

**Oracle Utilities Meter Data Management
Business Intelligence**

Metric Reference Guide

Release 2.4.0

E22567-02

December 2011

Copyright © 2000, 2011, Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this software or related documentation is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS

Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007). Oracle America, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications which may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third party content, products and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third party content, products or services.

Contents

Contents

Preface **i-i**

 Audience i-i

 Related Documents i-i

 Typographical Conventions i-ii

Chapter 1

Dashboard Content Reference..... **2-1**

 Overview..... 2-1

 Device Activities 2-4

 Dashboards 2-4

 Device Events 2-7

 Dashboards 2-7

 Devices & Installations 2-9

 Dashboards 2-9

 Performance 2-12

 Dashboards 2-12

 Usage Details 2-15

 Dashboards 2-15

 Usage Summary 2-19

 Dashboards 2-19

 VEE Exceptions 2-22

 Dashboards 2-22

 Additional Information 2-25

Preface

This document describes the Oracle Utilities Meter Data Analytics metrics (such as dashboards, analyses, and subject areas) available in Release 2.4.0 of Oracle Utilities Advanced Spatial and Operational Analytics. These metrics are used in the pre-built analyses, and/or available for customers to use via Oracle Answers in building new analyses or extending existing analyses

Audience

This guide is intended for all users of Oracle Utilities Meter Data Management Business Intelligence.

Related Documents

For more information, see the following documents:

- *Oracle Utilities Advanced Spatial and Operational Analytics Installation Guide*
- *Oracle Utilities Advanced Spatial and Operational Analytics Quick Install Guide*
- *Oracle Utilities Advanced Spatial and Operational Analytics Administration Guide*
- *Oracle Utilities Advanced Spatial and Operational Analytics Release Notes*
- *Oracle Utilities Advanced Spatial and Operational Analytics User's Guide*

Oracle Utilities Business Intelligence Documentation Library:

- *Oracle Utilities Business Intelligence Quick Install Guide*
- *Oracle Utilities Business Intelligence Installation Guide*
- *Oracle Utilities Business Intelligence DBA Guide*
- *Oracle Utilities Business Intelligence User's Guide*

See Also:

- *Oracle Utilities Business Intelligence V2.4.0 Server Administration Guide*
- *Oracle Utilities Application Framework V4.1 Business Process Guide*
- *Oracle Utilities Application Framework V4.1 Administration Guide*
- Oracle Utilities Meter Data Management Documentation Library

Typographical 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.
<i>italic</i>	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.

Chapter 1

Dashboard Content Reference

This chapter describes metrics available in Meter Data Analytics of Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0. The analyses are grouped by the following dashboards:

- **Overview**
- **Device Activities**
- **Device Events**
- **Devices & Installations**
- **Performance**
- **Usage Details**
- **Usage Summary**
- **VEE Exceptions**

Note: The data source indicator needs to be configured on the source application as mentioned in the section “Note for Data Source Indicator” in Chapter 3, in *Oracle Utilities Advanced Spatial and Operational Analytics Administration Guide*.

Overview

The Overview dashboard presents an overall picture about Oracle Utilities Meter Data Management (MDM) system showing all important KPI's. This will help the user identify the overall state of the MDM product. Each of the analysis drills down to the respective detailed dashboard page.

Click **Dashboards**, expand **Meter Data Analytics**, and then click **Overview** to access the dashboard.

Percent of Normal Intervals

Property	Value
Subject Area	MDM - Quality Count Fact
Measure	Normal Interval %

The gauge shows the percent of normal intervals that have been received. Click the gauge to drill down to **Overview** page in Performance dashboard.

Percent of On-Time Intervals

Property	Value
Subject Area	MDM - Timeliness Overview Fact
Measure	On-Time Intervals %

The gauge shows the percent of on-time intervals that have been received. Click the gauge to drill down to **Overview** page in Performance dashboard.

Usage Unreported for > 30 days

Property	Value
Subject Area	MDM - SP Usage Transaction Fact
Measure	<No Measure>

This analysis provides a snapshot of unreported usage for more than 30 days. The graph shows usage quantity per number of service points per month. Click the graph to drill down to **Overview** page in Usage Summary dashboard.

Exception Types

Property	Value
Subject Area	MDM - VEE Exception Fact
Measure	% of Total

This analysis shows the count of top five VEE exceptions by type. The analysis shows only top 5 exceptions and merges the remaining exceptions into one slice. If there are fewer than five, all the exceptions are shown as individual slices.

Click the graph to drill down to **Overview** page in VEE Exceptions dashboard.

Degree Days

Property	Value
Subject Area	MDM - Measured Quantity Fact
Measure	Bar - Heating and cooling degree days Line - Usage

This analysis shows the actual usage/load and heating/cooling degree days, for three months. Click the graph to drill down to **Degree Days** page in Usage Details dashboard.

Initial Measurements with Exceptions

Property	Value
Subject Area	MDM - VEE Exception Fact
Measure	% of Total

This analysis gives a snapshot of the total number of initial measurements that resulted into exceptions. Click the graph to drill down to **Overview** page in VEE Exceptions dashboard.

Devices Stopped Receiving Measurements

Property	Value
Subject Area	MDM - Service Point Snapshot Fact
Measure	Devices (shown as % distribution among the buckets)

This analysis shows a summary of the devices that were sending measurements and then stopped for some reason, per aging buckets. Click the pie chart to drill down to **Devices without Measurements** page in Devices & Installations dashboard.

Device Activity Distribution

Property	Value
Subject Area	MDM - Device Activity Fact
Measure	Count of Device Activity (Shown as % of Device Activities distribution for all Activity Types)

This analysis shows a summary of device activities. Click the pie chart to drill down to **Activity Analysis** page in Device Activities dashboard.

Tamper Events

Property	Value
Subject Area	MDM - Device Event Fact
Measure	Events

This analysis shows the counts of tamper device events based on the event category. Click the graph to drill down to **Overview** page in Device Events dashboard. To start viewing the data in this analysis, it needs to be configured to set the appropriate code for tamper events which needs to be shown in the analysis. The appropriate code as available in the source Meter Data Management application needs to be set here.

Installed Smart Meters

Property	Value
Subject Area	MDM - Installation Event Fact
Measure	Installed Devices

This analysis shows the total number of smart devices installed and removed in a month. Click the graph to drill down to Device Status page in Device and Installations dashboard.

Device Activities

The Device Activities dashboard provides key performance indicators (KPIs) for the Oracle Utilities Meter Data Management device activities. This dashboard provides statistics on various commands issued to help utilities monitor the effectiveness of AMI systems and look for anomalies. These statistics may also be used for regulatory purposes, such as number of disconnects in a region and other activities like outage.

Click **Dashboards**, expand **Meter Data Analytics**, and then click **Device Activities** to access this dashboard.

Dashboards

Device Activities provides the following dashboard pages:

- **Overview**
- **Activity Trend**
- **Activity Analysis**
- **Activity Analysis Detail**
- **Activity Duration**

Overview

The Overview dashboard page displays the count of all Oracle Utilities Meter Data Management activities. This analysis provides a bird's eye view of the device activity distribution and the average completed activity duration based on the criteria you select.

You usually define generic criteria (such as calendar year and month, and activity type category) here before compiling the analysis.

- **Device Activity Distribution**

Property	Value
Subject Area	MDM - Device Activity Fact

Property	Value
Measure	Count of Device Activity

This analysis displays the count of all activities for the selected filter values. The first pie chart shows the activity count per the activity type. On the second pie chart, click **View By** to slice the data by head end system, device type, manufacturer, model, geographical code, and city.

Click the **Activities** table link to drill down to **Activity Analysis** dashboard page for specific details about the selected activity.

- **Average Completion Time**

Property	Value
Subject Area	MDM - Device Activity Fact
Measure	Count of Activities

Every activity has a span for completion - the start time and the end time. This analysis displays the average time (in hours) taken for activities of various activity types to be completed. Click the table link to drill down to **Activity Duration** analysis for top activities duration for the selected activity type.

Users can also filter the results of this report further using the answer level filter for Head End System.

Activity Trend

The Activity Trend dashboard page shows the activity trend for different attributes for the last 15 months.

- **Device Activity Trend**

Property	Value
Subject Area	MDM - Device Activity Fact
Measure	Count of Device Activity

The stacked bar graph shows the trend in the total number of activities for the last 15 months. Each stack indicates the number of activities of a particular type. The bar graph on the right with a slider on top, gives a detailed view for each selected month.

Users can view this data with respect to specific dimension such as Device Type, Activity Type, Head End System, Manufacturer, Model, Geographical Code, and City by using the **View By** dropdown provided.

Click the table link to drill down to **Activity Analysis Details** dashboard page for a granular view.

Activity Analysis

Property	Value
Subject Area	MDM - Device Activity Fact

Property	Value
Measure	Activity count

This analysis shows the number of activities associated with a combination of dimensions. It also indicates what percentage of total activities for the selected period does the selected combination contribute. The choices of dimensions are shown in the 'View By' dropdown.

Click View By to choose to slice the details by head-end system, activity type, device type, manufacturer, model, geographical code, or city. The table adjusts the display columns according to the selection of dimensions.

Click the **Activity** table link to drill down to **Activity Analysis Details** dashboard page for a granular view.

Activity Analysis Detail

Property	Value
Subject Area	MDM - Device Activity Fact
Measure	Count of Activities

This analysis displays the Service Point, Device, Customer information associated with each activity. The table displays the top 100 records based on the number of activities. Click on the link provided in the Service Point/Device columns to navigate to Oracle Utilities Meter Data Management 360 degree view portal for the selected Service Point or Device.

Users can click on the individual column links to initiate a drill-back process to the source application.

Activity Duration

Property	Value
Subject Area	MDM - Device Activity Fact
Measure	Actual Activity Duration

This analysis displays the top 100 device activities with longest duration. Along with activity type and duration, this analysis also provides information about device, service point, and customer associated with each activity.

Click a table link to navigate to Oracle Utilities Meter Data Management 360 degree views for the selected device.

Device Events

The Device Events dashboard provides key performance indicators (KPIs) for the Oracle Utilities Meter Data Management device events. The dashboard provides a snapshot of the various device related events occurring across the metering system. Examples of these events include tamper alert, low battery, and outage. This information helps to identify problem devices, meter errors, and possible theft situations.

Click **Dashboards**, expand **Meter Data Analytics**, and then click **Device Events** to access these dashboards.

Dashboards

Device Events provides the following dashboard pages:

- **Overview**
- **Event Trend**
- **Event Analysis**
- **Event Analysis Detail**
- **Event and Exception Correlation**

Overview

The Overview dashboard page displays the count of all Oracle Utilities Meter Data Management device events.

- Device Events

Property	Value
Subject Area	MDM - Device Event Fact
Measure	Count of Event

This analysis provides a bird's eye view of the device event distribution. The map displays event distribution by city. Click on the map for details pertaining to a specific city, and the tables show the count of events per event and device categories for the selected city.

The analysis shows all events geographically including tampering events, low usage events, etc.

Event Trend

The Event Trend dashboard page shows the event trend per event type for the last 15 months.

- **Event Distribution**

Property	Value
Subject Area	MDM - Device Event Fact
Measure	Count of Event

This analysis displays two graphs - one showing the count of all device events per category for the last 15 months, and the other showing the number of events per month per category. Click **View**

By to choose to slice the details by event category, event type, device type, head-end system, manufacturer, model, geographical code, city, or postal code.

The table shows monthly details of activity distribution. Click the table link to drill down to **Activity Analysis Details** dashboard page for a granular view.

Event Analysis

- **Event Analysis Summary**

Property	Value
Subject Area	MDM - Device Event Fact
Measure	Count of Event

This analysis shows the number of events for the selected period that are associated with a combination of dimensions. Click **View By** to choose to the dimensions such as head-end system, activity type, device type, manufacturer, model, geographical code, or city.

Click the table link to drill down to **Event Analysis Detail** dashboard page for a granular view.

Event Analysis Detail

Property	Value
Subject Area	MDM - Device Event Fact
Measure	Count of Event

This analysis displays details of Customer, Service Point, and Device associated with each event. The table displays only the top 100 records. Click a table link to drill down to Oracle Utilities Meter Data Management 360 degree View Portal for the selected device.

Event and Exception Correlation

- **Top Device Events and Exceptions**

Property	Value
Subject Area	MDM - Device Event Fact
Measure	Count of Events + Count of Exceptions

This analysis shows a list of the service points with the highest number of events and exceptions. The table displays only the top 100 records.

The analysis identifies commonly occurring patterns correlating events and exceptions, thus helping to take corrective measures. Click a table link to drill down to Oracle Utilities Meter Data Management 360 degree View Portal for the selected device.

Devices & Installations

The Devices and Installations dashboard provides key performance indicators (KPIs) for the Oracle Utilities Meter Data Management device installations and removals. This dashboard gives a snapshot of the device status, installation status, on/off information, and commissioning status. Customers can use this information to identify problems and understand trends in their AMI infrastructure.

Click **Dashboards**, expand **Meter Data Analytics**, and then click **Devices and Installations** to access the dashboard.

Dashboards

Devices & Installations provides the following dashboard pages:

- **Overview**
- **Device Status**
- **Installation Trend**
- **Devices without Measurements**
- **Devices without Measurements Detail**

Overview

The Overview dashboard page provides an overview of the installed devices, helping in monitoring various device installations and removals. You can also have a spatial view of installed devices.

- **Installed Device Summary**

Property	Value
Subject Area	MDM - Installation Summary Fact
Measure	Device Count

This analysis shows the number and type of installed devices by geographic area. Click on the map for summary of the devices installed in that city (a breakdown with total and percent). The data helps to identify the areas where smart meters are not installed yet.

- **Installed Devices**

Property	Value
Subject Area	MDM - Service Point Snapshot Fact
Measure	Device Count

This analysis shows the number of devices installed, by type, or category. The data helps to understand the distribution of installed devices across device type and device category over a period of two years.

The pie chart shows a comparison between year-on-year device installations. Click **View By** to choose to slice the details by device type and category. Click a table link to drill down to **Installation Trend** dashboard page for a detailed view.

Device Status

The Device Status dashboard page displays the current status of the installed devices.

- **Device Status**

Property	Value
Subject Area	MDM - Service Point Fact
Measure	Device Count, % Total

This analysis shows the count of devices that are ON and/or OFF under each device category. A device is considered ON when there is power supply. The data helps to identify problem meters.

Click a table link to drill down to **Device Status Detail** page for granular view.

- **Installation Status**

Property	Value
Subject Area	MDM - Service Point Fact
Measure	Device Count, % Total

This analysis shows the count of devices based on the installation status (the device life cycle). Filter the devices per category for specific details.

Click a table link to drill down to **Device Status Detail** page for granular view.

Installation Trend

The Installation Trend dashboard page gives a bird's eye view of device installations and removals.

- **Installation History**

Property	Value
Subject Area	MDM - Service Point Snapshot Fact
Measure	Installed Devices

This analysis shows the count of devices that are installed in the last 15 months. Click **View By** to choose to slice the details by head-end system, device type, device category, manufacturer, model, or geographical code.

- **Installs and Removals**

Property	Value
Subject Area	MDM - Installation Event Fact
Measure	Installed Devices, Removed Devices

This analysis shows the total number of devices which are installed and/or removed each month, in the last 15 months. Click the table link to drill down to daily values for the selected month.

Devices without Measurements

Devices, after installation, are expected to send measurement readings. This dashboard page has details about those devices which either stopped sending measurements or never recorded any.

- **Devices Stopped Receiving Measurements**

Property	Value
Subject Area	MDM - Service Point Snapshot Fact
Measure	Device Count, % of Total

This analysis shows a summary of the devices that were sending measurements and then stopped for some reason. The data is broken into aging buckets. Click **View By** to choose to slice the details by service point type, head end system, service provider, device type, manufacturer, and model.

Click a table link to drill down to **Devices without Measurements Detail** page for detailed view.

- **Devices Never Received Measurements**

Property	Value
Subject Area	MDM - Service Point Snapshot Fact
Measure	Device Count, % of Total

This analysis shows a summary of the devices that never recorded any measurements for some reason. Click **View By** to choose to slice the details by service point type, head end system, service provider, device type, manufacturer, and model.

Click a table link to drill down to **Devices Never Received Measurements Detail** page for detailed view.

Devices without Measurements Detail

- **Devices Stopped Receiving Measurements Detail**

Property	Value
Subject Area	MDM - Service Point Snapshot Fact
Measure	Days without Measurement

This analysis displays the new devices that are installed but not recording measurements. The table shows the service point and device details, along with number of days the device has not been recording measurements .

Click a table link to drill down to Oracle Utilities Meter Data Management 360 degree View Portal for the selected device.

Performance

The Performance dashboard provides key performance indicators (KPIs) for the Oracle Utilities Meter Data Management performance.

Click Dashboards, expand Meter Data Analytics, and then click Performance to access the dashboard.

Dashboards

Performance provides the following dashboard pages:

- Overview
- Quality
- Quality Analysis
- Timeliness
- On-Time Analysis
- Estimation

Overview

The Overview dashboard page provides a snapshot view of Oracle Utilities Meter Data Management data.

- Percent of Normal Intervals

Property	Value
Subject Area	MDM - Quality Count Fact
Measure	Normal Interval %

The gauge shows the percent of normal intervals that have been received. Click the gauge to drill down to **Quality** dashboard page for the same time period.

The table shows the count of normal intervals and also the total count of intervals.

- Percent of On-Time Intervals

Property	Value
Subject Area	MDM - Timeliness Overview Fact
Measure	On-Time Intervals %

The gauge shows the percent of on-time intervals that have been received. Click the gauge to drill down to **Timeliness** dashboard page for the same time period.

- Percent of Normal Intervals by Segment

Property	Value
Subject Area	MDM - Timeliness Overview Fact
Measure	Normal Interval %

This analysis shows a breakdown of normal intervals returned by the selected segment. Click **View By** to choose to slice down the details by head end system, device type, manufacturer, market, service provider, usage calculation group, city, or postal code.

Click the table link to drill down to **Quality** dashboard page for detailed view.

- Percent On-Time Intervals by Segment**

Property	Value
Subject Area	MDM - Timeliness Overview Fact
Measure	On-Time Intervals %

This analysis shows a breakdown of on-time intervals returned by the selected segment. Click **View By** to choose to slice down the details by head end system, device type, manufacturer, market, service provider, usage calculation group, city, or postal code.

Click the table link to drill down to **Timeliness** dashboard page for detailed view

Quality

The Quality dashboard page provides the measures of quality of meter data.

- Quality Distribution**

Property	Value
Subject Area	MDM - Quality Count Fact
Measure	% of Total

The pie chart displays the count of normal measurements as a percentage of total measurements, segmented by quality category.

- Non-Normal Intervals**

Property	Value
Subject Area	MDM - Quality Count Fact
Measure	% of Total

The graph shows the count of non-normal interval data per month segmented by quality category. Click the table link to view daily values.

Quality Analysis

Property	Value
Subject Area	MDM - Quality Count Fact
Measure	Count, % of Total

The Quality Analysis dashboard page displays the count of various quality measures. Click **View By** to choose to slice the details by head end system, manufacturer, geo code, city, device type, market, service provider, usage calculation group, or postal code. You can select a combination of three segments.

Timeliness

The Timeliness dashboard page provides an overview of the AMI timeliness data.

- **AMI Interval Timeliness Distribution**

Property	Value
Subject Area	MDM - Timeliness Overview Fact
Measure	Timeliness Count

This analysis shows the timeliness distribution of AMI intervals.

- **Late AMI Intervals**

Property	Value
Subject Area	MDM - Timeliness Overview Fact
Measure	Late Count, Late Quantity

This analysis shows the monthly trend of late AMI intervals over time. Click the graph to view daily details.

On-Time Analysis

The On-Time Analysis dashboard page provides a breakdown of timeliness data.

- **AMI Interval Timeliness Analysis**

Property	Value
Subject Area	MDM - Timeliness Overview Fact
Measure	Timeliness Count, Timeliness Quantity

This analysis shows a summary of timeliness for the selected slice by attributes. Click **View By** to choose to slice the details by head-end system, manufacturer, geo code, city, device type, market, service provider, usage calculation group, or postal code.

Estimation

Property	Value
Subject Area	MDM - Quality Overview Fact
Measure	Estimated Quantity, User Edited Quantity, Estimated Count, User Edited Count

The Estimation Summary analysis shows the distribution of estimated and user-edited measurement quantity per estimated and user-edited measurement count, per month.

Usage Details

The Usage Details dashboard provides key performance indicators (KPIs) for the Oracle Utilities Meter Data Management usage. Click **Dashboards**, expand **Meter Data Analytics**, and then click **Usage Details** to access the dashboard.

Dashboards

Usage Details provides the following dashboard pages:

- **Overview**
- **Usage Trend**
- **Degree Days**
- **Usage by Day**
- **Usage by Hour**
- **Usage Comparison**

Overview

The Overview dashboard page displays the usage distribution and usage summary details based on the criteria you select.

- **Usage Distribution**

Property	Value
Subject Area	MDM - Measured Quantity Fact
Measure	Measured Quantity

This analysis shows the measured usage quantity distribution per category. Click **View By** to choose to slice the data by usage calculation group, city, device type, geo code, head end system, manufacturer, market, model, postal code, service provider, or service type.

- **Usage Summary**

Property	Value
Subject Area	MDM - Measured Quantity Fact
Measure	Total Quantity

This analysis summarizes the measured usage quantities over 15 months. The graph also shows a monthly average by year. Click the table link to drill down to **Usage by Day** dashboard page for daily details in that month.

Usage Trend

The Usage Trend dashboard page shows the trends across normal usage, estimated usage, and TOU mapped usage.

- **Usage Trend**

Property	Value
Subject Area	MDM - Measured Quantity Fact
Measure	Normal Quantity, MC Count

This analysis shows the usage quantities trending over a period 15 months. The table shows the normal, estimated, and user-edited usage quantities over 15 months.

The table shows the normal, estimated, and user-edited measurement quantities over 15 months. Click the table link to drill down to **Usage by Day** dashboard page for specific usage details in that month.

- **Estimated Usage Trend**

Property	Value
Subject Area	MDM - Measured Quantity Fact
Measure	Usage Quantity

This analysis tabulates the estimated measurement quantities over 15 months. Click the table link to drill down to **Usage by Day** dashboard page for specific usage details in that month.

- **TOU-Mapped Usage**

Property	Value
Subject Area	MDM - Measured Quantity Fact
Measure	Estimated Quantity (% estimated as mouse over)

This analysis tabulates TOU-mapped measurement quantities over 15 months. Click the table link to drill down to **Usage by Day** dashboard page for specific usage details in that month

Degree Days

The Degree Days dashboard page provides details about the heating and cooling degree days against a rolling period of months.

- **Degree Days**

Property	Value
Subject Area	MDM - Measured Quantity Fact
Measure	Heating and cooling degree days, Usage

This analysis shows the actual usage/load and heating/cooling degree days, for 15 months. Click the table link to drill down to details page displaying daily values in that month.

- **Average Measuring Component Usage**

Property	Value
Subject Area	MDM - Measured Quantity Fact
Measure	Heating and cooling degree days, Usage

This analysis shows the average usage/load per measuring component for the last 15 months. It also shows the corresponding heating/cooling degree days. Click the table link to drill down to details page displaying daily values in that month.

Usage by Day

- **Usage by Day**

Property	Value
Subject Area	MDM - Measured Quantity Fact
Measure	Quantity, Measuring Component Count

This analysis displays usage values for a month on a daily basis. The graph also shows the measuring component count. Click the table link to drill down to **Usage by Hour** dashboard page for hourly details.

- **Three-Month Usage Trend**

Property	Value
Subject Area	MDM - Measured Quantity Fact
Measure	Quantity

This analysis helps in comparing the usage data trend over a three-month period.

Usage by Hour

- **Usage by Hour**

Property	Value
Subject Area	MDM - Measured Quantity Fact
Measure	Quantity, Average usage for day

This analysis displays daily usage values on an hourly basis.

- **Three-Day Usage Trend**

Property	Value
Subject Area	MDM - Measured Quantity Fact
Measure	Quantity

This analysis helps in comparing the usage data trend over a three-day period.

Usage Comparison

Property	Value
Subject Area	MDM - Measured Quantity Fact
Measure	Average Measured Usage per MC for Dimensional Value 1, Average Measured Usage per MC for Dimensional Value 2

The Usage Comparison analysis compares usage data for two selected dimensions during the selected calendar month.

Usage Summary

The Usage Summary dashboard provides key performance indicators (KPIs) related energy usage. Click **Dashboards**, expand **Meter Data Analytics**, and then click **Usage Summary** to access the dashboard.

Dashboards

Usage Summary provides the following dashboard pages:

- **Overview**
- **Usage Views**
- **Usage Analysis**
- **Top N Analysis**
- **Unreported Usage Details**

Overview

The Overview dashboard page provides a summary about usage and unreported usage.

- **Usage Summary**

Property	Value
Subject Area	MDM - Consumption Fact
Measure	Quantity

This analysis shows a month-on-month usage summary for the select usage snapshot type. The graph displays consumption quantity based on the TOU period.

- **Unreported Usage**

Property	Value
Subject Area	MDM - SP Usage Transaction Fact
Measure	Service Point Count, Usage Quantity

A usage is unreported when there is consumption but it was never processed and sent for billing. This analysis shows a summary of unreported usage per age buckets.

Click **View By** to choose to slice the details by usage subscription type, usage group, or customer class. The table shows the count of service points and percent of usage for each segment.

Usage Views

- **Usage Summary by TOU Period**

Property	Value
Subject Area	MDM - Consumption Fact
Measure	Usage Quantity

This analysis shows a 15-month 15-month usage trend by TOU period.

- **Usage Summary by Condition Code**

Property	Value
Subject Area	MDM - Consumption Fact
Measure	Quantity

This analysis shows 15-month usage trend by condition code.

Usage Analysis

Property	Value
Subject Area	MDM - Consumption Fact
Measure	Usage Quantity

This analysis allows to view usage associated with a combination of dimensions. Users can vary the combination of dimensions thus understand usage variations. shows a summary of usage for the selected attributes.

Click **View By** to choose to slice the details by service point type, market, usage subscription type, city, geographical code, postal code, service provider, or usage group.

Top N Analysis

This dashboard provides a snapshot of the top extreme scenarios - the highest and lowest usage details.

- **Top N Analysis - Highest Usage**

Property	Value
Subject Area	MDM - Consumption Fact
Measure	Quantity

This analysis has 3 views which lists the records with the highest usage consumption.

The tabular view the top 100 records with highest consumption for the selected month. This table has the drill back capability on the Service Point column to Oracle Utilities Meter Data Management 360 degree view portal.

The bar graph shows the top 10 records with the highest usage quantity. The pie chart shows distribution in two slices – one slice shows the usage consumption for top 100 service points and the other slice shows the quantity for non-top 100 service points.

- **Top N Analysis - Lowest Usage**

Property	Value
Subject Area	MDM - Consumption Fact
Measure	Quantity

This analysis shows a list of service points with lowest consumption for the selected month. Click the table link to drill down to Oracle Utilities Meter Data Management 360 degree View Portal for the selected service point.

Unreported Usage Details

Property	Value
Subject Area	MDM - SP Usage Transaction Fact
Measure	Usage Quantity

This dashboard lists the top 100 records with the highest unreported usage quantity. The table displays the service point and customer details, with the option to drill back to Oracle Utilities Meter Data Management 360 degree View portal for a service point.

Click the **Account** column link to drill back to Oracle Utilities Customer Care and Billing Account portal for the selected account.

VEE Exceptions

The VEE Exceptions dashboard includes analyses which provide information about various exceptions related to VEE failures. Examples of these exceptions include high/low errors and spike failures. This information is used to identify patterns across regions, device types and monthly trends.

Click **Dashboards**, expand **Meter Data Analytics**, and then click **VEE Exceptions** to access the dashboard.

Dashboards

VEE Exceptions provides the following dashboard pages:

- **Overview**
- **Exception Trend**
- **Exception Analysis**
- **Exception Analysis Detail**

Overview

The Overview dashboard page displays the VEE exception distribution across cities. It helps in identifying which region has the most usage exceptions.

- **Exceptions**

Property	Value
Subject Area	VEE Exception Snapshot Fact
Measure	Exceptions Count

The map displays VEE exception distribution by city. Click on the map for details about the count of exceptions in that city.

- **Exception Types**

Property	Value
Subject Area	MDM - VEE Exception Fact
Measure	% of Total Exceptions

This analysis shows the exception distribution based on the exception type for the selected city. When you click on the map, the pie chart displays the exception types and their distribution in that city.

Click on the pie chart to drill down to **Exception Trend** dashboard page for a detailed view.

- **Exception by Month**

Property	Value
Subject Area	MDM - VEE Exception Fact
Measure	Count of Exceptions (Bar), Yearly Average (Line)

This analysis shows the count of VEE exceptions by month for the selected city, over 15 months. The yearly average for exceptions is also shown. Any deviation in the trend (on the upper/lower side) is a flag for you to investigate why it is so.

Exception Trend

The Exception Trend dashboard page gives an overview of how exceptions are trending. The page shows the trend for initial measurements with exceptions over 15 months.

- Initial Measurements with Exceptions

Property	Value
Subject Area	MDM - VEE Exception Fact
Measure	Initial Measurements with Exceptions, Initial Measurement Count, % Initial Measurements with Exceptions

This analysis displays two graphs - one showing the count of initial measurements with exceptions for the current month and 14 previous months, and the other showing the count of initial measurements per month per category. The table shows statistics on VEE exceptions for over 15 months, the percentage and count of measurements with exceptions. Click the table link to drill down to **Exception Analysis** dashboard page.

Click **View By** to choose to slice the details by exception category, exception type, exception severity, device type, head-end system, service provider, manufacturer, model, customer class, city, or postal code.

- Exceptions by Severity

Property	Value
Subject Area	MDM - VEE Exception Fact
Measure	Count of VEE Exceptions, Trend Compared to previous month

This analysis shows the count of VEE exceptions by severity. The table shows the exception severity trend for the selected month and 14 previous months. Any deviation in the trend (on the upper/lower side) is a flag for you to investigate why it is so. Click the table link to drill down to **Exception Analysis** dashboard page.

Exception Analysis

- Exceptions Analysis Summary

Property	Value
Subject Area	MDM - VEE Exception Fact
Measure	Exceptions Count, % of Total

This analysis shows a summary of exceptions for the selected slice by attributes. Click View By to choose to slice the details by head-end system, device type, service provider, manufacturer, model, customer class, exception type, exception category, exception severity, postal code, or city.

- **VEE Rules with Most Exceptions**

Property	Value
Subject Area	MDM - VEE Exception Fact
Measure	Exceptions

This analysis displays the VEE rules with highest VEE exceptions, in a month. The table shows VEE rules, their respective VEE groups, and the number of exceptions per each rule. The analysis helps taking corrective measures in rule areas with more number of exceptions.

Exception Analysis Detail

Property	Value
Subject Area	MDM - VEE Exception Fact
Measure	Exceptions Count

The table displays the top 100 records based on the exception count. Click a column link to drill back to Oracle Utilities Meter Data Management 360 degree View Portal for the selected service point or device.

Additional Information

The Licensing and Packaging Guide contains valuable information on the features and data structures available in Oracle Utilities Meter Data Management Business Intelligence. The guide is provided as an Excel spreadsheet, OUASA V2.3.2 Licensing and Packaging Guide.xls. Content includes:

- A list of all of the available Oracle Utilities Business Intelligence products.
- Installer Options - the required extractors and schemas for each product.
- Subject Areas, Facts, and Dimensions.
- Dashboards and Answers - the standard dashboards available and the associated Answers along with the Answer path.

