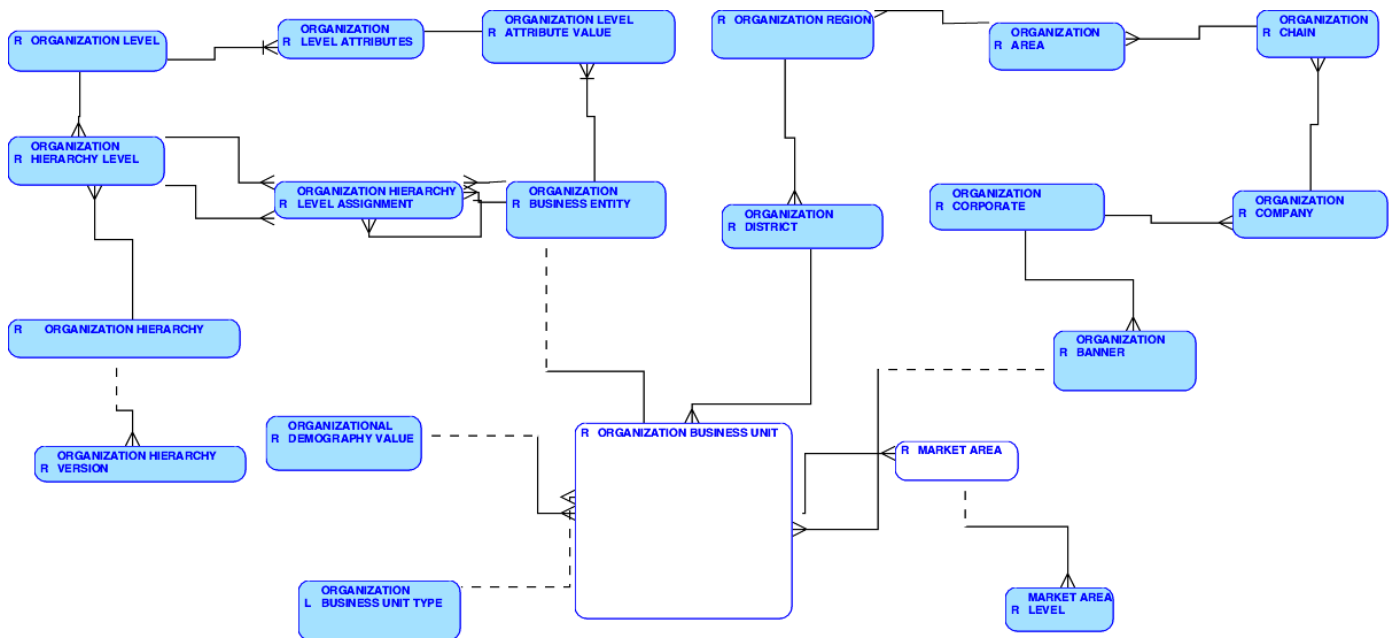
Oracle Communications Data Model should capture the following administrative functions for the Mobile and Broadband business units:

- HQ, HQ Mobile/HQ Broadband, Customer Care, Sales Marketing

- Related geographic information (for state, county, City, Dealers/Shops and Web Service)

- The people involved, in particular all employees (who is a manager from whom in which organization)

To work with the sample use case you build up the organization SuperTelco as a PARTY (page 2-120) in the Oracle Communications Data Model:

1. There are two ways to store the information for an ORGANIZATION BUSINESS UNIT (page 2-117):

   • Using a standard pre-defined hierarchy

   • Using a flexible hierarchy

2. As shown in Figure C-1 (page C-2), the business unit follows a simple hierarchy stored in the corresponding tables:

   • ORGANIZATION BUSINESS UNIT (page 2-117): this is the smallest "independent" unit of an organization which can contain several sales channels and/or customer contact possibilities, such as call centers (stored in CALL CENTER (page 2-42)), a website (stored in "Service Web Site"), and shops (in RETAIL STORE (page 2-178)). The business unit is of a specified type, as detailed in the ORGANIZATION BUSINESS UNIT TYPE (page 2-117). All the information relative to this business unit, such as the business address or the company registry number is stored in the ORGANIZATION BUSINESS UNIT (page 2-117). It is a sub-type of PARTY (page 2-120).

   • This business unit is geographically (and somehow "administratively") situated in a district, region, and area. The geographic entity is stored as specified in the entities: ORGANIZATION DISTRICT (page 2-117), ORGANIZATION REGION (page 2-118), and ORGANIZATION AREA (page 2-116).

   • To understand the notion of "organizational chain" above the organization area, consider for example that the SuperTelco stores are located inside a given supermarket chain. SuperTelco may have a part of the organization related to this chain of supermarket, which would then be stored in the ORGANIZATION CHAIN (page 2-117) table.

   • The ORGANIZATION CHAIN (page 2-117) belongs to a company; in this example, the company SuperTelco is stored in the ORGANIZATION COMPANY (page 2-117) table, itself member of a group whose information is stored in ORGANIZATION CORPORATE (page 2-117).

   • When you use a "banner" for a given sales channel, store the banner in the ORGANIZATION BANNER (page 2-117) table, linking the business unit to the corporate level.

3. As shown in Figure C-1 (page C-2), the business unit could also be part of a proper and changeable hierarchy (or hierarchies) that would then be stored in the corresponding tables of the so-called "flexible" Organization hierarchy:

   • A Business Unit is an ORGANIZATION BUSINESS ENTITY (page 2-117): This entity is a reference that allows a flexible definition for the hierarchy level and the attributes you choose per level (see next line).

   • The ORGANIZATION LEVEL (page 2-118) defines the levels of the flexible hierarchy (whose level attributes and possible values as stored in the entities ORGANIZATION LEVEL ATTRIBUTES (page 2-118) and ORGANIZATION LEVEL ATTRIBUTE VALUE (page 2-118)).

   • The hierarchy between levels is defined in ORGANIZATION HIERARCHY LEVEL (page 2-118), which belongs to a given ORGANIZATION HIERARCHY (page 2-118). Thus, for a given organization several hierarchies can be defined (administrative, geographic, and so on.

- A hierarchy has a version, defined in ORGANIZATION HIERARCHY VERSION (page 2-118). This allows you to change the hierarchy, depending on the historical development of the organization.

- A Business entity is assigned to a given level through the ORGANIZATION HIERARCHY LEVEL ASSIGNMENT (page 2-118) table.

Of these two choices: simple hierarchy and flexible hierarchy, the SuperTelco sample use case uses the flexible hierarchy. This is the preferred hierarchy for this sample because the historic growth of SuperTelco specifies that the hierarchy changes over time. To deal with the geographical organization of the SuperTelco stores dispatched in the country however, the standard hierarchy could be used. Such a hierarchy would support a detailed analysis of the local and geographical differences for the impact of a national marketing campaign.

C.3 Sample Use Case 2: Acquiring a New Customer (with Family Plan)

For the sample use case, let us assume that a father (Tom Daniels) goes to a SuperTelco dealer and asks for a Family Plan offering with the following features:

- One main mobile phone postpaid (his)

- One secondary mobile phone postpaid (wife)

- Two additional mobile phones prepaid (children)

- One Friends and Family option that allows calls between these users to be free of charge

The father is moving his service from a competitor and wants to keep his current mobile number (number portability required). This example provides details on the information stored in the various agreement, account, customer, and party entities. The actions covered in this area include the following, as shown in Figure C-2 (page C-5).

- Party Interaction (Customer - Dealer)

- Contract setup (Customer, Account, Billing, and others)

- Subscription

- Product Association

- Phone number and equipment associations

Figure C-2   Customer Acquisition: Family Plan Model
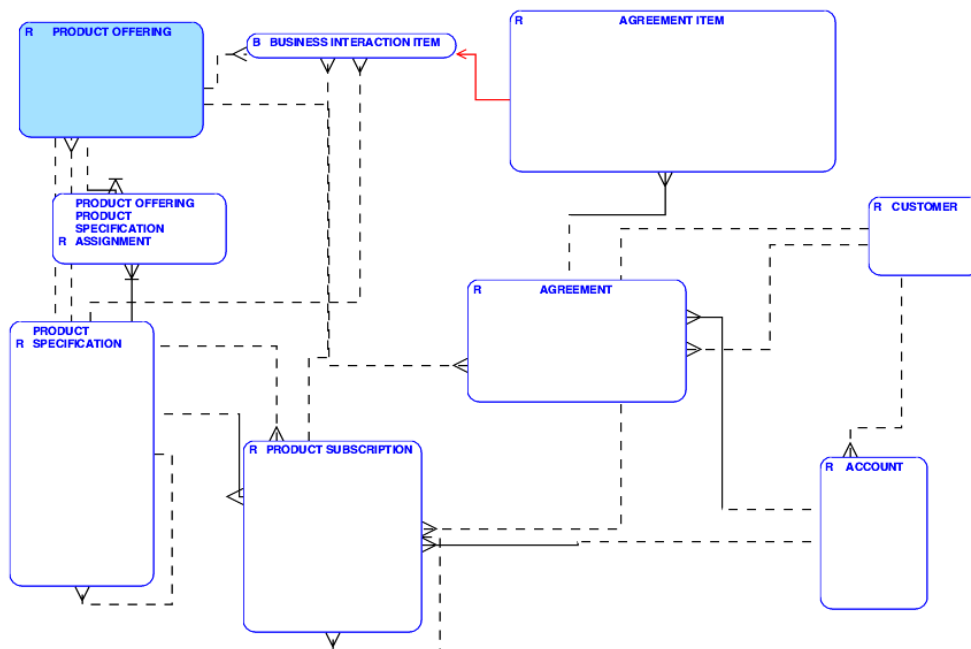
New Customer with Family Plan Data:

1. The ORGANIZATION BUSINESS UNIT (page 2-117) information was previously setup, as described in Sample Use Case 1: Setting Up the Business Unit Organization (page C-2).

2. The newly acquired customer information is stored in the CRM and/or the billing system. This information will feed Oracle Communications Data Model using a custom ETL. One record in CUSTOMER (page 2-62) is inserted with a name, in this case "Tom Daniels", of type "individual". Usually customers are not required to provide additional user information when purchasing multiple numbers. If this information is provided, you can save the information with the PARTY (page 2-120) entity (and you should use the PARTY ASSIGNMENT (page 2-121) table to describe their relationship to "Tom Daniel" - assuming this information is available in the data source).

3. Save the related information about a customer, such as profession, age, education, and other information in the related CUSTOMER (page 2-62) tables, the referential lookup tables, such as SOC JOB (page 2-199) ("Standard Occupational Classification" system for the work activity of the individual customer). Save confidential information such as the date of birth in the table called CUSTOMER RESTRICTED INFO (page 2-67) that can be individually hidden or encrypted in the database.

4. A contract between Tom Daniels and SuperTelco is set up in the AGREEMENT (page 2-33) table (equivalent to a contract but generalized). The customer has a agreement with the Service Provider which defines the accounts (normally with a unique login or a unique identifier). For example this sample agreement is based on a special package "PKG_Mobile_300". The product packages available to any type of consumers (individual - B2C or businesses - B2B) are saved in the PRODUCT OFFERING (page 2-154) entity.

5. One customer account is inserted into the ACCOUNT (page 2-25) entity, with the customer key pointing to the new customer instance. The account is the financial

vision of the customer. There is normally only one account per customer (whatever the number of subscriptions they buy) but multiple accounts per customer is allowed (typically to either reproduce the billing vision or in some specific cases).

6. The customer, Tom Daniels, has selected four different handsets (stored in the EQUIPMENT (page 2-74) table; this is not visible on the diagram shown in Figure C-2 (page C-5)).

7. Four Mobile phone numbers are saved into the table ACCESS METHOD (page 2-22) and the associated handset. Each phone number uses the current date for the effective date and also has the account ID pointing to the account (as the account ID was set up).

8. A customer order, stored in the CUSTOMER ORDER (page 2-66) entity, is generated with all the items that the customer ordered including mobile numbers, product packages, and so on (including the number portability request).

9. A number portability request is triggered by the order and a number portability event is stored in the NP REQUEST HEADER (page 2-114) table. Due to the number portability request, the customer order may be processed with some delay; the old network provider must respond positively to SuperTelco's number portability request. In this case, either only Tom Daniels's IMSI or all IMSIs related to Tom Daniels will be activated after the agreement date ("today"). For this case, creating an additional, custom ETL(s) to the mediation or provisioning system may be necessary.

10. Four subscriptions are inserted into the PRODUCT SUBSCRIPTION (page 2-161) table. A subscription is considered a "non-network event" as opposed to a call, which is a "network event". Each subscription associates one product, one customer, one account, and one ACCESS METHOD (page 2-22) (mobile number).

11. The customer order could be loaded into Oracle Communications Data Model through the Extract-Transform-Load scripts (ETL) at each change of status or only once it is completed and fulfilled in the BSS/OSS systems.

12. A fulfilled (closed) customer order automatically impacts the data mining tables related to the customer segmentation, market share, and the revenue OLAP cubes: For example, due to the number portability request, the competitor looses one customer and SuperTelco wins one customer in the given segment.

13. In the pure prepaid case, no bill is created. However, the purchase of a voucher for any type of prepaid services is taken in account in Oracle Communications Data Model: PayTV, Music downloads, Prepaid card with handset, and so on. The original prepaid allowance or the recharge will be recorded and an account is created, similarly to the postpaid case.

C.4 Sample Use Case 3: Service Implementation

After Tom purchased the family plan, made the payment, and the customer order was generated, the provisioning engine takes over.

The service implementation is stored with Oracle Communications Data Model as shown in Figure C-3 (page C-7).

Figure C-3   Service Implementation
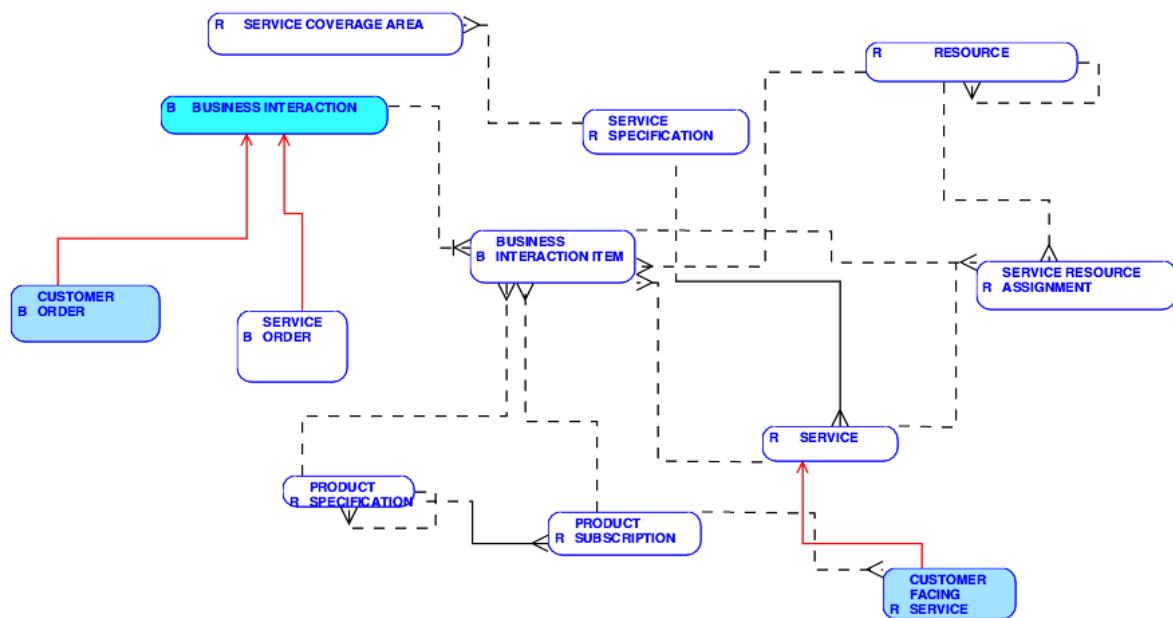
For the service implementation, the provisioning engine does the following:

1. Each "customer Order" is disassembled into multiple "Service Order", each of which is used by the provisioning engine to orchestrate the whole system. Each "Service Order" is normally corresponding to a specific "Network Element" or a group of "Network Element". For example, one customer order of Prepaid GSM phone can be fulfilled by multiple "Service Order", including account setup of in the billing and CRM systems, in Intelligent Network system, and so on.

2. Once the "Service Order" is executed, some new services may be generated. The service may be "customer facing service", which is an internal presentation of "Subscription". The business user sees each product realization on each customer as a "subscription" to track the business usage, while the technical user (from the network) sees a customer activation (and usage) on a "network element" (including logical "network element" like phone numbers) as a "Resource Facing Service". These notions are those defined by the TeleManagement Forum.

3. In case any "Network Element" failed, technical support can easily track which customers or accounts may be affected by following relationships from "network element" to "Service" and then to "Subscription".

4. As subtype of the Business Interaction, the CUSTOMER FIELD SERVICE ACTIVITY (page 2-65) table (not visible on the diagram) would store any direct interaction on customer's or network's site for this order.

C.5 Sample Use Case 4: Storing Customer Call Data

After Tom Daniels has got his phone, and after the phones for his wife and children are activated, Tom Daniels regularly calls his family and friends. Tom Daniels uses the phone primarily to make voice calls and to send SMS messages; he rarely uses the data or MMS services.

The customer call information is stored with Oracle Communications Data Model as shown in Figure C-4 (page C-8).

Figure C-4   Customer Call Data Model
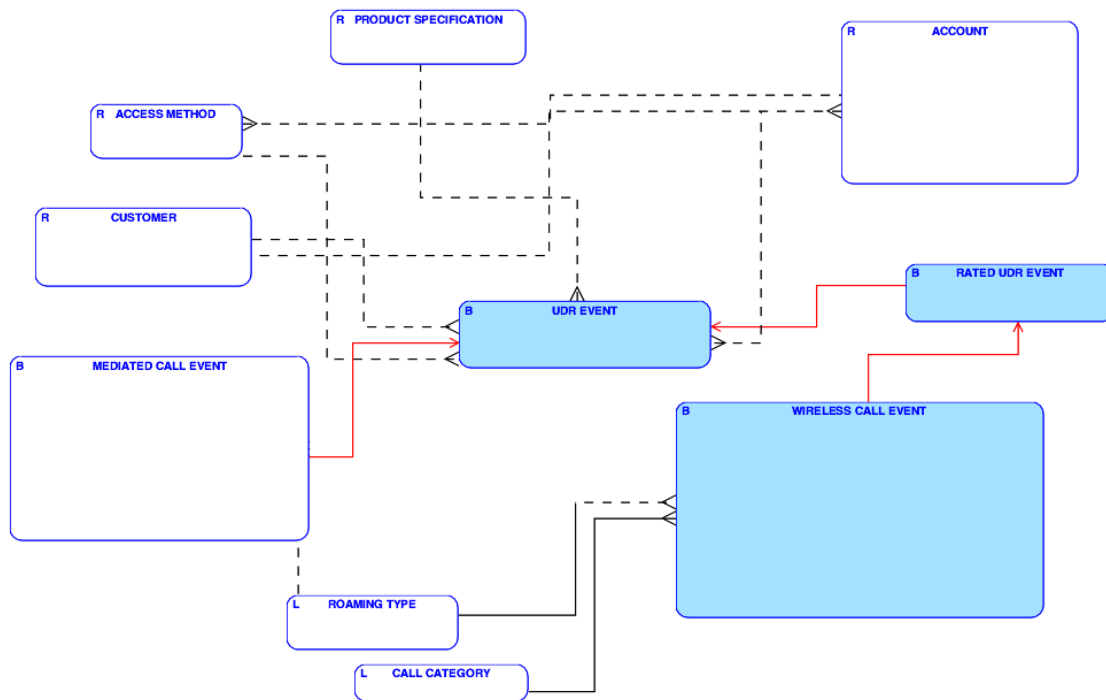
The call data can be saved in Oracle Communications Data Model:

1. The CUSTOMER (page 2-62), PRODUCT SPECIFICATION (page 2-158), and ACCESS METHOD (page 2-22) are set up, as described in Sample Use Case 2: Acquiring a New Customer (with Family Plan) (page C-4).

2. Each time the customer makes a call, this generates a Call Detail Record (CDR) in the network, at the switch level (raw CDRs) which then will be collected by the mediation (Mediated CDRs) and forwarded to the rating and/or billing engine (Rated CDRs). This last CDR - in the wireless case - is saved into the WIRELESS CALL EVENT (page 2-216) table in Oracle Communications Data Model (this is a sub-entity of the UDR EVENT (page 2-208) table). A UDR EVENT (page 2-208) is an abstract entity which defines the minimal common definition of any network events (calls and service usage of any type).

3. The CALL CATEGORY tracks the type of a call, such as a data or a voice call.

4. The ROAMING TYPE (page 2-179) tracks whether the call roams from another operator or to another operator.

5. The MEDIATED CALL EVENT (page 2-107) table stores the CDRs from the mediation system (before entering the billing engine).

6. The UDR EVENT (page 2-208) table stores the call details such as the call date and time and the call duration.

Note: Depending on where the source Call Detail Record (CDR) is taken, the CDR may contain a charge for the following:

- In case of Roaming, the (base) charge is set by the other operator (raw or mediated CDRs level), while the carrier itself usually adds a surcharge (fixed percentage or fixed price per minute - normally higher than the roaming charge).

- In case of Value Added Service, the charge is set by the vendor (raw or mediated CDRs).

- In case the CDR source is the billing system, after rating has taken place (rated CDRs). This is also true for CDRs from the IN Platform which is doing the rating (typically for Prepaid).

Depending on the type of analysis, it is usually recommended for revenue assurance to check at least both mediated (before the billing system) and rated or billed CDRs (from the billing). The raw CDRs, direct input from the network, are usually more complex to deal with (binary type of data, a potential factor 100 in number of CDRs and additional signaling information) but are very interesting from a network operation and revenue assurance point of view.

C.6 Sample Use Case 5: Customer Billing

At the end of each bill cycle period (usually a specific day of the month for a given bill cycle), SuperTelco runs the billing process over the calling records for the customer and generates an invoice. In our example, Tom Daniels receives an invoice of $100 for all the phone numbers (Postpaid only normally, but one could think that he could also have agreed to pay by default every month some Recharges for his children "Prepaid" phones). Tom Daniels has to pay SuperTelco within a month or the service could be suspended.

Oracle Communications Data Model stores the customer billing, invoice, and payment information as shown in Figure C-5 (page C-9).

Figure C-5   Billing and Payment Data Model (simplified and missing some entities)
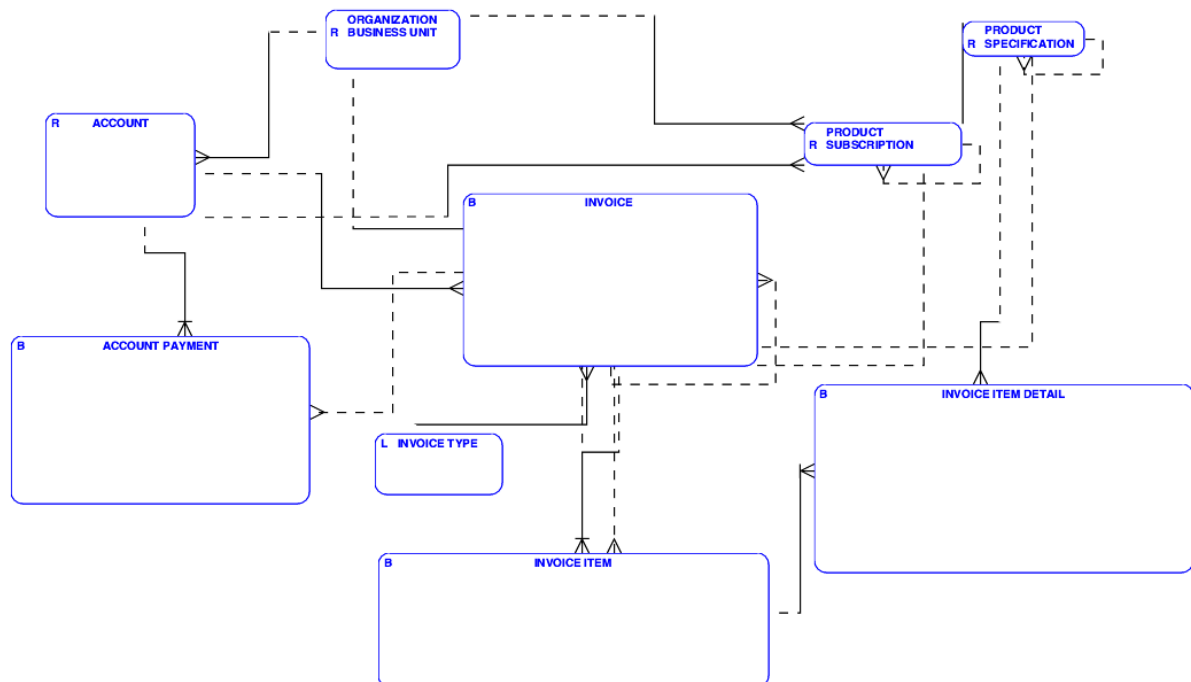
Billing Data in Oracle Communications Data Model:

1. The section, Sample Use Case 4: Storing Customer Call Data (page C-7), describes the collection of call data records data.

2. To store the details of the product charging information, Oracle Communications Data Model uses the PRODUCT SPECIFICATION (page 2-158) sub-entities such as: PRODUCT OFFERING RATING PLAN (page 2-156), PRODUCT OFFERING RATING PLAN DETAIL (page 2-156), and PRODUCT OFFERING PRICE (page 2-155) and PRICE TYPE (page 2-149).

3. Each ACCOUNT (page 2-25) is billed independently. If a customer owns multiple agreements, multiple INVOICE (page 2-92)s are generated in the same month.

4. An agreement may have a different billing period than other agreements associated to the same account. A billing period may be specified monthly, bi-weekly, and so on.

5. After the billing and invoicing have occurred in the billing system, the INVOICE (page 2-92), INVOICE ITEM (page 2-94) and INVOICE ITEM DETAIL (page 2-94) tables store all the information of the invoice for the given billing period (usually a month). The term at which the customer has to pay the invoice is saved in the INVOICE PAYMENT TERM TYPE (page 2-95) associated with each invoice (for example, one month or 90 days). The term is fixed when the agreement is signed.

6. In case a discount or adjustment is applied to the invoice, this information is stored in the corresponding table (INVOICE DISCOUNT (page 2-93) or INVOICE ADJUSTMENT (page 2-92)). An EMPLOYEE (page 2-72) can make invoice adjustments to the amount limited by INVOICE ADJUSTMENT QUOTA (page 2-92).

7. The invoice delivery to Tom Daniels is a small part in the complete billing and invoice issuing and dispatching processes. The specific information related to Tom's invoice is stored in the INVOICE PROCESS ASSIGNMENT (page 2-95) table (not visible in the diagram) and eventually in the INVOICE (page 2-92) itself (see the date at which it is created, issued and dispatched).

8. The ACCOUNT PAYMENT METHOD (page 2-27) stores the payment method chosen when the agreement was signed and this method is the default for the payment transaction.

9. When Tom Daniels pays the invoice, for example using a bank transfer, the payment is stored in ACCOUNT PAYMENT (page 2-27) and assigned to the corresponding open invoice. The ACCOUNT PAYMENT (page 2-27) is stored into the INVOICE PAYMENT ASSIGNMENT (page 2-95). The ACCOUNT PAYMENT (page 2-27) table stores any type of payment (normal payment, recharge, transfer, refund, and so on). You may define a view for each subtype whenever required.

10. The difference between the INVOICE (page 2-92) amount and the payment adds to the debt (the debt is not shown in Figure C-5 (page C-9)).

Note: for the revenue assurance sub-area and its corresponding reports, it is important to store the itemized bill in Oracle Communications Data Model. The usage items (detailed call list) can then be compared, one by one, with the rated CDRs and using this method you can find the difference between rated and billed CDRs.

The section, Sample Use Case 7: Targeted Promotion for Video-on-Demand Services (page C-14)" shows a campaign set-up with the prospect choice. For this campaign, a measure of the campaign success could be obtained by analyzing the number of subscribers who contacted the call center and requested a product change based on the promotion, as a factor of time, in hours or days, between sending the promotion and customer call-back.

C.7 Sample Use Case 6: Changing Plan and Billing Address

SuperTelco launches a campaign to promote a package with converged broadband and mobile services. Tom Daniels sees the promotion message, delivered through an SMS campaign, and decides to take advantage of the promotion. He calls the call center and asks to change his product package to obtain the new converged family plan that includes broadband services. Later, using the SuperTelco Web Self-Service Interface he changes his billing address.

The section, Sample Use Case 7: Targeted Promotion for Video-on-Demand Services (page C-14) shows a campaign set-up with the prospect choice. For this campaign, a measure of the campaign success could be obtained by analyzing the number of subscribers who contacted the call center and requested a product change based on the promotion, as a factor of time, in hours or days, between sending the promotion and customer call-back.

SuperTelco uses Oracle Communications Data Model to store this customer interaction as shown in Figure C-6 (page C-11) and as outlined in the corresponding steps.

Figure C-6   Changing Plan and Billing Address
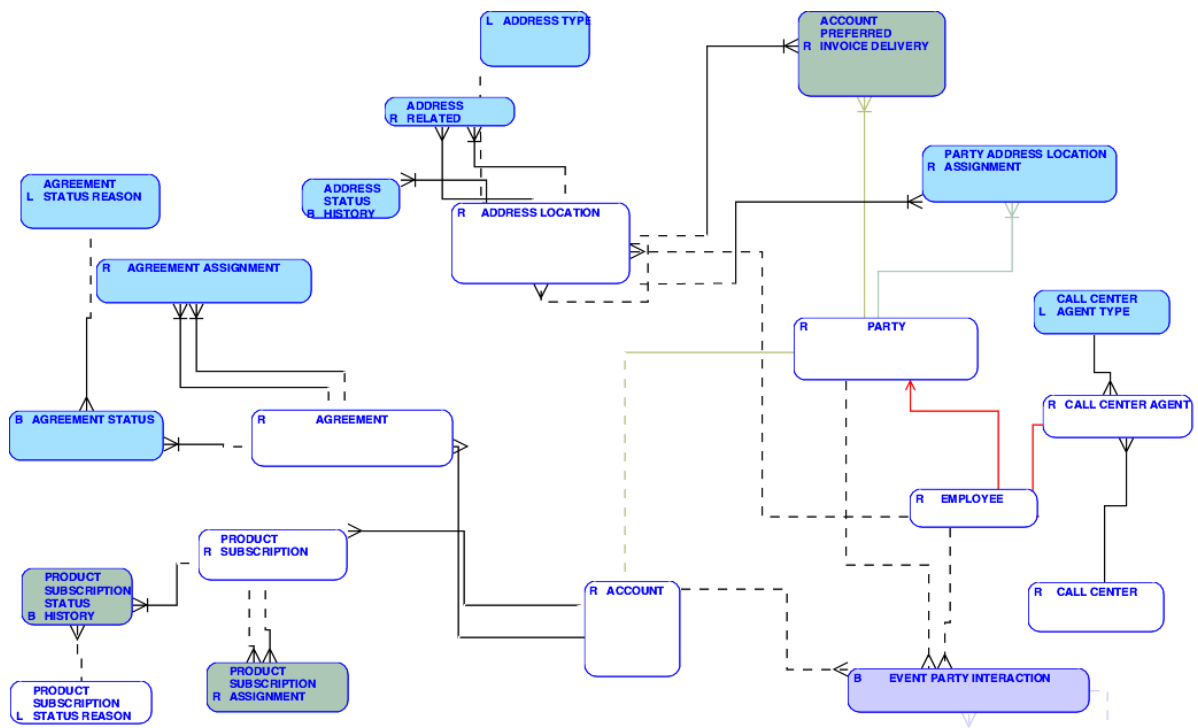
1. The section, "Sample Use Case 1: Setting Up the Business Unit Organization (page C-2)" covers information about the call center.

   The call center agent, stored in CALL CENTER AGENT (page 2-42), as well as the team and department, in CALL CENTER (page 2-42) table, are uniquely identified in Oracle Communications Data Model. The call center agent may be an employee (stored then in EMPLOYEE (page 2-72)) of SuperTelco or an employee of a partner company that runs the call center for SuperTelco. For this example the CALL CENTER AGENT (page 2-42)is a subtype of EMPLOYEE (page 2-72). All INTERACTION CHANNEL (page 2-89)s need to be configured, such as the CALL

CENTER (page 2-42) and any Web or Online business system, or a counter (in a shop), to make sure that one can trace the interaction with the customer at any time.

2. The details for interaction information for the call center are stored as a "non network event". Depending on the method Tom Daniels uses to contact the call center, the corresponding code from INTERACTION TYPE (page 2-91) is stored with the event:

- Using EVENT PARTY INTERACTION (page 2-78) (use interaction type as "Call" in this case). This information is aggregated in the CALL CENTER CALL MONTH AGGR (page 2-43) for further analysis.

- A thread will be defined by the first interaction of the chain in EVENT PARTY INTERACTION (page 2-78) to store the reason for the customer call. A thread groups all interactions having to do with the same list of requests, inquiries and issues the customer deals with. This information is aggregated in the CALL CENTER CASE MONTH AGGR (page 2-43) for further analysis.

3. When the customer confirms the agreement change, the product change process occurs in the CRM and billing system. This process triggers two PRODUCT SUBSCRIPTION (page 2-161) events for the ACCOUNT (page 2-25) (when the converged product is a complete package which cannot be split). Oracle Communications Data Model stores the following events:

- The first event is a cancellation for the existing PRODUCT SUBSCRIPTION (page 2-161) ("PKG_Mobile_300"). The `effective_to_date` attribute changes to the current date.

- The second event for the PRODUCT SUBSCRIPTION (page 2-161) is a new product subscription for the converged package (as described in "Sample Use Case 1: Setting Up the Business Unit Organization (page C-2)").

- The third event involves creating the link between the two subscriptions and uses the table PRODUCT SUBSCRIPTION ASSIGNMENT (page 2-161) to store their relationship.

- The fourth would require a (Product) Subscription Change Event EVENT SUBSCRIPTION CHANGE (page 2-80) to keep track of the migration. Note: If this action is omitted, it will not appear in the data marts associated with migration.

If as part of the commercial process for this offering defined by the Service Provider the AGREEMENT (page 2-33) requires changes, then do the following:

- Close the old agreement with a "cancellation reason" specified (find the cancellation reason in the lookup table AGREEMENT STATUS REASON (page 2-35)).

- Create a new agreement with the corresponding AGREEMENT TERM (page 2-35) supplied.

- If the AGREEMENT (page 2-33) does not need to be replaced and the new product uses the same agreement, then one case either:

a) Close the Agreement Item with the old PRODUCT SUBSCRIPTION (page 2-161).

b) Create a new Agreement Item with the new PRODUCT SUBSCRIPTION (page 2-161).

c) You may also change the product assignment for the existing agreement in the table AGREEMENT PRODUCT SPECIFICATION ASSIGNMENT (page 2-34) with a specific assignment code.

Important Notes:

- If by changing the PRODUCT SUBSCRIPTION (page 2-161), the main PRODUCT OFFERING (page 2-154) changes, a new line in AGREEMENT (page 2-33) (new agreement key) is required, even if the agreement code (Agreement identifier) does not change.

- A product change impacts several other tables on the next automatic data movement (and their corresponding reports).

  - The CANNIBALIZATION DETAIL DAY DRVD (page 2-46) table which captures the individual record related to the tariff and package change. This table fills the Cross and Up-sell mining model.

  - The customer Lifetime Value associated table is also updated. The agreement or product has changed and this change impacts the likelihood to churn.

  - The Revenue Forecast OLAP cube also changes for this customer.

The details for the product charge information are stored in the various PRODUCT SPECIFICATION (page 2-158) sub-entities, including: PRODUCT OFFERING RATING PLAN (page 2-156) and PRODUCT OFFERING RATING PLAN DETAIL (page 2-156).

Note: the Oracle Communications Data Model does not rate, from the monetary perspective, any kind of event (no "shadow billing" as such), although one could customize Oracle Communications Data Model for this purpose.

The customer table, using the entity CUSTOMER (page 2-62) and the attribute Billing Address Location Code, stores the customer's billing address. This attribute links to the actual address entity ADDRESS LOCATION (page 2-30). The billing address is one type with a value from the ADDRESS TYPE (page 2-31) for the new address. For example, when Tom Daniels changes the billing address, using the SuperTelco Web Self-Service Interface, the change is captured by the ETLs (from the CRM or from the web interface) and is stored in Oracle Communications Data Model as a the non-network event (from the source Web Interface, the Web based customer self-care system, typically where you login to obtain your offer).

When Tom Daniels has given the new address, the two addresses are linked with the ADDRESS RELATED (page 2-31) entity. With more than one address, changes are required in the ADDRESS RELATED (page 2-31) and CUSTOMER (page 2-62) entities:

- The current billing address in ADDRESS RELATED (page 2-31) has the value "Old Billing Address" as reason.

- The new billing address reason is assigned: if this is a new home address the new address exists in Oracle Communications Data Model and becomes the new billing address.

- The ADDRESS STATUS (page 2-31) of new address is set to "Active" while the ADDRESS STATUS (page 2-31) for the old address becomes "Inactive".

- In the CUSTOMER (page 2-62) table, the new billing address location is overwritten and the billing address effective date is updated to the correct date.

- The change of address may impact the customer profiling mining model.

Additionally, the PARTY STATUS HISTORY (page 2-125) could be updated (depending on what information the Service Provider requires).

C.8 Sample Use Case 7: Targeted Promotion for Video-on-Demand Services

SuperTelco analyzes the current customer base to identify the customers who are most likely to purchase the Video-On-Demand service. The Marketing department would also like to increase the number of customers in the loyalty program (this can help limit churn). Using the Data Mining tool for target promotion, the business analyst in the SuperTelco Marketing generates a list of customers that are likely to be interested in this service and that are not currently members of a loyalty program ("supervised" mining).

A sample of the target list of customers is selected to test the promotion. Customer Tom Daniels is among the target list of customers. SuperTelco sends the target customers an email. In order to collect customer feedback, SuperTelco decides that the test promotion customers must contact the call center to get the Video-On-Demand service and one free DVD.

SuperTelco uses Oracle Communications Data Model to store this customer interaction as shown in Figure C-6 (page C-11) and as outlined in the corresponding steps.

Figure C-7   Targeted Promotion Data Model

Tom Daniels decides to buy the service and calls the CALL CENTER (page 2-42) to get the new promotion, including:

- A month of Video-On-Demand service for ten dollars.

- Five films per month free and one free DVD.

- During the call he is offered the option to be added to the loyalty program with 500 Loyalty bonus points.

The section, "Sample Use Case 6: Changing Plan and Billing Address (page C-11)" covers the impact of a product change.

The business analyst prepares the campaign, selects the prospects, and measures the campaign success as follow:

1. The marketing manager determines the number of customers that are members of the loyalty program. Membership in the loyalty program seems to be a factor in reducing churn and increasing SuperTelco's knowledge of a customer's preferences. To increase the number of customers in the loyalty program the marketing manager decides to contact existing customers to proposing a new offering, the Video-On-Demand product, and bind the offering to the loyalty program membership. The loyalty program membership is proposed whether the customer takes advantages of the Video-On-Demand promotion or not. Thus, the promotion includes two promotions:

   a. Service Offering: Video-On-Demand

   b. Loyalty Program Membership

2. The product setting for Video-On-Demand is specified in the PRODUCT SPECIFICATION (page 2-158) and PRODUCT OFFERING (page 2-154) tables. The purpose and summary information for each promotion is specified in the PROMOTION (page 2-163) table. Some PROMOTION (page 2-163)s may serve a single strategic purpose (the CAMPAIGN (page 2-44) tracks the promotion purpose).

3. The business analyst for this campaign has the following requirements:

   a. Prospects for Video-On-Demand should have an active broadband service.

   b. Prospects for the loyalty program should not yet be a member of the loyalty program.

   c. Prospects should only be individuals.

   d. Prospects should not be in a campaign or have recently, within the last three months, been contacted for a promotional offering.

   e. Prospect revenue should be at least in the middle range.

   f. Prospect payment should be on-time, debt aging at zero or near zero, and the prospect should have had no service suspension for bad payments.

   g. Before proposing the promotion on a large scale the business analyst should select a list of two hundred sample customers to test the campaign.

4. Because of the information received the business analyst uses the "supervised" method for targeted promotion data mining, using the specified criteria to find the prospect list.

5. The business analyst determines that there are two possibilities to generate the prospect list contacts:

- The operator can buy a CONTACT LIST (page 2-59) from an external marketing data provider. The SOURCE SYSTEM (page 2-201) contains possible sources for this type of data. The marketing department can also design criteria based on which customers to select from a CONTACT LIST (page 2-59). The customer information may not be in the operator's customer database yet. In this case the customer information is recorded in PARTY (page 2-120) and PARTY CONTACT LIST PARTICIPATION (page 2-121) that associate the PARTY (page 2-120) and a CONTACT LIST (page 2-59). The PROMOTION CONTACT LIST UTILIZATION (page 2-163) records which promotion utilizes which CONTACT LIST (page 2-59).

- The operator can run data mining, provided with Oracle Communications Data Model including the "Targeted Product Promotion", or "Customer Segmentation". This corresponds to a Mining result table whose name is "DWD_CUST_PROD_AFFLTN". The output from the mining model CUSTOMER SEGMENTATION MODEL (page 2-68) is specified in the entity CUSTOMER SEGMENT (page 2-67).

  For more information, see Oracle Communications Data Model Data Mining Models (page 10-1) and "Model 4: Targeted Promotion (page 10-35)".

For the sample use case the customer Tom Daniels is part of the two hundred customer test sample. He is tagged as a prospect for this campaign and will appear in the table PROSPECT (page 2-165). Tom Daniels can be a prospect of only one campaign at a time. This is strictly necessary to correctly measure the campaign response. Because Tom Daniels is an individual, the table PROSPECT INDIVIDUAL (page 2-165) is filled; in addition, some data may be collected during the promotion customer interaction.

Following Tom Daniels's interaction with the CALL CENTER (page 2-42), as specified in the PARTY INTERACTION THREAD, the tables INITIATIVE RESULT TYPE (page 2-89), PARTY PROMOTION RESPONSE (page 2-124), and PROSPECT (page 2-165), field `Prospect Result Code`, are updated:

1. Tom Daniels bought the service as specified in the promotion and the video chosen by Tom Daniels is recorded for further analysis (for billing and because the interest is saved information on "Tom Daniels's interest" and on most successful "Videos" type and name).

2. Tom Daniels accepts membership in the loyalty program, stored in the LOYALTY PROGRAM (page 2-103) entity, thus increasing the number of loyalty program members and the knowledge of Tom Daniels's interests.

Each response from a targeted customer is recorded in PARTY PROMOTION RESPONSE (page 2-124). A positive response is stored as part of the mining result to the campaign, thus providing a better score to individual customers in a similar segment as Tom Daniels. The scoring table is reused to calculate the likelihood of a positive answer to the campaign when the campaign is broadened beyond the test to other customers.

Note: A customer email triggered this initiative and the initiative was completed by the call center. Thus, Tom Daniels's CALL CENTER (page 2-42) call was triggered by the email so the medium of this targeted promotion is email while the sales channel is the CALL CENTER (page 2-42).

As a consequence of the new loyalty program membership and the associated 500 bonus points, a "CRM" event of type Loyalty is created and stored in the LOYALTY MEMBERSHIP ENROLL (page 2-103) table. A new MEMBERSHIP ACCOUNT (page 2-108) is created. A membership account is an account of type Loyalty. It is specifically tracked separately and should never be part of the standard ACCOUNT BALANCE (page 2-25). The 500 Bonus point shall also appear in the EVENT LOYALTY PROGRAM (page 2-78) table and also in ACCRUAL EVENT (page 2-29), in both cases associated with Tom's membership account. Tom Daniels also appears in the MEMBERSHIP ACCOUNT BALANCE HISTORY (page 2-108) table (LOYALTY MEMBER POINT DAY DRVD (page 2-103) and LOYALTY PROGRAM MO AGGR (page 2-103)) coming from the previously defined CALL CENTER (page 2-42) entity. The PARTY STATUS HISTORY (page 2-125) is changed and some fields of CUSTOMER (page 2-62) are updated (for example, `Initiative Number` and `Customer Balance`).

Note: Earning Loyalty point events ("accrual" events) are expected to come from a Billing System (or equivalent, as long as the loyalty balance is tracked), whatever their origin (purchase, retail transaction, payment, usage and so on).

C.9 Sample Use Case 8: Retention of Terminating Agreement

After a period as a customer, Tom Daniels's agreement and plan ends. Before the agreement ends SuperTelco notices that he is likely to churn, according to the socio-demographic data, the subscriptions he has, the usage and revenue pattern (based on comparisons with the customer segment).

The call center proposes that this customer continue with a new offering:

- Family Broadband

- Video-On-Demand and Phone

- The new generation phone as equipment

- A special 12% Discount for 12 months (12 month sign up)

SuperTelco uses Oracle Communications Data Model to store this customer interaction as shown in Figure C-8 (page C-18) and as outlined in the corresponding steps.

Figure C-8   Retention of Terminating Contract Model
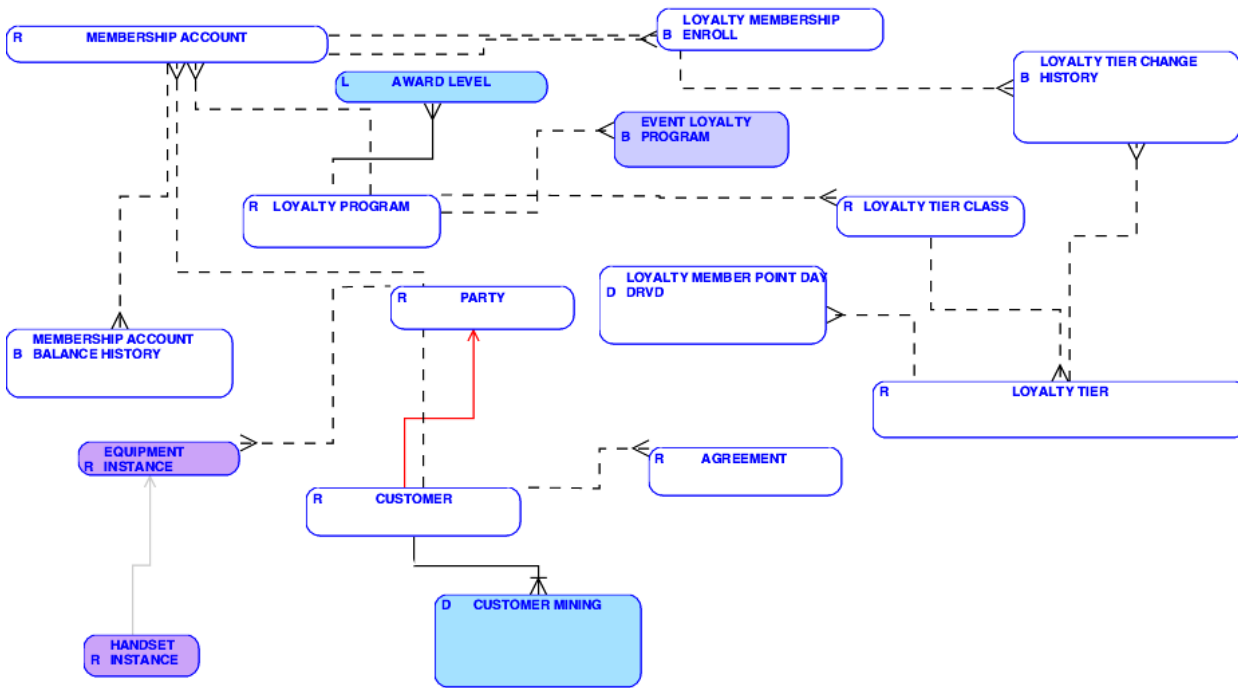
The terminating agreement and call center retention involves the following steps:

1. Tom Daniels's churn likelihood increases as the end of the agreement approaches. Because he is an important customer, belonging to the loyalty program, the churn likelihood should be lower than in other segments (according to AWARD LEVEL (page 2-38) when Tom Daniels participates in the loyalty program by LOYALTY MEMBERSHIP ENROLL (page 2-103)).

2. The operator may run Oracle Communications Data Model mining model to identify the highest probability churners. The result from mining model is saved in CUSTOMER MINING_TBS table. For more information, see "Model 1: Prepaid Churn Prediction (page 10-9)", and "Model 3: Customer Profiling (page 10-26)".

3. There are usually two possible actions when a agreement is due to terminate:

   - Do nothing: In this case the agreement renews itself automatically when it is not actively canceled (assume that the customer will not churn). This is typically the case for a "sleeping" customer" that does not take the latest cheaper offering.

   - Actively contact the customer: In this case, contact the customer before the customer is sent an end agreement term letter (do this if it appears that the probability of customer churn is high and this customer is worth the investment). This action is particularly true for short-term churn-conditions. For example, when a communication is indicated up to one month before the end of the agreement where the customer may get an offer from a competitor. If the agreement ended automatically an action of the Service Provider is required for a renewal.

4. Assuming that Tom Daniels is contacted, SuperTelco needs to know what to propose. Choices for this contact include the following:

- Renew the agreement with no changes: this is possible but usually after several years this option in not attractive, due to competition.

- Proposing a new offering.

- Renewing the agreement with new hardware and a discount if the customer engages for more than twelve months.

  For the sample use case with Tom Daniels, agreement renewal with new hardware might be a good offering when the handsets for all the family members are old, over two years old, as specified in the information from HANDSET INSTANCE (page 2-87) (subtype of EQUIPMENT INSTANCE (page 2-75)). By offering a agreement renewal with new hardware, you could allow the customer to use-up some loyalty points he has earned (by selecting different equipment). Additionally, binding the customer to twelve more months according to his ARPU Band could be worth a 12% discount.

  When you offer a new handset, this could provide new capabilities. For example, applications to download that could generate additional revenue for SuperTelco. This expectation can be reinforced due to the age of the children.

5. From the process perspective this use case is similar to the targeted promotion as described in "Sample Use Case 7: Targeted Promotion for Video-on-Demand Services (page C-14)" with similar entities and similar changes. After the customer accepts the new offer, a new AGREEMENT (page 2-33) is setup. In addition to the new AGREEMENT (page 2-33), Tom Daniels is granted a gift. In this example, the new agreement offer includes a new handset or a one month data service free pass. How the customer decides to pick up the gift is tracked in REDEMPTION EVENT (page 2-170).

6. Additionally to the party interaction, a non network event is stored in the table REDEMPTION EVENT (page 2-170) to contain the free handset information. The free handset comes out of the association with the RETAIL TENDER LINE ITEM (page 2-178) (as GIVE AWAY TYPE (page 2-84) table assigned from the corresponding product offering (in PRODUCT OFFERING (page 2-154) table). The handset itself is in the HANDSET INSTANCE (page 2-87) table.

7. If Tom Daniels was not a member of a loyalty program a similar offer could be available; the purchase for this handset offering would be stored into the CUSTOMER ORDER LINE ITEM (page 2-66) or PURCHASE ORDER LINE ITEM (page 2-166) table.

C.10 Sample Use Case 9: Dealer and Employee Sales Commission

This use case expands the details for customer information, as described in the section, "Sample Use Case 2: Acquiring a New Customer (with Family Plan) (page C-4)". This use case provides details for how sales information from a dealer is stored. Recall that in Use Case 2, the customer Tom Daniels asked for a family plan offering with the following features:

- Four numbers: two Postpaid mobile and two PrePaid

- One Friends and Family option

During the interaction the customer calls the call center to get the phone and broadband offering and the Video On Demand Service. Assuming that SuperTelco rewards dealers depending on customer revenue, the number of services and the

customer loyalty, one shall consider the commissions and costs spending for dealers and for a given campaign:

Actions for the dealer and employee sales commission use case include the following:

- Party interaction, customer, and dealer

- Impact on commission and cost

- Loyalty campaign cost

SuperTelco uses Oracle Communications Data Model to store this dealer and customer interaction as shown in Figure C-9 (page C-20) and as outlined in the corresponding steps.

Figure C-9   Dealer and Employee Sales Commission Data Model
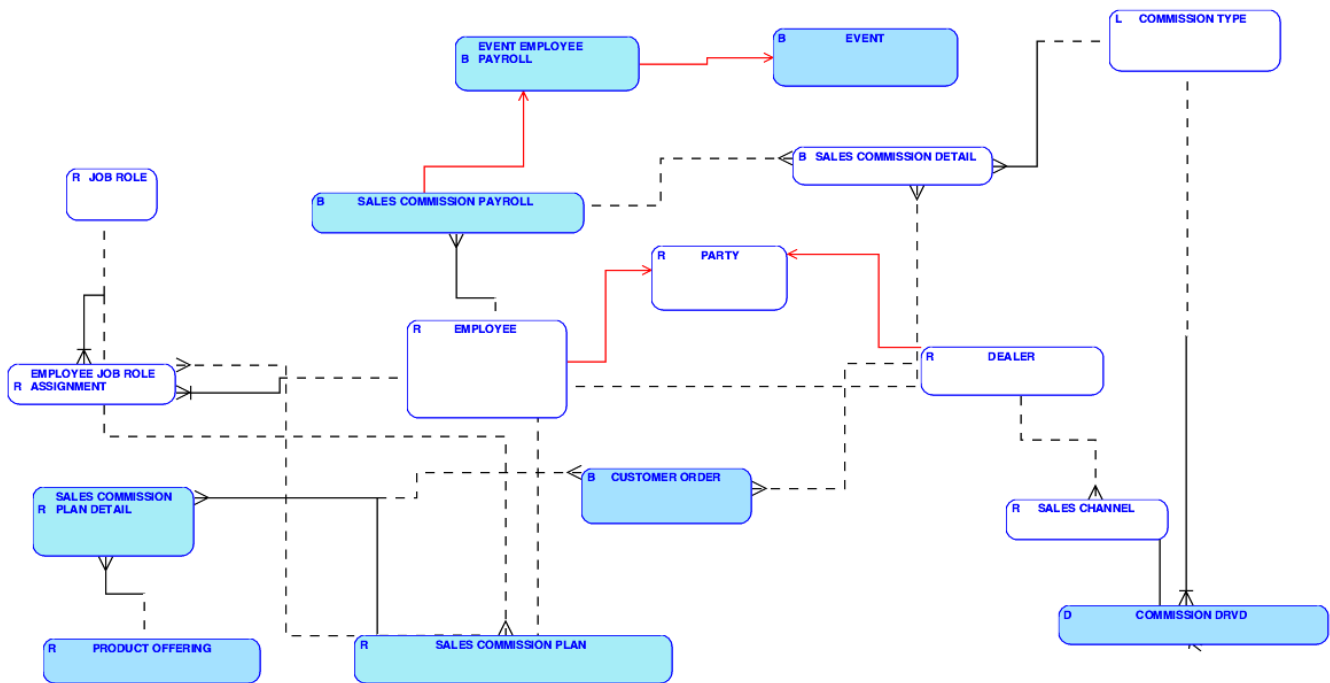
1. The information for the customer and account setup is described in "Sample Use Case 2: Acquiring a New Customer (with Family Plan) (page C-4)".

2. At implementation time or when the dealer first appeared, the dealer is entered as a DEALER (page 2-69), for example John Dealer, a sub-type of the PARTY (page 2-120) table. A DEALER (page 2-69) includes the associated entities:

   a. An address (stored in ADDRESS LOCATION (page 2-30) and related to DEALER (page 2-69)).

   b. A SALES CHANNEL (page 2-181) and a channel to identify the dealer. The SALES CHANNEL (page 2-181) is an abstracted umbrella that unifies both an external DEALER (page 2-69) and the internal sales agents as an EMPLOYEE (page 2-72). The JOB ROLE (page 2-98) for each employee is in EMPLOYEE

JOB ROLE ASSIGNMENT (page 2-73). For example, the job role for a Sales Employee should be "Sales Agent".

c. An organization structure or a relationship to individuals (ORGANIZATION BUSINESS UNIT (page 2-117)).

d. A discount group in the DISCOUNT GROUP (page 2-71) entity within the DEALER DISCOUNT GROUP ASSIGNMENT (page 2-69) table. All the discounts the provider allows for a dealer are defined in DEALER DISCOUNT GROUP ASSIGNMENT (page 2-69) (as a group). This entity feeds the dealer cost and customer cost table.

3. As an employee in sales, John Dealer is associated with a sales commission plan code from the SALES COMMISSION PLAN (page 2-181) table (using JOB ROLE (page 2-98)). The details of the plan SALES COMMISSION PLAN DETAIL (page 2-181) or the type of commission COMMISSION TYPE (page 2-51) are stored in associated entities so that the full commissions and rewards for the item, equipment, services, and product market plan sold are set-up. The EMPLOYEE JOB ROLE ASSIGNMENT (page 2-73).

4. The Party interaction between John Dealer and Tom Daniels generates a new CUSTOMER ORDER (page 2-66). The customer order is generated in the BOSS/OSS system and loaded into Oracle Communications Data Model. For each customer order the SALES COMMISSION DETAIL (page 2-181) is loaded to track how much commission should be granted to the DEALER (page 2-69) in this sales transaction. Once the CUSTOMER ORDER (page 2-66) is fulfilled in the provisioning system, an agreement is settled with four activations, four handsets (ITEM SPECIFICATION (page 2-97)s) and probably five products (one per mobile and the shared Friends and Family offering (even if there is only one agreement). This has the following consequences in Oracle Communications Data Model:

a. John Dealer generated revenue increases and the number of customer and subscriptions: the revenue is compared to the quota the dealer had at the beginning of the month on each of these items, revenue, number of customers, and subscriptions, for the calculation of the dealer's commission and potential bonus and for the final dealer report.

b. John Dealer "costs" increase correspondingly, as he wins a percentage of the generated revenue.

c. The number of handsets available at John's shop is reduced by four (two Postpaid and two Prepaid). The out-of-stock forecast mining model is automatically fed and correspondingly updated.

d. The commission associated with the handsets through the commission indicator attribute ("Commission Ind") will trigger the calculation of an extra commission for the items sold, aggregated on the monthly basis (using COMMISSION DRVD (page 2-51) and SALES CAMPAIGN SUMMARY MONTH AGGR (page 2-180)).

5. Assuming SuperTelco rewards on the effective revenue generated by the customer, depending on the ARPU band of the account associated with the customer, the special bonus for John Dealer is updated with Tom Daniel's profile and added as a supplementary cost for the dealer and for the customer. Often at this stage a fraud detection mechanism is applied to limit dealer or customer fraud.

6. As Tom Daniels changes the package to the convergent offering, due to a campaign, SuperTelco does not reward John Dealer. The campaign cost may be increased by the cost of creating and sending the SMS, in general, and by the cost of the call center agent interaction. The customer cost could also only be increased by the cost of the call center agent interaction (assuming the SMS sent to Tom Daniels is not considered). The fact that Tom Daniels changes his package will probably impact the Band ARPU that could also change the bonus for John Dealer.

7. As Tom Daniels's agreement comes to an end SuperTelco may decide to reward only the call center as a successful clawback action rather than granting further John Dealer with a bonus for the loyalty of the customer, as the later was not involved at all in the action. The customer cost for Tom Daniels would still increase. The employee and call center cost would also correspondingly increase (here, probably only the employee cost, as the call center cost must be considered to be the sum of the labor, employee, costs and other costs). For example the rent for the building or of the call center service is typically associated with the location of the call center only. Note that its total margin, due to the revenue generation through the agreement renewal, is increasing even if the relative margin will probably decrease over the month.

8. At each end of month when the sales agent commissions are paid by payroll, the information in SALES COMMISSION PAYROLL (page 2-181) is populated.

9. Sometimes certain dealers may commit fraud when bringing in new customers. For example, a dealer may have friends sign agreements to win a gift but then terminate the agreement. The new customers brought in by the fraudulent dealer may be identified by SUBSCRIPTION STATISTIC MONTH AGGR (page 2-203). In this table some statistical functions are applied to find a high churn rate by a possibly cheating DEALER (page 2-69), compared to all other dealers.

C.11 Sample Use Case 10: Handling a Service Problem

The Network Monitoring System detects a failure at a switch. SuperTelco wants to understand how many customers are affected by the incident. The Network Monitoring System queries the Network Inventory to get the resource ID of the faulty element. The Network Monitoring System then generates a "network failure" event and Oracle Communications Data Model captures this event.

SuperTelco uses Oracle Communications Data Model to handle a network fault, as shown in Figure C-10 (page C-23) and as outlined in the corresponding steps.

SuperTelco includes the full network structure as specified in Oracle Communications Data Model and both the network operating and the network inventory applications provide information to Oracle Communications Data Model once a day.

This model has been strongly extended to better fit the TeleManagement Forum Shared Information Model (TMF SID) ResourceAlarm and ServiceProblem Aggregate Business Entities.

Figure C-10   Handling a Network Fault Data Model
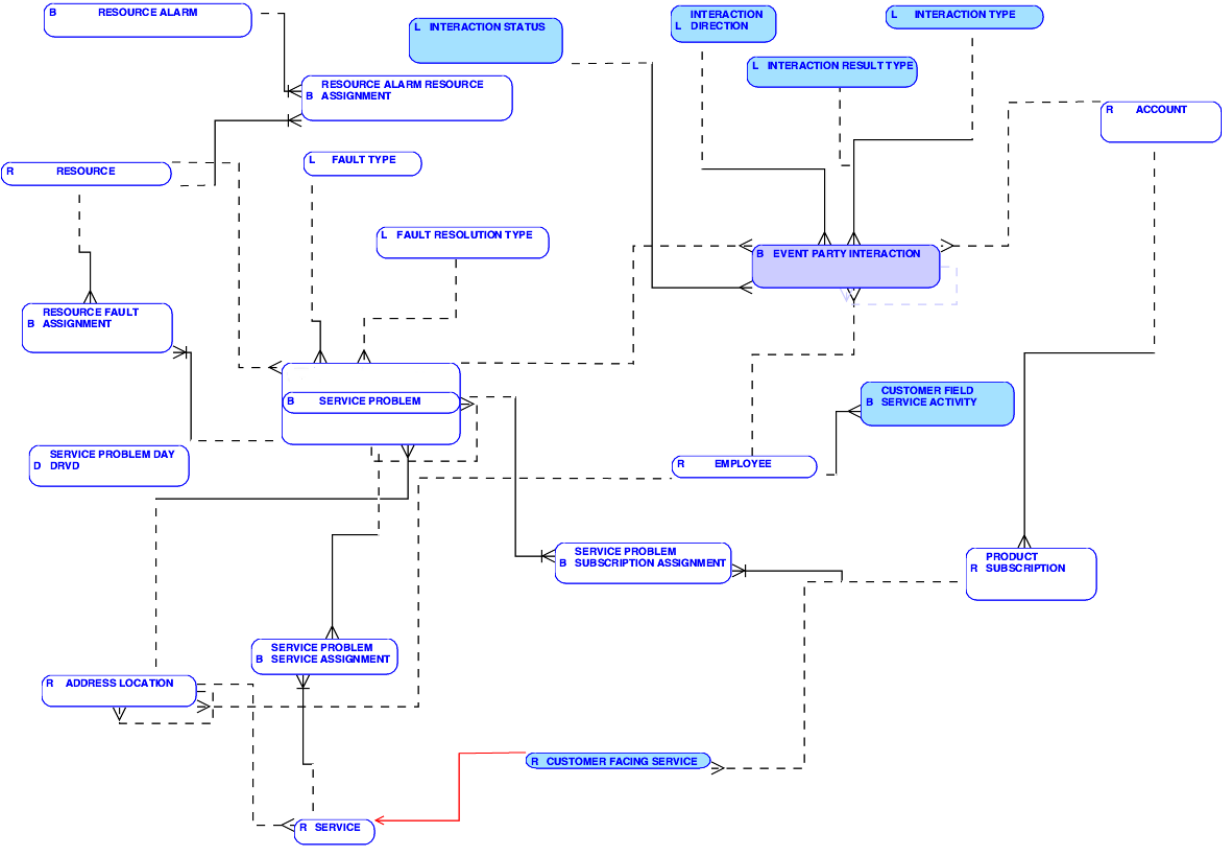
Consider the case and steps required to handle a network fault:

The first questions for the manager after identifying the issue are:

1. One evening at 8pm a network cell suffers a power outage after being hit by lightning, and the network cell goes out and does not restart. The real-time network monitoring system alerts SuperTelco maintenance central. This allows SuperTelco to quickly identify where the failure is (site, location, default configuration before the break-down) and SuperTelco sends a team to look at the issue. Assume that this outage is a cell which is difficult to reach, despite being in a high density population area; thus it takes four hours to the maintenance team to repair and restart the network cell.

2. While the network is down, SuperTelco customers call the call center from fixed lines to complain. Some customers threaten to quit the service if the problem persists.

3. Up to this stage, Oracle Communications Data Model does not play a role. One could assume that Oracle Communications Data Model gets this summary information events, status, and so on, daily (at 2am the following morning). Note if the ETLs for the network controlling applications are configured such that Oracle Communications Data Model is updated in near real-time, for example hourly, then Oracle Communications Data Model may know about the event sooner.

4. The SuperTelco manager gets the network fault information in real-time from the network applications team.

- Where is the cell located?

- Whose qualified team is in charge now?

- Which services are impacted?

- Which customers may be impacted?

- What is the average revenue impact if nothing is done?

5. Network applications should be able to answer directly where the cell is located and the team in charge. Note that Oracle Communications Data Model could also identify this information if the ID of the cell that broke down is supplied (even if Oracle Communications Data Model does not yet know that it broke down). A simple adhoc query on the RESOURCE (page 2-171) (previously called NETWORK ELEMENT) table, and its sub-tables, could answer the question:

   "Where is my network element ID xxx?"

   To answer the question:

   "Who is in charge according to the maintenance plan?"

   Oracle Communications Data Model can supply this information with a customization of the model (this information is not available out-of-the-box). If the network fault happens to multiple RESOURCE (page 2-171)s, all the faulted network elements are tracked in RESOURCE FAULT ASSIGNMENT (page 2-174). We assume that corresponding RESOURCE ALARM (page 2-171)s are triggered.

6. Each occurrence of a network failure is recorded in SERVICE PROBLEM (page 2-190). When a network fault happens at customer site, technical support activities to solve the problem are saved in the CUSTOMER FIELD SERVICE ACTIVITY (page 2-65) when loaded into Oracle Communications Data Model.

7. Once the network fault is resolved the resolution type of the network fault is loaded according to FAULT RESOLUTION TYPE (page 2-81).

8. The list of services impacted is related to the list of elements which were out. In the sample use case, with a lightning strike, consider the full wireless traffic is down in the area near the antenna. Because this area is a high density area, one could expect that other antennae may partly cover the geographic coverage. In a GSM network, geographic areas are divided into different CELL (page 2-47)s which are served by the corresponding BASE STATION CONTROLLER (page 2-38). The BASE STATION CONTROLLER (page 2-38) is a subtype COMPOUND RESOURCE (page 2-54) (itself a sybtype of RESOURCE (page 2-171)). A simple report showing the affected areas and services also lists the services associated with the cell.

9. You can obtain a list of impacted customers through the SERVICE PROBLEM SUBSCRIPTION ASSIGNMENT (page 2-190), which links the network fault to the PRODUCT SUBSCRIPTION (page 2-161) table. The later contains the `Circuit Component Code` attribute that allows you to use the table CIRCUIT COMPONENT (page 2-49) to get the NETWORK TOUCHPOINT (page 2-113) concerned, the CELL SITE (page 2-47) being a sub-table of NETWORK TOUCHPOINT (page 2-113). Consequently, a simple query on all subscriptions whose circuit component is tied to the cell ID that failed provides a list all the customer information associated with the given cell.

10. Similarly, the exact list of products impacted, per customer, can easily be provided (related to the service that is down and the subscriptions concerned).

11. With a list of products impacted, the manager can check how many calls normally run Friday evening between 8pm and 12pm, and get the average revenue generated at that time for those customers. This provides the average revenue loss within the four hours of time-off. The manager may send an email to the call center with the list of potential customers, to warn the call center that within the next three to four hours, those customers may be complaining about a loss of coverage.

12. When a customer calls the call center, an interaction event is created in EVENT PARTY INTERACTION (page 2-78), with an interaction type of `Complain`.

13. With the email and the customer list, a call center manager can warn the call center employees, and possibly ask for a additional personnel to manage the potential increase of complaint calls. Not that it is important to identify all the customer calls to the call center, associated with the failed cell that may be related to the network issue. This identification can be done either upfront in real-time by the call center agent or on a later with analysis from Oracle Communications Data Model. Note: the call center manager may have then an explanation ready for the next monthly meeting when he shows the customer satisfaction report.

14. For the most valuable customers that complain and threaten to churn, the customer care manager may decide to run a compensation program. For example, by providing ten free SMS or ten minutes for free next month for private customers and provide a 10% discount for business customers at risk of churning.

15. Later, if these procedures were not carried out, an increase in churn for the following month may be quickly related to the network issue: the default reports might show an alert due to an unusual increase in churn in a specific area (using the outlier function of the database associated to the alert functionality of Oracle Business Intelligence Suite Extended Edition).

16. With Oracle Communications Data Model, there are therefore several ways to come to the same conclusion, in our case:

   • The network cell ID (near real-time).

   • The abnormally limited geographic distribution of origin of some complaints (most probably the next two days).

   • The abnormally increase of churn in a limited region (a month later).

C.12 Sample Use Case 11: Implementing a Business Area

The CFO requests that the SuperTelco IT manager (Susan) has to implement all the billing related reports of Oracle Communications Data Model

For simplification, assume that:

   • The CFO wants to get the value as quickly as possible, so that Susan is not supposed to customize anything unless strictly necessary.

   • SuperTelco uses Oracle Business Intelligence Suite Extended Edition as the reporting tool.

   • Oracle Communications Data Model is installed but all tables are completely empty.

Despite the fact that some DWHs exist, on customers and products, Susan goes forward as for a "greenfield" implementation. But she will reuse part of the work that

was done before, either directly from the DWH tables, used as a source to Oracle Communications Data Model or using the ETLs to directly feed Oracle Communications Data Model tables.

In a second phase, the CFO requests a special report to take the customers that are diplomats and hence do not pay any VAT. A special customer code must be created and the CFO wants a report only for these specially coded customers. Thus, Susan decides she needs to enhance the customer table with a column `Tax Rate Amount` and introduce a new Customer Type: `Diplomat`. These changes should be done in parallel in the CRM, in the Customer DWH, and in the billing system.

To implement these steps, the IT manager, Susan, does the following:

1. The project follows a typical DWH project plan with one important exception: because Oracle Communications Data Model is a "DWH-out-of-the-box", with an optimized design and an automatic data movement, intra-ETL provided, the main challenges for Susan are:

   a. Limiting the Scope of the project to quickly deliver value to the CFO:

   Identifying the reports associated with the chosen business area.

   Identifying the OLAP cubes and Mining needed or wanted by the business.

   Identifying the input tables required to fulfill the expectations.

   Identifying from the source systems the data needed to fill the tables.

   b. Analysis:

   Identifying the gaps between the organization needs and Oracle Communications Data Model out-of-the-box delivery. In Susan's case, one could assume these are reduced to a minimum. If it has not been a "greenfield" implementation, the gap analysis between the existing reports and underlying DWH structure with Oracle Communications Data Model should also be run.

   Identifying and writing down the difference in semantics between the various terms (normally, this should be quickly done after training with Oracle Communications Data Model). Mapping the source systems (in this case, only the billing and maybe the Product and Customer DWH) to Target Data Element.

   c. Design and Development:

   ETL (Billing to Oracle Communications Data Model and other DWH toOracle Communications Data Model).

   Logical Data Model and Reports Design Enhancement

   d. Training and Testing:

   Scenarii creation and run

   Acceptance Testing with some (trained) power-users

   e. Deployment:

   Initial / history data load

   Incremental load

   f. Maintenance:

2. Within a given business area, Susan will find the reports available out-of-the-box (directly looking at the reports themselves or in the associated documentation) and discuss those the CFO wants to see absolutely.

3. Once with the list of reports to feed, Susan checks the documentation to find out the entities from which these reports are filled and the programs used. She first turns to the Oracle Metadata dashboard (visible in Oracle Business Intelligence Suite Extended Edition): for each report, she finds all the tables that need to be filled (Dashboard Report-Entities) and gets also access to the Intra-ETLs that access these tables (Dashboard Entities-Programs).

4. Going down to the entity description, she can decide which attributes (columns) per table she needs to fill and compare those with the data she can get out of its different sources. Note that Susan will be able to find which KPIs is associated to which column in the Excel file OCDM_KPI_Aggr_spec.xls:

   a. UDR EVENT (page 2-208) as rated event from the billing system.

   b. INVOICE (page 2-92) details from the billing system.

   c. Customer data either from the billing or the CRM system, or from its own Customer DWH.

   d. Product and product rating data from either the billing system or its Product DWH.

5. Finally, it is Susan's decision to determine the source and then create the ETLs that load the corresponding information. In this case, she has two possibilities, the choice between the two being rather an architecture/process decision:

   a. She uses the Product and Customer DWHs as the base for true and up-to-date customer and product information (product and customer "hubs" principle). If she used the standard DWH principles, those are probably in 3NF format, thus easing the mapping process to Oracle Communications Data Model base tables for customers, products and services.

   b. She uses the ETLs that were feeding the Product and Customer DWHs and adapt them to feed Oracle Communications Data Model directly.

6. Important for Susan is that, as soon as some data are available in Oracle Communications Data Model, it will be automatically pushed to reporting level, in the OLAP cubes and to the various mining models (following the plan agreed at implementation time). She can therefore cross-check the data at each Oracle Communications Data Model level (reference, base, derived, aggregation,…) and compare them with previous reports she has. The difference in definitions (what is a subscriber, a customer, an offering, a service,…?) must have been run upfront to be able to compare the data and clarify any differences appearing.

7. On the second phase, adding a new type costs nothing but adding one line in the corresponding lookup table (CUSTOMER TYPE (page 2-68)). The ETLs should be able to reference correctly the new customer type.

8. For the tax customization, Susan will check in the Oracle Metadata dashboard the list of all intra-ETLs and programs hit by a customization of the customer table: in principle, there are a lot impacted. However, with a new attribute, most of them won't need any changes; only those that need to aggregate the result of any facts according to this new column must be extended.

9. With this information, Susan will access and adapt the code of each intra-ETL she needs to. She will then adapt Oracle Business Intelligence Suite Extended Edition repository and the sample reports to present the new dimension.

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