**CCS**

**24B**

**5.6.3.1 Manage Tracked Assets and Devices**

Creation Date: January 22, 2025

Last Updated: January 22, 2025

1. **Title, Subject, Last Updated Date, Reference Number**, **and** **Version** are marked by a Word Bookmark so that they can be easily reproduced in the header and footer of documents. When you change any of these values, be careful not to accidentally delete the bookmark. **You can make bookmarks visible by selecting Tools->Options…View and checking the Bookmarks option in the Show region.**
2. To add additional approval lines, press [Tab] from the last cell in the table above.



**Copyright © 2024, Oracle. All rights reserved.**

**This document is provided for information purposes only and the contents hereof are subject to change without notice.**

**This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission. Oracle, JD Edwards, PeopleSoft, and Siebel are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.**

Contents

Brief Description 4

Business Process Model Page 1 5

Business Process Model Page 2 6

Business Process Model Page 3 7

Business Process Model Page 4 8

Business Process Model Page 5 9

Business Process Model Page 6 10

Detail Business Process Model Description 11

Test Assets related to the Current Process 37

Document Control 38

Attachments: 39

Asset Add/Update/Delete 39

Asset Specifications 46

New Device (Template) 49

Device 53

Device Configuration – Create and Update 56

Measuring Component – Create and Update 59

Meter Multiplier 63

Installation Constant 64

Activity Type 64

Sample File Structure for Bulk Asset Load by Asset type 65

Miscellaneous. Related Web Services 66

1. To update the table of contents, put the cursor anywhere in the table and press [F9]. To change the number of levels displayed, select the menu option Insert‑>Index and Tables, make sure the Table of Contents tab is active, and change the Number of Levels to a new value.

## Brief Description

**Business Process: 5.6.3.1 Manage Tracked Assets and Devices**

**Process Type: Sub-Process**

**Parent Process: 5.6.3 CCS. Manage Assets and Devices**

**Sibling Processes: 5.6.3.2 CCS. Manage Device Installation and Commissioning**

**5.6.3.3 CCS. Manage Device De-Installation, Decommissioning and Retirement**

**5.1.5.1 CCS.Manage Metered Site**

**4.2.1.1 CCS.Upload Device Measurements. System IMD**

This process takes place when business requires to store and maintain information about Assets (Devices) or Components and their Disposition (Location and Status). Application creates records and tracks information about Assets (Devices) or Components from the moment they are received from Vendor. Application follows lifecycle of Asset or Component including Asset/Component rejection or acceptance with or without inspection, storing accepted Assets or Components in specific location. The process also describes setting up the device, the device configuration, and measuring component(s). 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**: Assets: Objects that are part of the infrastructure such as meters, transformers, etc.

Components: Objects that are installed on another device, usually an asset.

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.

When either a Meter Multiplier or Installation Constant is changed, it is validated and may become eligible for measurement reprocessing. CCS (MDM) creates system IMDs skipping the process of VEE and Consumption sync. The reprocessed IMDs are sent as subsequent correction to Billing system.

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

## Business Process Model Page 1



## Business Process Model Page 2



## Business Process Model Page 3



## Business Process Model Page 4



## Business Process Model Page 5



## Business Process Model Page 6



## Detail Business Process Model Description

[**1.0**](#_Business_Process_Model) **Send File with Asset details**

**Actor/Role:** Vendor

**Description:**

Vendor sends Asset file or document with material (tracked item) details such as serial number and pallet number.

[**1.1**](#_Business_Process_Model) **Select CSV File from Designated Directory for Processing**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized User selects CSV file from the location where file is saved.

**Note***:*If file received from vendor is excel document, C2M User needs to convert it to CSV file and then upload it to designated directory. This is part of the Asset Replication process

[**1.2**](#_Business_Process_Model) **Select Template Asset(s) and Populate Required Details**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized User selects template asset and populates required details, if it’s required to create tracked assets in bulk.

**Note:** This is part of the Asset Replication process

[**1.3**](#_Business_Process_Model) **Validate Input and Create Asset(s)**

**Actor/Role:** CCS - ODM

**Description:**

CCS-ODM validates input and initiates bulk asset replication, similar to the template Asset in “In Receipt” status.

**Process Plug-in enabled (Y) Available Algorithm(s):**

|  |
| --- |
| W1-ASTREPVAL - Asset Replication Activity Validation |
| W1-VLACTACFG - Validate Activity Admin Configuration |

**Configuration required (Y) Business Object:**

|  |
| --- |
| W1-AssetReplicationActivity |

**Configuration required (Y) Entities to configure:**

|  |
| --- |
| Asset Type |
| Component Type |
| Template Asset |
| W1-StorageLocationType |
| W1-StorageLocation |
| Manufacturer |
| Model |
| Metrology Firmware |
| NIC Firmware |

**Inbound Web Service(s):**

|  |
| --- |
| W1-AssetReplicationActivity |

[**1.**](#_Business_Process_Model)**4 Evaluate Asset Information**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized User gathers all the required attributes for adding the Asset.

[**1.**](#_Business_Process_Model)**5 Identify Asset or Component, Location, Service History Type**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized User Identifies Asset Type or Component Type. The user also identifies the Valid Location Types and Valid Service History Types. It is also possible to define Asset Attribute Types.

**Process Plug-in enabled (Y) Available Algorithm(s):**

|  |
| --- |
| W2-BDGASTINF - Badged Asset Information |
| W2-BDGNOVAL - Validate Badge Number |
| W2-SRLNOVAL - Validate Serial Number |
| W2-VALCONFIG - Validate Configuration |
| W1-SVCHSINFO - Service History Information |
| W1-DFSHSOWAG - Default Service History Owning Access Group |
| W1-DFNDSVH - Default Location from Asset on Service History |
| W1-SVCSCHVAL - Service History Work Order Creation Interval Validation |
| W2-COMPFWLOG - Communication Component Firmware Audit |
| W2-DFLCCCONF - Default Communication Component Measurement Configuration |
| W2-DEFCONDT - Default Configuration Effective Date Time |
| W2-COMPFWVAL - Component Firmware Validation |
| W2-CMPATTVLD - Communication Component Enter Attached Validation |

**Business Object (Y) Business Object**

|  |
| --- |
| W1-AssetType |
| W1-ComponentType |
| W2-CommunicationComponent |
| W1-Item |
| W1-StorageLocationType |
| W1-StorageLocation |
| W1-ServiceHistoryType |
| W1-ServiceHistory |

[**1.**](#_Business_Process_Model)**6 Populate Required Asset or Component Details**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized User populates required details to create a new Asset or a new Component.

[**1.**](#_Business_Process_Model)**7 Select Specification with Required Device Configuration Group: Link Specification**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized User selects existing Specification.

**Process Plug-in enabled (Y) Available Algorithm(s):**

|  |
| --- |
| W1-VALMANMOD - Validate Manufacturer and Model |
| W1DEFUSRACCG - Default User Owning Organization |
| W2-CCSPECVAL - Communication Component Specification Validation |
| W2-CRSPECVAL - Communication Relay Specification Validation |
| W2-SMSPECVAL - Smart Meter Specification Validation |

**Business Object (Y) Business Object**

|  |
| --- |
| W1-Specification |
| W2-CommunicationComponentSpec |
| W2-CommunicationRelaySpec |
| W2-ManualMeterSpecification |
| W2-SmartMeterSpecification |
| W1-ItemSpecification |

**Configuration Required (Y) Entities to Configure:**

|  |
| --- |
| W1-AssetType |
| W1-ComponentType |
| W1-StorageLocationType |
| W1-StorageLocation |
| Manufacturer |
| Model |
| Metrology Firmware |
| NIC Firmware |
| Device Type |
| Device Configuration Type |
| Measuring Component Type |
| Specification |
| Template Device |

[**1.**](#_Business_Process_Model)**8 Request Create Asset(s) or Component(s)**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized User Requests to create Asset or Component.

[**1.9**](#_Business_Process_Model) **Validate Data and Create Asset(s) or Component(s) “In Receipt” Status**

**Actor/Role:** CCS - ODM

**Description:**

CCS-ODM creates tracked asset or component in disposition “In Receipt”.

**Process Plug-in enabled (Y) Available Algorithm(s):**

|  |
| --- |
| W1-ASTMNTMON - Asset Maintenance Monitor |
| W2-CMPATTVLD - Communication Component Enter Attached Validation |
| W1-ASSETINFO - Asset Information |
| W1-ASTATTVAL - Asset Attribute Validations |
| W1-ASTDPNDEF - Default Asset Disposition |
| W2-DFLCCCONF - Default Communication Component Measurement Configuration |
| W2-COMPFWVAL - Component Firmware Validation |
| W2-CRFWLOG - Communication Relay Firmware Audit |
| W1-VALASTSPC - Validate changes to Asset Specification |
| W2-BDGASTINF - Badged Asset Information |
| W1-ASTDPNAUD - Asset Current Disposition Validation |
| W2-DFLMNMCON - Default Manual Meter Measurement Configuration |
| W2-COMPFWLOG - Communication Component Firmware Audit |
| W2-DFLSMCONF - Default Smart Meter Measurement Configuration |
| W2-BDGNOVAL - Validate Badge Number |
| W2-SRLNOVAL - Validate Serial Number |
| W2-DEFCONDT - Default Configuration Effective Date Time |
| W2-VALCONFIG - Validate Configuration |

**Business Object (Y) Business Object**

|  |
| --- |
| W1-TrackedAsset |
| W1-Item |
| W2-CommunicationRelay |
| W2-ManualMeter |
| W2-SmartMeter |
| W1-ComponentType |
| W2-CommunicationComponent |

**Configuration required (Y) Entities to Configure:**

|  |
| --- |
| Asset Type |
| Component Type |
| W1-StorageLocation |
| Extendable Lookup: W1-AssetDisposition |
| Extendable Lookup: X1-ODMMDM-MDMODM-Lookup |
| Manufacturer |
| Model |
| Metrology Firmware |
| NIC Firmware |
| Device Type |
| Device Configuration Type |
| Measuring Component Type |
| Specification |
| Template Device |

[**2.0**](#_Business_Process_Model) **Create WO to Inspect Item(s)**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized User creates WO to Inspect Items. Refer 5.8.1.2 CCS.ODM.Manage Work Orders for details.

[**2.**](#_Business_Process_Model)**1 Perform Inspection**

**Actor/Role:** CSR or Authorized User

**Description:**

For Assets that require Inspection, CSR or Authorized User performs Inspection

[**2.2**](#_Business_Process_Model) **Request Update Asset or Component Status to In Store**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized User updates Asset or Component status to In Store.

[**2.3**](#_Business_Process_Model) **Update Asset(s) or Component(s) to In Store Status and Update Disposition Group: Create Device**

**Group: Mass Asset Disposition**

**Actor/Role:** CCS (ODM)

**Description:**

CCS (ODM)updates Asset or Component Status to In Store and Disposition to In Store.

In the initial stage, the Asset related Scripts are executed which ensure that the Asset Disposition is correctly defined. It is important that the Extendable Lookups are correctly defined so that Asset Status in ODM has a respective Device Status in MDM system. Finally, the Device related scripts are executed which create the Device based on the Template Device defined in the Specification.

For Assets such as Meters, the Specification and Template Device will specify the Device Configuration and Measuring Component. Once the Device is created, the system will call scripts to create respective device configuration and measuring components for this New Device. For Components and Items, these scripts may not be executed.

**Process Plug-in enabled (Y) Available Algorithm(s):**

|  |
| --- |
| W1-ASTMNTMON - Asset Maintenance Monitor |
| W2-CMPATTVLD - Communication Component Enter Attached Validation |
| W1-ASTATTVAL - Asset Attribute Validations |
| W1-ASTDPNAUD - Asset Current Disposition Validation |
| W2-BDGNOVAL - Validate Badge Number |
| W2-SRLNOVAL - Validate Serial Number |
| W2-VALCONFIG - Validate Configuration |

**Business Object (Y) Business Object:**

|  |
| --- |
| W1-AssetType |
| W1-TrackedAsset |
| W1-Item |
| W2-CommunicationRelay |
| W2-ManualMeter |
| W2-SmartMeter |
| W2-CommunicationComponent |
| W1-AssetDisposition |
| X1-C2MMasterConfiguration |
| D1-SmartMeter |
| D1-DeviceConfiguration |

**Configuration required (Y) Entities to Configure**

|  |
| --- |
| Extendable Lookup: W1-AssetDisposition |
| Extendable Lookup: X1-ODMMDM-MDMODM-Lookup |

**Scripts**

|  |
| --- |
| W1-AsTyInDpn |
| W2-BdgAstInf |
| X1-ODMMDMVM |
| X1-OM-MO-VM |
| X1-DetTempDv |

[**2.**](#_Business_Process_Model)**4 Create Device in Active Status Group: Create Device**

**Group: Mass Asset Disposition**

**Group: Device Configuration Template**

**Actor/Role:** CCS (MDM)

**Description:**

CCS (MDM) creates the Device in Active status

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

**Process Plug-in enabled (Y) Available Algorithm(s):**

|  |
| --- |
| D1-PERESTM - Periodic Estimation |
| D1-DVCEQTVAL - Device Equipment Validation |
| D1-ITEMINFO - Item Information |
| D1-MANLINFO - Manual Meter - Information |
| D1-SMARTINFO - Smart Meter - Information |
| D1-VALITRET - Validate Item Retirement Date |
| D1-VALRETDT - Validate Device Retirement Date |

**Business Object (Y) Business Object**

|  |
| --- |
| D1-SmartMeter |
| D1-ManualMeter |
| D1-Item |
| D1-CommComponentDevice |

**Configuration required (Y) Entities to Configure:**

|  |
| --- |
| Device Type |
| Service Type |
| Head End System |
| Lookup: IN\_DATA\_SHIFT\_FLG |

[**2.**](#_Business_Process_Model_1)**5 Create Device Configuration in Active Status Group: Create Device Configuration and Measuring Component**

**Group: Mass Asset Disposition**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) creates the Device Configuration in Active status if it is defined in specification device template.

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

**Process Plug-in enabled (Y) Available Algorithm(s):**

|  |
| --- |
| D1-CHKREQMC - Check if required MC is configured on the DC type |
| D1-MCTYPVAL - Measuring Component Type Validation |
| D1-DVCOINFO - Device Configuration Information |
| D1-USTMCTZDC - Update Channel Statistics MC Time Zone With Device Configuration Time Zone |
| D1-DELMC - Delete Associated Measuring Components |
| D1-DEFTIMZON - Default Time Zone value based on Installation Option |
| D1-INSTDCVAL - Earlier Installed Device Configuration |
| D1-VALDCTMZN - Validate Device Configuration Time Zone |

**Business Object (Y) Business Object**

|  |
| --- |
| D1-DeviceConfiguration |

**Configuration required (Y) Entities to Configure:**

|  |
| --- |
| Device Configuration Type |

[**2.**](#_Business_Process_Model)**6 Create Measuring Component(s) Group: Create Device Configuration and Measuring Component**

**Group: Mass Asset Disposition**

**Group: Device Configuration Template**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) creates the Measuring Component if it is defined in specification device template.

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

**Process Plug-in enabled (Y) Available Algorithm(s):**

|  |
| --- |
| D1-CIITBIH - Create Interval IMD and To Do Based Upon Install History |
| D1-CRPJMCPMC - Create Projection MCs Connected to Physical MC |
| D1-DIMDCPRE - Delete Initial Measurement Data of Measuring Component |
| D1-INTMCVAL - Check if Measuring Component's Type is Interval |
| D1-DETMULCIC - Detect Multiplier Change for Internal Channel |
| D1-ARSPE - Auto-Read Scalar Periodic Estimation |
| D1-SMTMCINFO - Measuring Component for Smart Devices - Information |
| D1-CRSTMCPMC - Create Statistics Measuring Components connected to Physical Measuring Component |
| D1-RELMCCVAL - Validate Consumption Reference Measuring Component |
| D1-SCMCVAL - Check if Measuring Component's Type is Scalar |
| D1-DETMULCRG - Detect Multiplier Change for Register |

**Business Object (Y) Business Object**

|  |
| --- |
| D1-IntervalChannel |
| D1-RegisterAutoRead |

**Configuration required (Y) Entities to Configure:**

|  |
| --- |
| Measuring Component Type |

[**2.**](#_Business_Process_Model)**7 Update Asset Status to Rejected**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized User updates Asset status to Rejected.

[**2.**](#_Business_Process_Model)**8 Update Asset(s) to Rejected Status**

**Actor/Role:** CCS (ODM)

**Description:**

CCS (ODM)updates Asset status to Rejected

**Process Plug-in enabled (Y) Available Algorithm(s):**

|  |
| --- |
| W1-ADRTDAEGP - Add Retired Asset Entry to General Process |

**Configuration required (Y) Business Object:**

|  |
| --- |
| W1-TrackedAsset |
| W1-Item |
| W2-CommunicationRelay |
| W2-ManualMeter |
| W2-SmartMeter |
| W2-CommunicationComponent |

[**2.9**](#_Business_Process_Model) **Review Asset/Components and Device**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized User reviews Asset/Components and Device to see what needs to be updated

[**3.**](#_Business_Process_Model_5)**0 Upload and Store File**

**Actor/Role:** Object Storage

**Description:**

For bulk asset/component creation, asset file received from Vendor is uploaded to designated Location in Object Storage.

**Note:**This is a custom process suggested to process files that contain large number of assets and/or components required to be uploaded in application*.*

Customizable process Y Process Name:

|  |
| --- |
| Custom Process |

[**3.1**](#_Business_Process_Model_5) **Validate File**

**Actor/Role:** CCS (ODM)

**Description:**

CCS (ODM) performs validation on the file received from vendor.

**Note:** This is a custom process suggested to process files that contain large number of assets and/or components required to be uploaded in application.

Customizable process Y Process Name:

|  |
| --- |
| Custom Process |

**Inbound Web Service(s):**

|  |
| --- |
| W1-AssetReplicationActivity |

[**3.2**](#_Business_Process_Model_5) **Analyze Asset(s) or Component(s) and Determine Processing Method**

**Actor/Role:** CCS - ODM

**Description:**

CCS-ODM analyzes the details in file and determines processing method for bulk asset creation. File structure may vary. Check [Sample File Structure for Bulk Asset Load by Asset type](#_Sample_Empty_File) as an example.

**Note:** This is a custom process suggested to process files that contain large number of assets and/or components required to be uploaded in application.

Customizable process Y Process Name:

|  |
| --- |
| Custom Process |

**Inbound Web Service(s):**

|  |
| --- |
| W1-AssetReplicationActivity |

[**3.3**](#_Business_Process_Model_5) **Evaluate and Initiate Mass Asset Disposition Group: Mass Asset Disposition**

**Actor/Role:** CCS (ODM)

**Description** System can automatically trigger the mass disposition process. CCS will transition the Assets to ‘In-Store’ status when all required information is made available.

**Process Plug-in enabled Y**  **Available Algorithm(s):**

|  |
| --- |
| W1MADUBPROCR- Mass Asset Disposition Update Process Records |

Customizable process N Process Name:

|  |
| --- |
| W1-MADUB - Updates asset records from its current disposition to a new disposition. This is specifically created for the Mass Asset Disposition. |

[**3.4**](#_Business_Process_Model_5) **Highlight Exception(s) Group: Mass Asset Disposition**

**Actor/Role:** CCS (ODM)

**Description:**

The batch creates an exception for each record with missing or incomplete details.

[**3.5**](#_Business_Process_Model_5) **Evaluate and Perform Analysis**

**Actor/Role:** CCS (ODM)

**Description:**

Based on established business rules the Authorized User investigates possible solutions or workarounds for missing or incomplete information.

[**3.6**](#_Business_Process_Model_5) **Resolve Issue**

**Actor/Role:** CCS (ODM)

**Description:**

The CSR or Authorized User enters required details to resolve the exception.

[**3.7**](#_Business_Process_Model_4) **Analyze Requirements Group: Device Configuration Template**

**Actor/Role:** CSR or Authorized User

**Description:**

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

[**3.8**](#_Business_Process_Model_4) **Determine Device Type and Populate Data Group: Device Configuration Template**

**Actor/Role:** CSR or Authorized User

**Description:**

The authorized user analyzes the device information that is provided.

[**3.9**](#_Business_Process_Model_4) **Request to Create Device Group: Device Configuration Template**

A**ctor/Role:** Authorized User

**Description:**

Authorized User requests to create the Device.

[**4.0**](#_Business_Process_Model_4) **Review Device Data Group: Device Configuration Template**

A**ctor/Role:** Authorized User

**Description:**

The Authorized User reviews the data after the device has been created.

[**4.1**](#_Business_Process_Model_4) **Determine Device Configuration Type and Populate Data Group: Device Configuration Template**

A**ctor/Role:** Authorized User

**Description:**

The Authorized User determines the device configuration type and populates the information in CCS (MDM).

[**4.2**](#_Business_Process_Model_4) **Request to Create Device Configuration Group: Device Configuration Template**

A**ctor/Role:** Authorized User

**Description:**

Authorized User requests to create the Device Configuration.

[**4.3**](#_Business_Process_Model_4) **Create Device Configuration in Pending Status Group: Device Configuration Template**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) creates the Device Configuration in Pending status.

**Process Plug-in enabled (Y) Available Algorithm(s):**

|  |
| --- |
| D1-CHKREQMC - Check if required MC is configured on the DC type |
| D1-MCTYPVAL - Measuring Component Type Validation |
| D1-DVCOINFO - Device Configuration Information |
| D1-USTMCTZDC - Update Channel Statistics MC Time Zone With Device Configuration Time Zone |
| D1-DELMC - Delete Associated Measuring Components |
| D1-DEFTIMZON - Default Time Zone value based on Installation Option |
| D1-INSTDCVAL - Earlier Installed Device Configuration |
| D1-VALDCTMZN - Validate Device Configuration Time Zone |

**Business Object (Y) Business Object**

|  |
| --- |
| D1-DeviceConfiguration |

**Configuration required (Y) Entities to Configure:**

|  |
| --- |
| Device Configuration Type |

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

[**4.4**](#_Business_Process_Model_4) **Review Device Configuration Data Group: Device Configuration Template**

A**ctor/Role:** Authorized User

**Description:**

The Authorized User reviews the data after the device configuration has been created or after the device has been updated.

[**4.5**](#_Business_Process_Model_4) **Determine Measuring Component Type Group: Device Configuration Template**

A**ctor/Role:** Authorized User

**Description:**

The Authorized User determines the measuring component type and populates the information in CCS (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.

[**4.6**](#_Business_Process_Model_4) **Request to Create Measuring Component(s) Group: Device Configuration Template**

A**ctor/Role: Authorized User**

**Description:**

Authorized User requests to create the Measuring Component.

[**4.7**](#_Business_Process_Model_4) **Review Measuring Component Data Group: Device Configuration Template**

A**ctor/Role:** Authorized User

**Description:**

The Authorized User reviews the data after the measuring component has been created.

[**4.8**](#_Business_Process_Model_4) **Request to Activate Device Configuration Group: Device Configuration Template**

**Actor/Role:** CSR or Authorized User

**Description:**

After the device, device configuration, and measuring component have been created, the Authorized User determines if the device configuration need to be “Active”. If so, the Authorized User requests to activate the device configuration using [Device Configuration screen](#_Attachments:)

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

[**4.9**](#_Business_Process_Model_4) **Set Device Configuration Status to Active Group: Device Configuration Template**

**Actor/Role:** CSR or Authorized User

**Description:**

CCS (MDM) updates Device Configuration with a status of “Active”.

**Business Object (Y) Business Object**

|  |
| --- |
| D1-DeviceConfiguration |

**Configuration required (Y) Entities to Configure:**

|  |
| --- |
| Device Configuration Type |

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

[**5.0**](#_Business_Process_Model) **Populate Spec Details, Select Required Device Template, Map Device Configuration Group: Link Specification**

**Actor/Role:** CSR or Authorized User

**Description:**

To create specificationAuthorized User Populates Specification details and chooses Device configuration and corresponding device template

[**5.1**](#_Business_Process_Model_5) **Request Create Specification Group: Link Specification**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized User requests to create Specification

[**5.2**](#_Business_Process_Model) **Create Specification Group: Link Specification**

**Actor/Role:** CCS (ODM)

**Description:**

CCS (MDM) creates the Specification

**Process Plug-in enabled (Y) Available Algorithm(s):**

|  |
| --- |
| W1-VALMANMOD - Validate Manufacturer and Model |
| W1DEFUSRACCG - Default User Owning Organization |
| W2-CCSPECVAL - Communication Component Specification Validation |
| W2-CRSPECVAL - Communication Relay Specification Validation |
| W2-SMSPECVAL - Smart Meter Specification Validation |

**Business Object (Y) Business Object**

|  |
| --- |
| W1-Specification |
| W2-CommunicationComponentSpec |
| W2-ManualMeterSpecification |
| W2-SmartMeterSpecification |
| W1-ItemSpecification |

**Configuration Required (Y) Entities to Configure:**

|  |
| --- |
| W1-AssetType |
| W1-ComponentType |
| W1-StorageLocationType |
| W1-StorageLocation |
| Manufacturer |
| Model |
| Metrology Firmware |
| NIC Firmware |
| Device Type |
| Device Configuration Type |
| Measuring Component Type |
| Specification |
| Template Device |

[**5.3**](#_Business_Process_Model_3) **Populate Asset or Component Information Group: Update Asset**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized Userpopulates Asset information that needs to be updated

[**5.4**](#_Business_Process_Model_3) **Update Asset Details Group: Update Asset**

**Actor/Role:** CCS (ODM)

**Description:**

CCS (ODM) updates the Asset with the data provided

**Process Plug-in enabled (Y) Available Algorithm(s):**

|  |
| --- |
| W1-VALASTSPC - Validate changes to Asset Specification |
| W1-ASTDPNAUD - Asset Current Disposition Validation |
| W2-DEFCONDT - Default Configuration Effective Date Time |

**Configuration required (Y) Business Object:**

|  |
| --- |
| W1-TrackedAsset |
| W2-CommunicationRelay |
| W2-ManualMeter |
| W2-SmartMeter |

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

[**5.5**](#_Business_Process_Model_3) **Update Device Details Group: Update Asset**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) updates the device with the data provided

**Business Object (Y) Business Object**

|  |
| --- |
| D1-SmartMeter |
| D1-ManualMeter |
| D1-Item |
| D1-CommComponentDevice |

**Configuration required (Y) Entities to Configure:**

|  |
| --- |
| Device Type |
| Service Type |
| Head End System |
| Lookup: IN\_DATA\_SHIFT\_FLG |

[**5.6**](#_Business_Process_Model_3) **Identify Document(s), Populate Info and Request Create Attachment(s) or Warranty Term Group: Update Asset**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized User reviews Asset and Device that needs to be updated with an Attachment or Warranty Term. User can also add notes to pass specific information to the crew. User request to create Attachment or create Warranty Term in CCS-ODM.

**Attachment**: System supports several different attachment content types like PDF, Excel, JPEG, Docs and so on. Maximum size limit for the attachment can be defined at Maximum Attachment size within General System Configuration.

**Warranty Term:** Warranty can be Runtime(Usage Based) or Calendar(Time Based). User create Warranty Term in CCS-ODM in “Created” Status and then has to “Activate” it to link it to Asset.

[**5.7**](#_Business_Process_Model_3) **Create Attachment(s) or Warranty Term Group: Update Asset**

**Actor/Role:** CCS (ODM)

**Description:**

CCS (ODM) Create Attachment(s) or Warranty Term.

**Business Object (Y) Business Object**

|  |
| --- |
| C1-AttachmentCharacteristic - Attachment Characteristic |
| F1-AttachmentPhysicalBO - Physical BO for Attachment |
| F1-DecRpt - Decision Report |
| F1-ExcelSpreadsheet - Excel Spreadsheet |
| F1-GenericAttachment - Generic Attachment - Schema Only |
| F1-JpegImage - Jpeg Image |
| F1-MicrosoftVideo - Microsoft Video |
| F1-Mp3Audio - MP3 Audio |
| F1-PDF - PDF Document |
| F1-Text - Text Document |
| F1-VideoMPEG - Video MPEG |
| F1-WavAudio - Wav Audio |
| F1-WordDocument - Word Document |
| W1-CalendarWarrantyTerm |
| W1-RuntimeWarrantyTerm |

**Configuration Required (Y) Entities to Configure:**

|  |
| --- |
| Feature Configuration > General System Configuration> Maximum Attachment size |
| Attachment |
| Warranty Term |
| Look up> NOTE\_TYPE\_FLG |

[**5.8**](#_Business_Process_Model_3) **Request Link to Asset Group: Update Asset**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized User request to link Attachment or Warranty Term to Asset. CSR or Authorized User request to add Notes to Asset.

[**5.9**](#_Business_Process_Model_3) **Link Attachment(s) or Notes(s) or Warranty to Asset Group: Update Asset**

**Actor/Role:** CCS (ODM)

**Description:**

CCS (ODM) updates the Asset with Attachment(s) or Notes(s) or Warranty

**Business Object (Y) Business Object**

|  |
| --- |
| W1-RuntimeWarranty |
| W1-CalendarWarranty |

**Configuration Required (Y) Entities to Configure:**

|  |
| --- |
| Feature Configuration > General System Configuration> Maximum Attachment size |
| Attachment |
| Warranty Term |
| Look up> NOTE\_TYPE\_FLG |

[**6.0**](#_Business_Process_Model_3) **Request Remove Attachment or Notes from Asset Group: Update Asset**

**Actor/Role:** CSR or Authorized User

**Description:**

CSR or Authorized User request to remove Attachment or Warranty Term or Notes from Asset

[**6.1**](#_Business_Process_Model_3) **Remove Link Between Attachment(s) or Note(s) from Asset Group: Update Asset**

**Actor/Role:** CCS (ODM)

**Description:**

CCS (ODM) removes Attachment(s) or Notes(s) or Warranty from Asset

**Business Object (Y) Business Object**

|  |
| --- |
| W1-RuntimeWarranty |
| W1-CalendarWarranty |

**Configuration Required (Y) Entities to Configure:**

|  |
| --- |
| Feature Configuration > General System Configuration> Maximum Attachment size |
| Attachment |
| Warranty Term |
| Look up> NOTE\_TYPE\_FLG |

[**6.2**](#_Business_Process_Model_3) **Locate Device Configuration and Populate Data Group: Update Device Configuration**

A**ctor/Role:** Authorized User

**Description:**

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

[**6.3**](#_Business_Process_Model_3) **Request Device Configuration Update Group: Update Device Configuration**

A**ctor/Role:** Authorized User

**Description:**

Authorized User requests to update the Device Configuration.

[**6.4**](#_Business_Process_Model_3) **Update** **Device Configuration Group: Update Device Configuration**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) updates Device Configuration with the data provided.

**Business Object (Y) Business Object**

|  |
| --- |
| D1-DeviceConfiguration |

[**6.5**](#_Business_Process_Model_3) **Locate MC and Populate Data Group: Update Measuring Component**

A**ctor/Role:** Authorized User

**Description:**

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

[**6.6**](#_Business_Process_Model_3) **Request Measuring Component Update Group: Update Measuring Component**

A**ctor/Role:** Authorized User

**Description:**

Authorized User requests to update the [measuring component.](#_Attachments:)

[**6.7**](#_Business_Process_Model_3) **Update Measuring Component Group: Update Measuring Component**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) updates the Measuring Component with the data provided.

**Business Object (Y) Business Object**

|  |
| --- |
| D1-IntervalChannel |
| D1-Register |
| D1-RegisterAutoRead |
| D1-OngoingSyncRequestMC |

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

[**6.8**](#_Business_Process_Model_7) **Select Measuring Component and Update Meter Multiplier**

A**ctor/Role:** Authorized User

**Description:**

Authorized User selects measuring component and updates [meter multiplier](#_Attachments:).

**Process Plug-in enabled (Y) Available Algorithm(s):**

|  |
| --- |
| D1-DETMULCIC - Detect Multiplier Change for Internal Channel |
| D1-DETMULCRG - Detect Multiplier Change for Register |

**Configuration required (Y/N) Entities to Configure:**

|  |
| --- |
| Meter Multiplier |

[**6.9**](#_Business_Process_Model_7) **Update Measuring Component**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) updates Measuring Component and meter multiplier information.

[**7.0**](#_Business_Process_Model_7) **Select Install Event and Update Installation Constant**

A**ctor/Role:** Authorized User

**Description:**

Authorized User selects Install Event and updates [Installation Constant](#_Attachments:).

**Process Plug-in enabled (Y) Available Algorithm(s):**

|  |
| --- |
| D1-DETIECHG - Detect Installation Constant Change for Install Event |

**Configuration required (Y/N) Entities to Configure:**

|  |
| --- |
| Installation Constant |

[**7.1**](#_Business_Process_Model_7) **Update Install Event**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) updates Install Event and Installation Constant information.

[**7.2**](#_Business_Process_Model_7) **Validate Eligibility to Re-process Measurement**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) validates the eligibility to re-process measurement. CCS (MDM) validates that there is a change between the old value and the new multiplier or installation constant value and if the new value is different it next determines the period affected by the change.

Further, it validates that there are no other in-progress Activities for the same Activity type and MC. This is intended to prevent a user from creating a new Activity that will be in conflict with any existing system-generated Measurement Reprocessing Activity. There will be only one Activity created for Measuring Component.

**Process Plug-in enabled (Y/N)**  **Available Algorithm(s):**

|  |
| --- |
| D1-MRACTINFO (Measurement Reprocess Activity Information) |
| D1-VALUNIQ (Validate Uniqueness) |

**Business Object (Y/N) Business Object**

|  |
| --- |
| D1-MeasurementReprocessParent |
| D1-MeasurementReprocessScalar |
| D1-MeasurementReprocesInterval |

[**7.3**](#_Business_Process_Model_7) **Create Measurement Reprocessing Activity in Pending State**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) creates measurement reprocessing activity in ‘Pending’ state. Prior to creation it pre-processes to determine the Activity Type and to generate a GUID i.e. a unique ID for the reprocessing activity. CCS (MDM) auto-transitions measurement reprocessing activity to next state based on evaluation. A batch monitor may be scheduled in the rare case when measurement reprocessing activity encounters error during auto-transition to next state and stays in ‘Pending’ state.

**Process Plug-in enabled (Y/N)**  **Available Algorithm(s):**

|  |
| --- |
| D1-DETMRAPPR - Determine Measurement Reprocessing Approval |
| D1-POPGUID (Populate GUID) |

**Business Object (Y/N) Business Object**

|  |
| --- |
| D1-MeasurementReprocessParent |
| D1-MeasurementReprocessScalar |
| D1-MeasurementReprocesInterval |

[**7.4**](#_Business_Process_Model_7) **Evaluate Criteria for Approval**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) evaluates criteria for approval. CCS (MDM) checks the Measurement Reprocessing [Activity Type](#_Attachments:) configuration for whether 'Approval required?' is set. If set to "No", then the Activity will move on to the 'Ready for Processing' status. If set to "Yes", then the logic checks if any of the 'Preapproved Percentages' are set on the Measurement Reprocessing Activity Type. If the 'Preapproved Percentages' are set then those are compared to the Multiplier or Installation Constant percentage of change that originally initiated the Activity. If the percentage of change falls outside of the 'Preapproved Percentages' or they aren't populated, then a manual approval is required.

**Process Plug-in enabled (Y/N)**  **Available Algorithm(s):**

|  |
| --- |
| D1-DETMRAPPR (Determine Measurement Reprocessing Approval) |

**Business Object (Y/N) Business Object**

|  |
| --- |
| D1-MeasurementReprocessParent |
| D1-MeasurementReprocessScalar |
| D1-MeasurementReprocesInterval |

**Configuration required (Y/N) Entities to Configure:**

|  |
| --- |
| Activity Type for Measurement Reprocessing - Scalar |
| Activity Type for Measurement Reprocessing - Interval |

[**7.5**](#_Business_Process_Model_7) **Create To Do for Approval and Transition to Approval Required State**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) creates ‘To Do’ for approval required and transitions to ‘Approval required’ state.

**Process Plug-in enabled (Y/N)**  **Available Algorithm(s):**

|  |
| --- |
| D1-MRAPPTODO (Create Measurement Reprocessing Requiring Approval To-Do Entry) |

**Business Object (Y/N) Business Object**

|  |
| --- |
| D1-MeasurementReprocessParent |
| D1-MeasurementReprocessScalar |
| D1-MeasurementReprocesInterval |

**Configuration required (Y/N) Entities to Configure:**

|  |
| --- |
| [To Do Type and Role in Activity Type](file:///C:\WORK%20AND%20PERSONAL\WORK\OCE-20221011\Design%20Documents\5.6.3.1%20CCS.ODM-MDM%20Manage%20Tracked%20Assets%20and%20Devices.Use%20Case%20Design.xlsx#RANGE!_Usage_Transaction_Seeder_1) |

[**7.6**](#_Business_Process_Model_7) **Review Change**

A**ctor/Role:** Authorized User (Approver)

**Description:**

Authorized User (Approver) reviews the change and the update performed on Meter Multiplier of Installation Constant.

[**7.7**](#_Business_Process_Model_7) **Request to Approve**

A**ctor/Role:** Authorized User (Approver)

**Description:**

Authorized User (Approver) makes a request to approve the measurement reprocessing activity.

[**7.8**](#_Business_Process_Model_7) **Complete To Do**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) completes ‘To Do’ created.

**Process Plug-in enabled (Y/N)**  **Available Algorithm(s):**

|  |
| --- |
| D1-GTDCBO (Generic To-Do Completion for BOs) |

**Business Object (Y/N) Business Object**

|  |
| --- |
| D1-MeasurementReprocessParent |
| D1-MeasurementReprocessScalar |
| D1-MeasurementReprocesInterval |

[**7.9**](#_Business_Process_Model_7) **Update Measurement Reprocessing Activity to Ready for Processing State**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) updates measurement reprocessing activity to ‘Ready for Processing’ state.

**Business Object (Y/N) Business Object**

|  |
| --- |
| D1-MeasurementReprocessParent |
| D1-MeasurementReprocessScalar |
| D1-MeasurementReprocesInterval |

**Customizable process (Y/N) Process Name**

|  |
| --- |
| D1-MRAC (Measurement Reprocessing Monitor) |

[**8.0**](#_Business_Process_Model_7) **Request to Discard**

A**ctor/Role:** Authorized User (Approver)

**Description:**

Authorized User can make a request to discard measurement reprocessing activity.

**Note**: An activity discarded stays in database and is not completely removed from system.

[**8.1**](#_Business_Process_Model_7) **Discard Measurement Reprocessing Activity**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) discards measurement reprocessing activity.

[**8.2**](#_Business_Process_Model_7)**Analyze Measurement Reprocessing**

A**ctor/Role:** Authorized User

**Description:**

Authorized User analyzes measurement reprocessing activity.

[**8.3**](#_Business_Process_Model_7) **Request to Process**

A**ctor/Role:** Authorized User

**Description:**

Authorized User makes a request to process measurement reprocessing activity.

[**8.4**](#_Business_Process_Model_7) **Transition to Process State**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) transitions measurement reprocessing activity to ‘Process’ state.

**Business Object (Y/N) Business Object**

|  |
| --- |
| D1-MeasurementReprocessParent |
| D1-MeasurementReprocessScalar |
| D1-MeasurementReprocesInterval |

[**8.5**](#_Business_Process_Model_7) **Transition to Processing**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) transitions measurement reprocessing activity to Process State. A batch monitor is configured here to monitor and take forward the processing of measurement reprocessing activity towards initiating the creation of IMD Seeder for reprocessing.

**Business Object (Y/N) Business Object**

|  |
| --- |
| D1-MeasurementReprocessParent |
| D1-MeasurementReprocessScalar |
| D1-MeasurementReprocesInterval |

**Customizable process (Y/N) Process Name**

|  |
| --- |
| D1-MRAC (Measurement Reprocessing Monitor) |

[**8.6**](#_Business_Process_Model_7) **Initiate IMD seeder Creation**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) initiates the creation of IMD Seeder. CCS (MDM) identifies the type of measuring component and initiate IMD creation specific to scalar or interval channel. In case of Install Event, it determines the measuring components associates and accordingly initiates the creation.

CCS (MDM) looks for the measurements in the effective period to populate the new IMDs. If the Measurement Reading isn't populated, then CCS (MDM) will look to the original IMD linked to the Measurement in order to pull the reading required for the new IMD. If neither exist, then the Measurement reprocessing will be skipped.

**Process Plug-in enabled (Y/N)**  **Available Algorithm(s):**

|  |
| --- |
| D1-REPSCMSRS (Reprocess Scalar Measurements) |
| D1-REPINMSRS (Reprocess Interval Measurements) |

**Business Object (Y/N) Business Object**

|  |
| --- |
| D1-MeasurementReprocessParent |
| D1-MeasurementReprocessScalar |
| D1-MeasurementReprocesInterval |
| D1-IMDSeeder |
| D1-SystemIMDScalar |
| D1-SystemIMDInterval |

[**8.7**](#_Business_Process_Model_7) **Create To Do in Issue Detected State and Perform Exception Process**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) creates a To Do for issues encounters during the creation of IMDs and transitions the measurement reprocess activity to ‘Issue Detected’ state. The User can perform the standard exception process in terms of analyzing the To Do for the error and request CCS (MDM) to either initiate to reprocess or discard.

If the User doesn’t take any action, the measurement reprocess activity in ‘Issue Detected’ state is reprocessed through a batch scheduler. Finally, it is rejected by the system.

**Process Plug-in enabled (Y/N)**  **Available Algorithm(s):**

|  |
| --- |
| D1-WTTMOUT (Wait Time Out - Transition to Rejection) |
| D1-RBOE (Retry BO in Error) |
| D1-GTDCBO (Generic To-Do Completion for BOs) |
| D1-CTDEBOE - Create To Do Entry for BO in Error |

**Business Object (Y/N) Business Object**

|  |
| --- |
| D1-MeasurementReprocessParent |
| D1-MeasurementReprocessScalar |
| D1-MeasurementReprocesInterval |

**Customizable process (Y/N) Process Name**

|  |
| --- |
| D1-MRER (Measurement Reprocessing - Retry Monitor) |

[**8.8**](#_Business_Process_Model_7) **Complete Measurement Reprocessing Activity**

A**ctor/Role:** CCS (MDM)

**Description:**

CCS (MDM) completes measurement reprocessing activity. In parallel, the IMD Creation process continues. Please refer to process 4.2.1.1 CCS. Upload Device Measurements. System IMD for more details.

**Process Plug-in enabled (Y/N)**  **Available Algorithm(s):**

|  |
| --- |
| D1-REPSCMSRS (Reprocess Scalar Measurements) |
| D1-REPINMSRS (Reprocess Interval Measurements) |

**Business Object (Y/N) Business Object**

|  |
| --- |
| D1-MeasurementReprocessParent |
| D1-MeasurementReprocessScalar |
| D1-MeasurementReprocesInterval |

[**8.9**](#_Business_Process_Model_6) **Search for Component**

A**ctor/Role:** CSR or Authorized User

**Description:**

The Authorized User searches for the given Device(Component) in CCS to determine if it is in existing inventory. Searching for the Device can be accomplished through Device Search using various search criteria.

[**9.0**](#_Business_Process_Model_6) **Search for Asset(Device)**

A**ctor/Role:** CSR or Authorized User

**Description:**

The Authorized User searches for the given Device(Actual Meter) in CCS to determine if it is in existing inventory. Searching for the Device can be accomplished through Device Search using various search criteria.

[**9.1**](#_Business_Process_Model_6) **Analyze Requirement**

**Actor/Role:** CSR or Authorized User

**Description:**

When attaching Component to Device, the CSR or Authorized User gathers all the required attributes.

[**9.2**](#_Business_Process_Model_6) **Populate Required Data, Eff. Date/Time of Attaching Component to Asset Group: Attach Component**

**Actor/Role:** CSR or Authorized User

**Description:**

The CSR or Authorized User enters the required effective date and time of attaching the Component to the Asset.

**Note:** For pre-assembled meters where components are attached to meter before installation, Asset(Device) should be in ‘In-Store’ Status.

Component can also be attached to installed device. In this case, Device serves as the primary device and component is not linked to the service point.

[**9.3**](#_Business_Process_Model_6) **Request Attach Component to Asset Group: Attach Component**

**Actor/Role:** CSR or Authorized User

**Description:**

The CSR or Authorized User request to attach Asset (Component) to Asset (Device)

[**9.4**](#_Business_Process_Model_6) **Evaluate Eligibility to Attach Component to Asset (Device) Group: Attach Component**

A**ctor/Role:** CCS(MDM)

**Description:**

CCS(MDM) checks if the component is a valid attachment to the device Asset type

**Process Plug-in enabled (Y/N)**  **Available Algorithm(s):**

|  |
| --- |
| W2-CMPATTVLD (Communication Component Enter Attached Validation) |

**Configuration required Y Entities to Configure:**

|  |
| --- |
| Asset Type |
| Component Type |
| Template Asset |
| W1-StorageLocationType |
| W1-StorageLocation |

[**9.5**](#_Business_Process_Model_6) **Update Asset(Component) Status to Attached and Update Disposition Group: Attach Component**

**Actor/Role:** CCS(ODM)

**Description:**

CCS(ODM) transitions the asset status to Attached and updates disposition location accordingly

**Process Plug-in enabled (Y/N)**  **Available Algorithm(s):**

|  |
| --- |
| W2-CMPATTVLD (Communication Component Enter Attached Validation) |

**Business Object (Y/N) Business Object**

|  |
| --- |
| W2-CommunicationComponent |
| W1-ComponentType |

**Configuration required Y Entities to Configure:**

|  |
| --- |
| Extendable Lookup (Asset/Device Status) |
| Asset Type |
| Component Type |
| Template Asset |
| W1-StorageLocationType |
| W1-StorageLocation |

## Test Assets related to the Current Process

| Testing Asset Sr.No | Testing Asset-Flows | No Of Data sets |
| --- | --- | --- |
|  |  |  |
| 1 | URM-CCS-5631-001-Create-Manual-Asset-In-Receipt-Status | 3 |
| 2 | URM-CCS-5631-002-Create-Manual-Asset-In-Store-Status | 3 |
| 3 | URM-CCS-5631-003-Create-Manual-Asset-In-Rejected-Status | 3 |
| 4 | URM-CCS-5631-004-Update-Asset-Only-DevConfig-And-MC-Update-Not-Required | 2 |
| 5 | URM-CCS-5631-005-Update-Asset-And-DevConfig-Only-MC-Update-Not-Required | 2 |
| 6 | URM-CCS-5631-006-Update-Asset-DevConfig-And-MC | 2 |
| 7 | URM-CCS-5631-007-Create-Smart-Device-Asset-InReceipt-Status | 2 |
| 8 | URM-CCS-5631-008-Create-Smart-Device-Asset-InStore-Status | 2 |
| 9 | URM-CCS-5631-009-Create-Smart-Device-In-Rejected-Status | 2 |
| 10 | URM-CCS-5631-010-Update-Smart-Asset-DevConfig-And-MCUpdate-Not-Required | 2 |
| 11 | URM-CCS-5631-011-Update-Smart-Electric-Asset-And-DevConfig-Only-MCUpdate-Not-Required | 2 |
| 12 | URM-CCS-5631-012-Update-Smart-Asset-DevConfig-And-MC | 2 |
| 13 | URM-CCS-5631-013-Create-Item-Asset-InReceipt-Status | 2 |
| 14 | URM-CCS-5631-014-Create-Item-Asset-InStore-Status | 2 |
| 15 | URM-CCS-5631-015-Create-Item-Asset-InRejected-Status | 2 |
| 16 | URM-CCS-5631-016-Update-Item-Asset-DevConfig-And-MCUpdate-Not-Applicable | 2 |
| 17 | URM-CCS-5631-017-Create-Component-Asset-InReceipt-Status | 3 |
| 18 | URM-CCS-5631-018-Create-Component-Asset-InStore-Status | 3 |
| 19 | URM-CCS-5631-019-Create-Component-Asset-InRejected-Status | 3 |
| 20 | URM-CCS-5631-020-Update-Component-Asset-DevConfig-And-MCUpdate-Not-Applicable | 2 |

## Document Control

**Change Record**

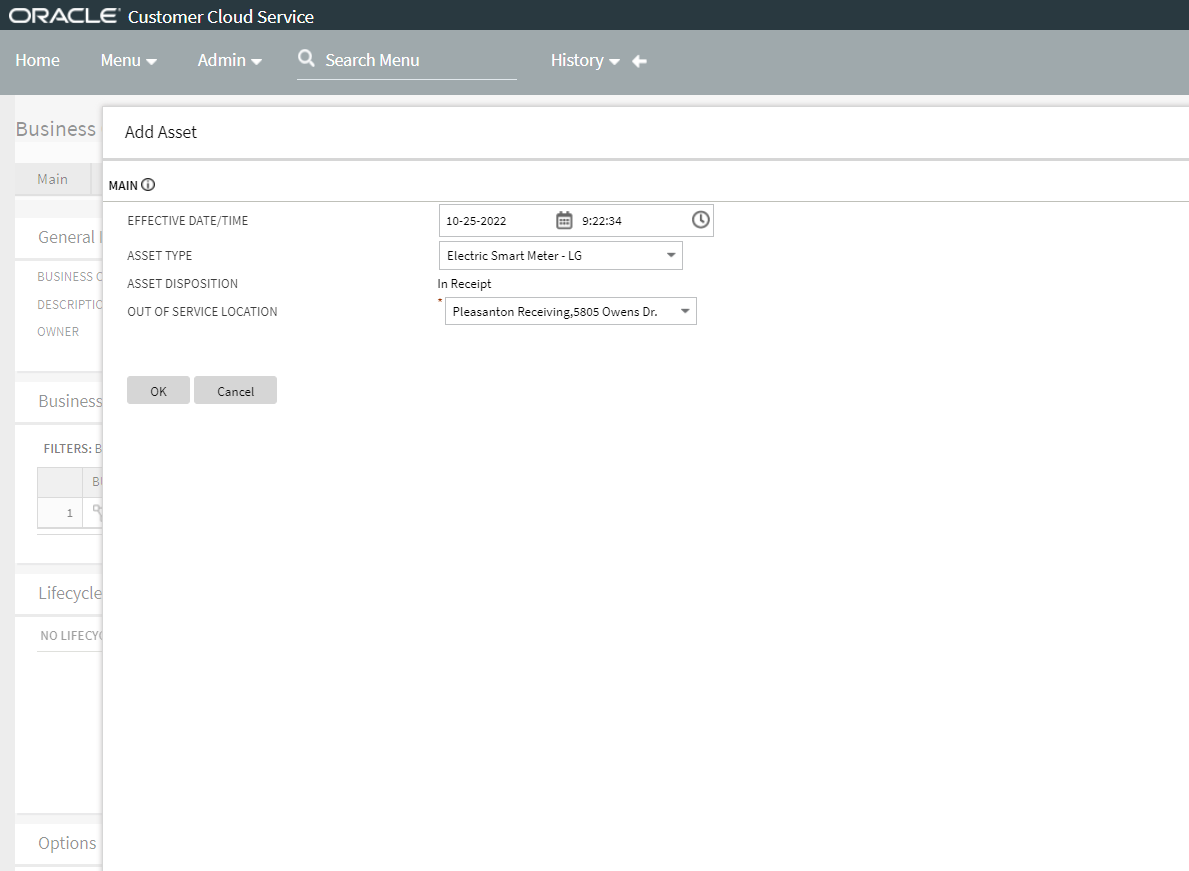
65

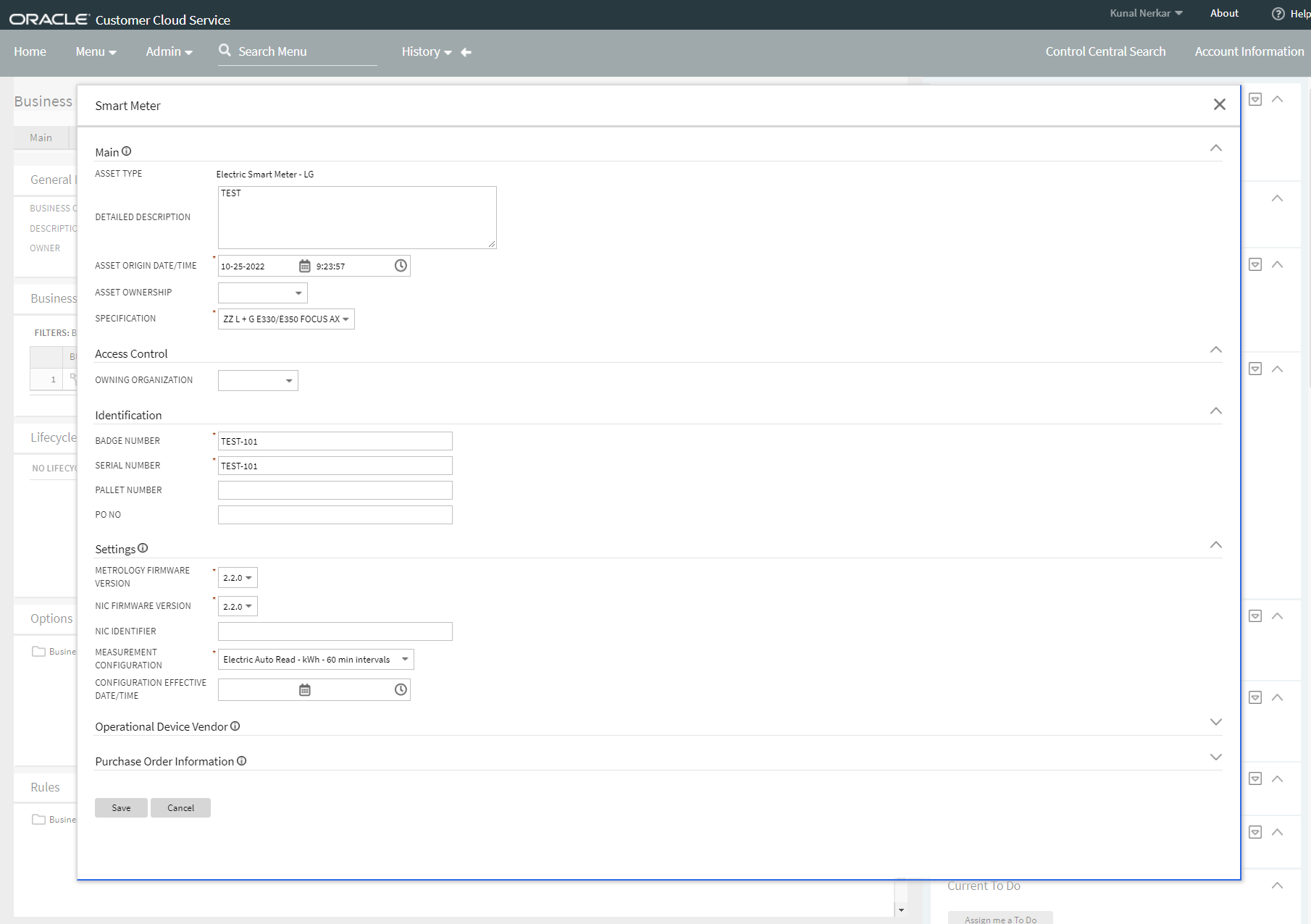
| Date | Author | Version | Change Reference |
| --- | --- | --- | --- |
|  |  |  |  |
| 7/26/2019 | Don Lee | 1 | Initial draft |
| 9/18/2019 | Satya Kalavala | 2 | Initial draft updated |
| 9/24/2019 | Satya Kalavala | 3 | Updates to previous version |
| 9/25/2019 | Jerry Chick | 4 | Various grammatical and syntax corrections |
| 10/10/2019 | Galina Polonsky |  | Reviewed, approved |
| 10/05/2020 | Anosh Mehdi | 5 | Updates to previous version |
| 30/05/2020 | Galina Polonsky |  | Reviewed, approved |
| 10/20/2024 | Kunal Nerkar |  | Revised for CCS 24B |
| 10/20/2024 | Ashish Shukla |  | Reviewed |
| 12/17/2024 | Galina Polonsky |  | Reviewed, Approved |

## Attachments:

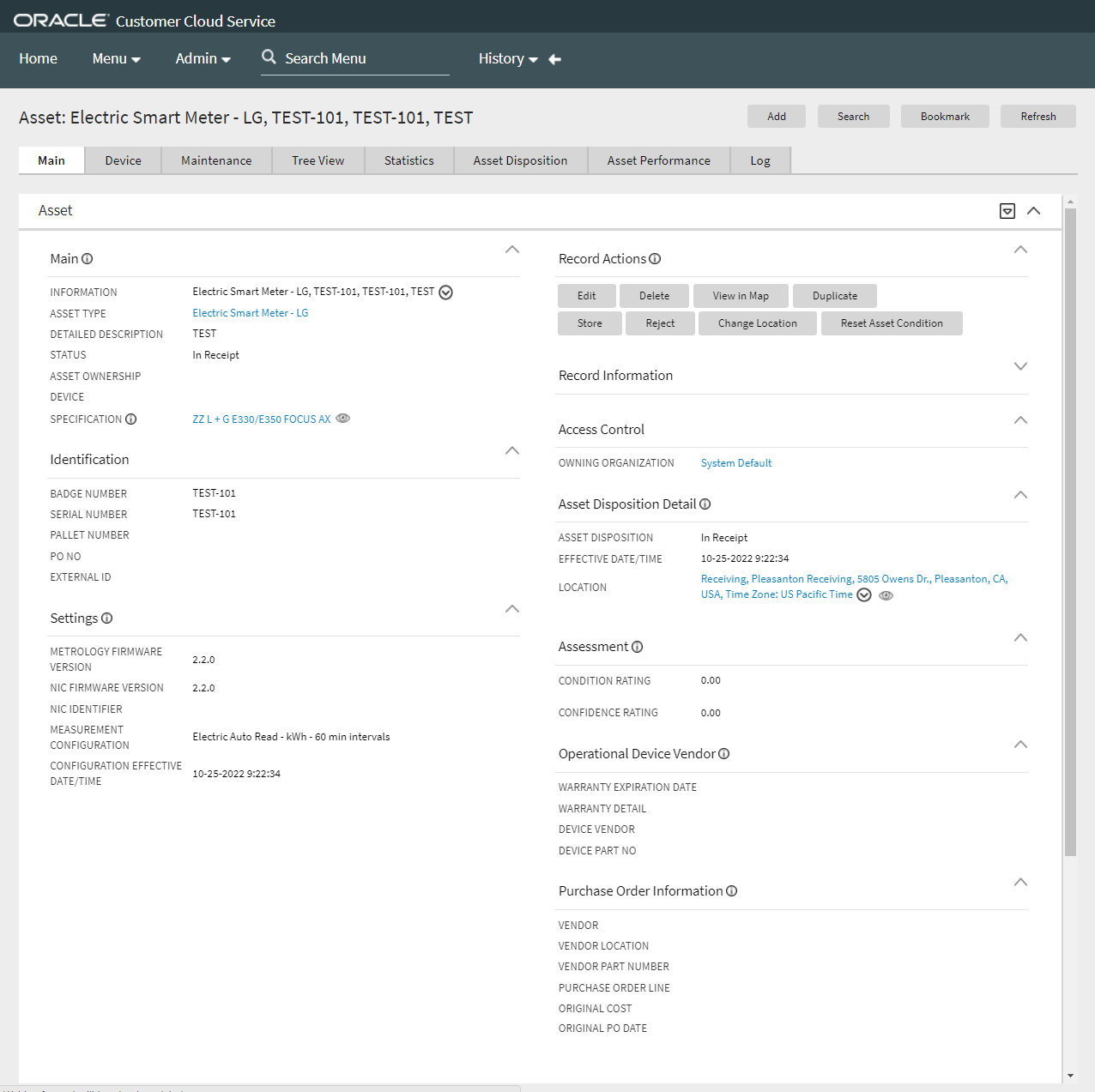
### Asset Add/Update/Delete

Add Asset:

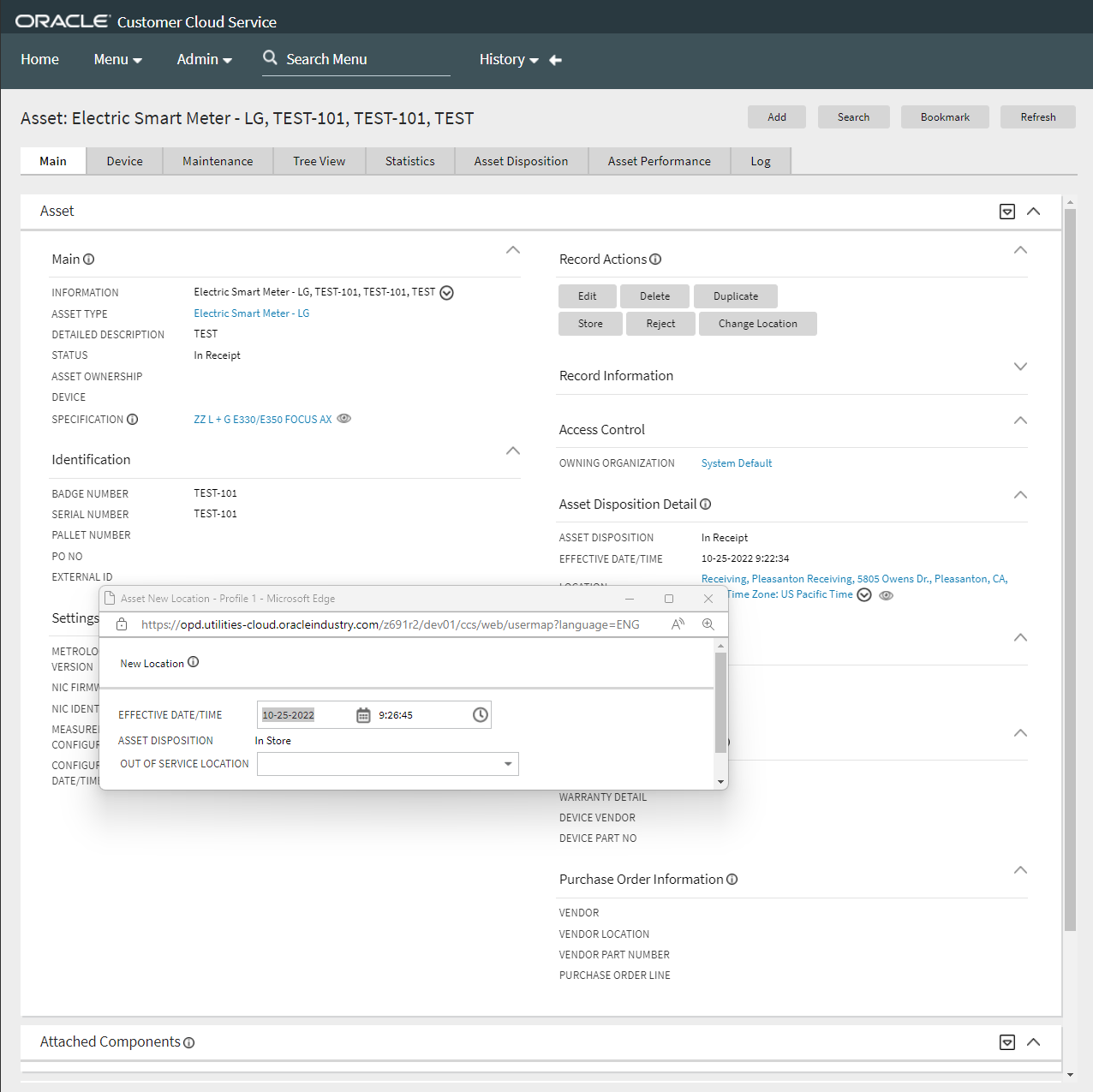


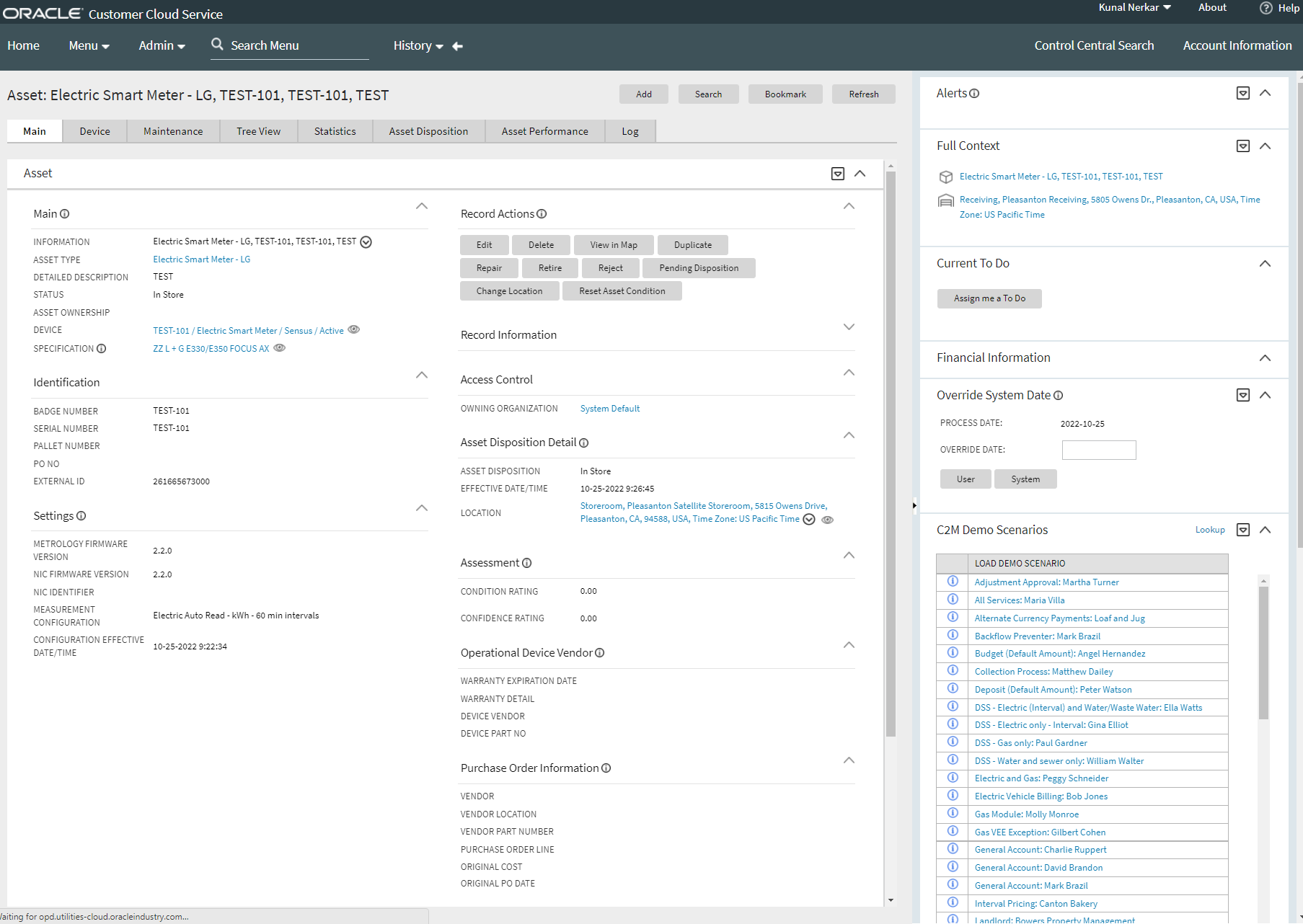


In Receipt Status

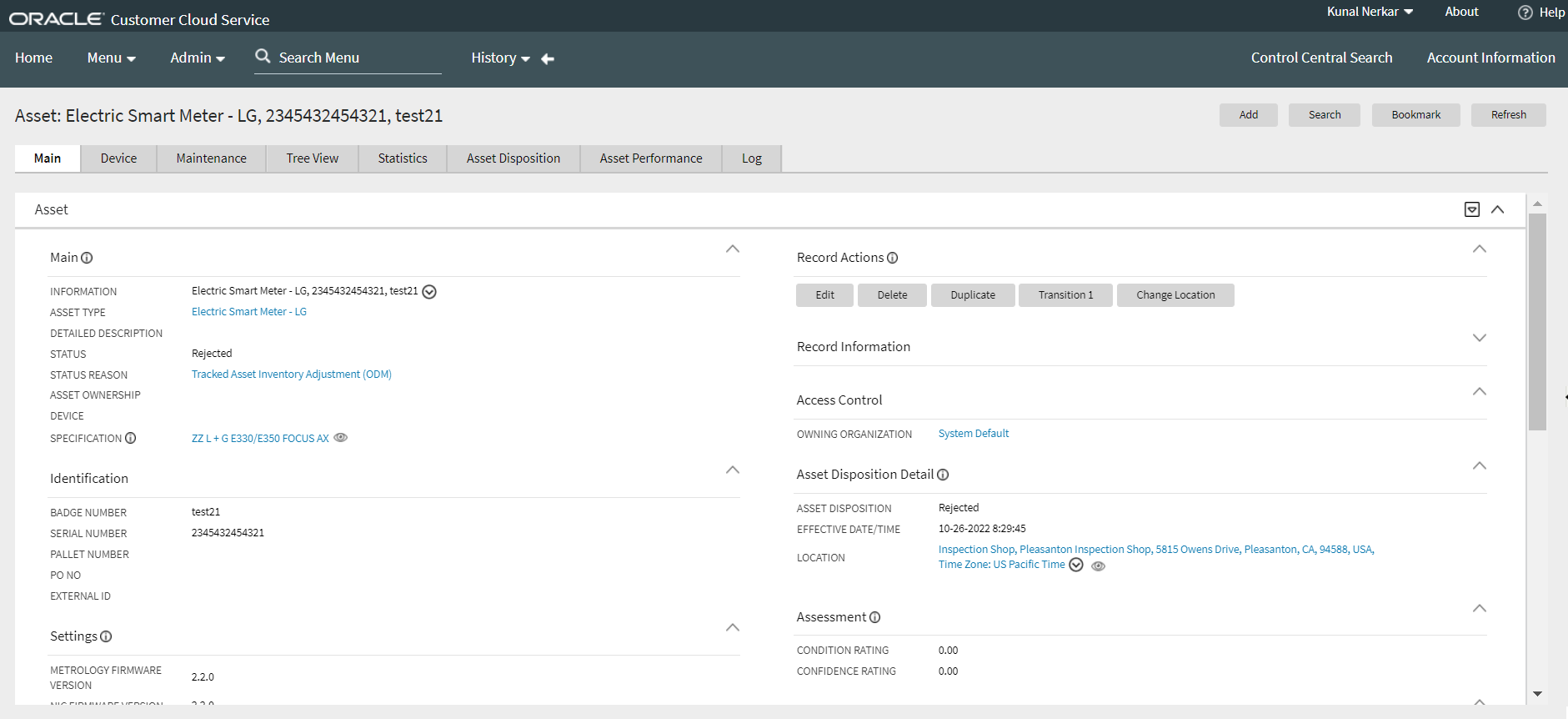


In Store Status

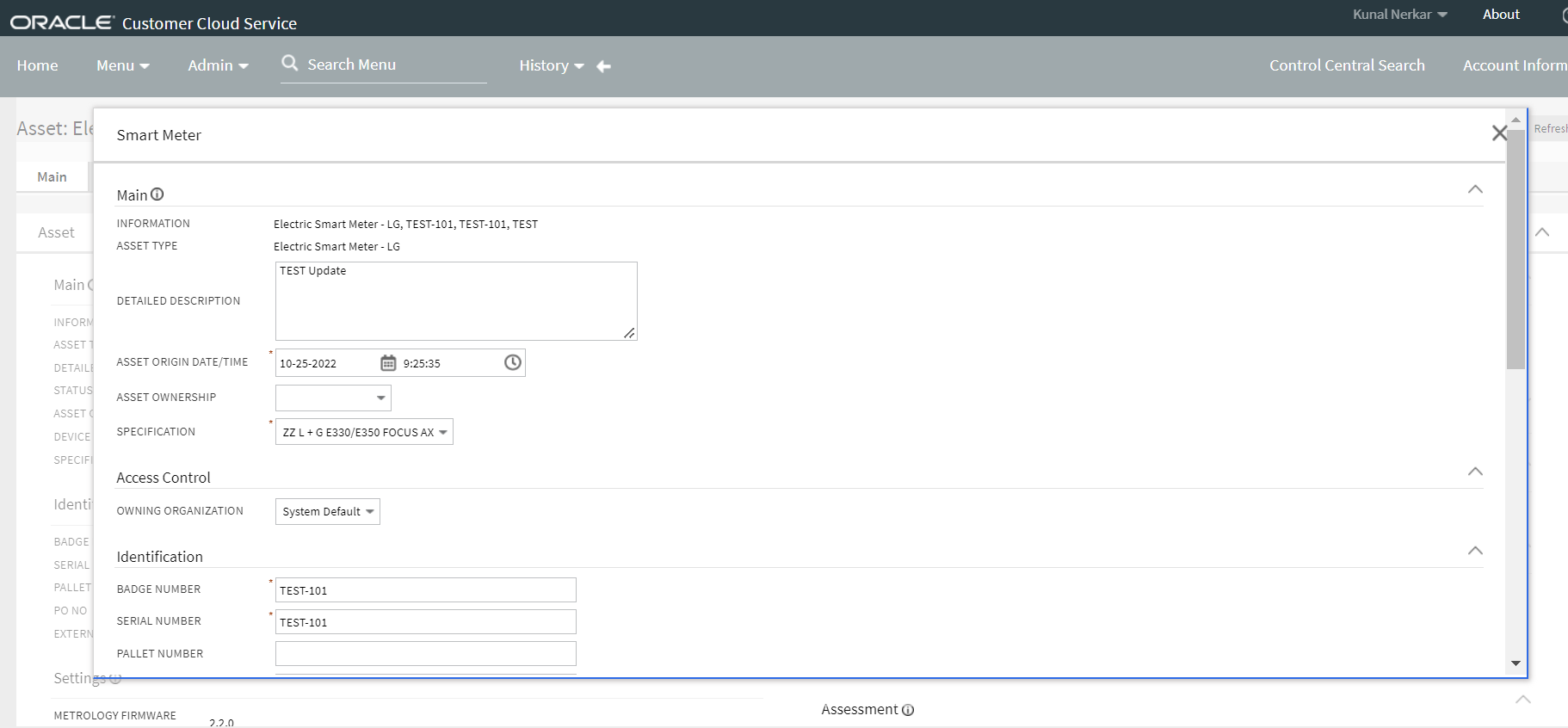


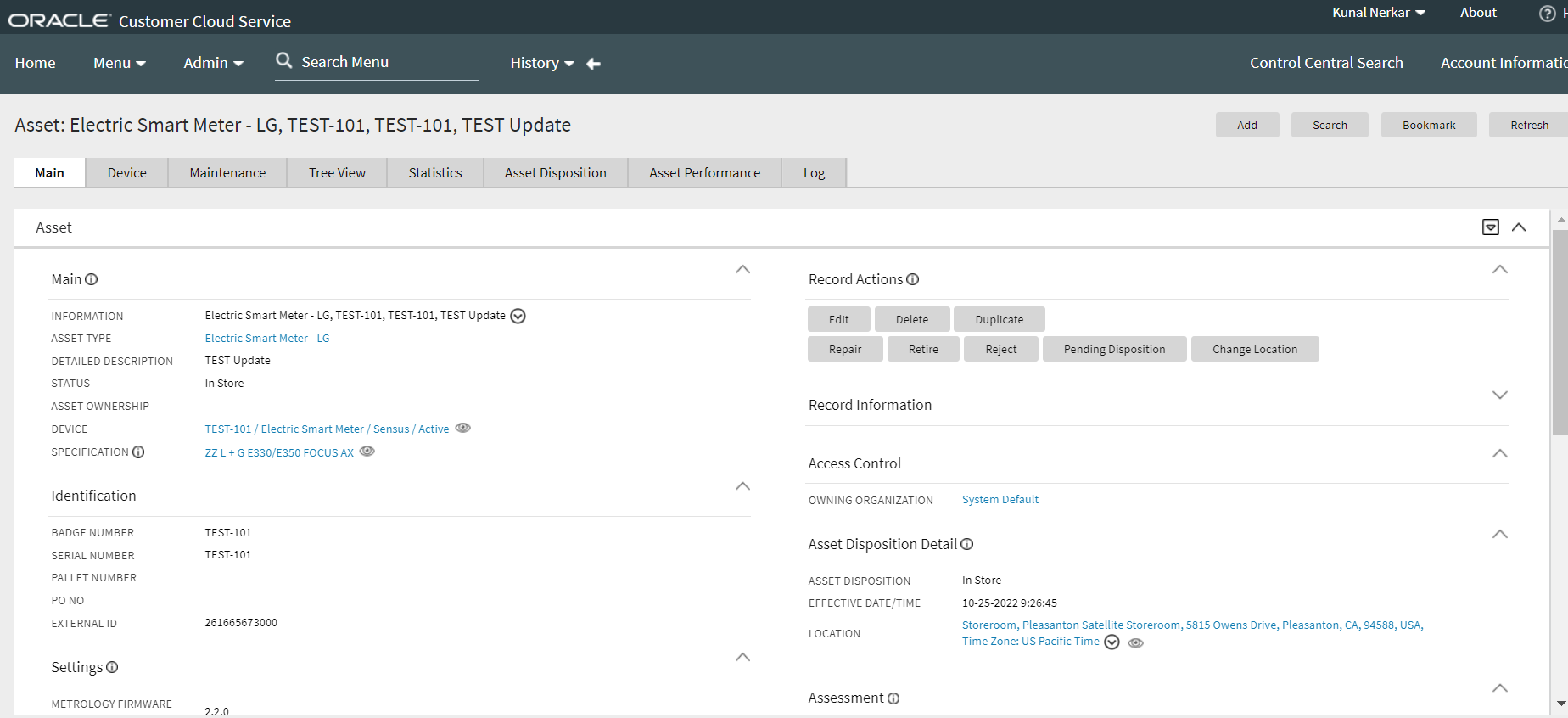


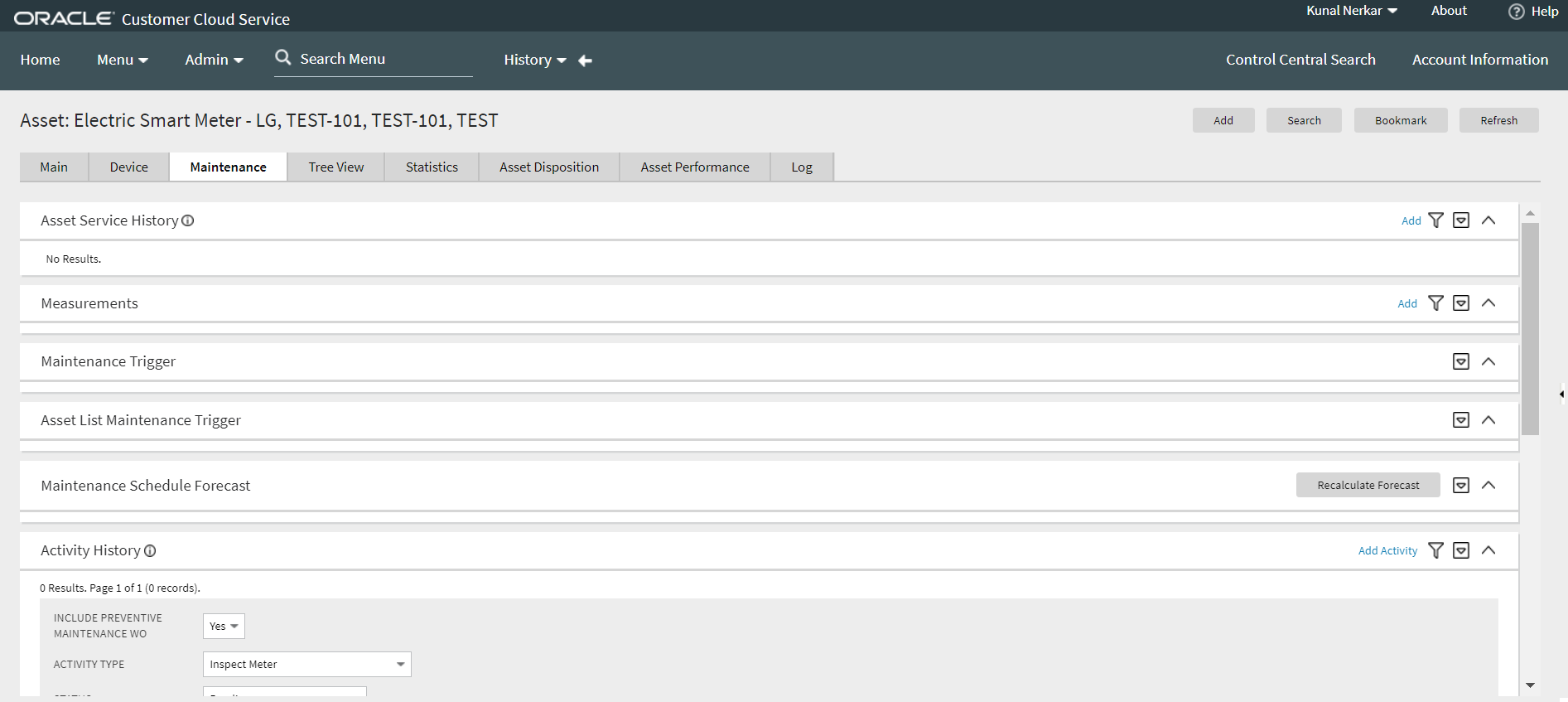
Asset Delete



Asset Update



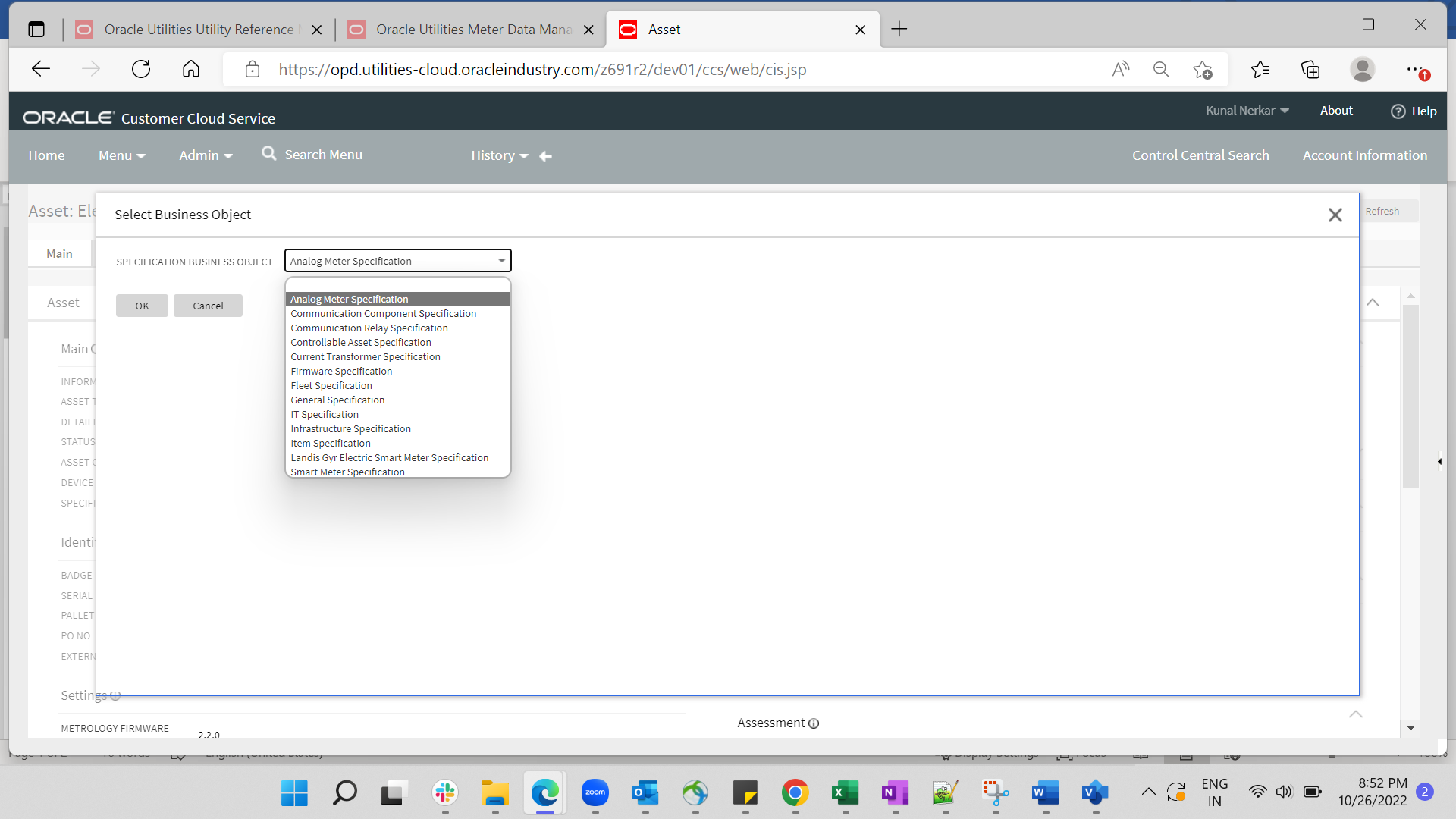




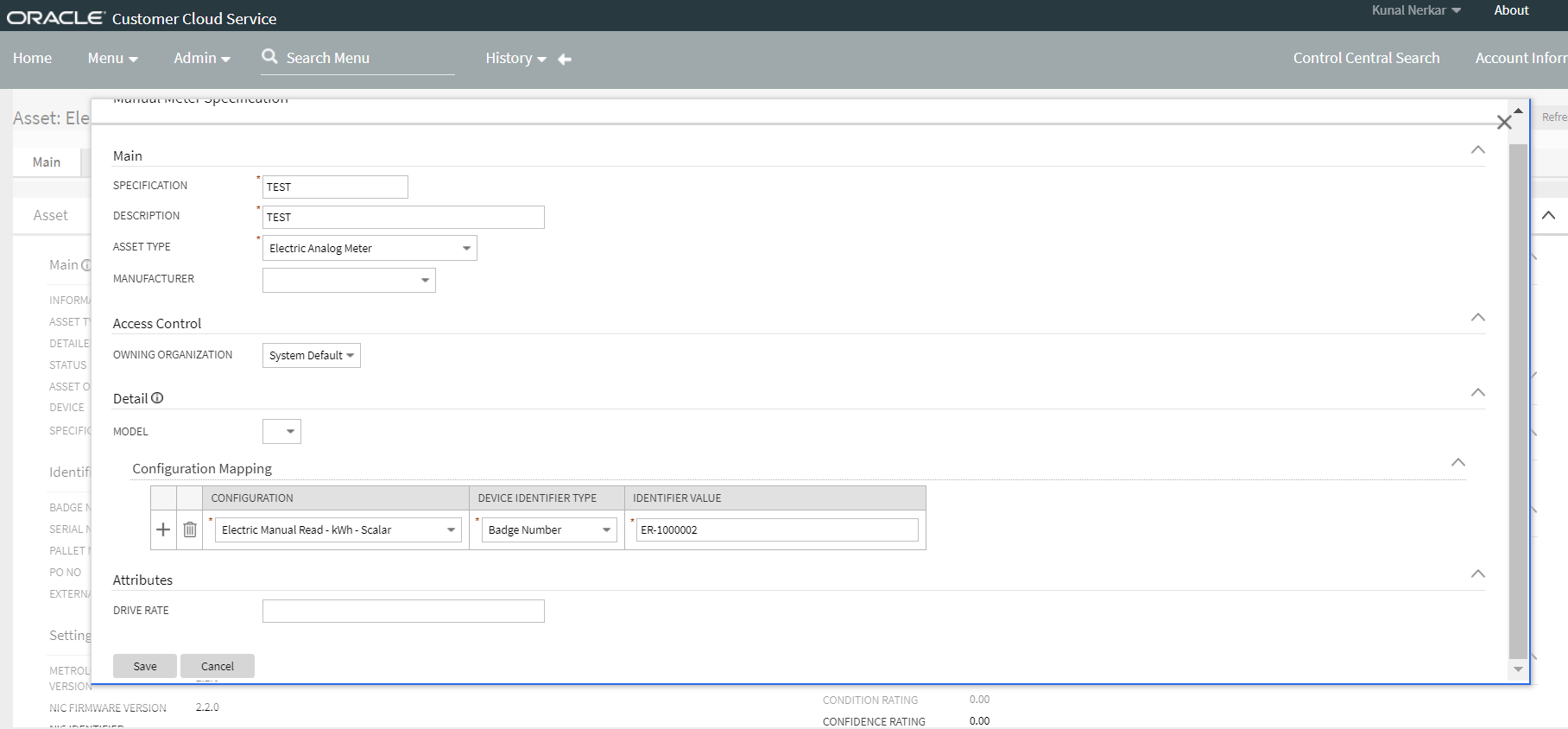
### Asset Specifications

Add Specification

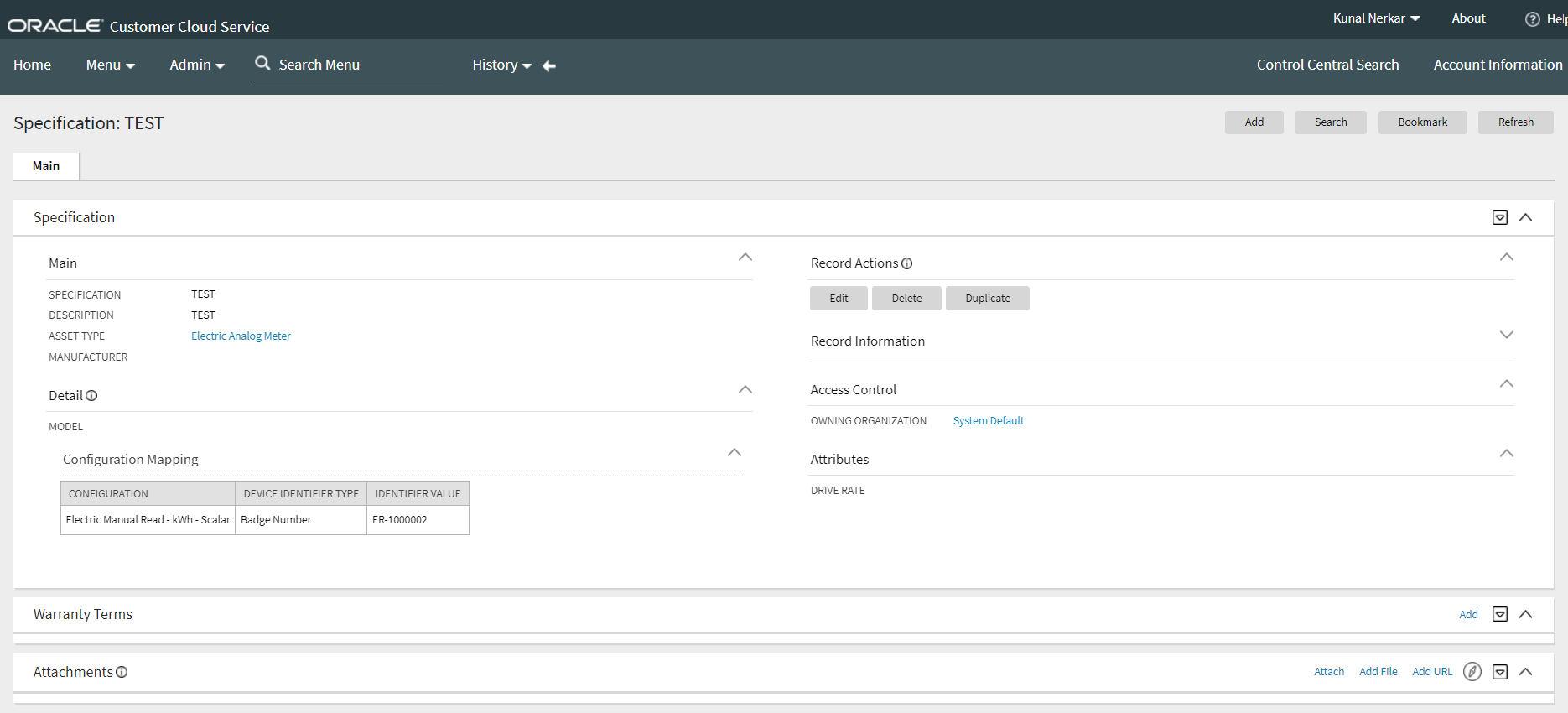
Choose Type of Specification Business Object



Label and choose Configuration from device configuration

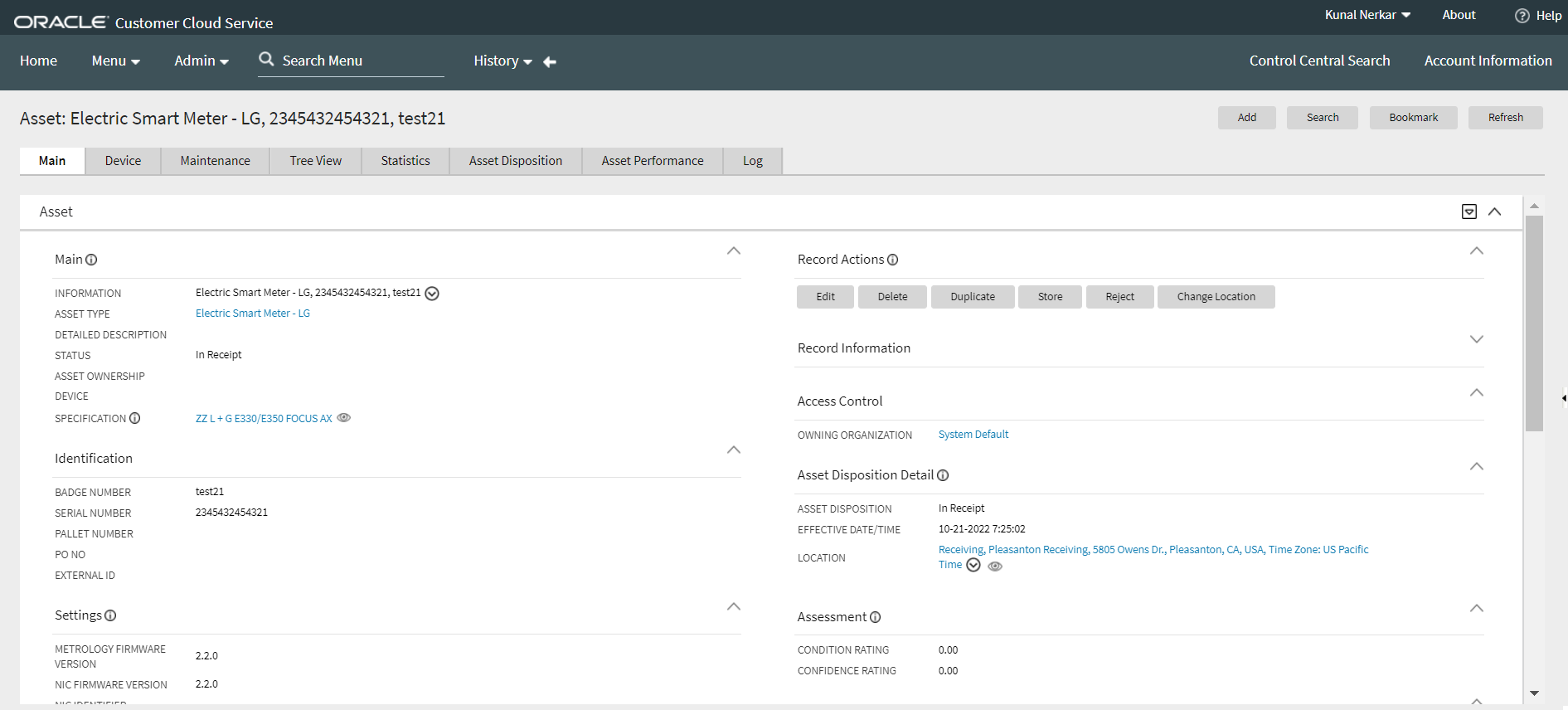


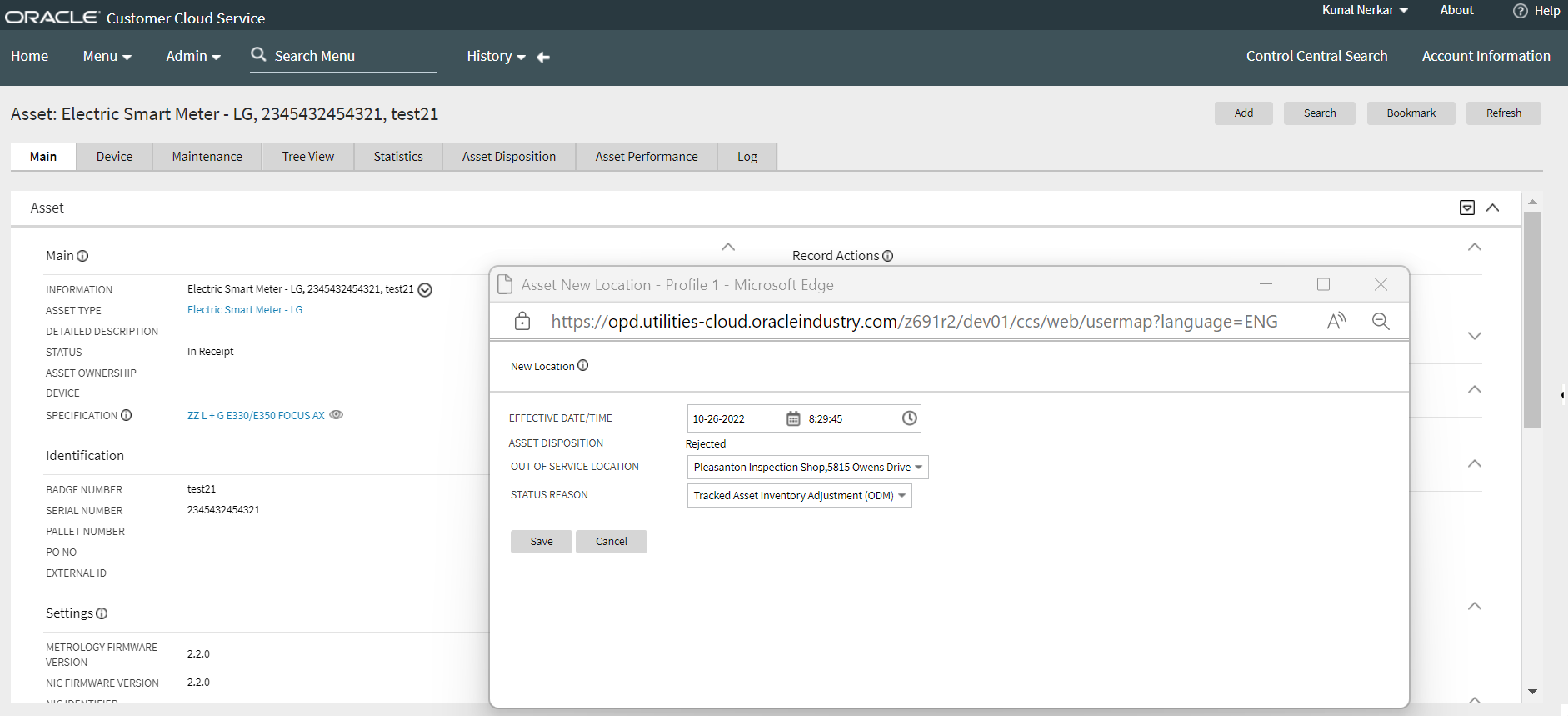
Specification



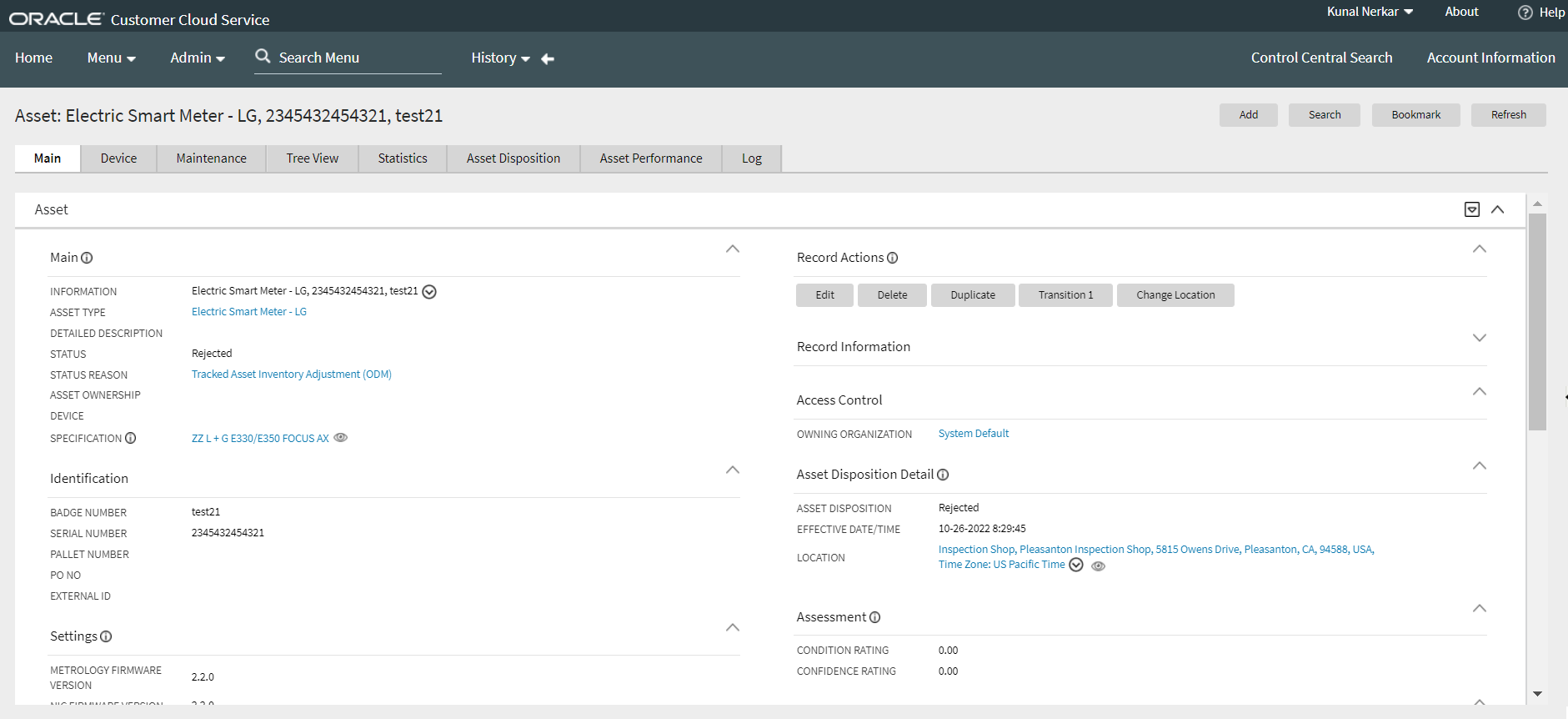
Reject Asset:

In Receipt





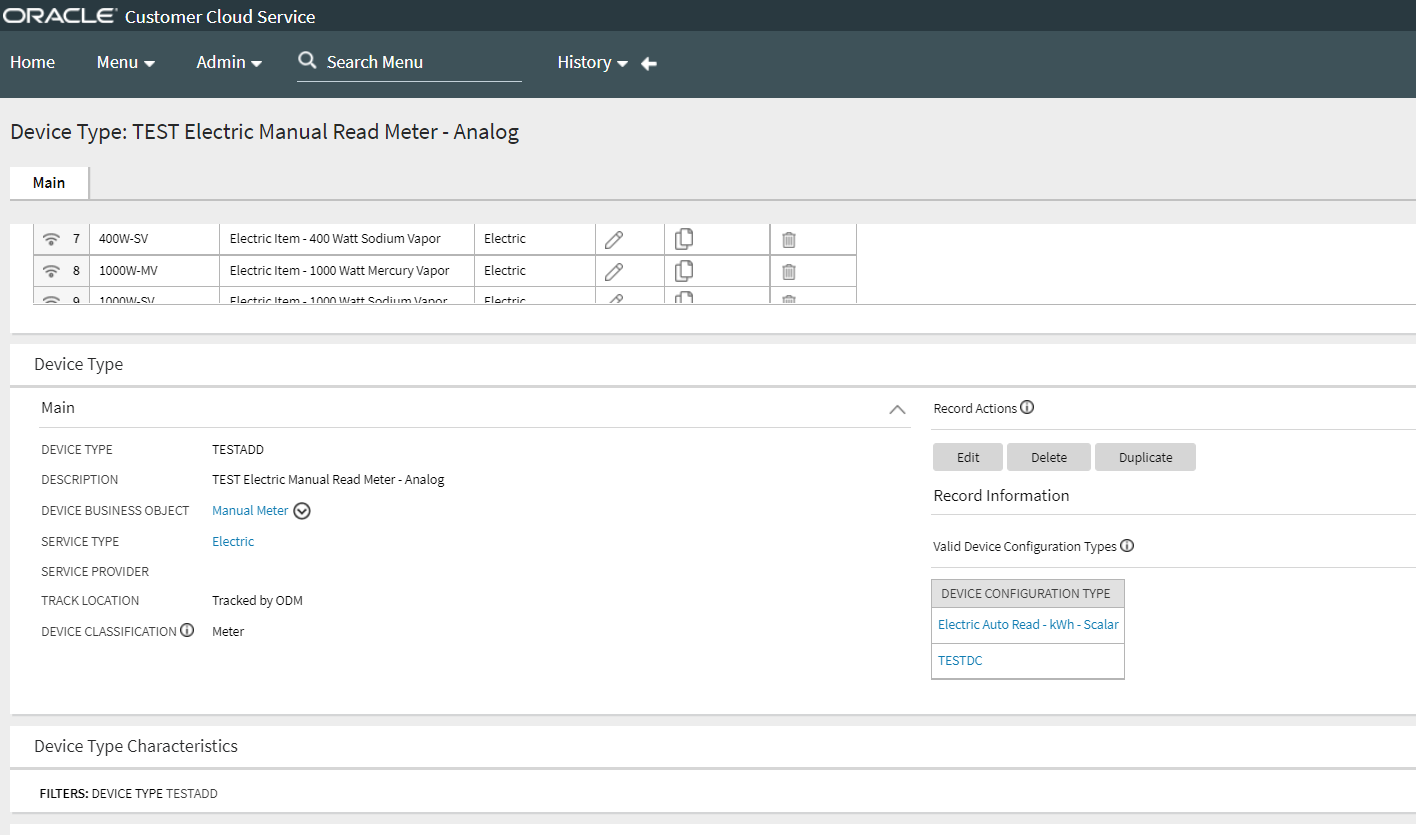
Reject:

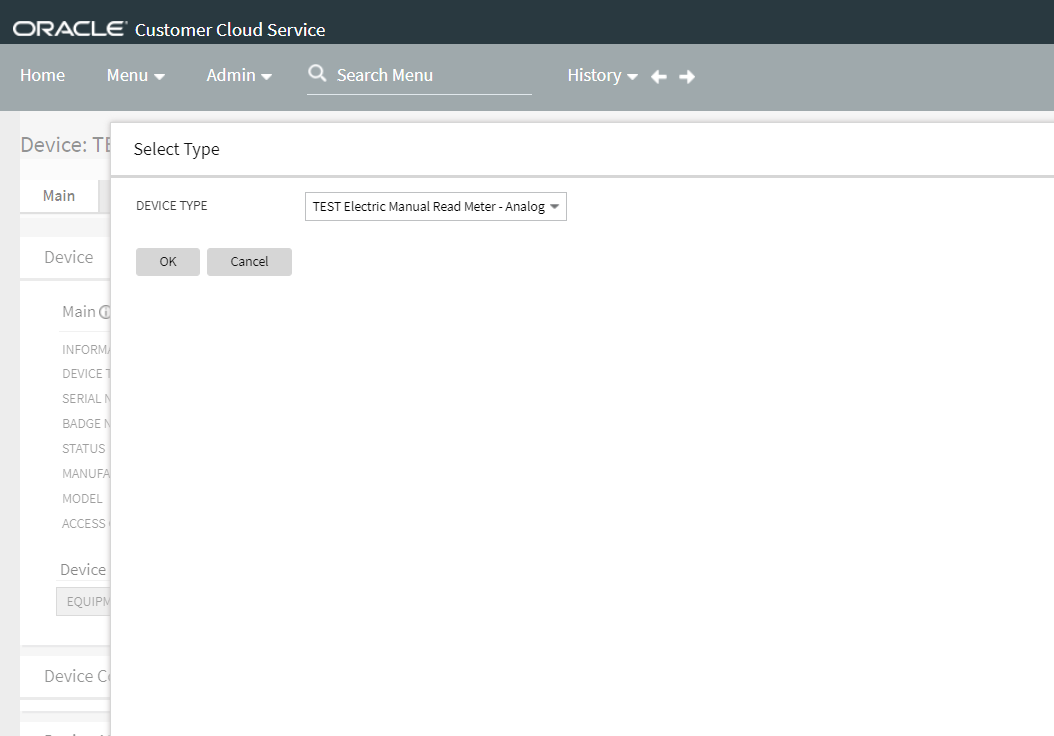


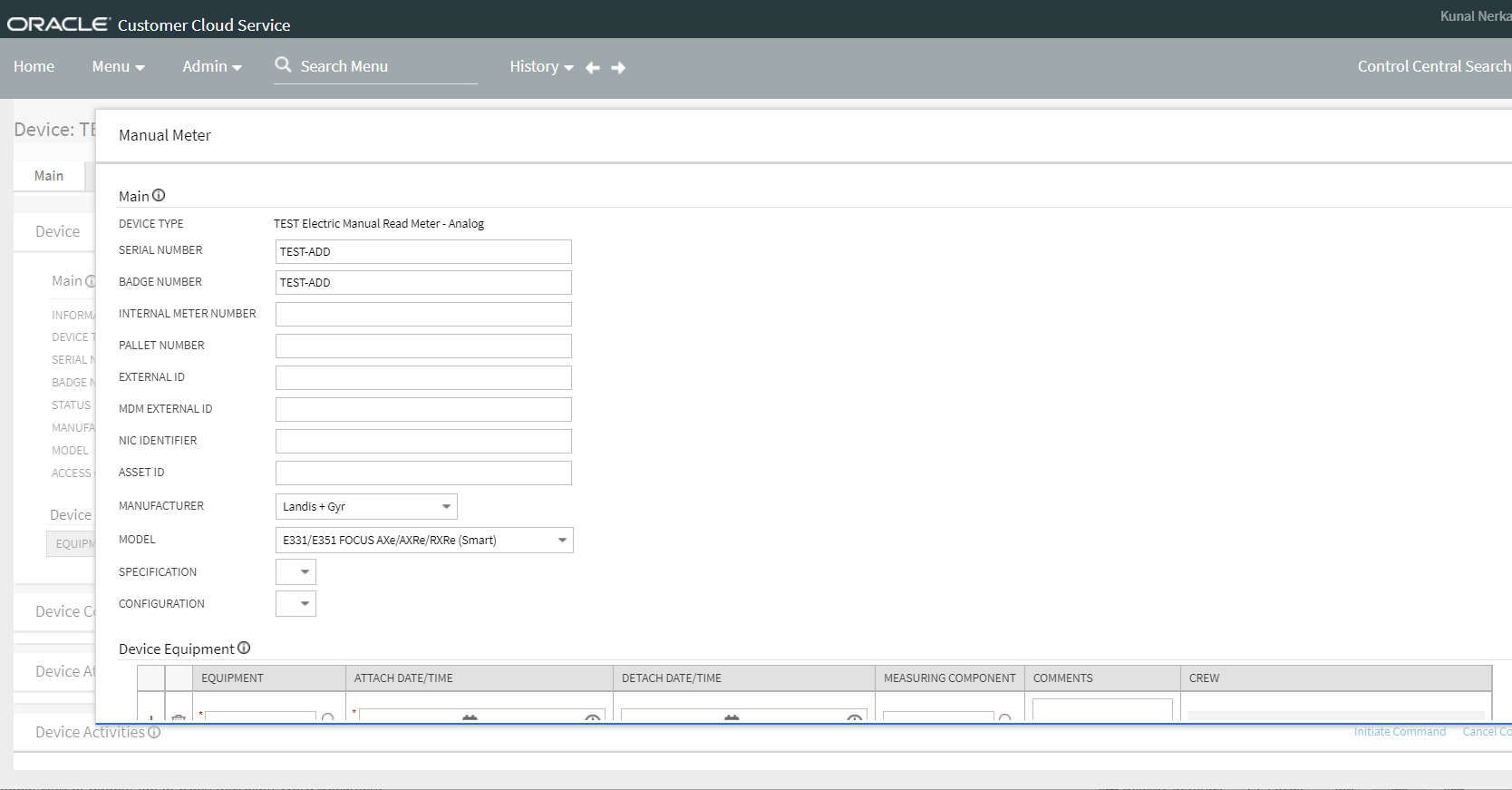
### New Device (Template)

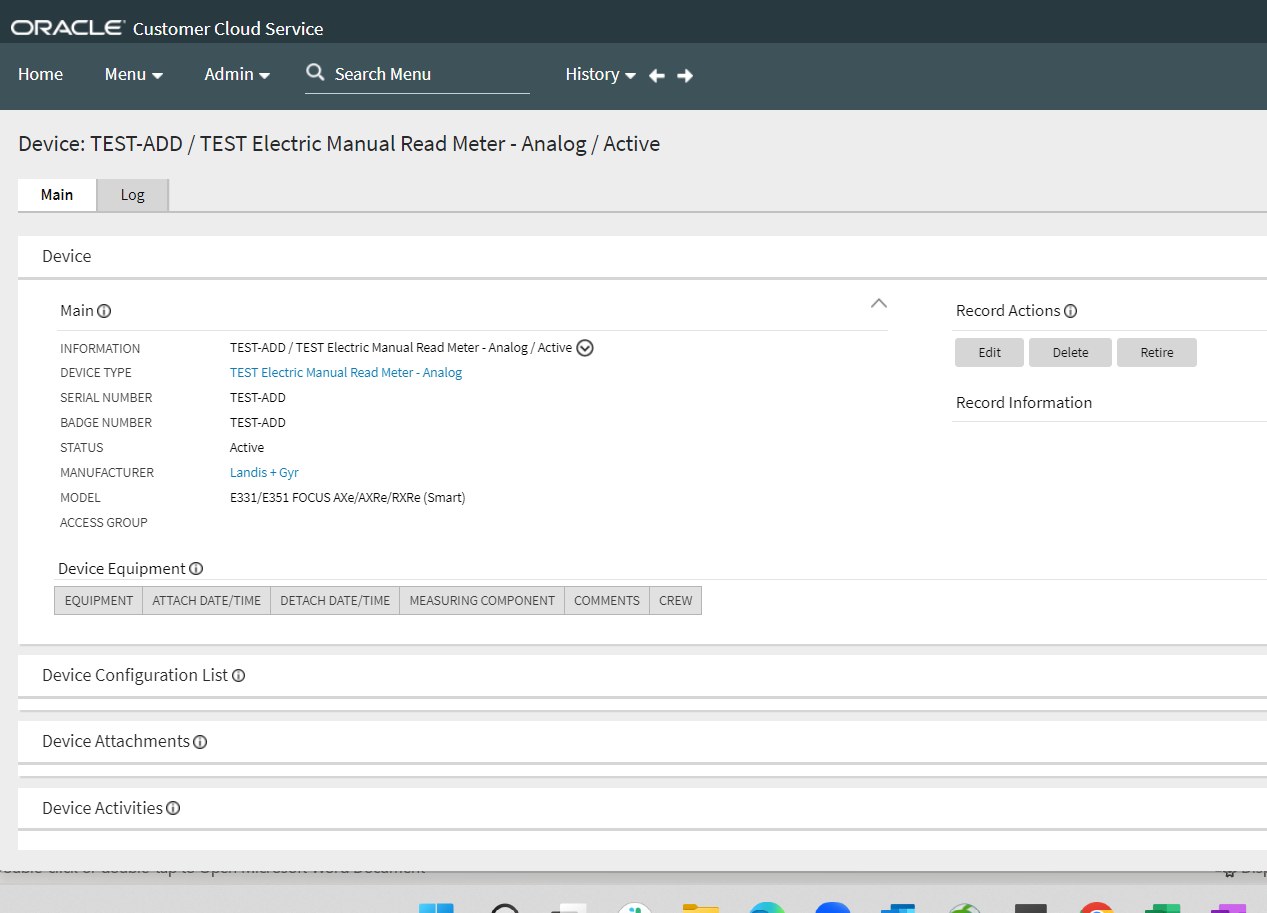
Template Device Creation

Device Add – Test-Add

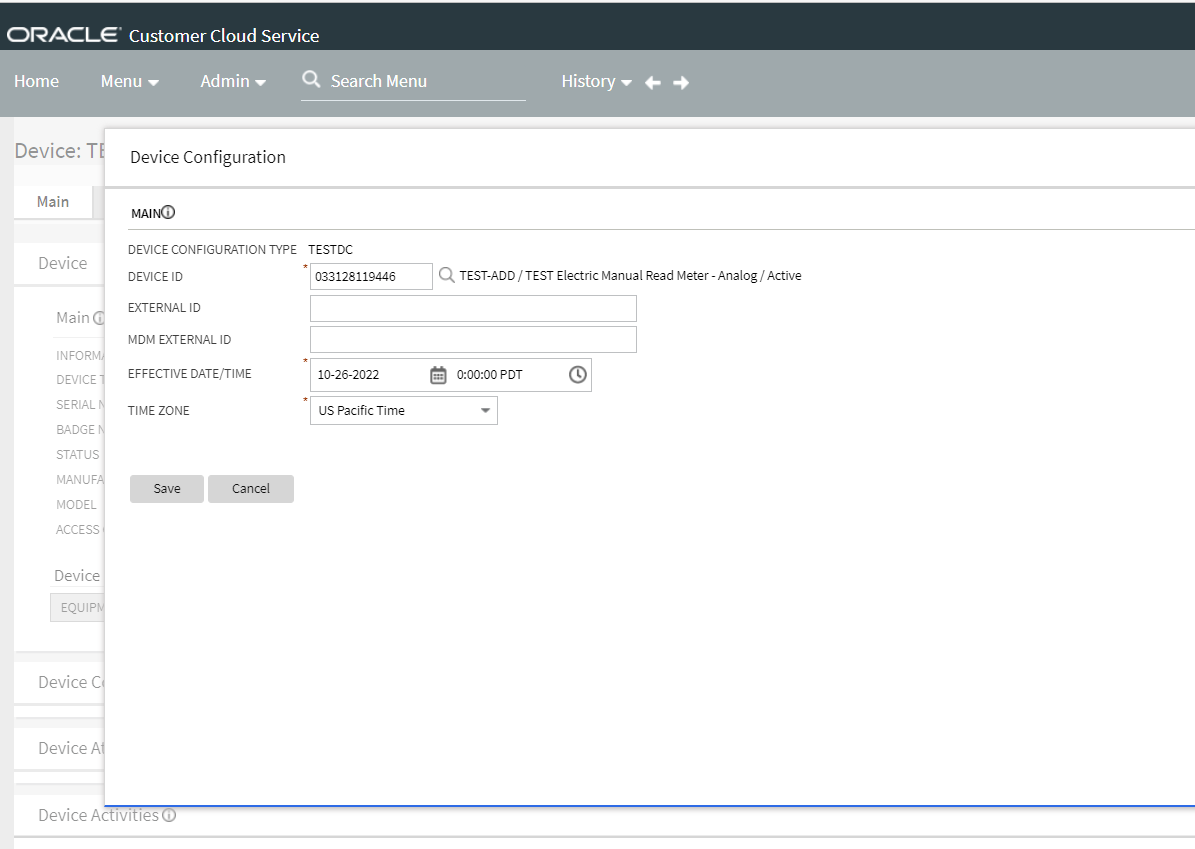




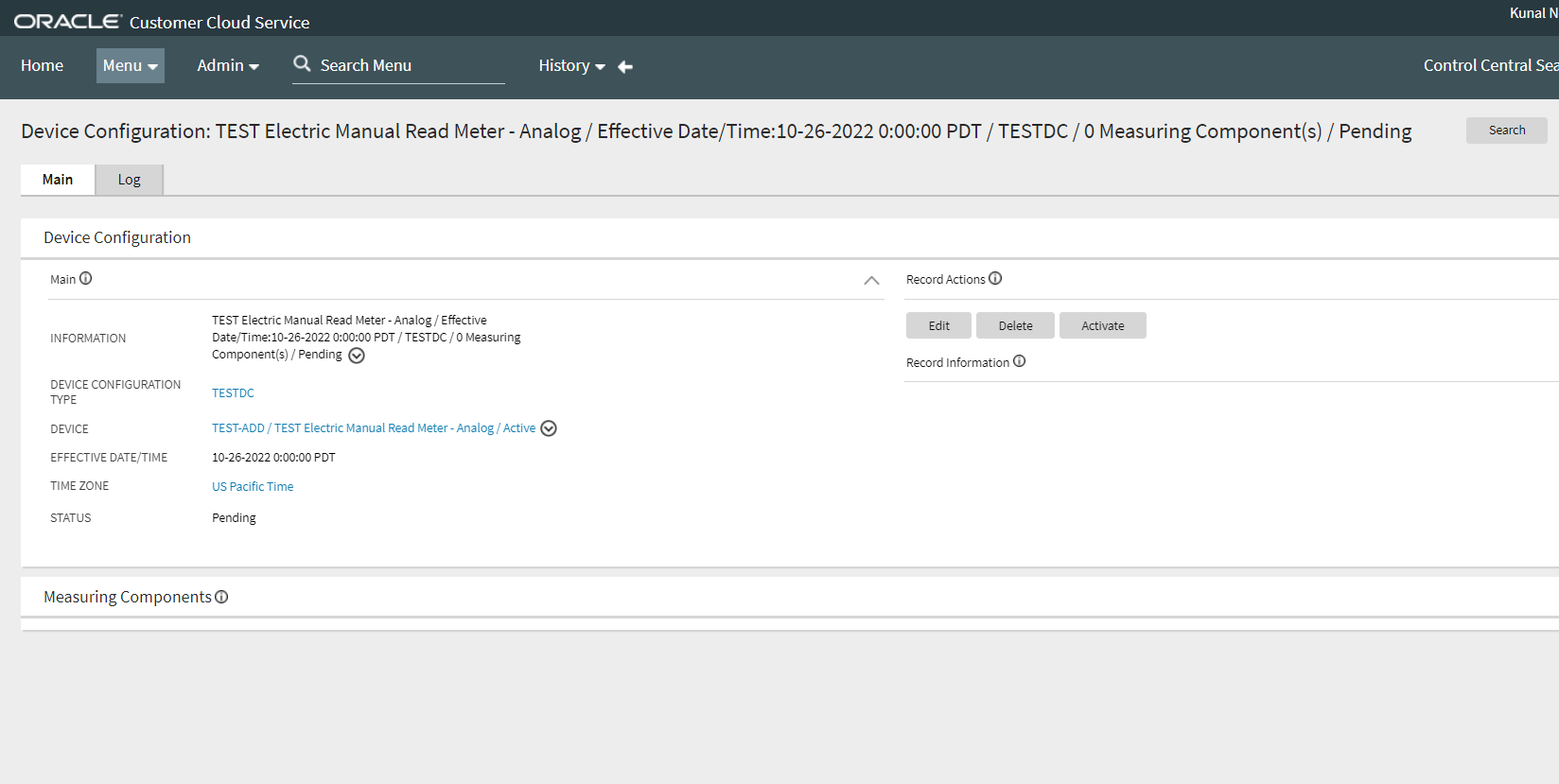




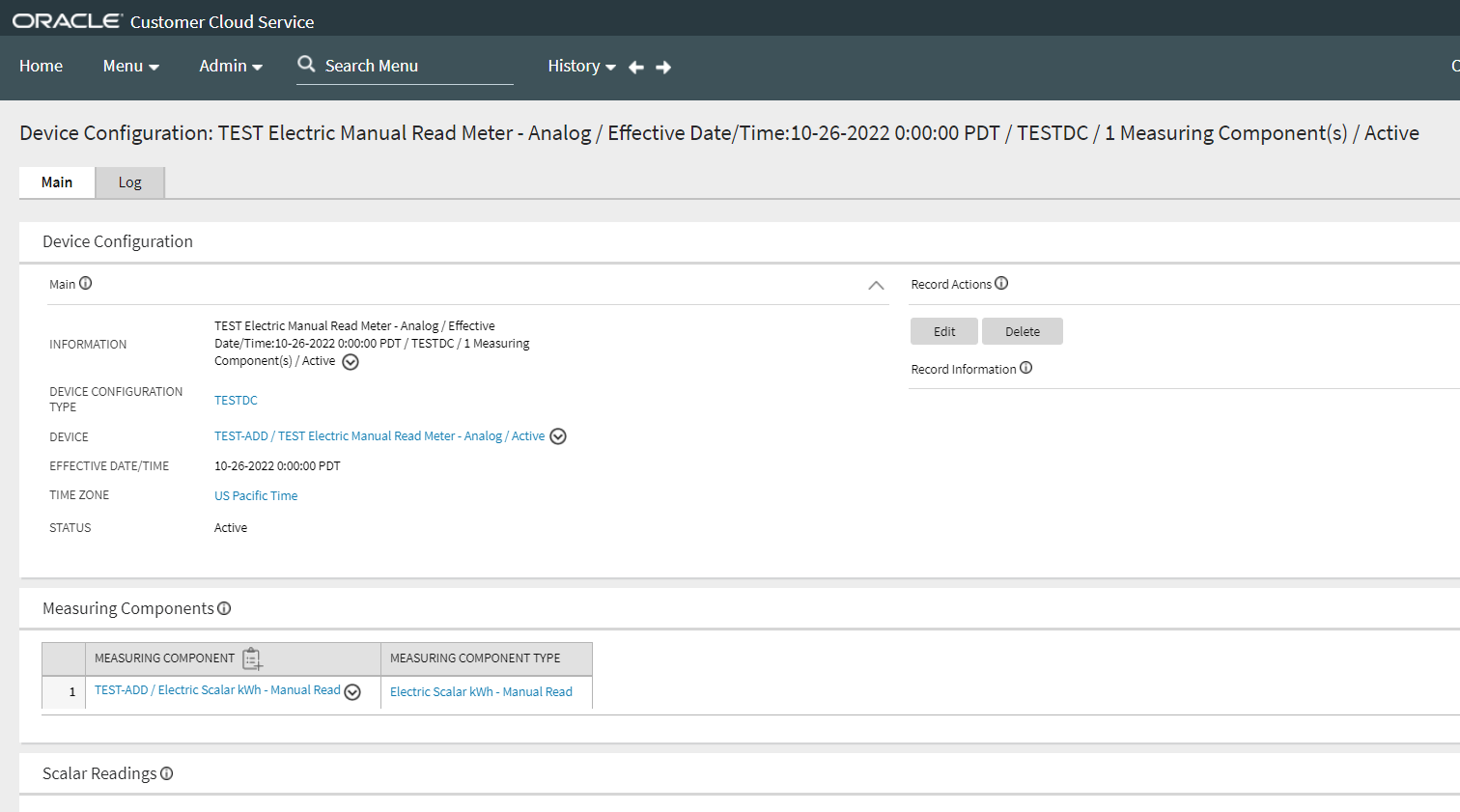
Device Configuration Add

****

Creates in Pending Status

****

Add Measuring component and Press Activate – Configuration becomes Active



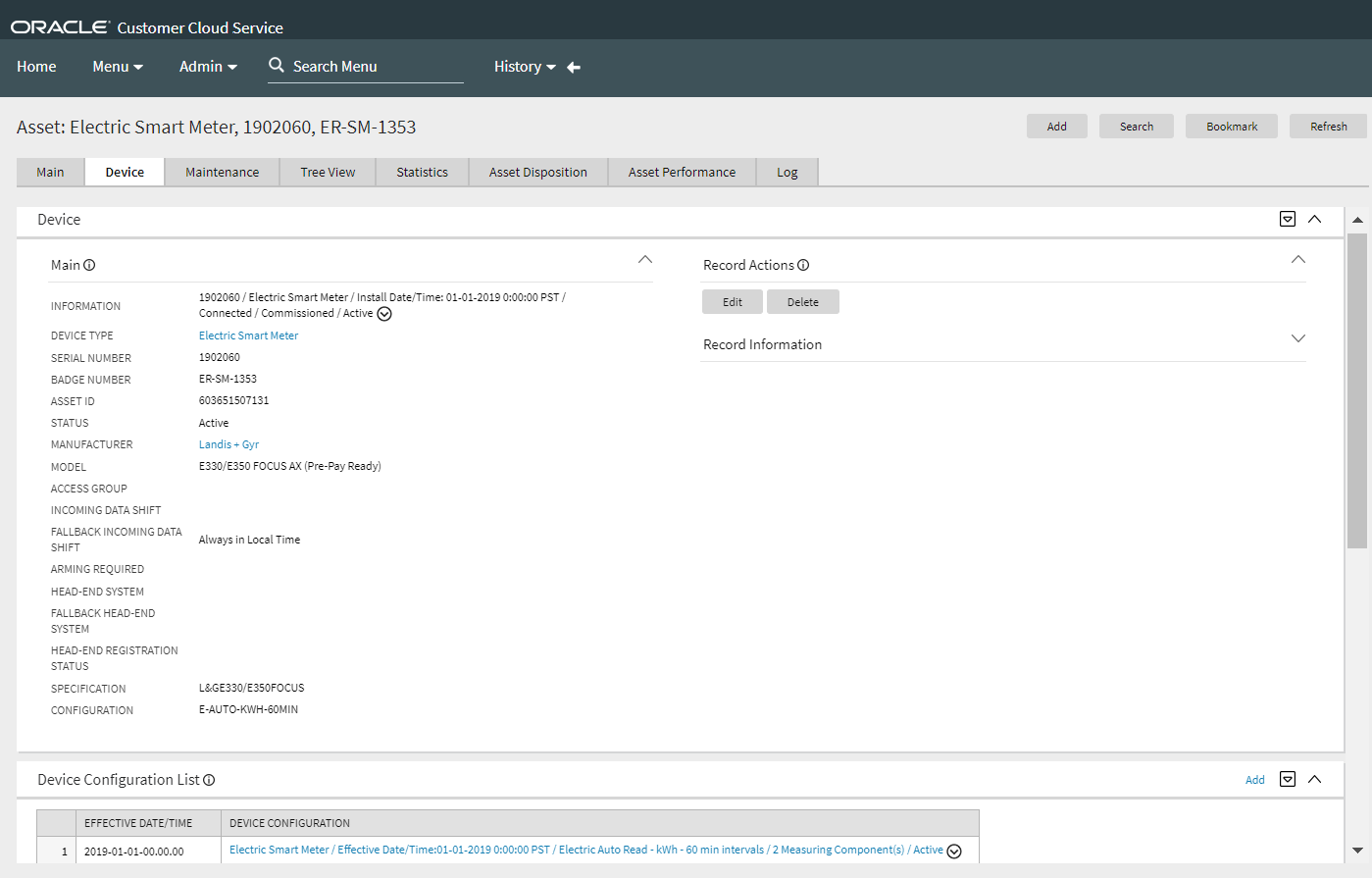
### Device

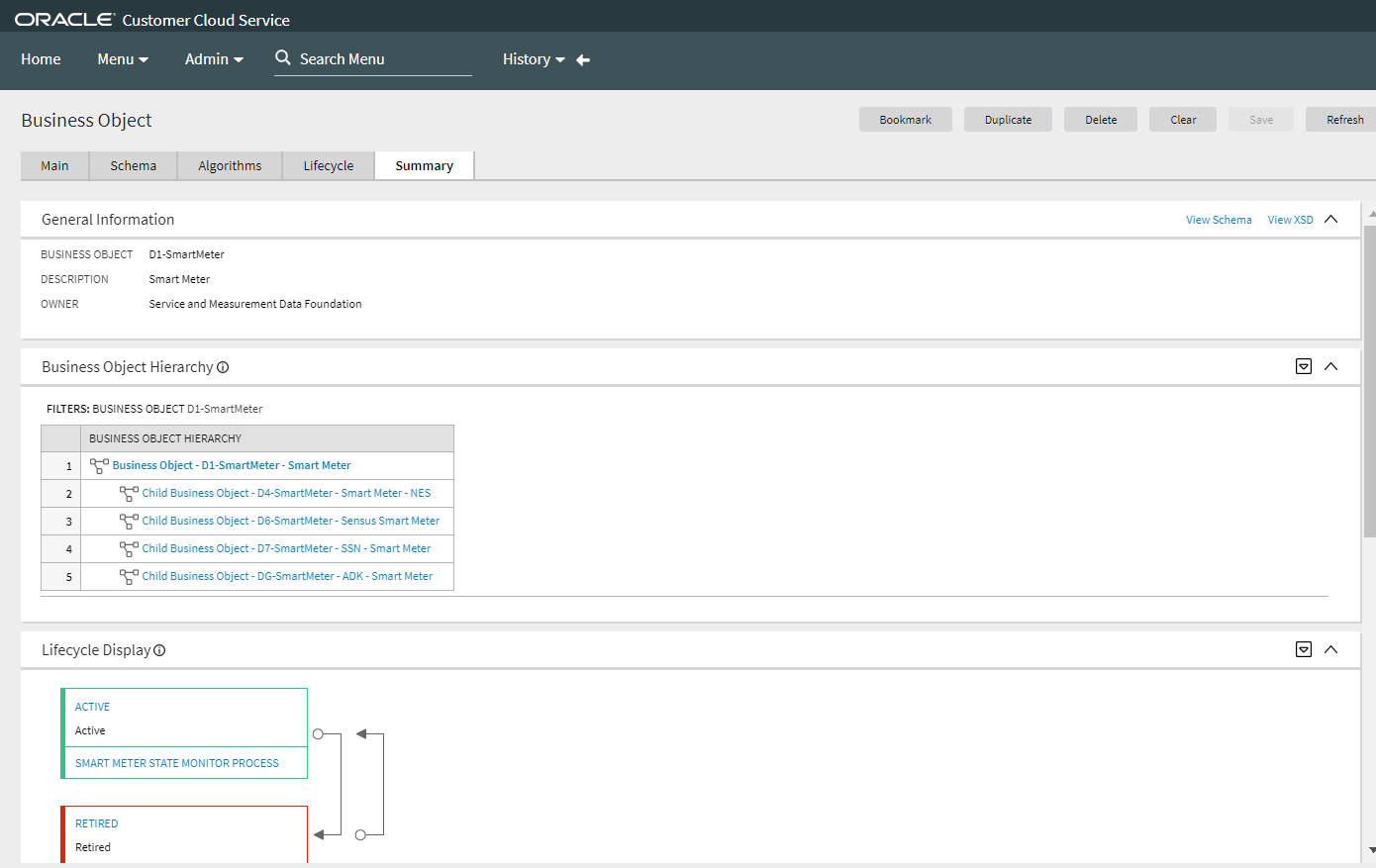
The device data could contain the following information that could be populated.

|  |
| --- |
| **DEVICE INFORMATION** |
| Device Type\* |
| Serial Number |
| Badge Number |
| External ID |
| Manufacturer |
| Model |
| Incoming Data Shift |
| Arming Required |
| Head-End System^ |

\*Required Fields

^Required when adding smart meters

Screenshot for Device – 

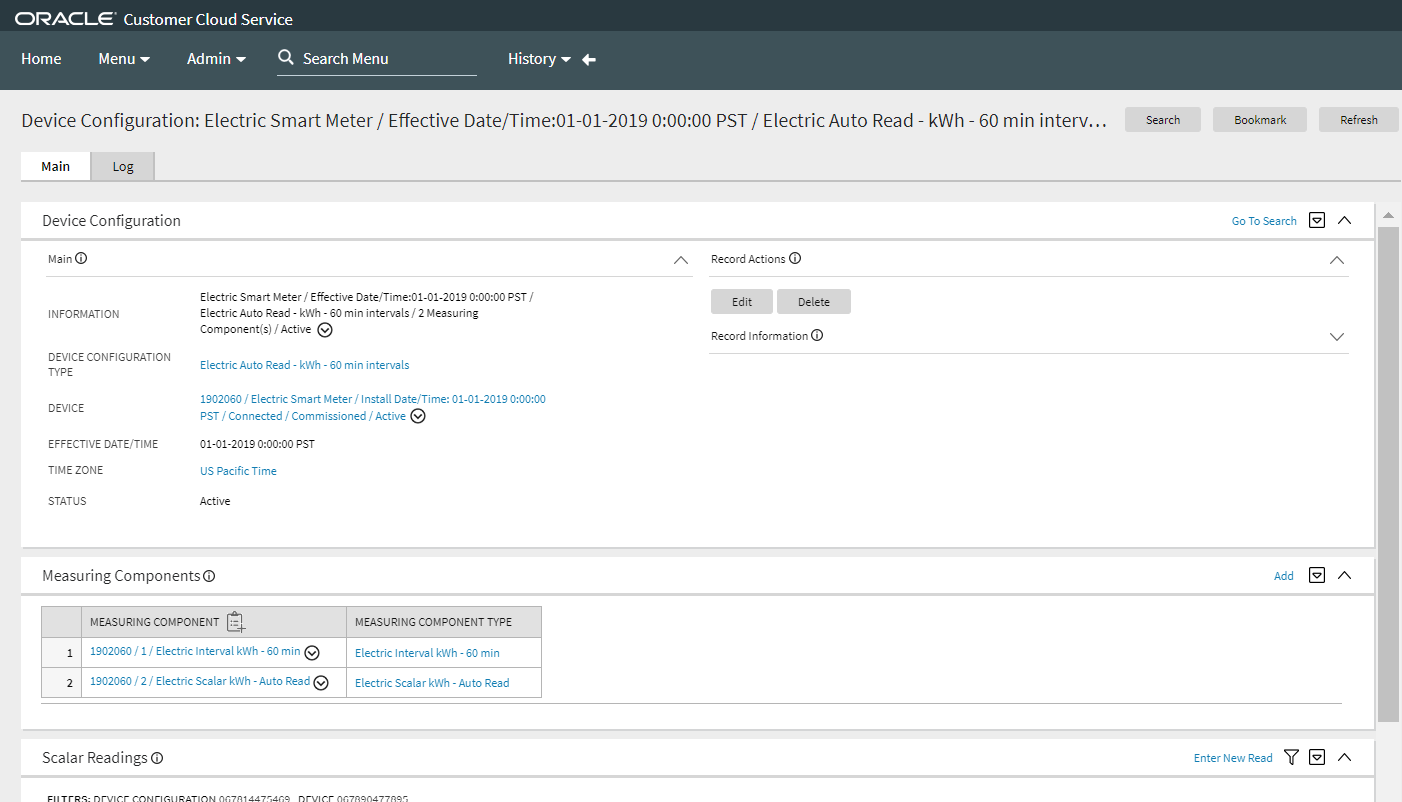


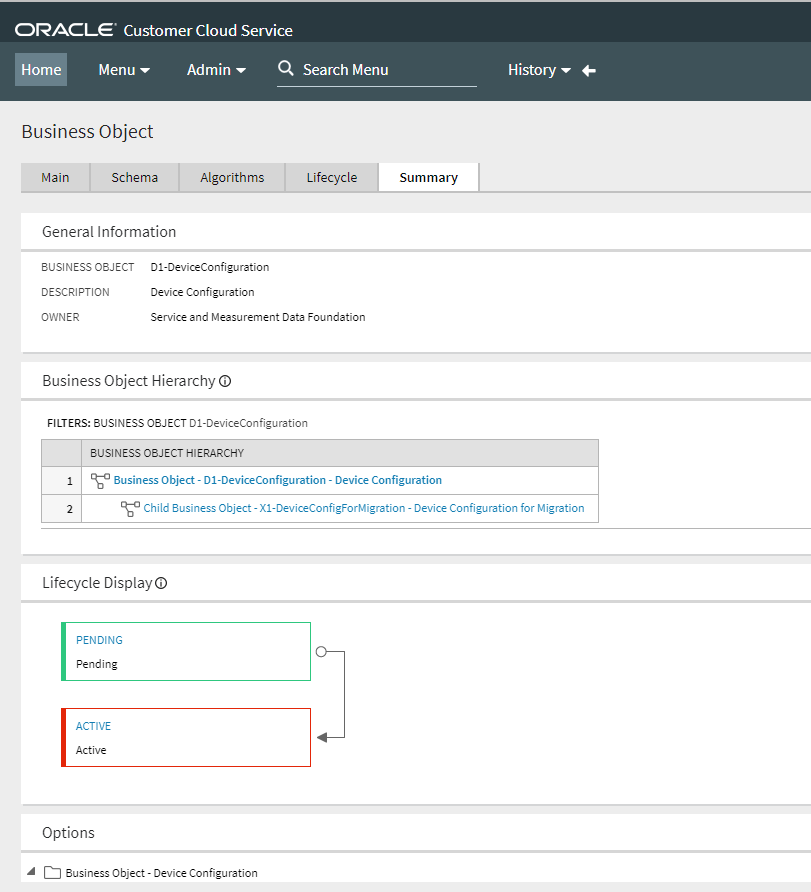
### Device Configuration – Create and Update

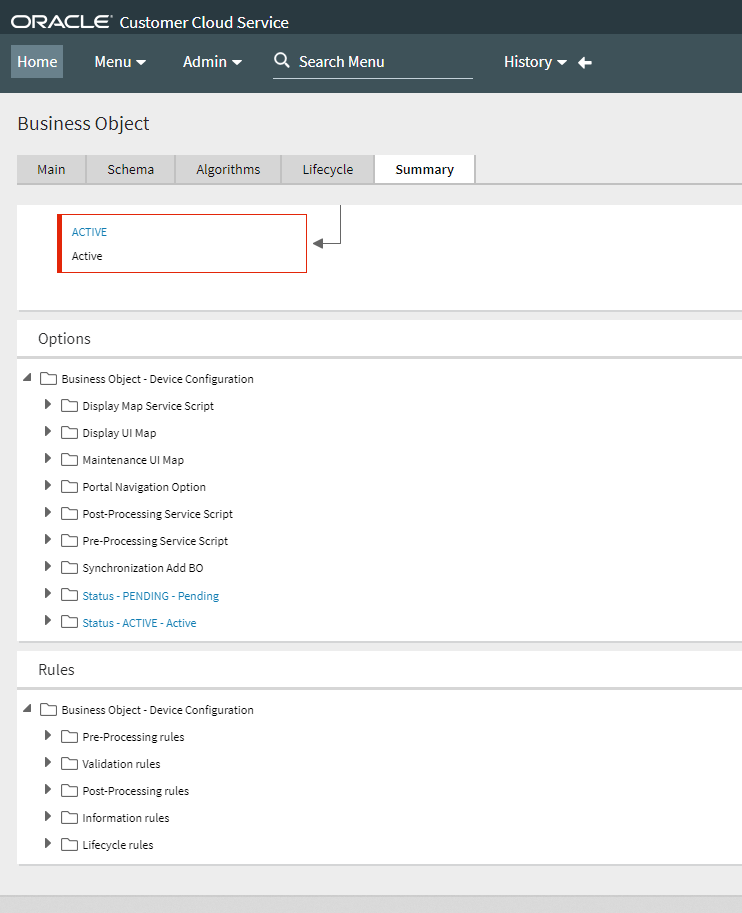
|  |
| --- |
| **DEVICE CONFIGURATION INFORMATION** |
| Device Configuration Type\* |
| Device ID\* |
| Effective Date/Time\* |
| Time Zone |
| External ID |

\*Required Fields

Screenshot for Device Configuration –







### Measuring Component – Create and Update

The measurement component data that is populated can contain items in the below chart.

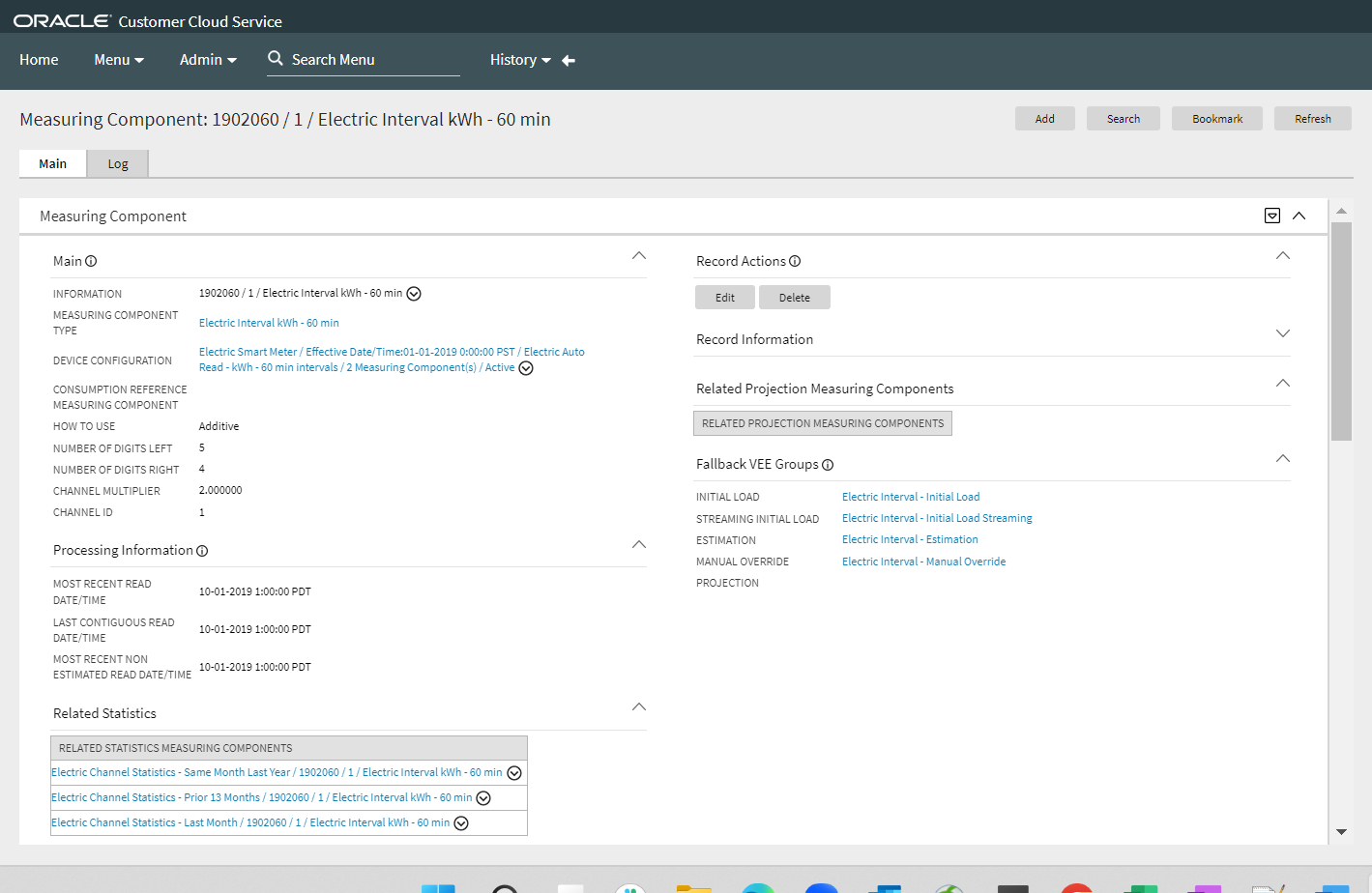
|  |
| --- |
| **MEASUREMENT COMPONENT INFORMATION** |
| Meter Configuration Type\* |
| Device Configuration\* |
| Consumption Reference Measuring Component |
| How To Use\* |
| Number of Digits Left\* |
| Number if Digits Right |
| Channel Multiplier |
| VEE Group for Initial Load |
| VEE Group for Estimation |
| VEE Group for Manual Override |
| Channel ID |
| External ID |

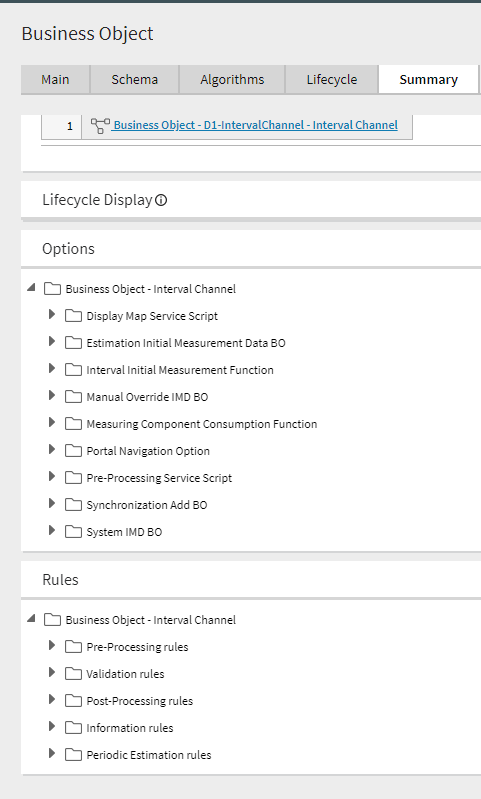
\*Required Fields

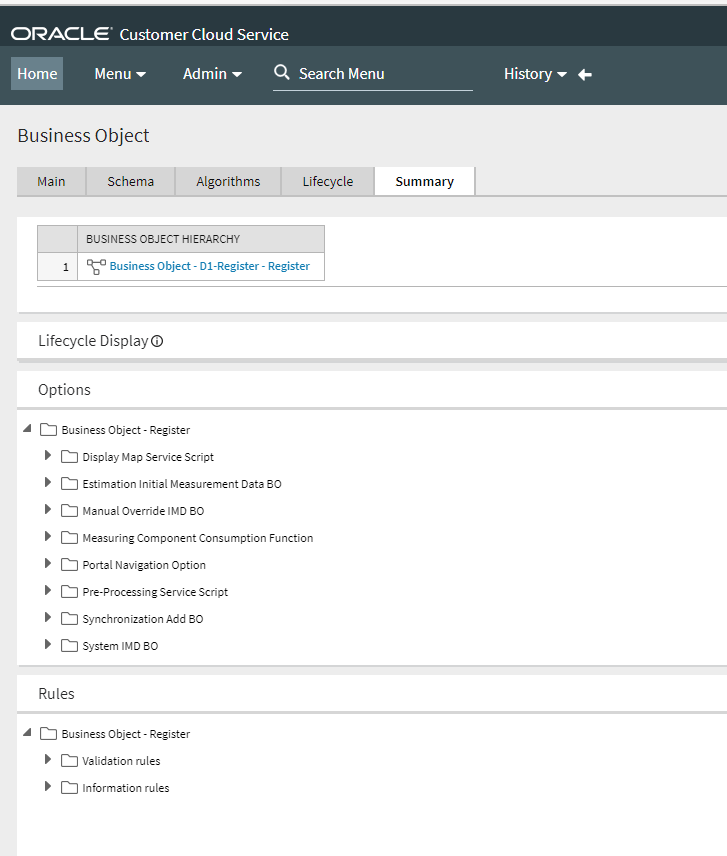
**Note**: If the Channel Multiplier field is not populated with data a default of “1.000000” will populate.

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.

Screenshot for Measuring Component –

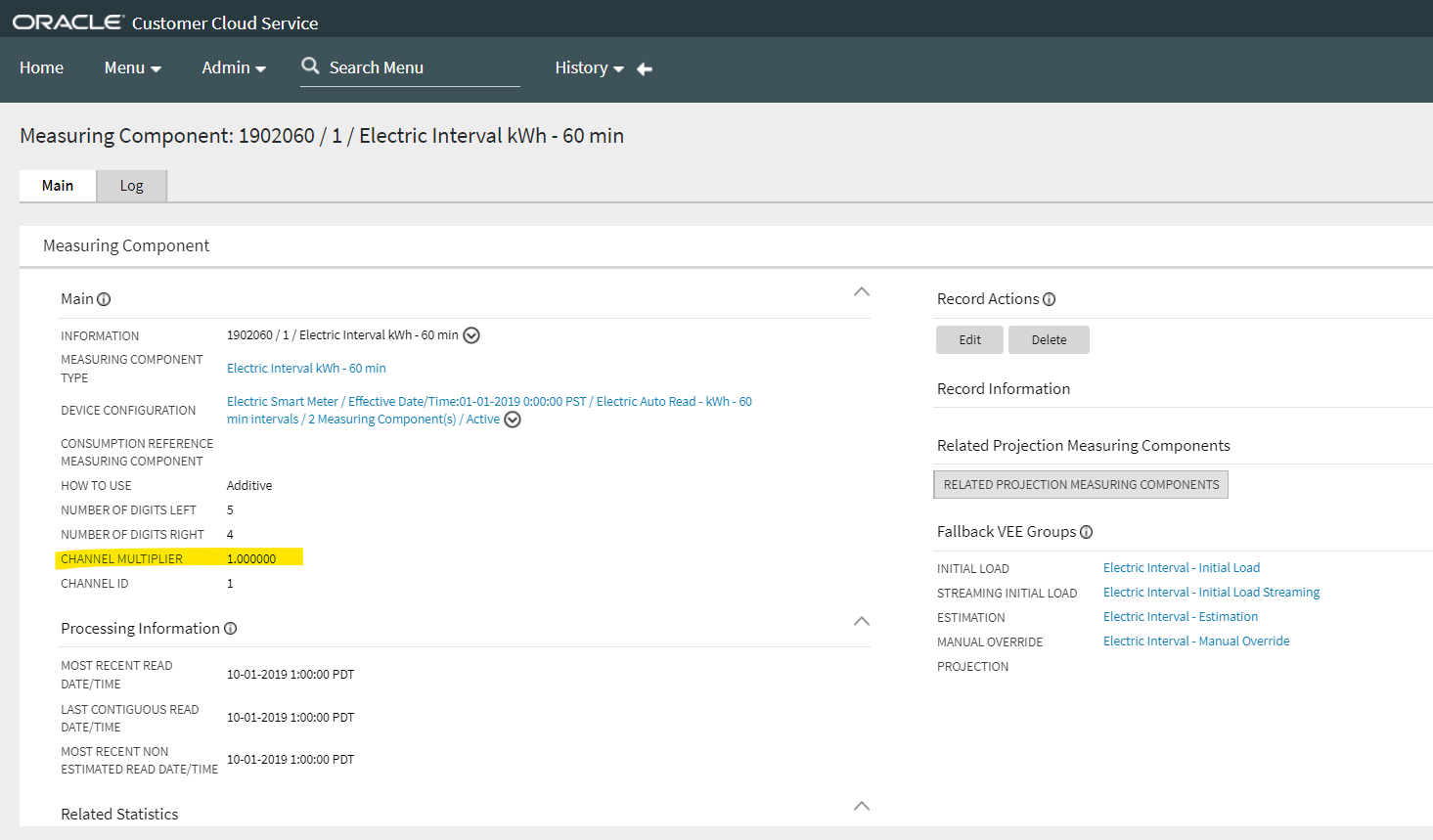




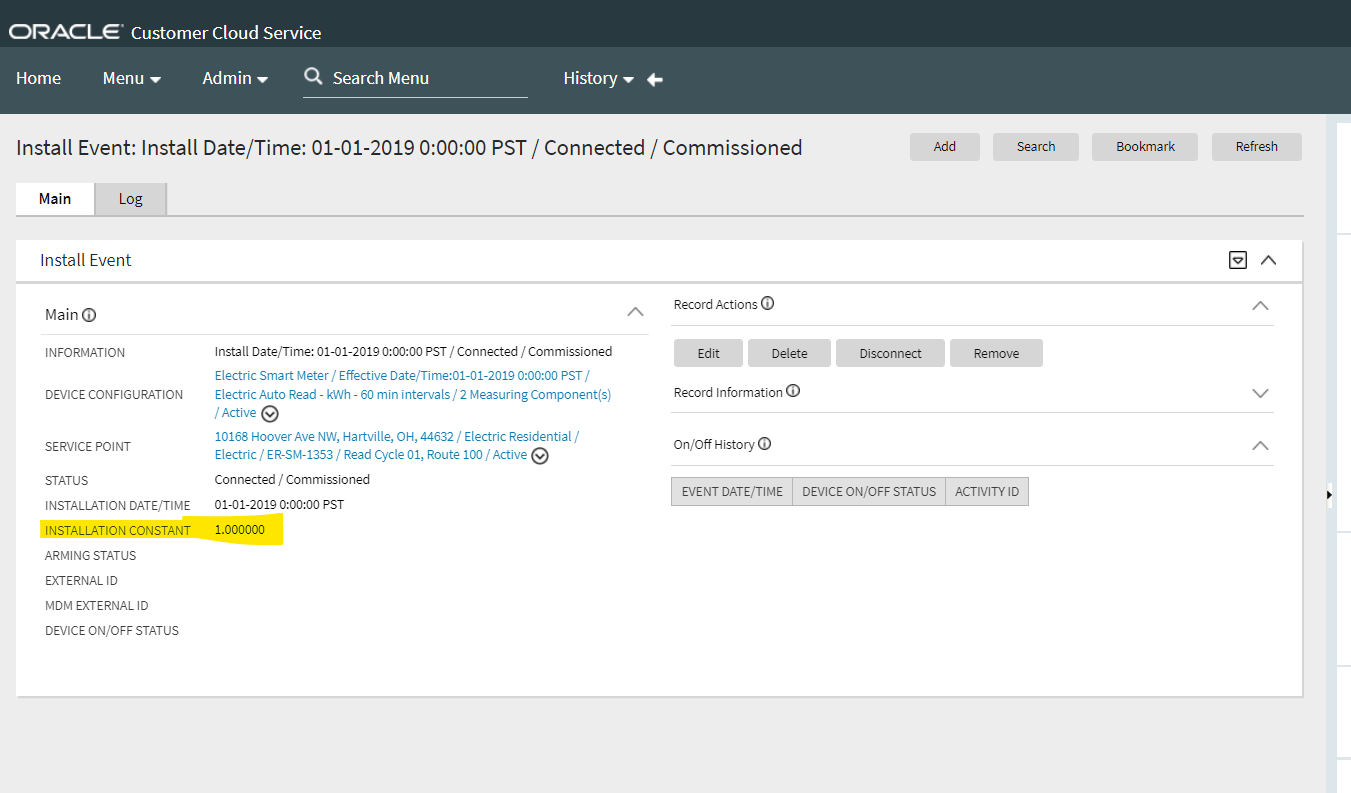


### Meter Multiplier

Meter Multiplier in Measuring Component

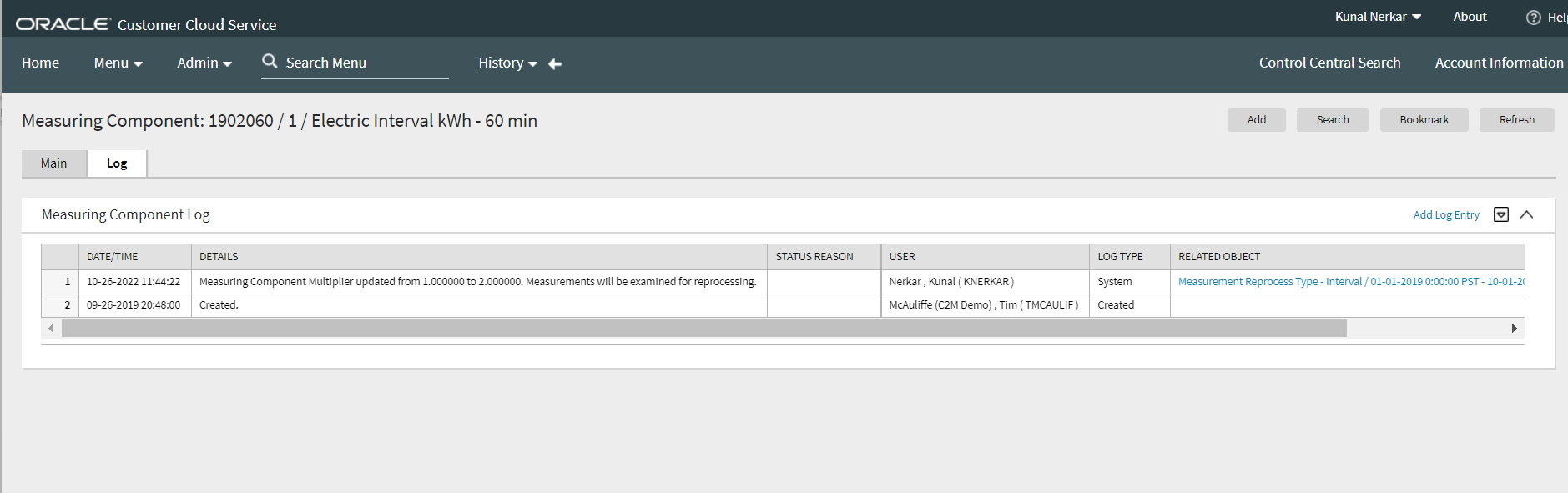


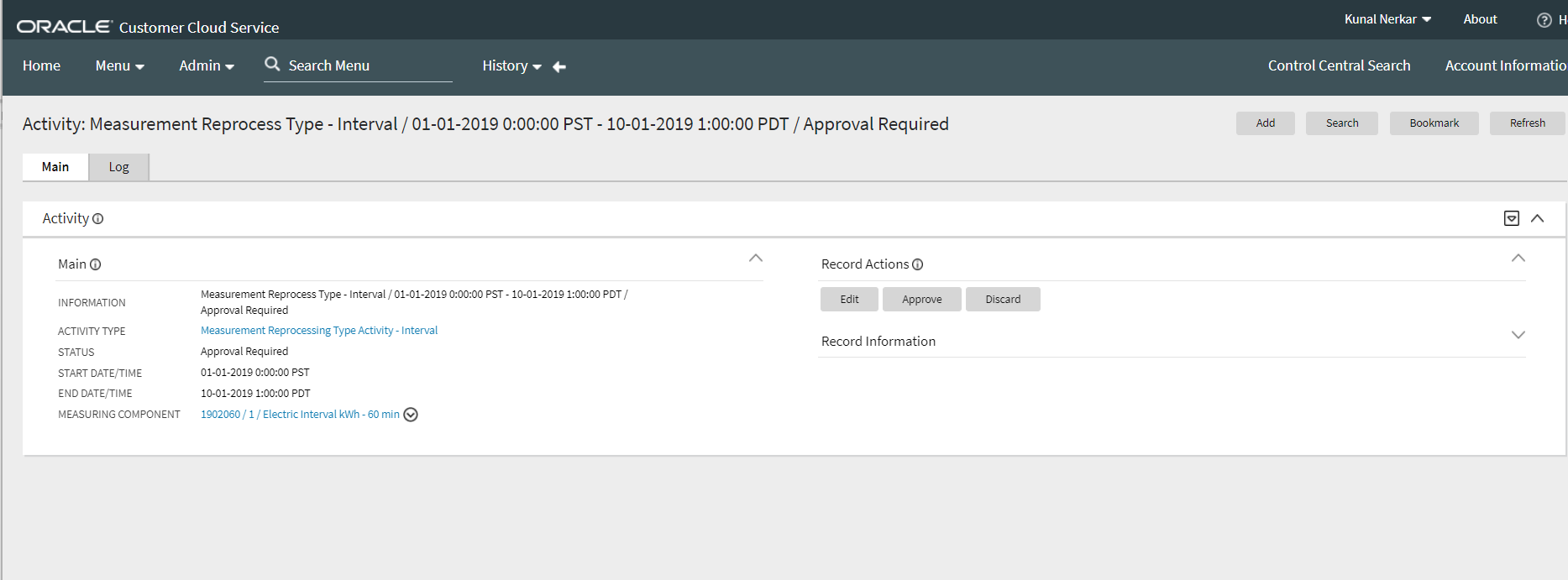
### Installation Constant



### Activity Type

Activity Type - Interval





### Sample File Structure for Bulk Asset Load by Asset type

W2-SmartMeter.csv



W2-ManualMeter.csv



W2-CommunicationRelay.csv



W1-Item.csv



### Miscellaneous. Related Web Services

System supports communicating with the external system via RESTful services or via SOAP services. In both cases, the system uses an object called inbound web service (IWS) to store the configuration. A web service class is used to distinguish whether the IWS is used for REST or SOAP.

**Inbound Web Services:**

|  |  |
| --- | --- |
| X1-DigitalAssetEnrollment - Digital Asset Enrollments | REST |
| W1-InOutSvcAsset - Operational Device In/Out of Service Asset | SOAP |
| W1-AssetListActGenerator - Asset List | SOAP |
| W1-AssetCriteriaActGenerator - Asset Criteria | SOAP |
| W1-AssetLocation - Operational Device Asset Location | SOAP |
| W1-RetrieveServicePointAssets - Retrieve Service Point Assets | SOAP |
| W1-AssetDposHistInstallations - Asset Disposition History - Installations | SOAP |
| W1-ItemServicePoint - Asset Location - Item SP | SOAP |
| W1-GeneralAssetLocation - General Asset Location | SOAP |
| W1-AssetReplicationActivity - General Asset Replication Activity | SOAP |
| W1-AssetDispositionHistory - Asset Disposition History | SOAP |
| W1-GetAssetLocationDetails - Get Asset/Location Details | SOAP |
| W1-AssetLite - Asset | SOAP |
| W1-AssetQuery - Asset Query | SOAP |
| W1-MDMAsset - MDM Asset | SOAP |
| W1-TrackedAsset - Operational Device Tracked Asset | SOAP |
| W1GAstDtlBNo - Get Asset Details By Badge Number | SOAP |