## Oracle Utilities Customer Self Service Release 2.1.0

Utility Reference Model 3.4.3.2 OUCSS-MDM Manage Usage Related Queries

May 2016



Oracle Utilities Customer Self Service Release 2.1.0 Utility Reference Model 3.4.3.2 OUCSS-MDM Manage Usage Related Queries

Copyright © 2016, 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 is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

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 that 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.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about 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 unless otherwise set forth in an applicable agreement between you and Oracle. 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, except as set forth in an applicable agreement between you and Oracle.

## **Contents**

2	12	20	11000	MDM	Manage	Heado	Polatod	Ougrice
5.	4.3	.Z U	ひしろろ	-1811/181	wanade	usade	Related	Queries

3.4.3.2 OUCSS-MDM Manage Usage Related Queries	
Brief Description	
Actors/Roles	
Business Process Diagrams	3
OUCSS-MDM Manage Usage Related Queries Process Model - Page 1	
OUCSS-MDM Manage Usage Related Queries Process Model - Page 2	
OUCSS-MDM Manage Usage Related Queries Process Model - Page 3	
OUCSS-MDM Manage Usage Related Queries Detailed Process Model Description	
1.0 Log Into Utility Web Portal	
1.1 Request Customer Account Information	
1.2 Process Request	
1.3 Retrieve and Send Customer Information	
1.4 Process Response	
1.5 Review Accounts	
1.6 Select Account	
1.7 Initiate Request for Interval Usage Data	
1.8 Send Request for Specified Period	
1.9 Process and Translate Message	
2.0 Invoke Web Service	
2.1 Validate Request and Identify Eligible Usage Subscriptions and Devices	
2.2 Retrieve Measurements for Requested Period	
2.3 Calculate Usage	
2.4 Retrieve Temperature Data	
2.5 Retrieve Previous Period Data	
2.6 Send Data	
2.7 Process and Translate Message	
2.8 Process Response	
2.9 Review Usage History	
3.0 Send Request for Specified Period	
3.1 Process and Translate Message	
3.2 Invoke Web Service	
3.3 Validate Request and Identify Eligible Usage Subscriptions and Devices	
3.4 Retrieve Measurements for Requested Period	
3.6 Send Data	
3.7 Process and Translate Message	
3.8 Process Response	
3.9 Send Request for Specified Period	
4.0 Process and Translate Message	
4.1 Invoke Web Service	
4.2 Validate Request and Identify Eligible Usage Subscriptions and Devices	
4.2 Validate Request and Identity English Usage Subscriptions and Devices	
4.4 Send Scalar Summary Data	
T-T OCH OCAIAL OUTILITIALY Data	1-

4.5 Process and Translate Message	14
4.6 Process Scalar Summary Response	

# 3.4.3.2 OUCSS-MDM Manage Usage Related Queries

This section provides a brief description of the "OUCSS-MDM Manage Usage Related Queries" business process. This includes:

- Brief Description
  - Actors/Roles
- Business Process Diagrams
  - OUCSS-MDM Manage Usage Related Queries Process Model Page 1
  - OUCSS-MDM Manage Usage Related Queries Process Model Page 2
  - OUCSS-MDM Manage Usage Related Queries Process Model Page 3
- OUCSS-MDM Manage Usage Related Queries Detailed Process Model Description

## **Brief Description**

Business Process: 3.4.3.2 OUCSS-MDM Manage Usage Related Queries

**Process Type:** Sub-Process

Parent Process: 3.4.3 OUCSS-CC&B-MDM.Provide Customer Service

Sibling Processes: n/a

This process takes place when a customer reviews usage information via the self-service portal. The process allows understanding the relationship between the web-portal and usage information in MDM.

## **Actors/Roles**

The OUCSS-MDM Manage Usage Related Queries business process involves the following actors and roles:

• **Customer**: The service customer.

• **Integration**: The interface that integrates two or more products.

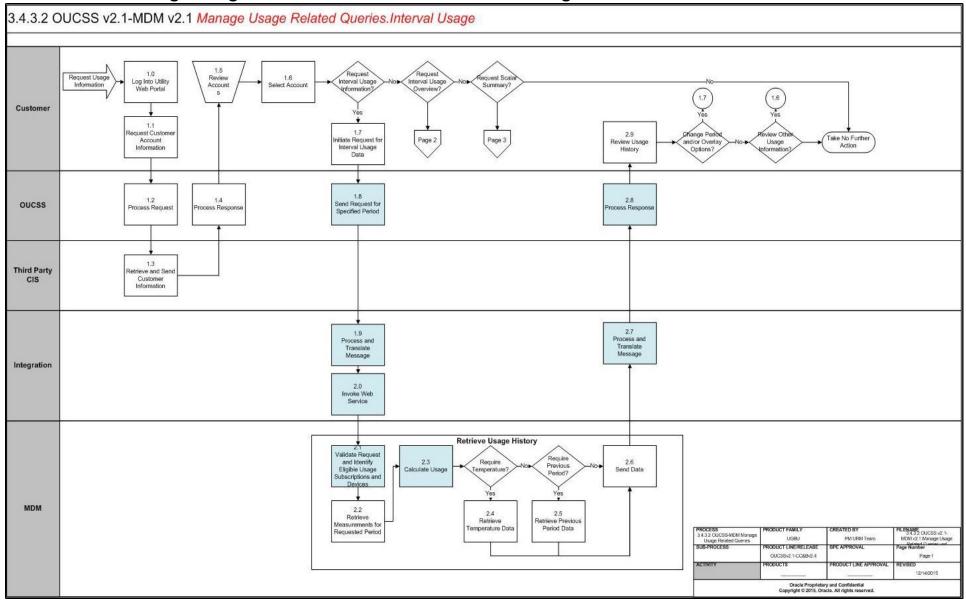
• OUCSS: The Oracle Utilities Customer Self Service application.

• MDM: The Oracle Utilities Meter Data Management application.

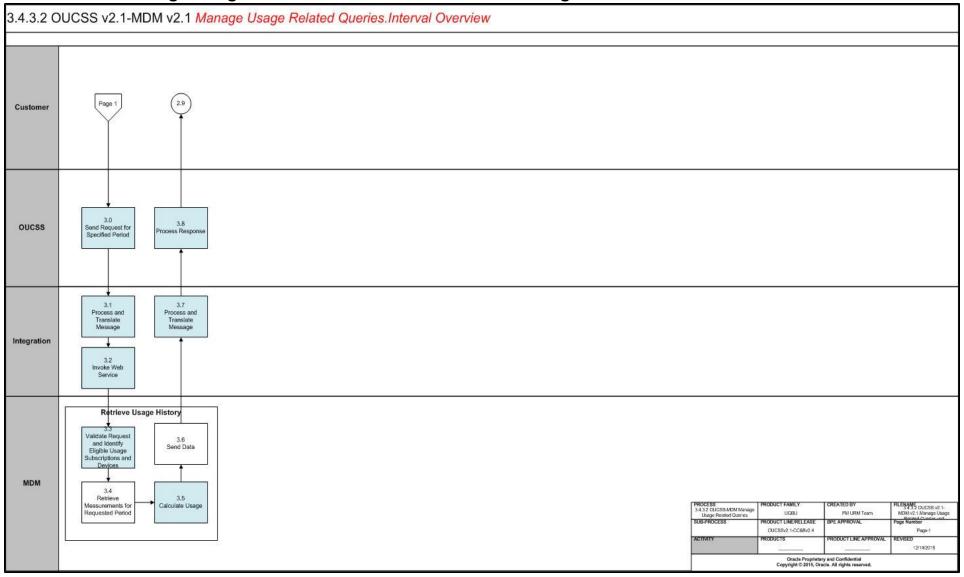
• Third Party CIS System: The external Customer Information System application.

## **Business Process Diagrams**

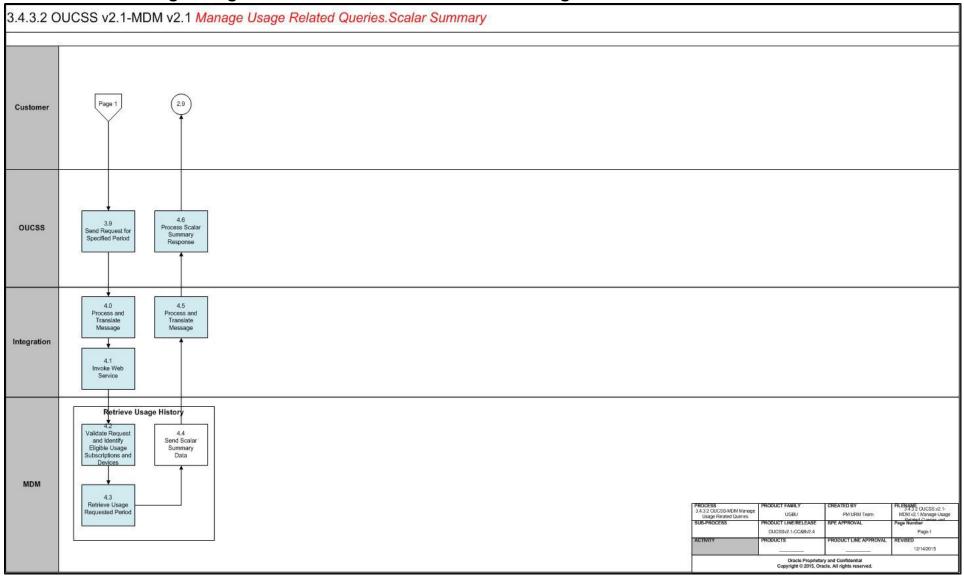
## **OUCSS-MDM Manage Usage Related Queries Process Model - Page 1**



## **OUCSS-MDM Manage Usage Related Queries Process Model - Page 2**



## **OUCSS-MDM Manage Usage Related Queries Process Model - Page 3**



## OUCSS-MDM Manage Usage Related Queries Detailed Process Model Description

This section provides a detailed description of the "OUCSS-MDM Manage Usage Related Queries" business process, including:

- 1.0 Log Into Utility Web Portal
- 1.1 Request Customer Account Information
- 1.2 Process Request
- 1.3 Retrieve and Send Customer Information
- 1.4 Process Response
- 1.5 Review Accounts
- 1.6 Select Account
- 1.7 Initiate Request for Interval Usage Data
- 1.8 Send Request for Specified Period
- 1.9 Process and Translate Message
- 2.0 Invoke Web Service
- 2.1 Validate Request and Identify Eligible Usage Subscriptions and Devices
- 2.2 Retrieve Measurements for Requested Period
- 2.3 Calculate Usage
- 2.4 Retrieve Temperature Data
- 2.5 Retrieve Previous Period Data
- 2.6 Send Data
- 2.7 Process and Translate Message
- 2.8 Process Response
- 2.9 Review Usage History
- 3.0 Send Request for Specified Period
- 3.1 Process and Translate Message
- 3.2 Invoke Web Service
- 3.3 Validate Request and Identify Eligible Usage Subscriptions and Devices
- 3.4 Retrieve Measurements for Requested Period
- 3.5 Calculate Usage
- 3.6 Send Data
- 3.7 Process and Translate Message
- 3.8 Process Response
- 3.9 Send Request for Specified Period
- 4.0 Process and Translate Message
- 4.1 Invoke Web Service
- 4.2 Validate Request and Identify Eligible Usage Subscriptions and Devices
- 4.3 Retrieve Usage for Requested Period
- 4.4 Send Scalar Summary Data
- 4.5 Process and Translate Message
- 4.6 Process Scalar Summary Response

## 1.0 Log Into Utility Web Portal

**Reference**: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for the associated business process diagram.

Actor/Role: Customer

**Description**: User logs into self-service account to access Utility Web Portal.

## 1.1 Request Customer Account Information

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: Customer

Description: Customer requests account information.

## 1.2 Process Request

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: OUCSS

**Description**: OUCSS processes the customer's request for the Third-Party Customer

Information System.

## 1.3 Retrieve and Send Customer Information

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: Third Party CIS System

Description: Third Party Customer Information System reviews retrieves account information

and sends it to OUCSS.

## 1.4 Process Response

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: OUCSS

**Description**: OUCSS processes account information and presents it to the customer.

### 1.5 Review Accounts

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: Customer

**Description**: Customer reviews list of account(s) enrolled for self-service.

## 1.6 Select Account

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: Customer

Description: Customer selects a single account for which they want to review usage information.

## 1.7 Initiate Request for Interval Usage Data

**Reference**: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for the associated business process diagram.

Actor/Role: Customer

**Description**: Customer requests interval usage details for account.

## 1.8 Send Request for Specified Period

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: OUCSS

Description: OUCSS requests the usage details for the specified accounts and time period.

#### **Entities to Configure**

• OUCSS: Usage Details Chart

## 1.9 Process and Translate Message

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: Integration

**Description**: Integration processes the usage details request and translates it for MDM.

#### **Entities to Configure**

• BPEL: OUCSSOUMDM2DirectUsageDetailReqEBF

#### 2.0 Invoke Web Service

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: Integration

**Description**: Integration invokes the MDM web service requesting usage details.

#### **Entities to Configure**

• BPEL: OUCSSOUMDM2DirectUsageDetailReqEBF

## 2.1 Validate Request and Identify Eligible Usage Subscriptions and Devices

**Reference**: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for the associated business process diagram.

Actor/Role: MDM

**Description**: MDM retrieves usage for the specified accounts and time period. If only an Account ID is provided, it will retrieve the list of eligible usage subscriptions.

#### **Available Algorithms**

- Business Service: WX-RETWSSTOUMapping
- WX-DetUSSupportWSS
- D1-SSMCInfo
- D1-SPDCInfo
- D2-SSUSInfo

#### **Entities to Configure**

• XAI Service: WX-RETWSSTOUMappingService

Master Configuration: Processing Scripts

## 2.2 Retrieve Measurements for Requested Period

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: MDM

Description: MDM retrieves measurements for the specified usage subscriptions and time period.

#### Available Algorithms

• Business Service: WX-RETWSSTOUMapping

#### **Entities to Configure**

• XAI Service: WX-RETWSSTOUMappingService

## 2.3 Calculate Usage

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: MDM

Description: MDM calculates usage for the specified usage subscriptions and time period.

#### **Available Algorithms**

Business Service: WX-RETWSSTOUMapping

#### **Entities to Configure**

XAI Service: WX-RETWSSTOUMappingService

Master Configuration: Usage Calculation Supported Usage Groups

## 2.4 Retrieve Temperature Data

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: MDM

Description: MDM retrieves temperature data if requested as an overlay.

#### **Available Algorithms**

• Business Service: WX-RETWSSTOUMapping

#### **Entities to Configure**

XAI Service: WX-RETWSSTOUMappingService

Master Configuration: Main

## 2.5 Retrieve Previous Period Data

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: MDM

**Description**: MDM calculates the previous period data if requested as an overlay.

#### Available Algorithms

Business Service: WX-RETWSSTOUMapping

#### **Entities to Configure**

• XAI Service: WX-RETWSSTOUMappingService

#### 2.6 Send Data

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: MDM

Description: MDM sends the usage details for the specified accounts and time period to OUCSS.

## 2.7 Process and Translate Message

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: Integration

**Description**: Integration processes the usage details request and translates it for OUCSS.

#### **Entities to Configure**

• BPEL: OUCSSOUMDM2DirectUsageDetailReqEBF

## 2.8 Process Response

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: OUCSS

**Description**: OUCSS processes the usage data and presents it to the end-user.

#### **Entities to Configure**

OUCSS: Usage Details Chart

## 2.9 Review Usage History

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 1 on page 3 for

the associated business process diagram.

Actor/Role: Customer

**Description**: Customer reviews the usage information.

## 3.0 Send Request for Specified Period

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 2 on page 4 for

the associated business process diagram.

Actor/Role: OUCSS

Description: OUCSS requests the usage overview for the specified accounts and time period.

#### **Entities to Configure**

OUCSS: Usage Overview Chart

## 3.1 Process and Translate Message

**Reference**: OUCSS-MDM Manage Usage Related Queries Process Model - Page 2 on page 4 for the associated business process diagram.

Actor/Role: Integration

**Description**: Integration processes the usage overview request and translates it for MDM.

#### **Entities to Configure**

• BPEL: OUCSSOUMDM2DirectUsageOverviewEBF

## 3.2 Invoke Web Service

**Reference**: OUCSS-MDM Manage Usage Related Queries Process Model - Page 2 on page 4 for the associated business process diagram.

--- ---- P-----

Description: Integration invokes the MDM web service requesting usage overview.

#### **Entities to Configure**

Actor/Role: Integration

• BPEL: OUCSSOUMDM2DirectUsageOverviewEBF

## 3.3 Validate Request and Identify Eligible Usage Subscriptions and Devices

**Reference**: OUCSS-MDM Manage Usage Related Queries Process Model - Page 2 on page 4 for the associated business process diagram.

Actor/Role: MDM

**Description**: MDM retrieves usage for the specified accounts and time period. If only an Account ID is provided, it will retrieve the list of eligible usage subscriptions.

#### Available Algorithms

- Business Service: WX-GetUsgOVw
- WX-DetUSSupportWSS
- D1-SSMCInfo
- D1-SPDCInfo
- D2-SSUSInfo

### **Entities to Configure**

XAI Service: WX-GetUsageOverview

Master Configuration: Processing Scripts

## 3.4 Retrieve Measurements for Requested Period

**Reference**: OUCSS-MDM Manage Usage Related Queries Process Model - Page 2 on page 4 for the associated business process diagram.

Actor/Role: MDM

**Description**: MDM retrieves measurements for the specified usage subscriptions and time period.

#### **Available Algorithms**

Business Service: WX-GetUsgOVw

#### **Entities to Configure**

XAI Service: WX-GetUsageOverview

## 3.5 Calculate Usage

**Reference**: OUCSS-MDM Manage Usage Related Queries Process Model - Page 2 on page 4 for the associated business process diagram.

Actor/Role: MDM

**Description**: MDM calculates usage for the specified usage subscriptions and time period.

#### **Available Algorithms**

• Business Service: WX-GetUsgOVw

#### **Entities to Configure**

XAI Service: WX-GetUsageOverview

• Master Configuration: Usage Calculation Supported Usage Groups

## 3.6 Send Data

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 2 on page 4 for

the associated business process diagram.

Actor/Role: MDM

Description: MDM sends the usage details for the specified accounts and time period to OUCSS.

## 3.7 Process and Translate Message

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 2 on page 4 for

the associated business process diagram.

Actor/Role: Integration

**Description**: Integration processes the usage details request and translates it for OUCSS.

#### **Entities to Configure**

BPEL: OUCSSOUMDM2DirectUsageOverviewEBF

## 3.8 Process Response

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 2 on page 4 for

the associated business process diagram.

Actor/Role: OUCSS

Description: OUCSS processes the usage data and presents it to the end-user.

#### **Entities to Configure**

OUCSS: Usage Overview Chart

## 3.9 Send Request for Specified Period

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 3 on page 5 for

the associated business process diagram.

Actor/Role: OUCSS

Description: OUCSS requests the scalar usage summary for the specified accounts and time

period.

#### **Entities to Configure**

OUCSS: Scalar Summary Chart

## 4.0 Process and Translate Message

**Reference**: OUCSS-MDM Manage Usage Related Queries Process Model - Page 3 on page 5 for the associated business process diagram.

Actor/Role: Integration

**Description**: Integration processes the scalar usage summary request and translates it for MDM.

#### **Entities to Configure**

• BPEL: OUCSSOUMDM2GetConsumptionSummaryEBF

## 4.1 Invoke Web Service

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 3 on page 5 for

the associated business process diagram.

Actor/Role: Integration

**Description**: Integration invokes the MDM web service requesting scalar usage summary.

#### **Entities to Configure**

BPEL: OUCSSOUMDM2GetConsumptionSummaryEBF

## 4.2 Validate Request and Identify Eligible Usage Subscriptions and Devices

**Reference**: OUCSS-MDM Manage Usage Related Queries Process Model - Page 3 on page 5 for the associated business process diagram.

Actor/Role: MDM

**Description**: MDM retrieves usage for the specified accounts and time period. If only an Account ID is provided, it will retrieve the list of eligible usage subscriptions.

#### **Available Algorithms**

- Business Service: WX-GetSCSum
- WX-DetUSSupportWSS
- D1-SSMCInfo
- D1-SPDCInfo
- D2-SSUSInfo

#### **Entities to Configure**

- XAI Service: WX-GetScalarConsumptionSummary
- Master Configuration: Processing Scripts

## 4.3 Retrieve Usage for Requested Period

**Reference**: OUCSS-MDM Manage Usage Related Queries Process Model - Page 3 on page 5 for the associated business process diagram.

Actor/Role: MDM

Description: MDM retrieves scalar usage for the specified usage subscriptions and time period.

#### **Available Algorithms**

Business Service: WX-GetSCSum

## **Entities to Configure**

XAI Service: WX-GetScalarConsumptionSummary

## 4.4 Send Scalar Summary Data

**Reference**: OUCSS-MDM Manage Usage Related Queries Process Model - Page 3 on page 5 for the associated business process diagram.

Actor/Role: MDM

Description: MDM sends the scalar summary data for the specified accounts and time period to

DUCSS.

## 4.5 Process and Translate Message

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 3 on page 5 for

the associated business process diagram.

Actor/Role: Integration

**Description**: Integration processes the usage details request and translates it for OUCSS.

#### **Entities to Configure**

• BPEL: OUCSSOUMDM2GetConsumptionSummaryEBF

## 4.6 Process Scalar Summary Response

Reference: OUCSS-MDM Manage Usage Related Queries Process Model - Page 3 on page 5 for

the associated business process diagram.

Actor/Role: OUCSS

**Description**: OUCSS processes the usage data and presents it to the end-user.

#### **Entities to Configure**

OUCSS: Scalar Summary Chart