

**Oracle Utilities Meter Data Management  
Release 2.0.1**

Utility Reference Model

5.6.3.1 Manage Device and SP

February 2014

Oracle Utilities Meter Data Management Utility Reference Model 5.6.3.1

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# Chapter 1

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## Overview

This chapter provides a brief description of the Manage Device and SP business process and associated process diagrams. This includes:

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

## Brief Description

**Business Process:** 5.6.3.1 Manage Device and SP

**Process Type:** Sub-Process

**Parent Process:** 5.6.3 MDM Manage Supplies/Devices

**Sibling Processes:** 5.6.3.2.MDM.Manage Device Installation and Commissioning, 5.6.3.3 MDM Manage Device De-installation, Decommissioning and Retirement, 3.3.1.1 MDM.Maintain Contact

This process takes place when business requires to store and maintain information about Devices and their locations after installation in MDM application. It describes how Devices and Service Points (SPs) managed in MDM. This can be done via a request to add a device or a request to update a device. Both requests can be done by User using user interface or through an automatically via inbound sync request. The process includes setting up the device, the device configuration, and measuring component. This document also includes creating and maintaining a SP. However, it does not include creating an installation event - connecting the device to the service point. Please refer to 5.6.3.2.Manage Device Installation and Commissioning for that process.

**Note:** Devices are physical objects that hold one or more measuring components that can produce data to be handled by the system. Examples of devices include meters, demand response devices, weather stations, etc.

A Device can have one or more device configurations over time. A device's measuring components are associated with the device via device configurations.

Each Device configuration can have one or more measuring components associated with it.

Measuring Components (MC) are single channels for which data will be received and stored in the system.

A measuring component can be associated to a physical device, which can have one or more measuring components, or it can be one of several other types of measuring components. Examples of other measuring components include:

- **Aggregator:** A class of measuring component that stores measurements that represent a summarization of other measurements from a potentially diverse set of devices.
- **Interval Scratchpad:** A class of measuring component that provides users with a means to manipulate “scratchpad” measurement data without affecting existing “live” measurement data.
- **Standalone:** A measuring component that is not related to a physical meter, e.g., market prices, weather data, etc.

Service points are locations at which a company supplies service. Service points are used to store information describing the attributes of the service point

## Actors/Roles

The Manage Device and SP business process involves the following actors and roles.

- **Third Party CIS Application:** The system that initiated the request to add or update a contact
- **MDM Authorized User:** An authorized user of the Meter Data Management application
- **MDM Application:** The Meter Data Management system

# Chapter 2

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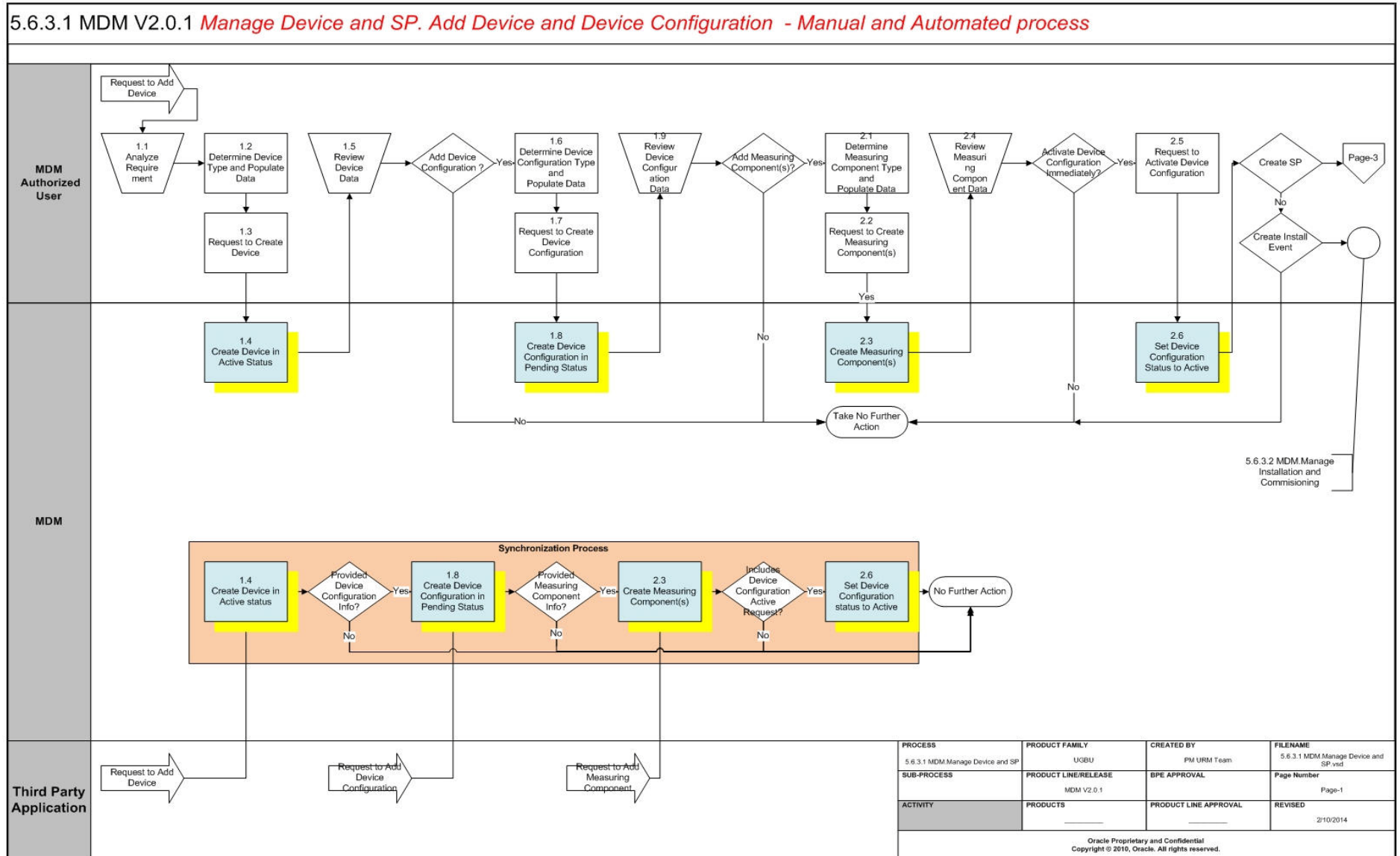
## Detailed Business Process Model Description

This chapter provides a detailed description of the Manage Device and SP business process. This includes:

- **Business Process Diagrams**
  - **Manage Device and SP Page 1**
  - **Manage Device and SP Page 2**
  - **Manage Device and SP Page 3**
- **Manage Device and SP Description**
- **Related Training**

# Business Process Diagrams

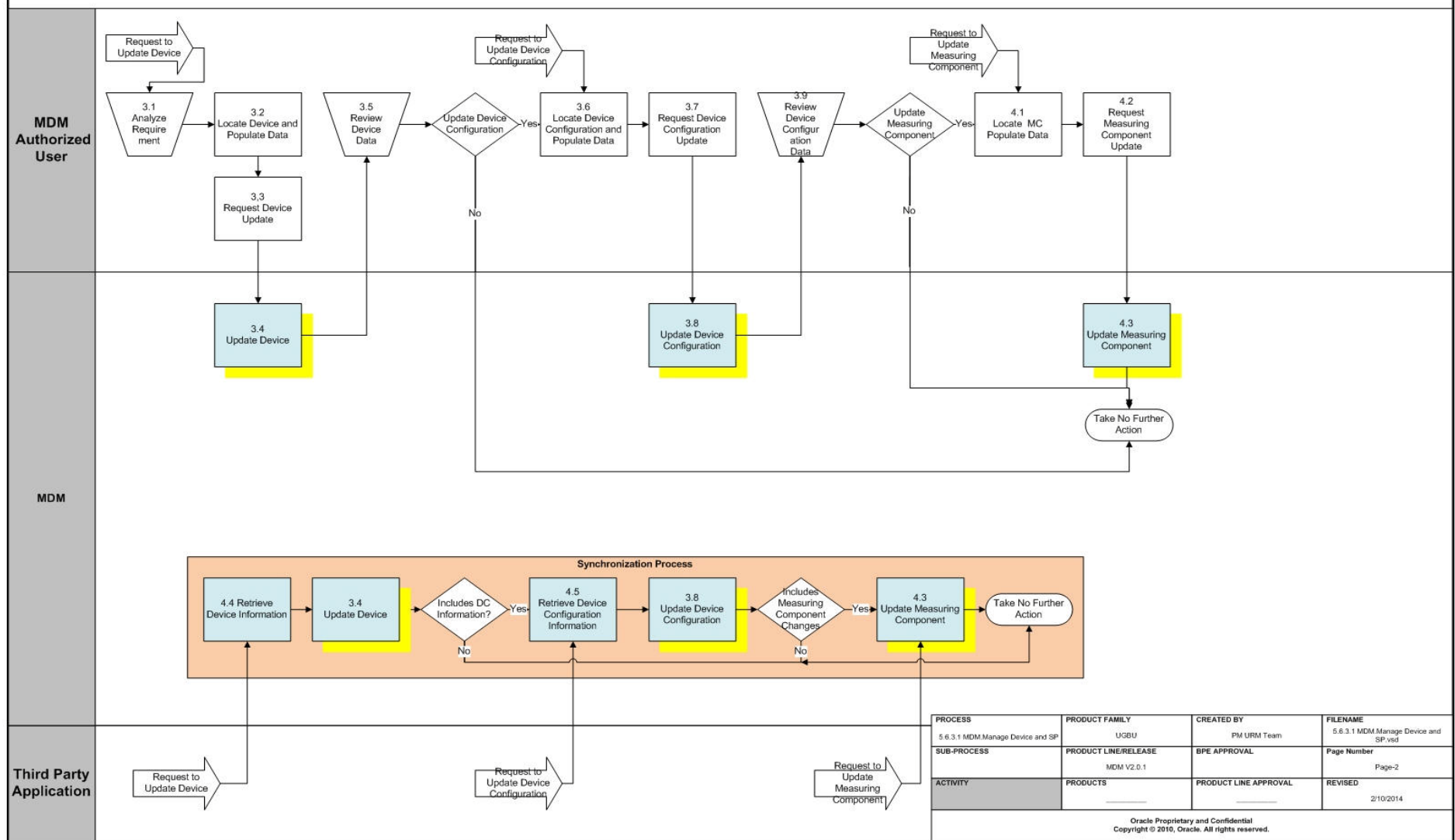
## Manage Device and SP Page 1



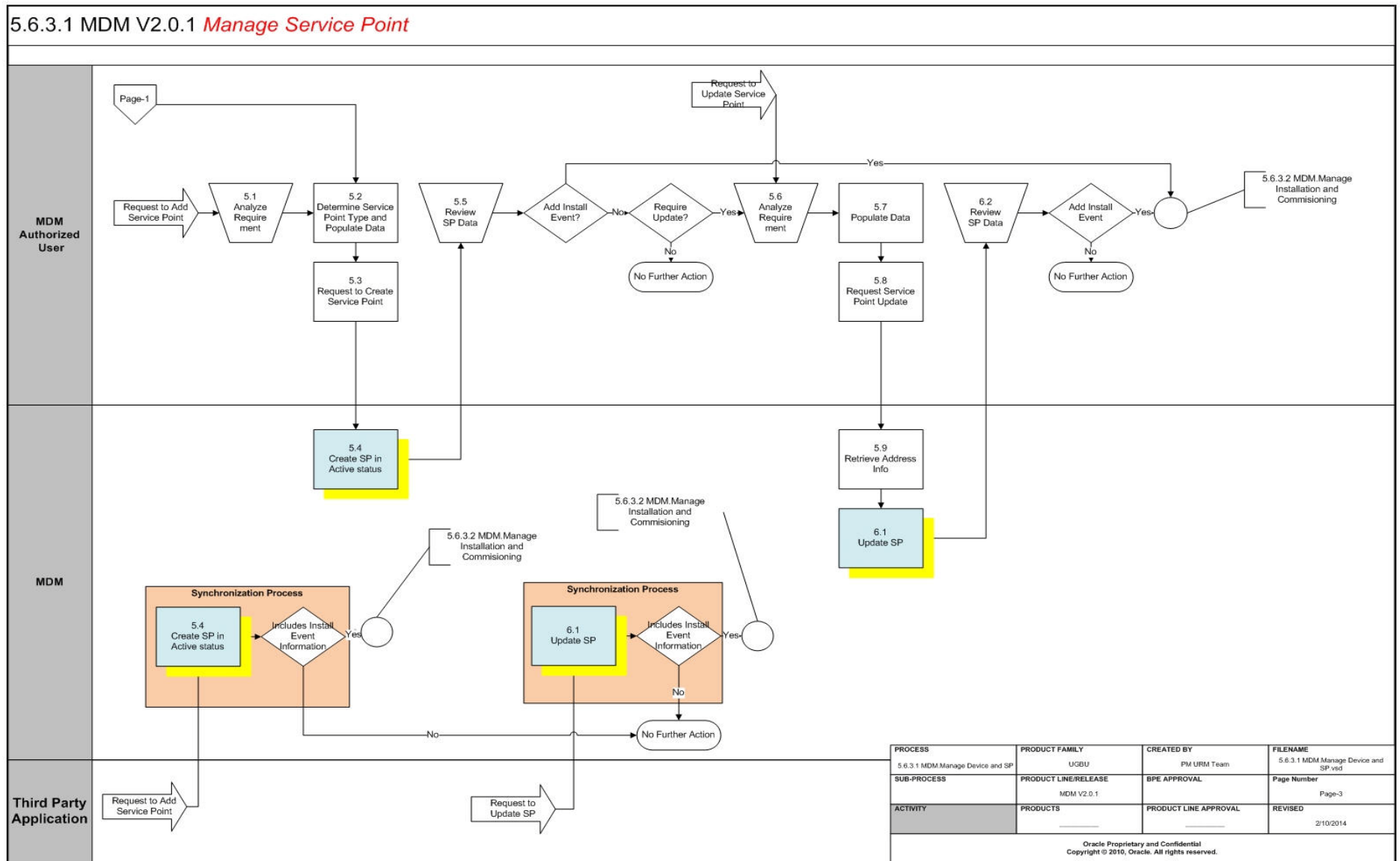


# Manage Device and SP Page 2

## 5.6.3.1 MDM V2.0.1 *Manage Device and SP. Update Device and Device Configuration - Manual and Automated process*



# Manage Device and SP Page 3



## Manage Device and SP Description

This section includes detailed descriptions of the steps involved in the Manage Device and SP business process, including:

- 1.1 Analyze Requirement
- 1.2 Determine Device Type and Populate Data
- 1.3 Request to Create Device
- 1.4 Create Device in an "Active" Status
- 1.5 Review Device Data
- 1.6 Determine Device Configuration Type and Populate Data
- 1.7 Request to Create Device Configuration
- 1.8 Create Device Configuration in a "Pending" Status
- 1.9 Review Device Configuration Data
- 2.1 Determine Measuring Component Type and Populate Data
- 2.2 Request to Create Measuring Component
- 2.3 Create Measuring Component
- 2.4 Review Measuring Component Data
- 2.5 Request to Activate Device Configuration
- 2.6 Set Device Configuration Status to "Active"
- 3.1 Analyze Requirement
- 3.2 Locate Device and Populate Data
- 3.3 Request Device Update
- 3.4 Update Device
- 3.5 Review Device Data
- 3.6 Locate Device Configuration and Populate Data
- 3.7 Request Device Configuration Update
- 3.8 Update Device Configuration
- 3.9 Review Device Configuration Data
- 4.1 Locate MC and Populate Data
- 4.2 Request Measuring Component Update
- 4.3 Update Measuring Component
- 4.4 Retrieve Device Information: Group - Synchronization Process
- 4.5 Retrieve Device Configuration Information: Group - Synchronization Process
- 5.1 Analyze Requirement
- 5.2 Determine Service Point Type and Populate Data
- 5.3 Request to Create Service Point
- 5.4 Create Service Point in an "Active" Status
- 5.5 Review SP Data
- 5.6 Analyze Requirement

- 5.7 Populate Data
- 5.8 Request Service Point Update
- 5.9 Retrieve Address Information
- 6.1 Update SP
- 6.2 Review SP Data

## 1.1 Analyze Requirement

See **Manage Device and SP Page 1** on page 2-2 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** When creating a new device online, the authorized user gathers all the required attributes for adding the device.

## 1.2 Determine Device Type and Populate Data

See **Manage Device and SP Page 1** on page 2-2 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** The authorized user analyzes the device information that is provided.

## 1.3 Request to Create Device

See **Manage Device and SP Page 1** on page 2-2 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** MDM Authorized User requests to create the Device.

## 1.4 Create Device in an "Active" Status

See **Manage Device and SP Page 1** on page 2-2 for the business process diagram associated with this activity.

**Actor/Role:** MDM

**Description:** MDM creates the Device in Active status

**Note:** This task can be triggered from Manual and automated (Synchronization) processes.

---

### Entities to Configure

Device Type

---



---

### Business Objects

D1-SmartMeter  
D1-ManualMeter  
D1-SynchronizationAddDevice

---

## 1.5 Review Device Data

See **Manage Device and SP Page 1** on page 2-2 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** The MDM Authorized User reviews the data after the device has been created.

## 1.6 Determine Device Configuration Type and Populate Data

See **Manage Device and SP Page 1** on page 2-2 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** The MDM Authorized User determines the device configuration type and populates the information in MDM.

## 1.7 Request to Create Device Configuration

See **Manage Device and SP Page 1** on page 2-2 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** MDM Authorized User requests to create the Device Configuration.

## 1.8 Create Device Configuration in a "Pending" Status

See **Manage Device and SP Page 1** on page 2-2 for the business process diagram associated with this activity.

**Group:** Synchronization Process

**Actor/Role:** MDM

**Description:** MDM creates the Device Configuration in Pending status.

**Note:** This task can be triggered from Manual and automated (Synchronization) processes

---

### Entities to Configure

---

Device Configuration Type

---

Business Object	Available Algorithms
D1-DeviceConfiguration	F1-AT-RQJ
D1-SynchronizationAddDC	

## 1.9 Review Device Configuration Data

See **Manage Device and SP Page 1** on page 2-2 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** The MDM Authorized User reviews the data after the device configuration has been created.

## 2.1 Determine Measuring Component Type and Populate Data

See **Manage Device and SP Page 1** on page 2-2 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** The MDM Authorized User determines the measuring component type and populates the information in MDM.

**Note:** If the Channel Multiplier field is not populated with data a default of "1.000000" will populate.

If the Measuring Component Type has been configured with Fallback VEE Group for Initial Load, VEE Group for Estimation, and Fallback VEE Group for Manual Override., those fields will be populated if the data is not supplied upon creation.

## 2.2 Request to Create Measuring Component

See **Manage Device and SP Page 1** on page 2-2 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** MDM Authorized User requests to create the Measuring Component.

## 2.3 Create Measuring Component

See **Manage Device and SP Page 1** on page 2-2 for the business process diagram associated with this activity.

**Group:** Synchronization Process

**Actor/Role:** MDM

**Description:** MDM creates the Measuring Component

**Note:** This task can be triggered from Manual and automated (Synchronization) processes

---

### Entities to Configure

---

Measuring Component Type

---



---

### Business Objects

---

D1-SynchronizationAddMC

D1-IntervalChannel

D1-Register

D1-Register Auto-Read

---

## 2.4 Review Measuring Component Data

See **Manage Device and SP Page 1** on page 2-2 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** The MDM Authorized User reviews the data after the measuring component has been created.

## 2.5 Request to Activate Device Configuration

See **Manage Device and SP Page 1** on page 2-2 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** After the device, device configuration, and measuring component have been created, the MDM Authorized User determines if the device configuration need to be "Active". If so, the MDM Authorized User requests to activate the device configuration using Device Configuration screen

**Note:** If the request to activate the device configuration is made before any measuring components have been added, an error message will be created.

## 2.6 Set Device Configuration Status to "Active"

See **Manage Device and SP Page 1** on page 2-2 for the business process diagram associated with this activity.

**Group:** Synchronization Process

**Actor/Role:** MDM

**Description:** MDM updates Device Configuration with a status of "Active".

**Note:** If the Device Configuration is set to active before any measuring components are created, an error is created.

**Note:** This task can be triggered from Manual and automated (Synchronization) processes

Business Object	Available Algorithms
D1-DeviceConfiguration	F1-AT-RQJ

## 3.1 Analyze Requirement

See **Manage Device and SP Page 2** on page 2-3 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** When updating a device online, the authorized user gathers all the required attributes for updating the device.

## 3.2 Locate Device and Populate Data

See **Manage Device and SP Page 2** on page 2-3 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** The MDM user finds the device and populates and/or updates the data after analyzing the requirements.

## 3.3 Request Device Update

See **Manage Device and SP Page 2** on page 2-3 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** MDM Authorized requests to update the Device information.

### 3.4 Update Device

See **Manage Device and SP Page 2** on page 2-3 for the business process diagram associated with this activity.

**Group:** Synchronization Process

**Actor/Role:** MDM

**Description:** MDM updates the device with the data provided

**Note:** Task can be triggered from manual and automated (Synchronization) processes.

---

#### Business Objects

---

D1-SmartMeter

D1-ManualMeter

D1-OngoingSyncRequestDevice

---

### 3.5 Review Device Data

See **Manage Device and SP Page 2** on page 2-3 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** The MDM Authorized User reviews the data after the device has been updated.

### 3.6 Locate Device Configuration and Populate Data

See **Manage Device and SP Page 2** on page 2-3 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** MDM Authorized User finds the Device Configuration and populates and/or updates the Device Configuration with the analyzed device configuration requirements.

### 3.7 Request Device Configuration Update

See **Manage Device and SP Page 2** on page 2-3 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** MDM Authorized User requests to update the Device Configuration.

### 3.8 Update Device Configuration

See **Manage Device and SP Page 2** on page 2-3 for the business process diagram associated with this activity.

**Group:** Synchronization Process

**Actor/Role:** MDM

**Description:** MDM updates Device Configuration with the data provided.



**Note:** Task can be triggered from manual and automated (Synchronization) processes

---

### Business Objects

---

D1-DeviceConfiguration  
D1-OngoingSyncRequestDC

---

## 3.9 Review Device Configuration Data

See **Manage Device and SP Page 2** on page 2-3 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** The MDM Authorized User reviews the data after the device configuration has been updated.

## 4.1 Locate MC and Populate Data

See **Manage Device and SP Page 2** on page 2-3 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** The user finds the device and populates and/or updates the data with the analyzed requirements.

## 4.2 Request Measuring Component Update

See **Manage Device and SP Page 2** on page 2-3 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** MDM Authorized User requests to update the measuring component.

## 4.3 Update Measuring Component

See **Manage Device and SP Page 2** on page 2-3 for the business process diagram associated with this activity.

**Group:** Synchronization Process

**Actor/Role:** MDM

**Description:** MDM updates the Measuring Component with the data provided.

**Note:** Task can be triggered from manual and automated (Synchronization) processes

Business Object	Available Algorithms
D1-IntervalChannel	D1-DETTARGMC
D1-Register	
D1-Register Auto-Read	
D1-OngoingSyncRequestMC	

## 4.4 Retrieve Device Information: Group - Synchronization Process

See **Manage Device and SP Page 2** on page 2-3 for the business process diagram associated with this activity.

**Group:** Manage Device (Synchronization Process)

**Actor/Role:** MDM

**Description:** MDM retrieves the device information which includes retrieving the device type, the latest installation, head end system, and status.

Business Object	Available Algorithms
D1-OngoingSyncRequestDevice	D1-DETTARGDV

## 4.5 Retrieve Device Configuration Information: Group - Synchronization Process

See **Manage Device and SP Page 2** on page 2-3 for the business process diagram associated with this activity.

**Actor/Role:** MDM

**Description:** MDM retrieves the device configuration information which includes retrieving the device type, device configuration type, status, count of measuring component, and format effective date/time.

Business Object	Available Algorithms
D1-OngoingSyncRequestDC	D1-DETTARGDC

## 5.1 Analyze Requirement

See **Manage Device and SP Page 3** on page 2-4 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** When creating a service point online, the authorized user gathers all the required attributes for adding a service point.

## 5.2 Determine Service Point Type and Populate Data

See **Manage Device and SP Page 3** on page 2-4 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** The authorized user analyzes the service point information that is provided.

## 5.3 Request to Create Service Point

See **Manage Device and SP Page 3** on page 2-4 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** MDM Authorized User requests to create the Service Point.

## 5.4 Create Service Point in an "Active" Status

See **Manage Device and SP Page 3** on page 2-4 for the business process diagram associated with this activity.

**Group:** Synchronization Process

**Actor/Role:** MDM

**Description:** MDM creates the Service Point in Active status with the data provided.

**Note:** task can be triggered from manual and automated (Synchronization) processes

---

### Business Objects

---

D1-ServicePoint

D1-SynchronizationAddSP

---

## 5.5 Review SP Data

See **Manage Device and SP Page 3** on page 2-4 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** The MDM Authorized User reviews the data after the service point has created.

## 5.6 Analyze Requirement

See **Manage Device and SP Page 3** on page 2-4 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** When updating the service point online, the authorized user gathers all the required attributes for updating the device.

## 5.7 Populate Data

See **Manage Device and SP Page 3** on page 2-4 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** The MDM Authorized User populates and/or updates the Service Point with the analyzed service point requirements.

## 5.8 Request Service Point Update

See **Manage Device and SP Page 3** on page 2-4 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** MDM Authorized User requests to create the Service Point.

## 5.9 Retrieve Address Information

See **Manage Device and SP Page 3** on page 2-4 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** MDM retrieves the service point information which includes retrieving the address, SP type, measuring cycle, and status.

Business Object	Available Algorithms
D1-OngoingSyncRequestsp	D1-DETTARGSP

## 6.1 Update SP

See **Manage Device and SP Page 3** on page 2-4 for the business process diagram associated with this activity.

**Group:** Synchronization Process

**Actor/Role:** MDM

**Description:** MDM updates the device with the information provided

**Note:** task can be triggered from manual and automated (Synchronization) processes

### Business Objects

D1-ServicePoint  
D1-OngoingSyncRequestSP

## 6.2 Review SP Data

See **Manage Device and SP Page 3** on page 2-4 for the business process diagram associated with this activity.

**Actor/Role:** MDM Authorized User

**Description:** The MDM Authorized User reviews the data after the service point has been updated.

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## Related Training

The following User Productivity Kit (UPK) modules provide training related to this business process:

- Oracle Utilities UPK for Meter Data Management User Tasks