Oracle Utilities CC&B V2.3.1 and MDM V2.0.1 Integrations

Utility Reference Model

5.6.4 Synchronize Master Data

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Oracle Utilities CC&B V2.3.1 to MDM V2.0.1 Integration Utility Reference Model 5.6.4

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Chapter 1

Overview

This chapter provides a brief description of the MDM-CC&B Synchronize Master Data business process and associated process diagrams. This includes:

- **Brief Description**
  - **Actors/Roles**

Brief Description

Business Process: 5.6.4 MDM-CC&B Synchronize Master Data

Process Type: Process

Parent Process:

Sibling Processes:

This document describes the general flow of how Master Data is synchronized between CC&B and MDM. It is assumed that CC&B is the master system of record for master data (see list of master data entities below).

Master Data Synchronization is initiated from major entities that are created or updated in CC&B and that require synchronization in MDM.

The entities maintained in CC&B are the following:

- Service Point
- Premise
- Service Agreement
- Account
- Person
- Meter
- Meter Configuration
- Service Point/Meter History

The entities maintained in MDM are the following:

- Contact
- Usage Subscription
- Service Point
- Device Configuration
- Device
- Measuring Component
- Install Event

  Note: This document includes Oracle Utilities Customer Care and Billing V2.3.1 and Meter Data Management V2.0.1 planned enhancements. At the time of this writing, the full features and functions, for these enhancements, are not complete. The content of the documents is subject to completion and testing of these items.

Actors/Roles

The Synchronize Master Data business process involves the following actors and roles.

- **CC&B**: The Customer Care and Billing application. Steps performed by this actor/role are performed automatically by the application, without the need for user initiation or intervention.
- **CSR CC&B:** CSR or Authorized User of the Customer Care and Billing application.
- **MDM Application:** The Meter Data Management system.

- **Oracle Integration Layer:** The components that facilitate the exchange of information between the CC&B and MDM applications.

Chapter 2

Detailed Business Process Model Description

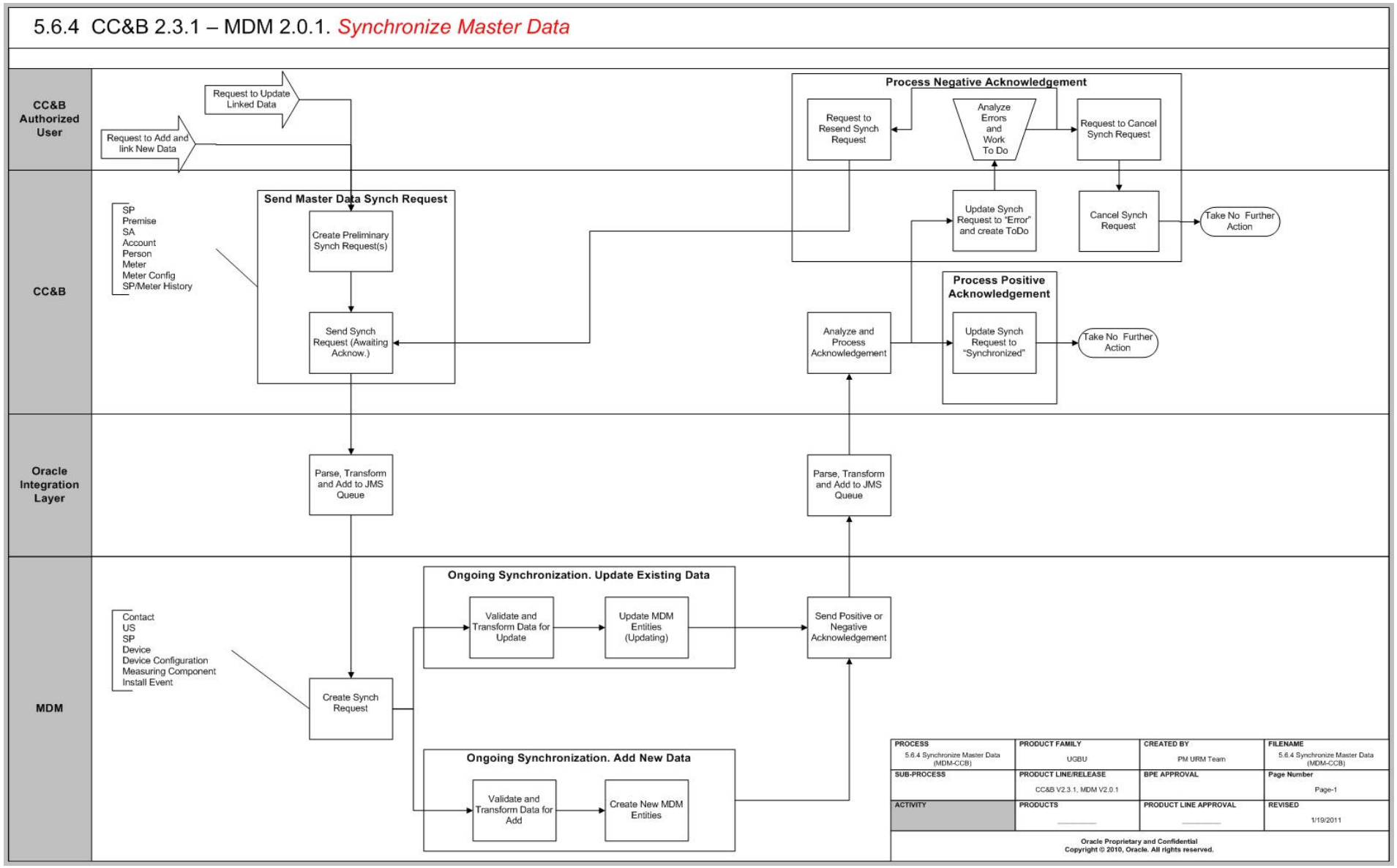
This chapter provides a detailed description of the MDM-CC&B Synchronize Master Data business process. This includes:

- **Business Process Diagrams**
  - **Synchronize Master Data**
- **MDM-CC&B Synchronize Master Data Description**

Business Process Diagrams

Synchronize Master Data

Diagram 1



MDM-CC&B Synchronize Master Data Description

This section includes detailed descriptions of the steps involved in the Synchronize Master Data business process, including:

- **Create Preliminary Synch Request(s)**
- **Send Synch Request (Awaiting Acknowledgement)**
- **Parse, Transform and Add to JMS Queue**
- **Create Synch Request**
- **Validate and Transform Data for Update**
- **Update MDM Entities (Updating)**
- **Validate and Transform Data for Add**
- **Create New MDM Entities**
- **Send Positive or Negative Acknowledgement**
- **Analyze and Process Acknowledgement**
- **Update Synch Request to "Synchronized"**
- **Analyze Errors and Work To Do**
- **Update Synch Request to "Error" and create ToDo**
- **Request to Cancel Synch Request**
- **Request to Re-send Synch Request**
- **Cancel Synch Request**

Create Preliminary Synch Request(s)

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Group: Send Master Data Synch Request

Actor/Role: CC&B

Description: Determines the type of Synch Request to create and captures the before image of the entity changed. The system creates the appropriate Synch Request in a Pending State.

Send Synch Request (Awaiting Acknowledgement)

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Group: Send Master Data Synch Request

Actor/Role: CC&B

Description: Transitions the synch request to the Awaiting Acknowledgement state until a response from MDM is received.

Parse, Transform and Add to JMS Queue

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: Oracle Integration Layer

Description: CC&B and MDM put the requests and responses in JMS queues and the Integration Layer transforms the data from source to target application format. It is used for extending messages for master data mapping between CC&B and MDM and for error notifications.

> **Note:** Any Errors in the Integration layer are reported back to the Source Response Queue and an optional error notification is sent out to pre-configured admin user(s). This way the Source application is able to receive the error and after fixing the cause of error is able to re-initiate the message.

Create Synch Request

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: MDM

Description: The system determines the type of Synch Request to create for data Update or Add processing.

Validate and Transform Data for Update

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Group: Ongoing Synchronization. Update Existing Data

Actor/Role: MDM

Description: The system validates the data and performs necessary transformations for Update. The system also, Pre-Adds the data and determines the foreign key relationships for data being updated.

Update MDM Entities (Updating)

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Group: Ongoing Synchronization. Update Existing Data

Actor/Role: MDM

Description: The system validates the data and performs necessary transformations for Update. The system also, Pre-Adds the data and determines the foreign key relationships for data being updated.

Validate and Transform Data for Add

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Group: Ongoing Synchronization. Add New Data

Actor/Role: MDM

Description: The system validates the data and performs necessary transformations for Add. The system also, Pre-Adds the data and determines the foreign key relationships for data being added.

Create New MDM Entities

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Group: Ongoing Synchronization. Add New Data

Actor/Role: MDM

Description: The system adds the information processed by the Validate and Transform Data for Add process. The system then transitions the Synch Request to "Synchronized" and initiates the send Positive or Negative Acknowledgement process.

Send Positive or Negative Acknowledgement

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: MDM

Description: The system returns a positive or negative acknowledgement message noting success or failure of the Synch Request.

Analyze and Process Acknowledgement

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Actor/Role: CC&B

Description: CC&B Determines the type of acknowledgement being returned from MDM and transitions to the appropriate process.

Update Synch Request to "Synchronized"

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Group: Process Positive Acknowledgement

Actor/Role: CC&B

Description: The system updates the Synch Request from "Awaiting Acknowledgement" to "Synchronized".

Analyze Errors and Work To Do

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Group: Process Negative Acknowledgement

Actor/Role: CC&B

Description: The User has the ability to analyze and work Synch Request To Do alerts. Selecting a synch request takes the user to the Synch Request Maintenance Portal, where the user can view error details and transition the synch request. The valid transitions are from Awaiting Acknowledgement to Canceled and from Error to Canceled or Request Sent (re-send the synch request).

Update Synch Request to "Error" and create ToDo

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Group: Process Negative Acknowledgement

Actor/Role: CC&B

Description: The System transitions the Synch Request from Awaiting Acknowledgement to Error and creates a To Do. An Alert is also created for the associated entity.

Request to Cancel Synch Request

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Group: Process Negative Acknowledgement

Actor/Role: CC&B

Description: The User has the ability to Cancel the message from the Request Maintenance Portal, by clicking the Cancel state transition button on a message in the Error state.

Request to Re-send Synch Request

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Group: Process Negative Acknowledgement

Actor/Role: CC&B

Description: The User has the ability to re-send the message from the Request Maintenance Portal, by clicking the Send Request state transition button on a message in the Error state.

Cancel Synch Request

See **Synchronize Master Data** on page 2-2 for the business process diagram associated with this activity.

Group: Process Negative Acknowledgement

Actor/Role: CC&B

Description: The User has the ability to transition the synch request from the Error state to Canceled and can also manually transition the synch request from Awaiting Acknowledgement to Canceled.