Oracle Field Service Cloud Configurations for Oracle Utilities Customer Cloud Service Integration to Oracle Field Service Cloud

(Also applicable to Oracle Utilities Customer To Meter)

Setup Guide

Release 21A

Disclaimer

Oracle Field Service Cloud Configurations for Oracle Utilities Customer Cloud Service Integration to Oracle Field Service Cloud, Release 21A

April 2021

Contents

Preface

Welcome to the Oracle Field Service Cloud Setup Guide for Oracle Utilities Customer Cloud Service Integration to Oracle Field Service Cloud. This document focuses on the Oracle Field Service Cloud configuration and administration information of for the integration.

The preface includes the following:

Audience

This document is intended for anyone implementing the Oracle Utilities Integration for Customer Cloud Service and Oracle Field Service Cloud.

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http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs

Abbreviations

Term	Expanded Form
OFSC	Oracle Field Service Cloud
C2M	Oracle Utilities Customer to Meter
OIC	Oracle Integration Cloud
SA	Service Agreement
SP	Service Point
CCS	Oracle Utilities Customer Cloud Service

Chapter 1: Accelerator Overview

This chapter focuses on software requirements for Oracle Field Service Cloud and provides an overview of the configuration. It includes the following:

Configuration Overview

This section covers basic Oracle Field Service Cloud configurations, such as Activity Types, User Types, Properties, UI screens, validations for these UIs, plugins, and resource configurations.

Accelerator Package

The accelerator package includes various user types, properties, and plugins. This document explains the configurations for other elements such as activity types, work zones, work skills, work conditions and outbound channel.

The package helps customers configure and set up Oracle Field Service Cloud used in Oracle Utilities Customer Cloud Service Integration with Oracle Field Service Cloud. The integration package contains only Oracle Utilities Customer Cloud Service and Oracle Integration Cloud configuration files and instructions hence this document is used in addition to the integration package that provides a complete end-to-end set up for the integration.

The contents of the package are:

- **User Types** – Define layouts and UI screens. The new Service Point Details, New Meter Details and Existing Meter Details UIs are linked to user types. For more details, see the see the User Types section.
- **Properties** – Create layouts and mapping. For more information, see the Properties section.
- **Plugins** – The Device Verification and Unrelated Pickup Query (service point query) plugins are part of the package. The Device Verification plugin takes badge number and returns the device details if a corresponding device exists. The Unrelated Pickup Query plugin gets the service points based on the search criteria. For more information, see the Forms and Plugins section.

Accelerator Activity Types

Make sure to take a backup of the Oracle Field Service Cloud accelerator before importing the latest version artifacts in to the Oracle Field Service Cloud environment.

Creating Properties Backup

In versions below 21A, create a backup of the properties data added during the execution.

To create a backup of properties:

1. Login to Oracle Field Service Cloud.
2. Navigate to Configuration → Properties.
3. Search the properties with “c2m_”.
4. Click Export. The filtered properties are saved to your local machine.
5. After the new package properties are imported, the properties for which backup was created can be re-imported.

   Note: For Oracle Field Service Cloud accelerator version 21 A or higher, it is not necessary to perform these steps. The admin sync flow will synchronize the admin data from Oracle Utilities Customer Cloud Service to Oracle Field Service Cloud.

Creating User Type File Backup

Since there is a possibility of the existing customizations to be overridden with the new user type import, make sure to create a backup of user type before importing the latest version user type.

To create a user type file backup:

1. Login to Oracle Field Service Cloud.
2. Navigate to Configuration → User Type.
3. Select the “C2M OFSC” user type and click Export. The selected user type file is downloaded to your machine.
4. Add the customized sections back to the latest user type file.

Create a Plugin Backup

Since there is a possibility of the existing customizations to be overridden with the new plugin import, make sure to take a backup of the plugin before importing of latest version.

To create a plugin backup:

1. Login Oracle Field Service Cloud.
2. Navigate to Configuration → Forms & Plugins.
3. Select the plugin for which take a backup and click Export. The XML file is downloaded to your machine.
4. Click the plugin and download the zip under the Version History section. The .zip file is downloaded to your machine.

In the Admin Sync flow, if the som.adminsync.activitytypes.sync property value is set to 'true' in the **Config Properties** lookup, all the required activities will be synchronized to Oracle Field Service Cloud. If you are an existing customer already running on old version of Oracle Utilities Customer Cloud Service integration to Oracle Field Service Cloud make sure to take a backup of the required Activity types before doing this step. Also, make sure to use the names mentioned below in Oracle Field Service Cloud and Oracle Integration Cloud Activity Type lookup.

Oracle Field Service Cloud accelerator is a sample and supports the following Activity Types.

- Install Meter
- Disconnect SP Meter and Remove Meter
- Read Meter
- Exchange Meter
- Connect SP at Device (not item)
- Disconnect SP at Device and Remove Device
- Disconnect Warning
- Item Exchange
- Turn on pilot light
- Trim Tree
- Service Investigation

Chapter 2: Installing Basic Accelerator Package

This chapter focuses on importing the files that come as a part of the package and configuring them in the Oracle Field Service Cloud environment for the integration to run successfully. Make sure to follow the same sequence for successful configuration. It includes the following:

Activity Types

Activity types define the categories of the activity supported by Oracle Field Service Cloud (in this case, Oracle Utilities Customer Cloud Service Integration to Oracle Field Service Cloud). The Activity types are sync part of the Admin Sync flow in this release.

Activity Type Name	Activity Type Label
Turn on Pilot light	Turn on Pilot light
Service Investigation	Service Investigation
Trim Tree	Trim Tree
Disconnect SP at Device and Remove Device (Item)	Dic SP Dev Rem Dev
Item Exchange	Item Exchange
Connect SP at Item	Connect SP at Item
Meter Exchange	Meter Exchange
Meter Read	Meter Read
Disconnect SP at Meter and Remove Meter	Disc SP Met Rem Met
Connect SP	Connect SP
Meter Install	Meter Install
Disconnect Warning	Disconnect Warning

Properties

Properties are customs fields used to enable the Utility Integration specific UIs created and to map the Oracle Field Service Cloud UIs. Each property is classified into types (such as field, integer, enumeration and string) based on the requirements. They should be addressed using this property.

To import the property file that is a part of the accelerator package:

1. Navigate to the **Configuration** page.
2. Click the **Properites** icon and click **Import**.

3. Browse to select the file to be imported. Click **Import**.

4. Verify the successful import of the file. Click **Close**.

Forms and Plugins

Use the plugins modify screen and data based on their type and status of target and parent object. They invoke the response for badge number input from Oracle Utilities Customer Cloud Service in the device verification plugin and retrieve the service points from Oracle Utilities Customer Cloud Service based on the search criteria by the crew in Oracle Field Service Cloud to create unrelated pickup activity using unrelated pickup activity plugin.

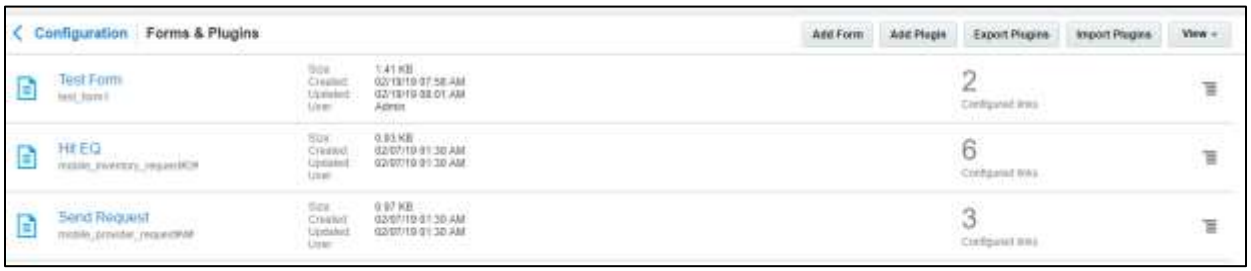
The Device Verification plugin accepts badge number of the device and in response sends various parameters from Oracle Utilities Customer Cloud Service, such as unit of meter, time of use, read sequence, dials, and decimals after verifying the badge number in the Oracle Utilities Customer Cloud Service environment.

Crew populates the search criteria in the Unrelated Pickup Activity. The plugin fetches service points from Oracle Utilities Customer Cloud Service and displays this information in Oracle Field Service Cloud. Crew can select the service point that needs to create an unrelated pickup activity.

Device Verification Plugin

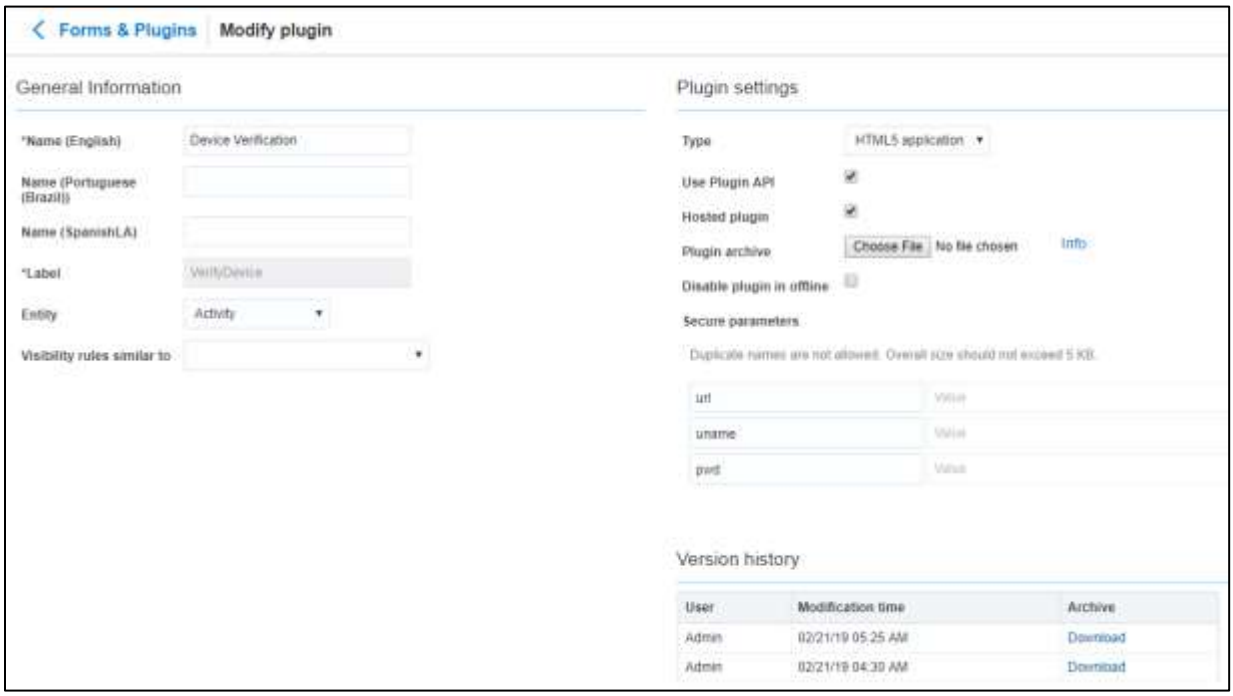
To configure a Device Verification plugin:

1. Navigate to **Configuration** > **Forms and Plugins**.
2. Click the **Import** icon to import the Device Verification plugin provided in the package.

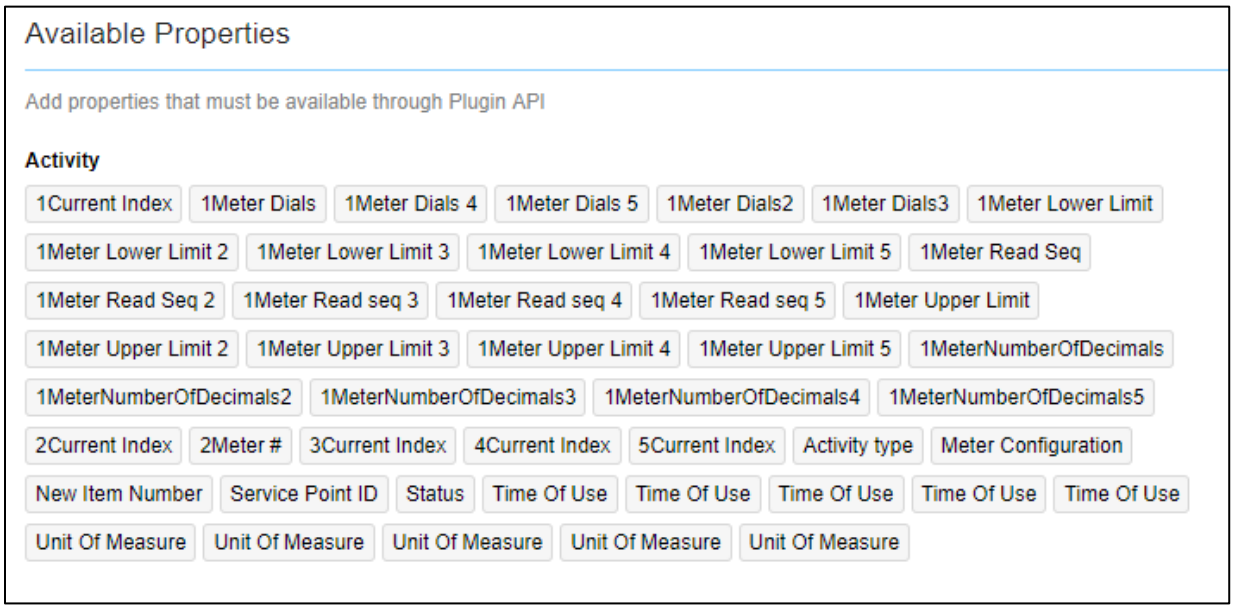


3. In the **Plugin Settings** pane, do the following:
   a. Enter the OIC username and password.
   b. Select **VerifyDevice** in plugin XML file.
   c. Select "HTML5" from the **Type** drop-down list.
   d. Configure the following secure parameters before using the Device Verification plugin.

Parameter Name	Value	Comments
oic_username	Username	Configure OIC user name
oic_password	Password	Configure OIC password
oic_int_url	https://oichostname:port/ic/api/integration/v1 /flows/rest/OUTL-BA-CCS_OFSC_DEVICE_VERIFY/1.0/	Configure the OIC end point URL of Device Verification flow

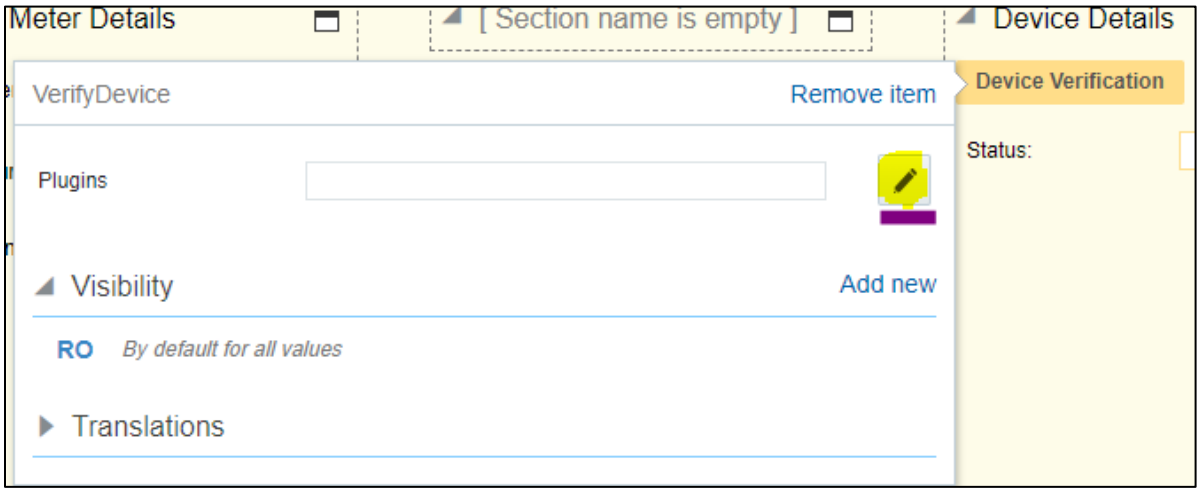


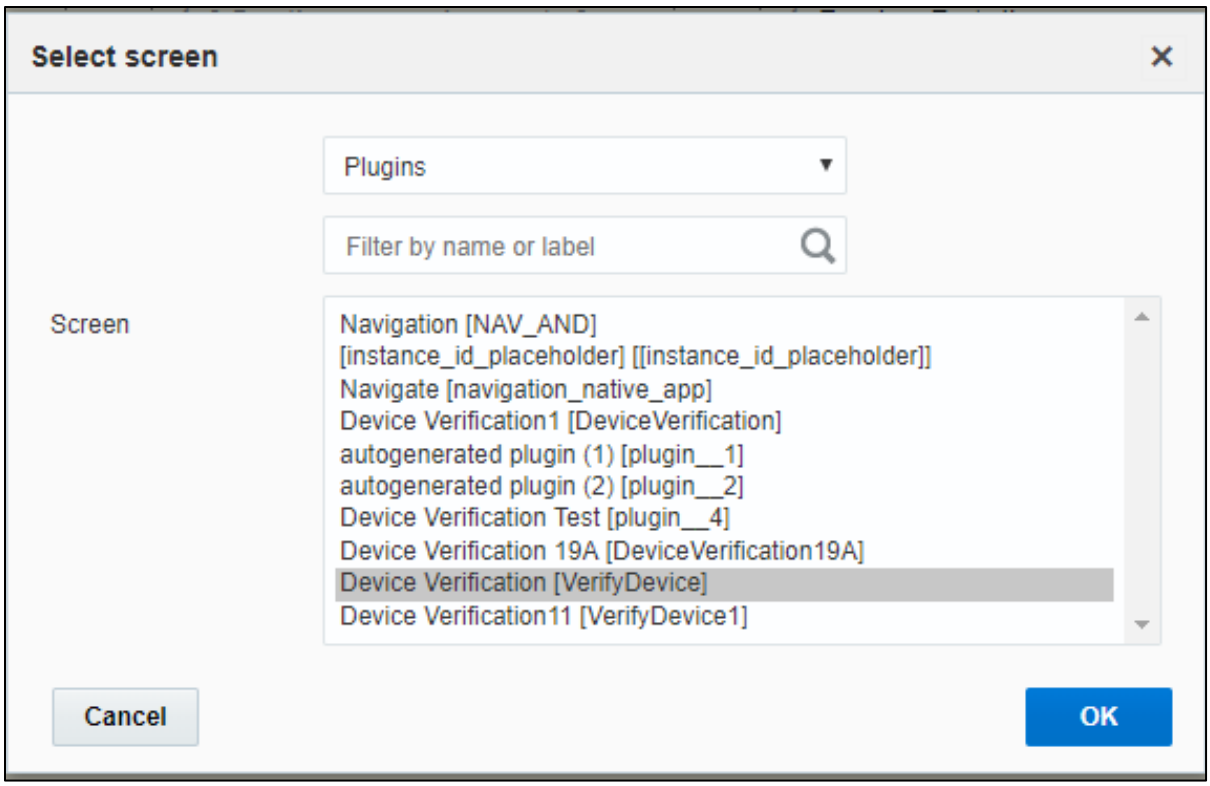
e. Make sure the **Available Properties** tab is populated with all the properties shown below.



f. Click **Device Verification** to configure the plugin.

g. On the **User Type** screen configurations, select **Device Verification** to connect it to the specific field on the UI in the **Mobility** page.

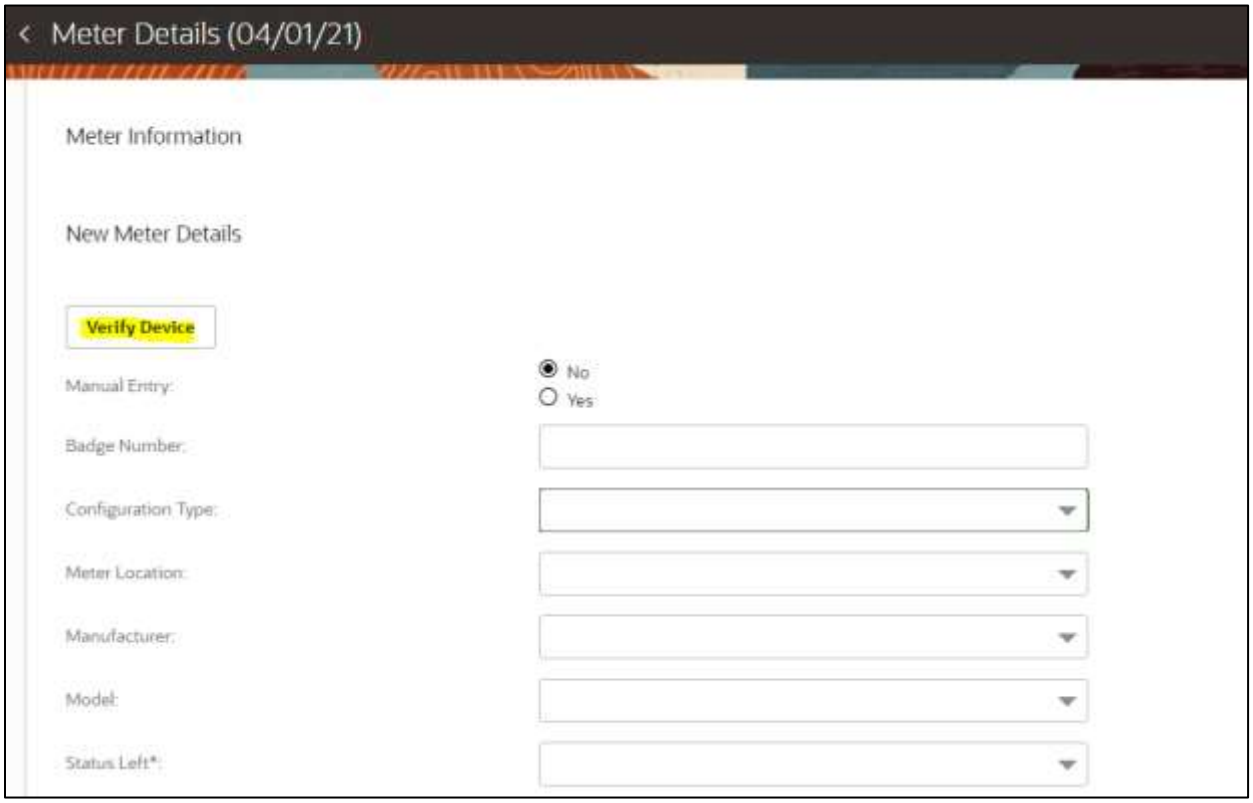




Until the previous release, crew could verify the existence of a device using the Device Verification feature where the search was based only on Badge Number. Also, the crew had to enter Manufacturer and Model details manually. In this release, Serial Number is included as one of the search criteria along with Badge Number. Manufacturer and Model are part of Device Verification response from Oracle Utilities Customer Cloud Service and gets auto-populated in the respective fields.

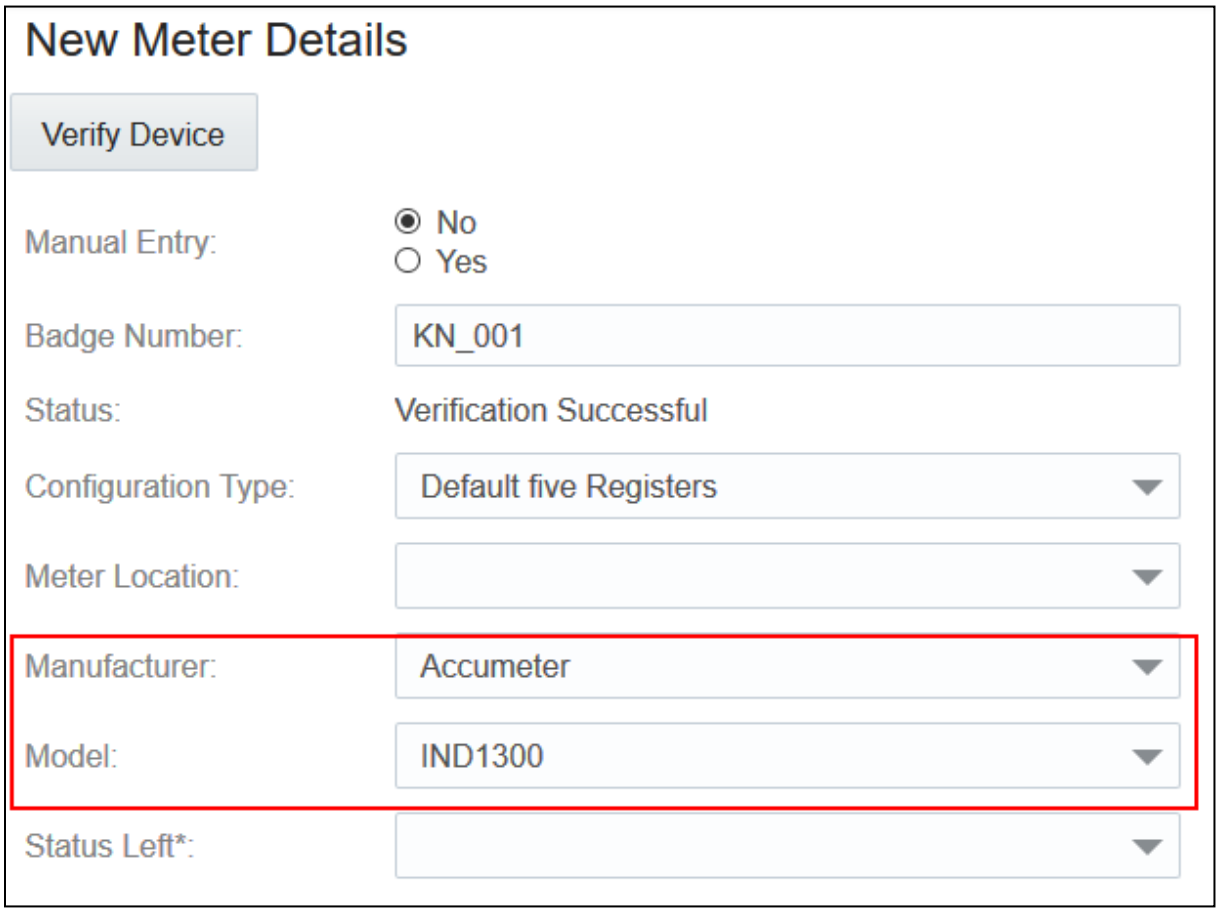
To use this feature:

a. Select **Install Meter Activity > New Meter Details**.
b. Click **Verify Device** to view the existence of the device.



The **Device Details** page displays both Badge Number (mandatory) Serial Number (optional).

If the device exists based on the search criteria, the **New Meter Details** page is displayed with autopopulated details including the register information sent by Oracle Utilities Customer Cloud Service.



Note : The OFSC mobile device application has the capability to search the meter badge number through bacode scanner. So that no need to enter meter badge number manualy while doing the device verification.

Custom Activity Type Support

The Device Verification plugin supports custom activity types other than Meter Install and Meter Exchange.

Follow the below steps to support custom activity type:

1. Login into Oracle Field Service Cloud.
2. Navigate to **Configuration** → **Properties**.
3. Search for the **c2m_device_verify_act_types** property.
4. Click **Modify**.
5. Add the **Enum** entry. Make sure the entry follows the syntax as below:
   Description[label]
6. Enter the Activity Type name in the **Description** field and label in the **Label** field.

   Example: custom read activity[custom_read_activity]

Unrelated Pickup Activity

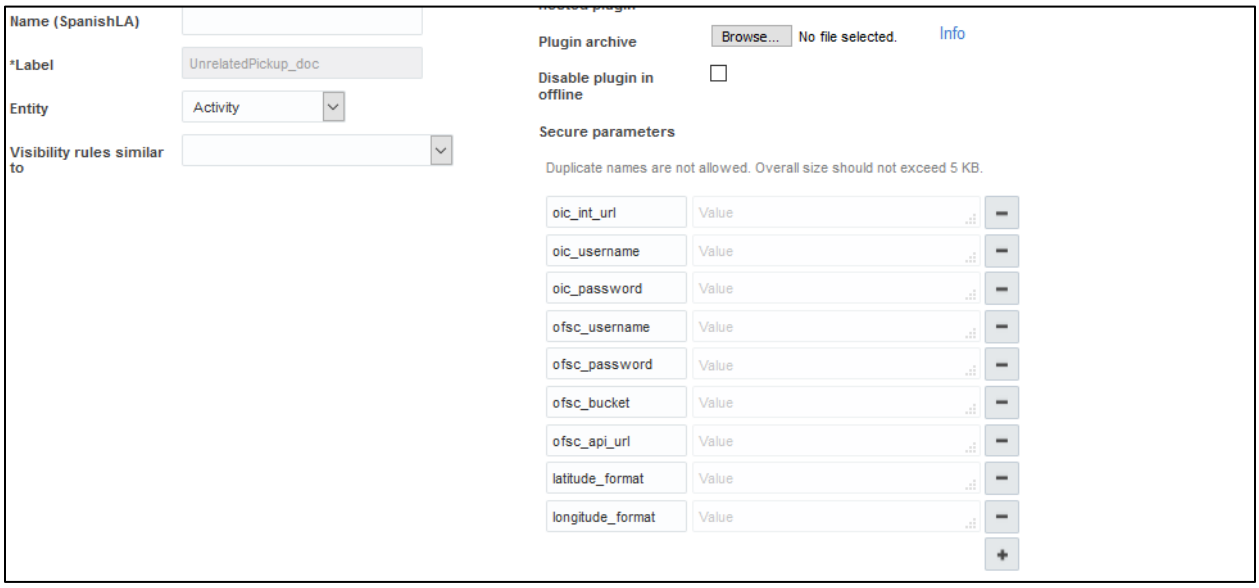
To configure an unrelated pickup activity:

1. On the **Configuration** page, navigate to **Forms & Plugins**.
2. Click the **Import** icon to import the **Unrelated Pickup** plugin provided in the package.

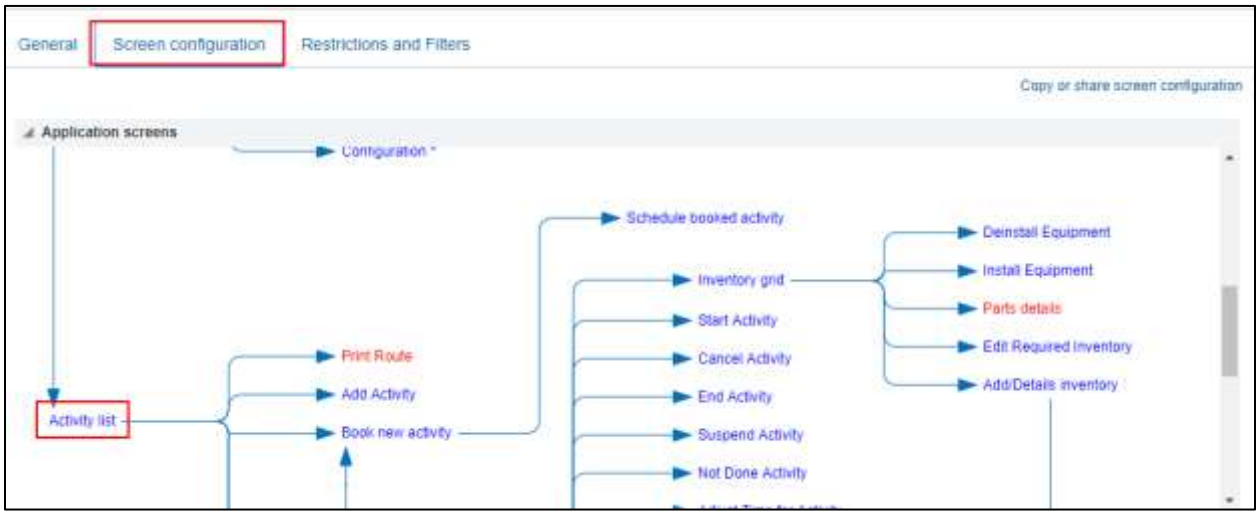
3. Select the unrelated pickup plugin and enter the following details:

Parameter Name	Value	Comments
oic_int_url	https://oichost/ic/api/integration/v1/flows/rest/OUTL-BA-CCS_OFSC_SP_QUERY/1.0/	Configure the activated service point url.
oic_username	User Name	Configure the OIC user name
oic_password	Password	Configure the OIC password
ofsc_username	OFSC user name	Configure the OFSC user name
ofsc_password	OFSC password	Configure the OFSC Password
ofsc_bucket	OFSC Bucket External ID	Configure the OFSC Bucket
ofsc_api_url	OFSC REST API url (Ex: https://api.etadirect.com)	Configure the OFSC REST API url
latitude_format	Latitue format value (Ex:N2.7)	Configure the format of latitude
longitude_format	Longitude format value (Ex:N3.7)	Configure the format of longitude

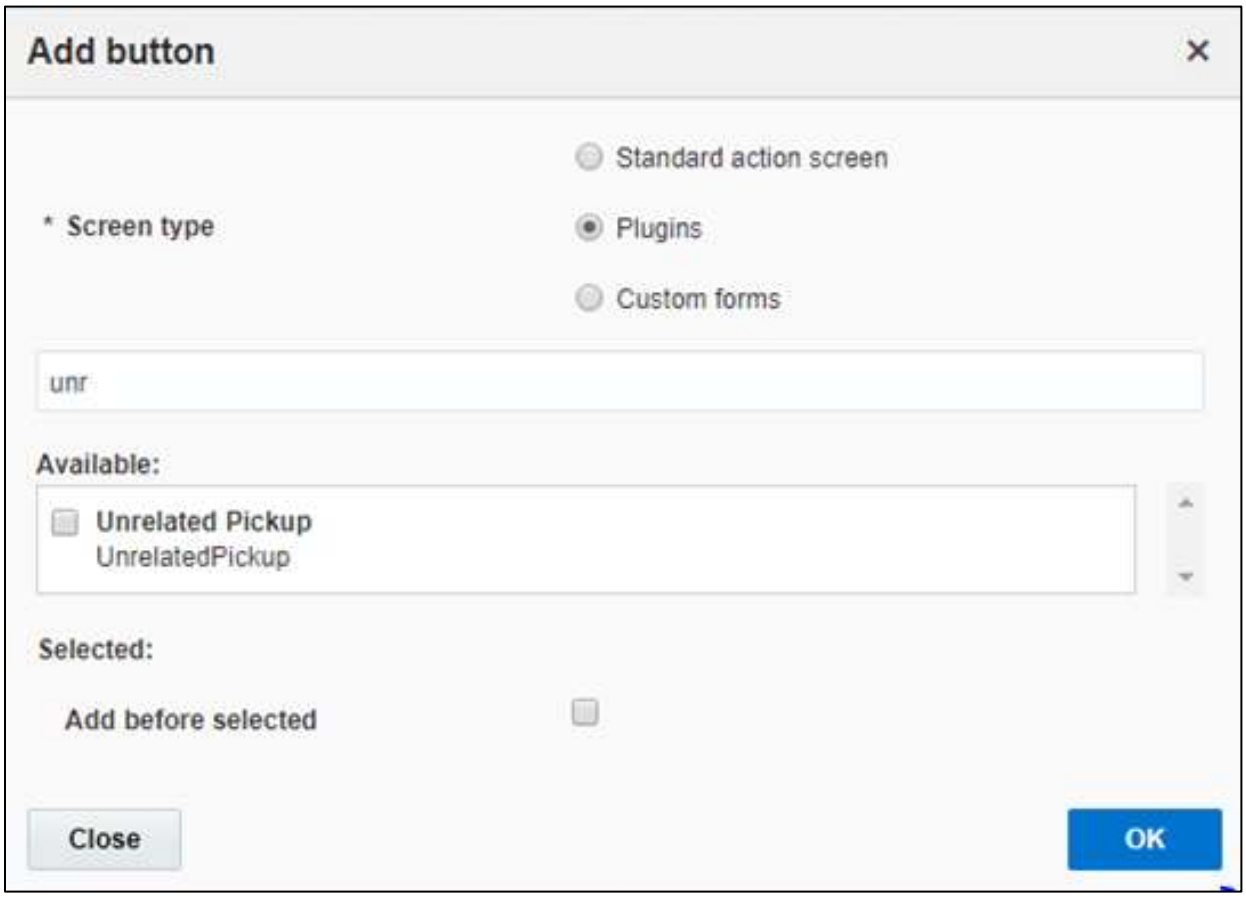
Note: Username and password would be the client ID and client secret that can be retrieved from Oracle Field Service Cloud.



4. Click **Configuration** and select the user type.
5. Navigate to the **Screen Configuration** tab.

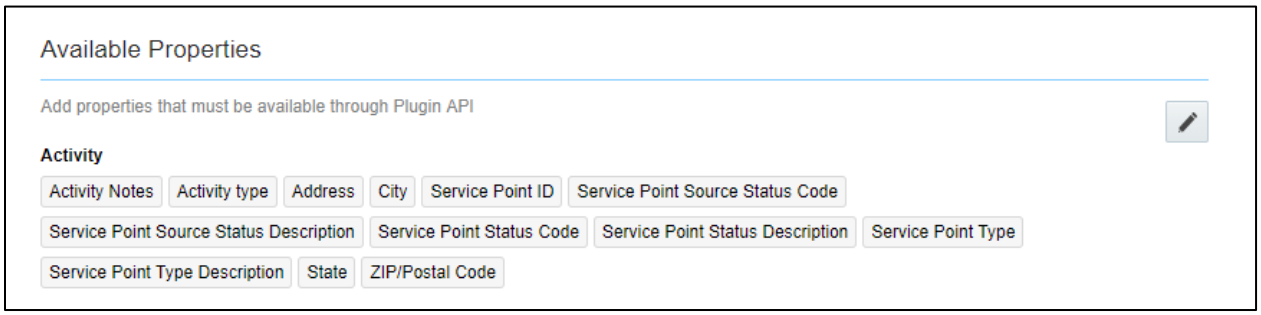


6. Click **Application screens** to display the structure. Click **Activity list**.
7. On the left pane, click **Click to add** and select the unrelated plugin.



8. On the right pane, add new visibility.

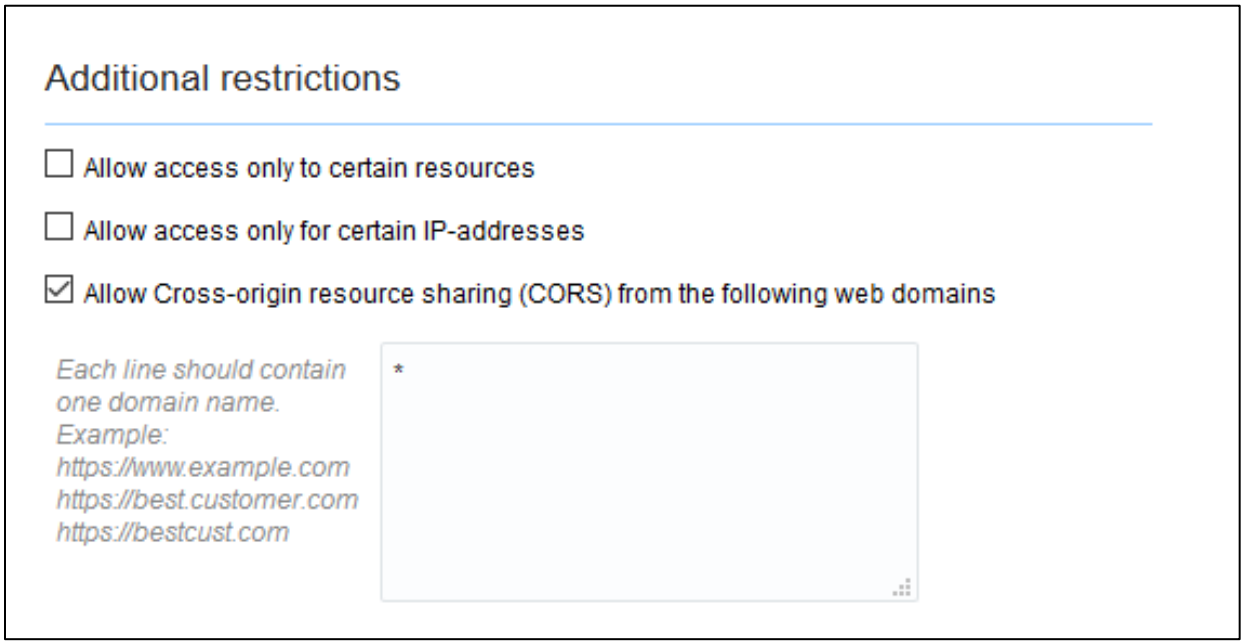
9. Make sure the **Available Properties** tab displays all the properties as shown in the figure below.



10. After the plugin is configured, select the XML file in the **User Type Screen Configurations** field to connect it to the specific field on the UI in the **Mobility** page.
11. CORS Setup

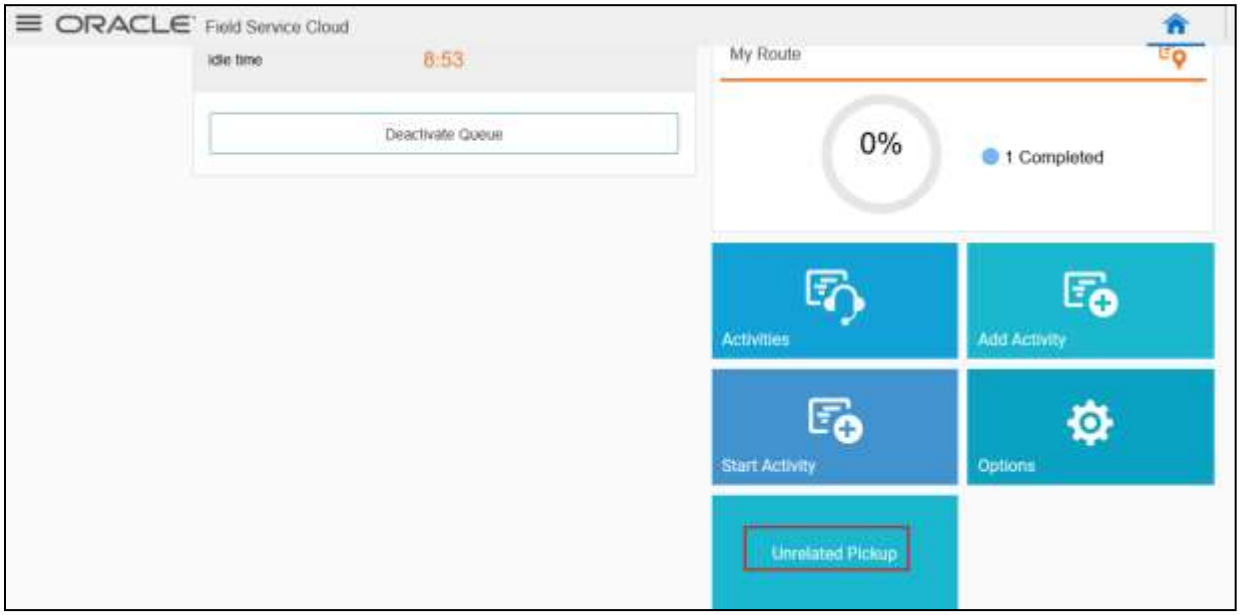
    As part of the unrelated pick up functionality, from the plugin, there is an invocation call to OFSC REST API which needs CORS setup. To call OFSC REST API from the plugin, set up cross-origin resource sharing (CORS) in Oracle Field Service Cloud as follows:

    a. Navigate to **Configuration > Application > Additional restrictions**.
    b. Select **Allow Cross-origin resource sharing (CORS)** from the following web domains and provide the Oracle Field Service Cloud domain.
    c. If the domain details are unknown, enter '*'. For the actual Oracle Field Service Cloud domain contact the Oracle Field Service Cloud support team.

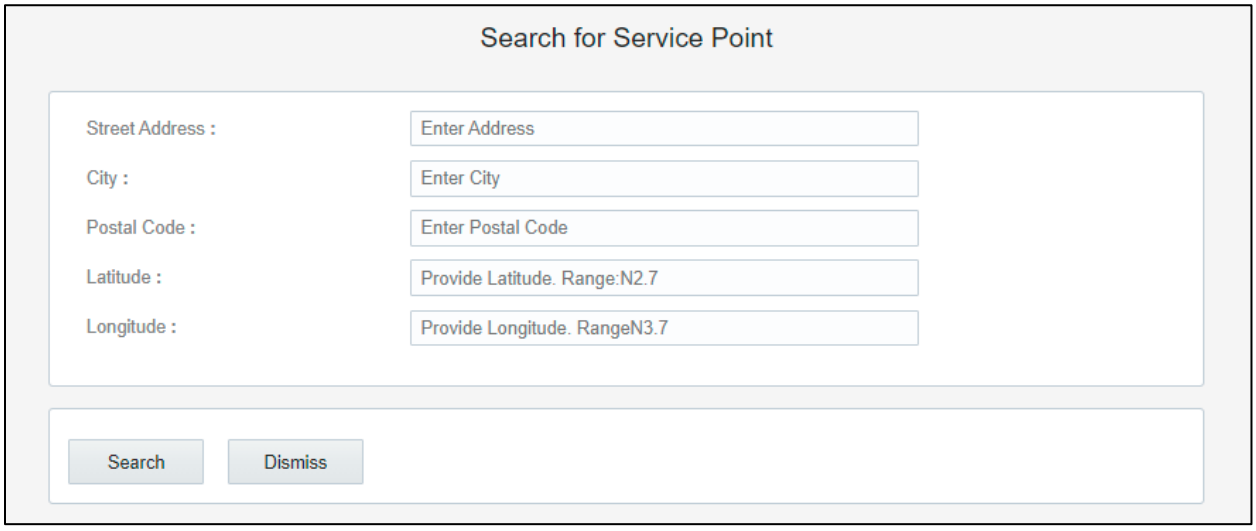


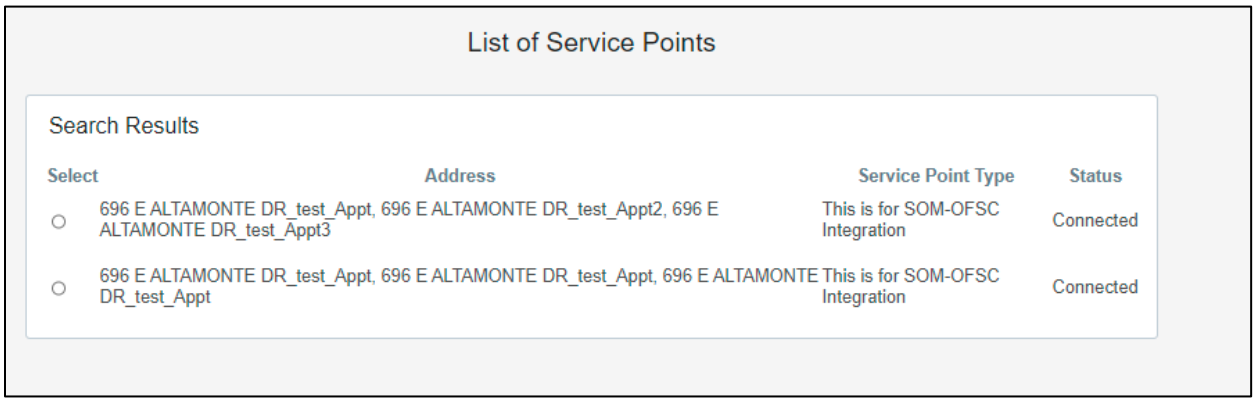
In this integration release, crew can specify search criteria and send request to Oracle Utilities Customer Cloud Service for service points. From the retrieved service points, crew can select a service point and raise a service investigation activity. The search criteria includes address, city, postal code, latitude, and longitude.

1. On the **Mobility** page, select **Unrelated Pickup** to use this feature.



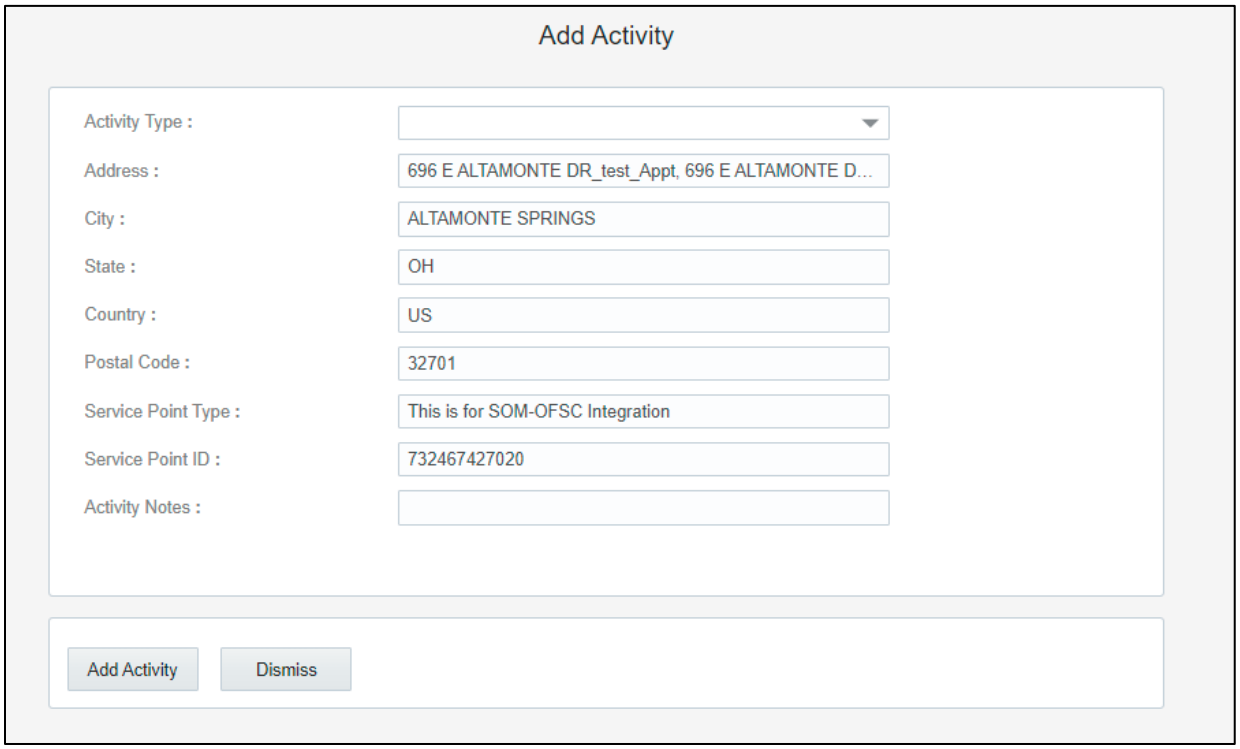
2. On the **Unrelated Pickup** page search for service points.





3. Select the desired service point from the list and click **Select**.
4. Click **Add Activity** to create the activity.

   After successful creation of the activity in Oracle Field Service Cloud, the corresponding activity is created in Oracle Utilities Customer Cloud Service.



User Types

User types manage all user permissions. Each user type has a profile that defines security and display permissions, such as the user's login method, the ability to use certain functions, and access to menu items and properties. Screen-configuration settings define the screens, windows, pop-up windows and other elements visible to a certain user type. They also support the context layout editor, in which the content, arrangement, and visibilities of each context are set.

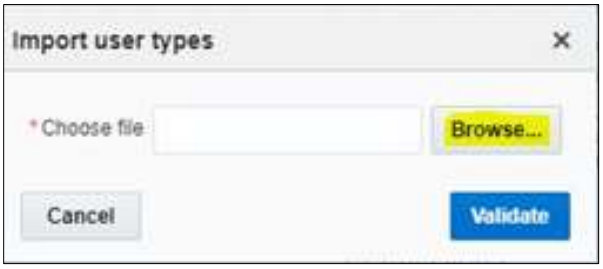
Use the **Screen Configuration** settings in specific user types to create custom screen context layouts for the integration.

Prerequisite! Make sure the Properties, Activity Types, and Plugins are loaded before proceeding.

To configure the user types:

1. Navigate to the **Configuration** page.
2. Click the **User Types** icon.
3. Click **Import** to import the user types.

4. On the **Choose file** field, click **Browse** to select the user type. Click **Validate**.



5. After successful validation, click **Import** to import the file.

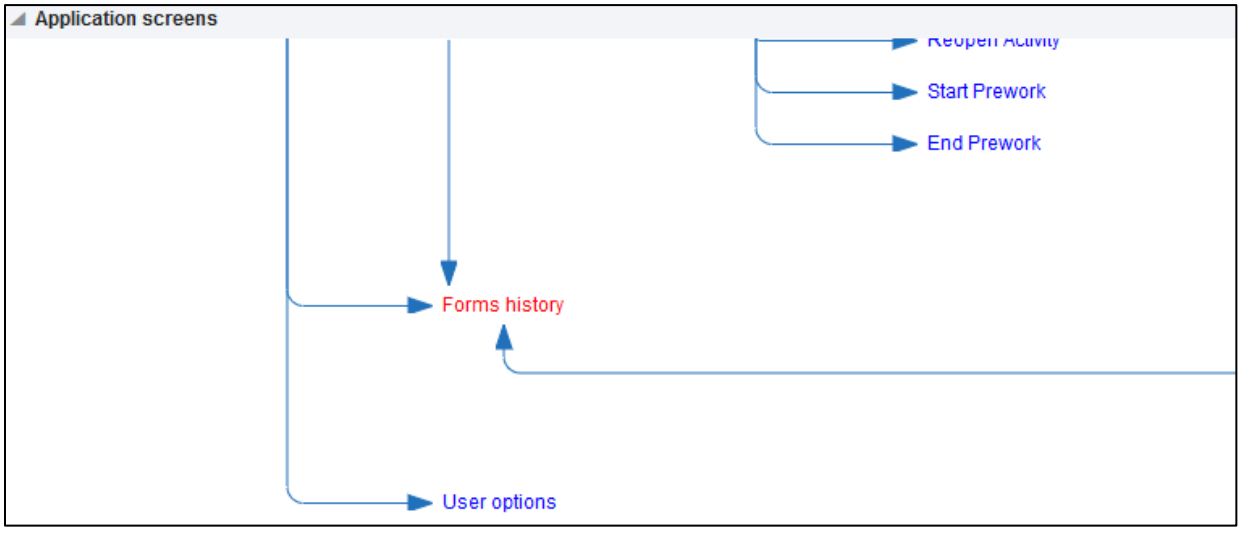
6. Verify the successful import and click **Close**.

Configuring Time Format

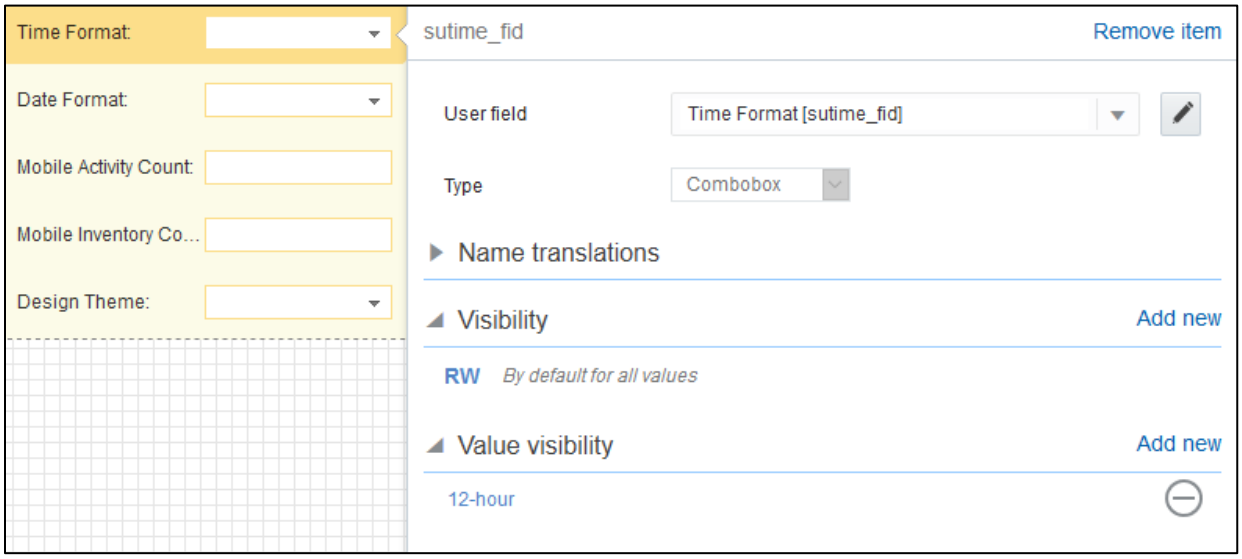
The time format can be changed from 12 hour to 24 hour. Oracle Fields Service Cloud has the provision to configure in the user type file. The user type file is in 12 hour format by default.

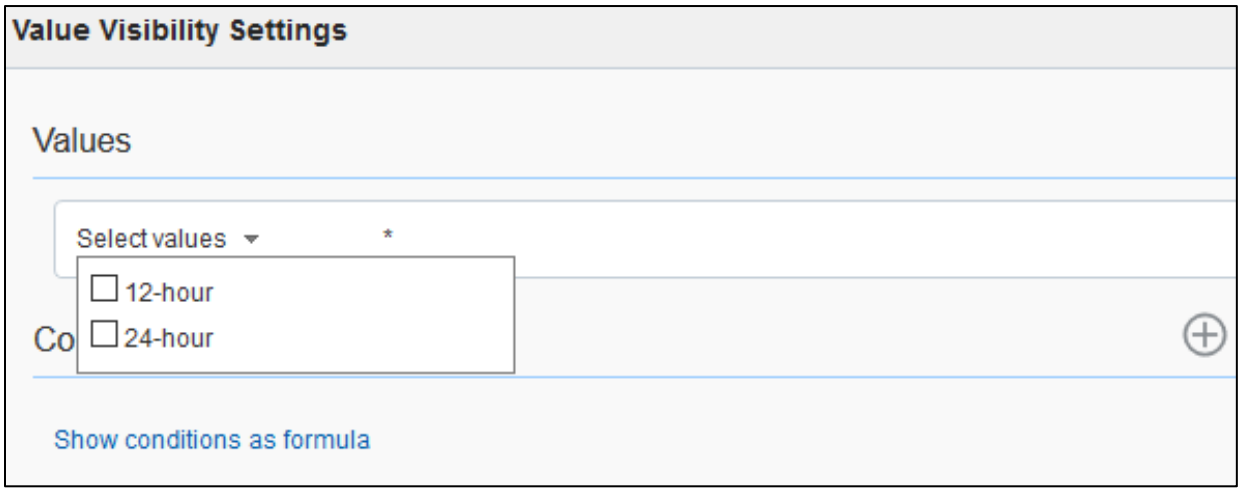
To change the time format:

1. Login to Oracle Field Service Cloud.
2. Navigate to **Configuration > User type > C2M OFSC**.
3. Click **Screen Configuration** and select **User options**.



4. Click **Property** and click the value in the **Value visibility** section.


Time Format:
Date Format:
Mobile Activity Count:
Mobile Inventory Co...
Design Theme:
sutime_fid
Remove item
User field
Time Format [sutime_fid]
Type
Combobox
Name translations
Visibility
Add new
RW
By default for all values
Value visibility
Add new
12-hour


Value Visibility Settings
Values
Select values
*
12-hour
24-hour
Co
Show conditions as formula

5. Click **Save**.

Chapter 3: Additional OFSC Configurations

This chapter elaborates on the additional configuration of organization, work zones, outbound channels, and UI validations in user types. It includes the following:

Checklist

Before getting started with Oracle Field Service Cloud configuration, verify that the following are complete.

- All the Activity Types specific to customer are created
- Properties are imported
- Users and resources are configured
- User Types are imported
- Make sure the Quota has been allocated and doesn't need to be configured
- Plugin has been imported
- Name of Organization
- Work Skills to be created
- Name of the resources, work zones
- Details of Oracle Integration Cloud to create the Outbound Channel

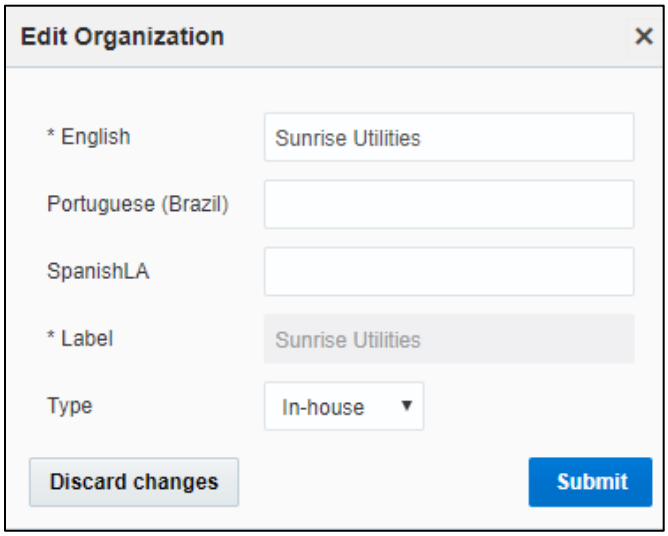
Organization

An Organization can have buckets, organization units (Org Units), field resources, tools or vehicle associations. Create an organization before adding any type of resource.

To create an organization before adding any type of resource:

1. Navigate to **Configuration > Organization**.
2. Click **Add New** to add a new Organization.

3. Enter the name of the Organization and click **Submit**.



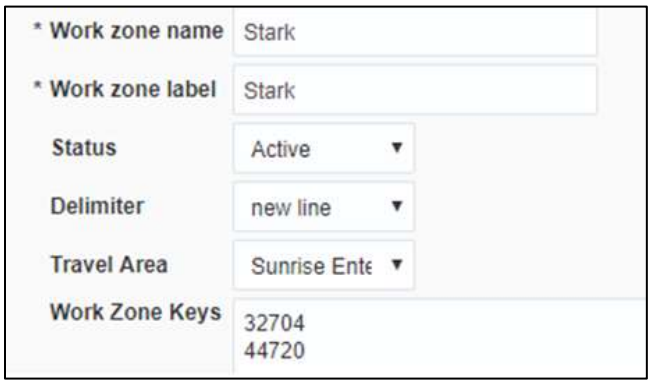
Work Zones

Work zones are used to divide area in different zones for better scheduling of crews. Use the work zone keys to provide the ZIP/postal code to facilitate the division through the Service Point information that comes from Oracle Utilities Customer Cloud Service.

To configure a work zone:

1. Navigate to the **Configuration** page and click **Work Zone**.
2. Make sure the **Work Zone Key** (top-left corner) is ZIP/Postal Code.

3. On the **Work Zones** page, click **Add new** to add the required postal codes in the **Work Zone Keys** field.



4. Click **Add** to save the new work zone.

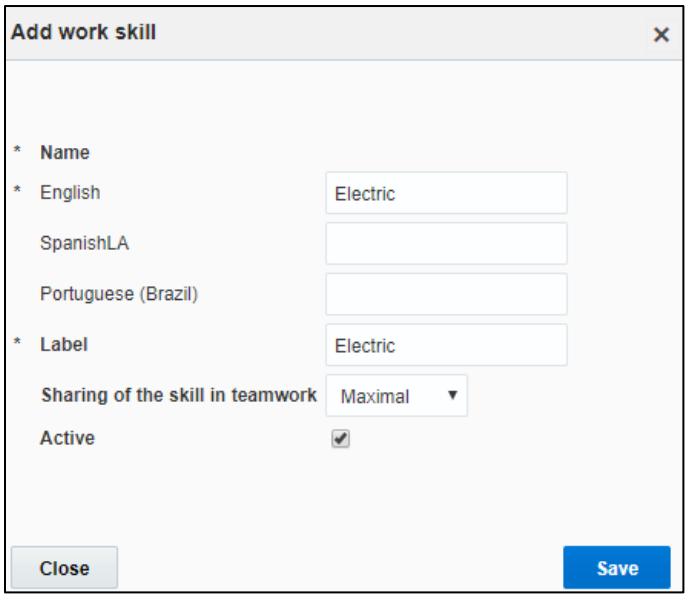
Work Skills

Use the work skills to assign activities to workers. Incoming activities are also assigned work skills based on certain conditions being met, and are attached to resources with corresponding skills during routing.

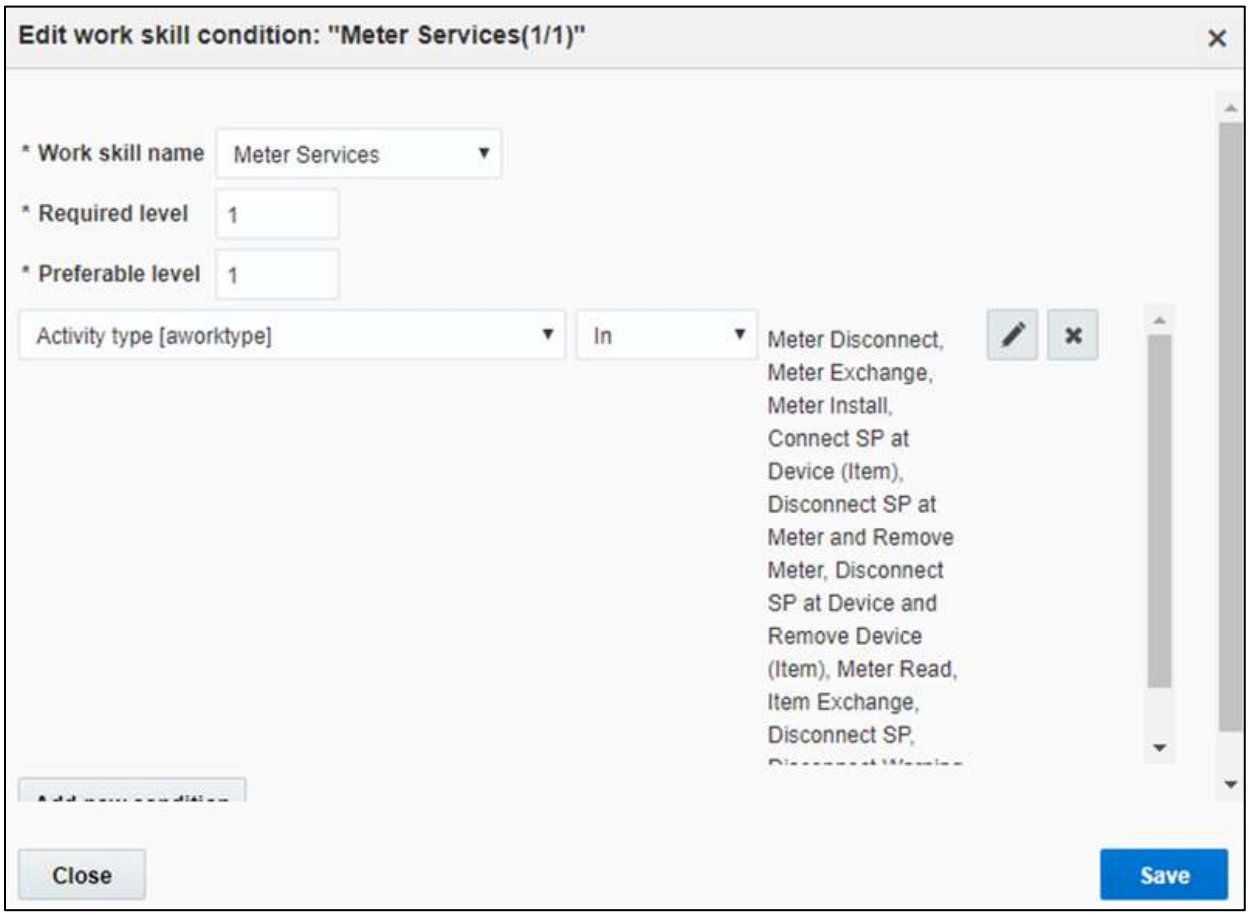
The integration supports only two work skills at this time of release: Meter Services, Ops and Maintenance.

To create work skills:

1. Navigate to **Configuration > Work Skills**.
2. Click **Add New**.
3. Enter the details of the work skill. Add two work skills: *Meter Services and Ops and Maintenance.* Click **Save**.



4. Click **Work Skill Condition**. Make sure “Meter Services” is listed and configured with respective details. The figure below shows the necessary values.



Activities and Scheduling Information

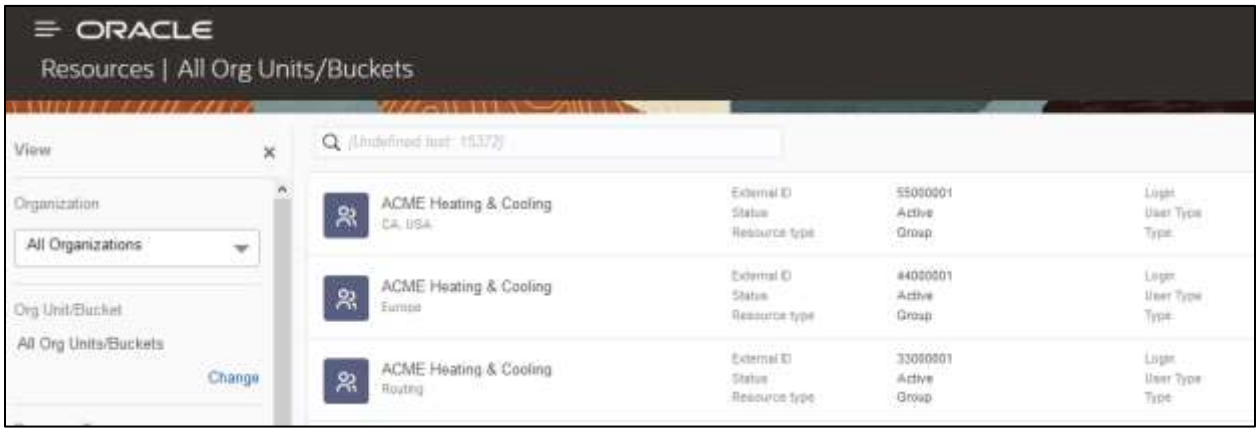
By default, the activities created from Oracle Utilities Customer Cloud Service to Oracle Field Service Cloud remain in 'non scheduled' state as expected. To schedule them refer to the Oracle Field Service Cloud documentation and use the routing option that suits the business need.

Resource and Bucket Information

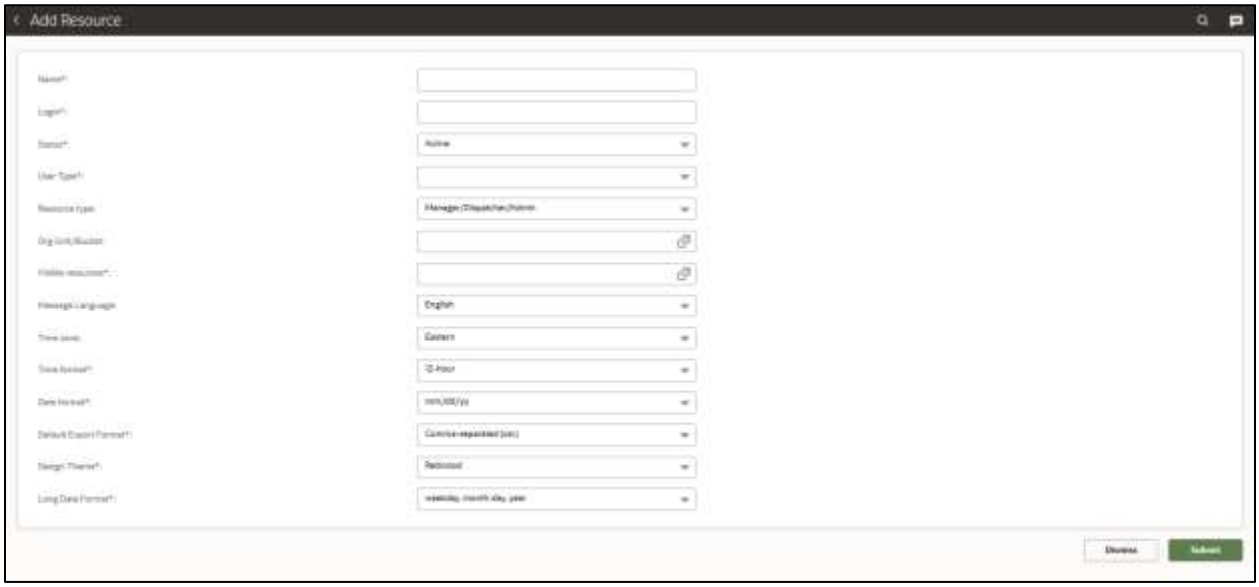
Oracle Field Service Cloud uses bucket and resources to categorize the resources. In this integration, use the bucket as a resource type to route the entire meter service tasks to workers. In the bucket, create two resources (field workers) who are assigned field activities coming from Oracle Utilities Customer Cloud Service.

To configure resource and bucket information:

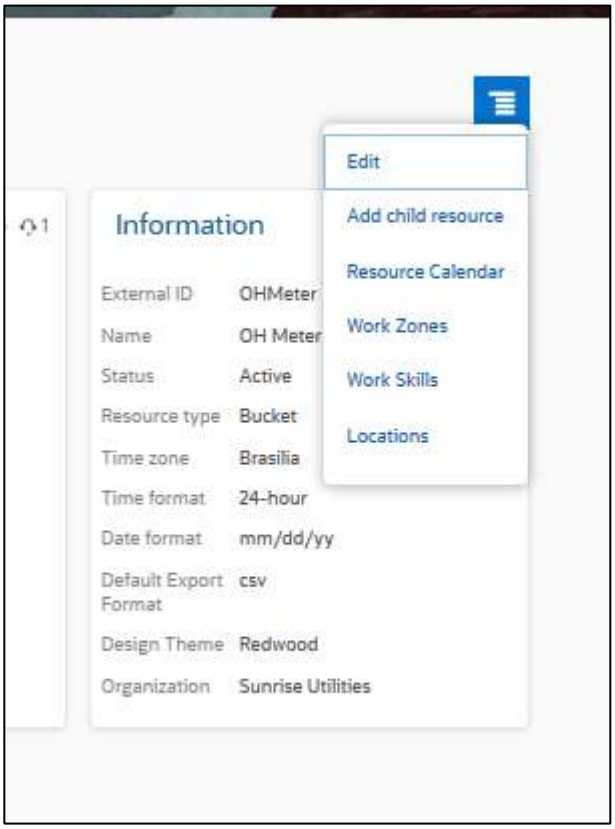
1. On the Oracle Field Service Cloud Home page, go to the Resources.



2. Click **Resource & Bucket Info** and click **Add Child**.



3. Select **Bucket** to add a new bucket in the **Resource type**.
4. Enter the required details and click **OK**.
5. Click **Add Child** Resource and select **Technician** from the **Resource type** drop-down list. Click **OK**.



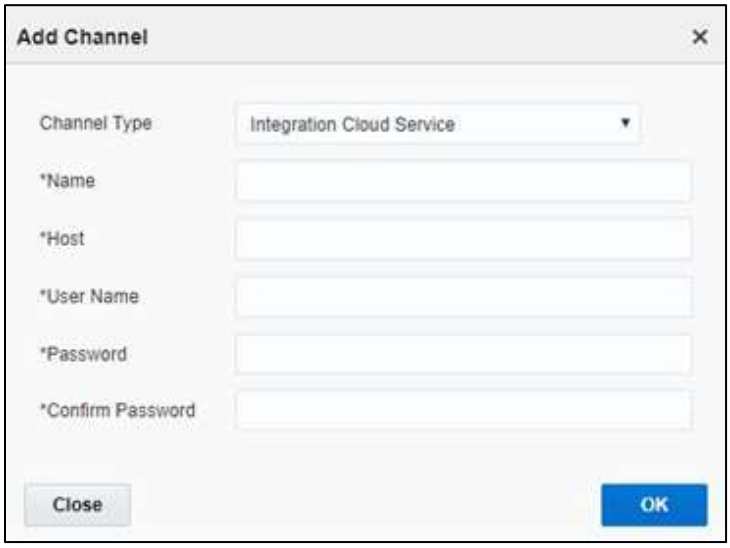
6. Once resource is created,click on work skills and select the work skills from the list of skills.

Outbound Channel

This element is used to create a channel to communicate with Oracle Utilities Customer Cloud Service through Oracle Integration Cloud. Various channel types can be chosen, but since Oracle Utilities Customer Cloud Service integration to Oracle Field Service Cloud is through Oracle Integration Cloud, it is used as the channel type.

To configure an outbound channel:

1. Navigate to the **Configuration** page and click the **Outbound Integration** icon.
2. Click **Add Channel**. Enter the required details and click **OK**.



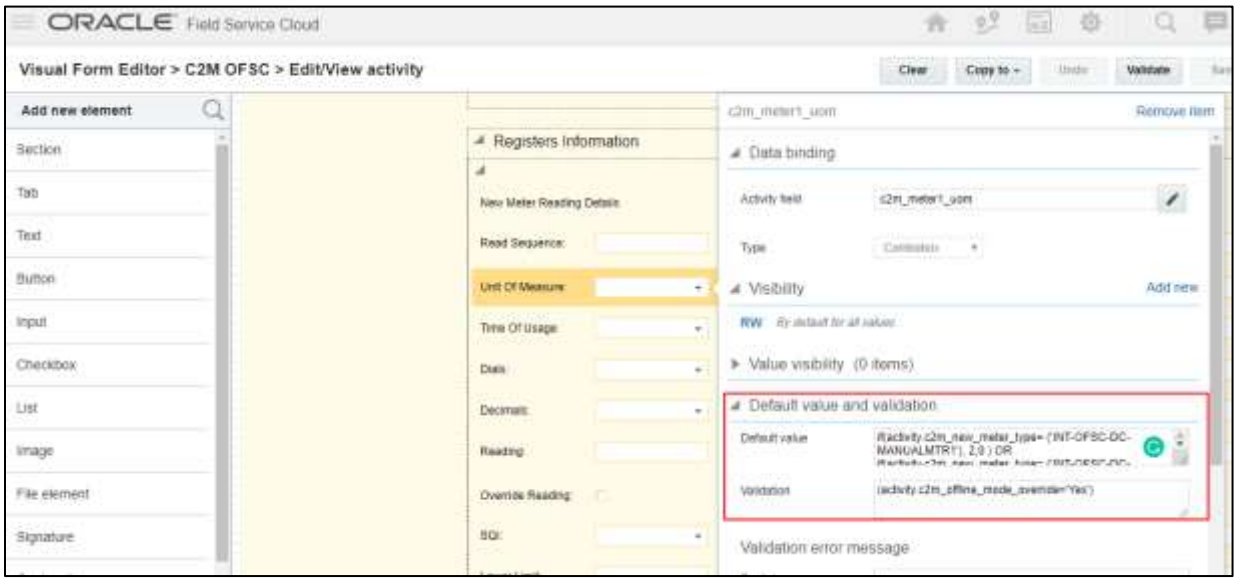
Offline Vs Online Mode

When the crew is enroute to perform an activity in the field there are chances that the location might not have network (offline mode). In such scenarios crew cannot fetch device information and cannot send a request for device verification. To overcome this crew should manually do the entry and select appropriate configuration type which auto populates all the registers information.

Offline Mode Configurations

Since different customers have different configurations to auto populate the registers information, do the following:

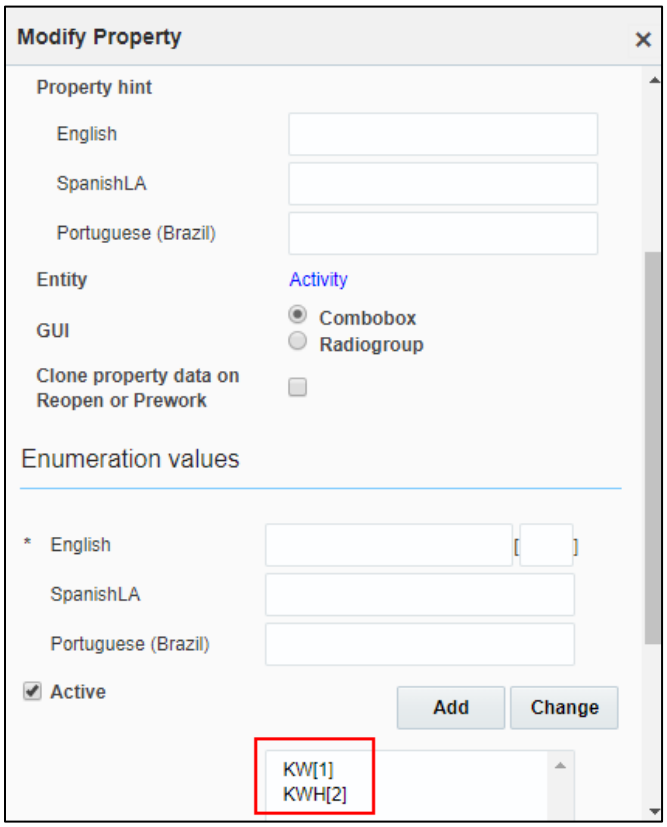
1. Login to Oracle Field Service Cloud.
2. Navigate to **Visual Form Editor > C2M OFSC > Edit/View activity**.
3. Click **Unit Of Measure** and expand the **Default value and validation** section.



The default value code is displayed as:
if(activity.c2m_new_meter_type= ('INT-OFSC-DC-MANUALMTR1'), 2,0) OR
if(activity.c2m_new_meter_type= ('INT-OFSC-DC-MANUALMTR2'), 2,0)
In the above code, if(activity.c2m_new_meter_type= ('INT-OFSC-DC-MANUALMTR1'), 2,0) tells Oracle Field Service Cloud that if the meter type is ''INT-OFSC-DC-MANUALMTR1' the UOM value is 2; else it is 0.

4. To identify the meaning of 2, open the respective property and view the index.
   For example: 2 in the above code represents KHW.

   Note: Values in the property of type enumeration can be extended and can have values in the index based on the requirement. For example: KWH can have a KWH index.



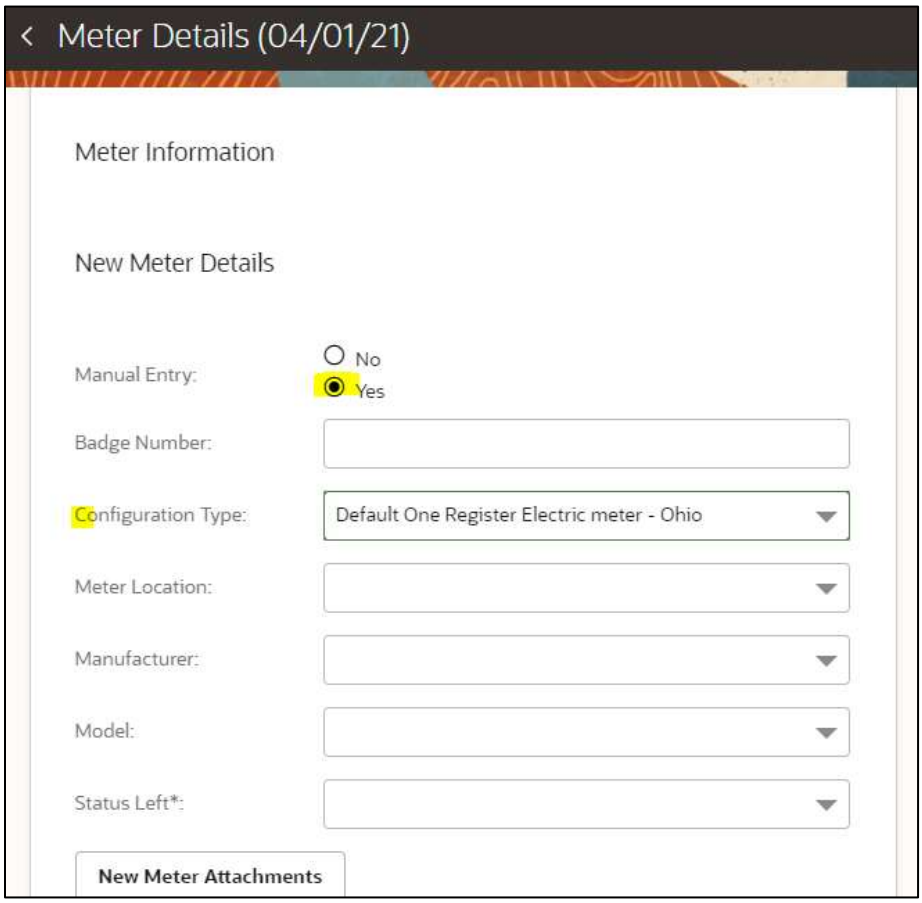
5. Follow step 4 for viewing the TOU, SQI, Dials, Decimals values for all registers.

Note that no configurations are required for online mode.

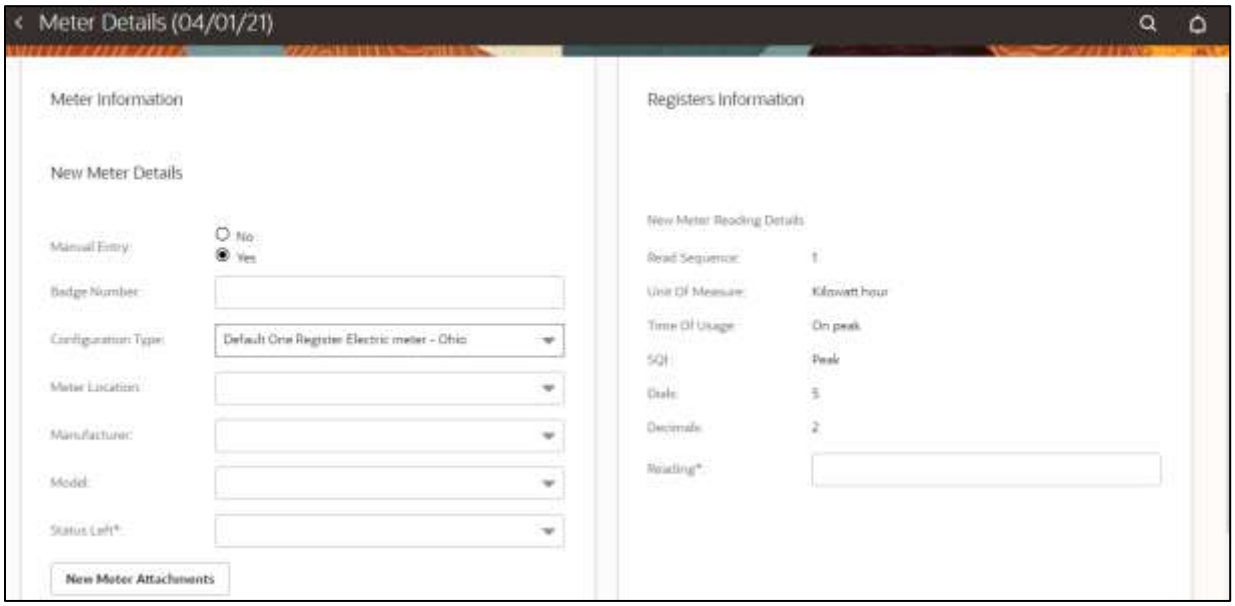
To perform the offline operations:

1. Login to the mobile application.
2. From the activities assigned to the crew, select **Install Meter**.
3. Select **Meter Details** to enter the information.

   If the device is offline, crew should select **Manual Entry** as **Yes** and select the configuration type.



4. After the respective fields are selected based on pre-configuration the registers information is displayed as below. Click **Submit**.

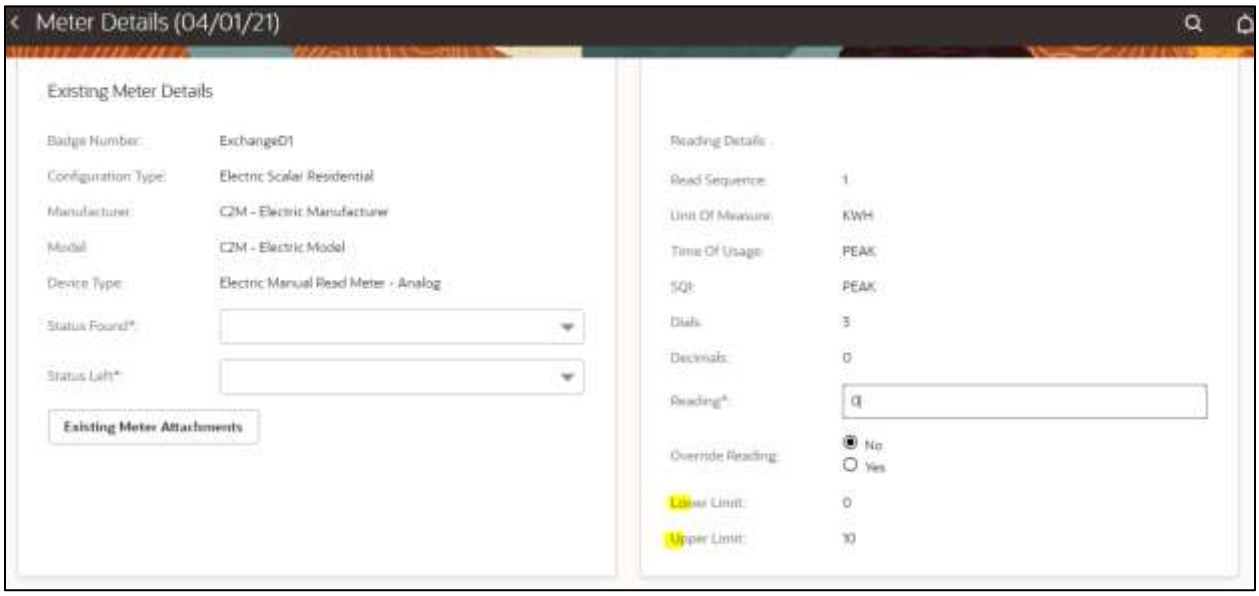


Meter Read Override

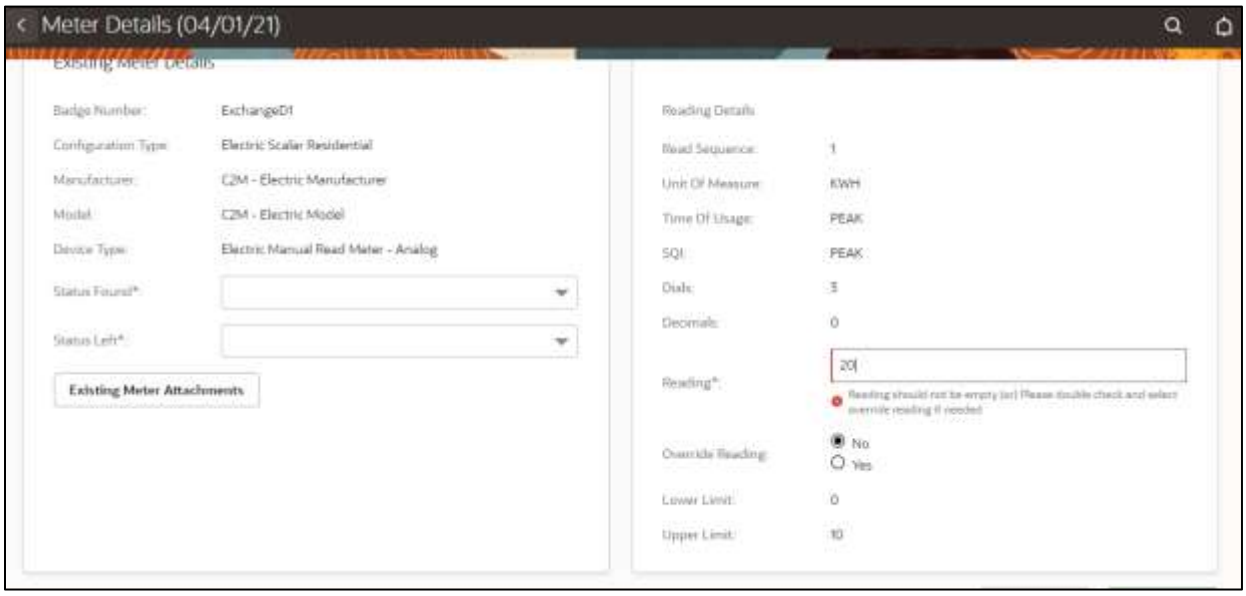
This functionality is applicable in online mode only. Based on the type of activity crew enters the meter readings. The readings should be between the high/low boundaries received by Oracle Field Service Cloud from Oracle Utilities Customer Cloud Service after device verification. If the reading is outside of these limits, Oracle Field Service Cloud displays corresponding error messages. If the meter reading is actually outside the limits, select to override the readings and submit them.

To override meter read:

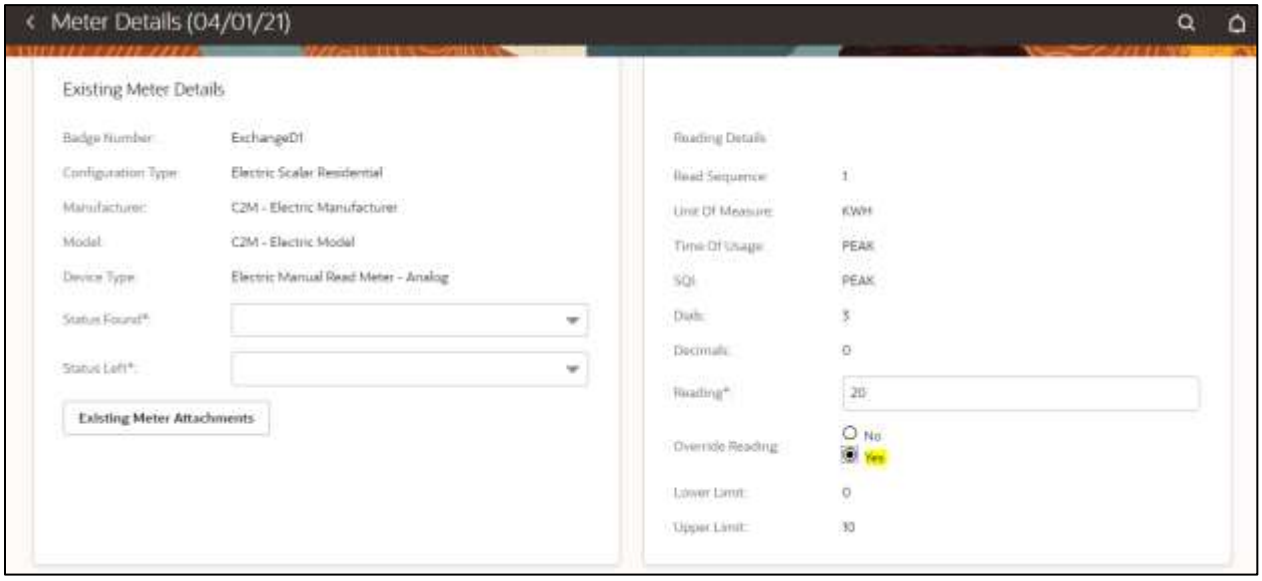
1. Login to mobile application.
2. From the activities assigned to crew select the required activity.
3. Select **Meter Details** and navigate to the user interface.



The lower and upper limit are part of message from Oracle Utilities Customer Cloud Service. It infers that reading should be ideally between these limits but a crew can always override the recommedations. If the reading is not between these limits the application displays an error.

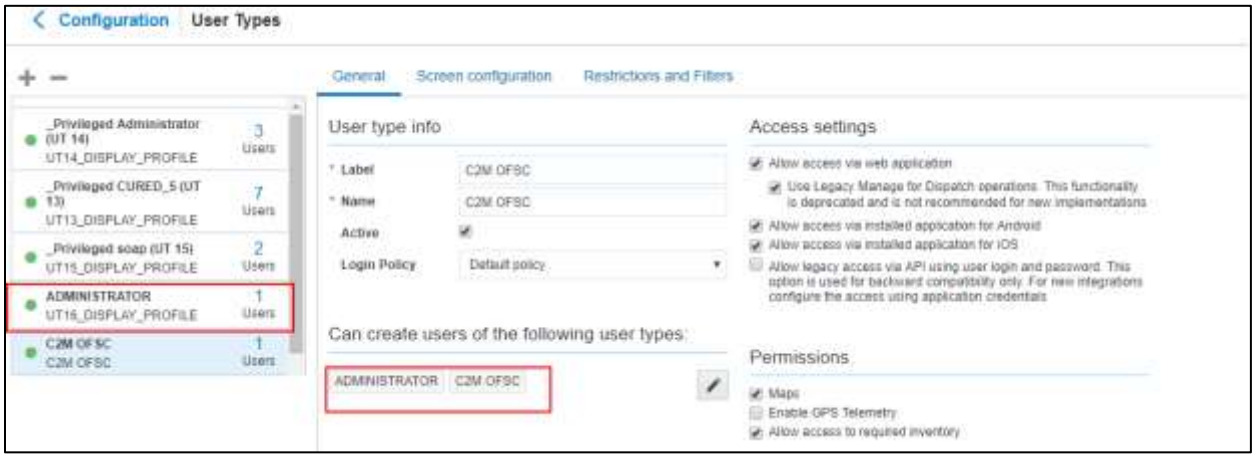


4. To submit the reading, select **Override Reading** as **Yes** and click **Submit**.



Display Profile

This section is applicable to users with display profile other than “UT16_DISPLAY_PROFILE”.



To change the display profile:

1. Open the usertype.xml file.
2. Search for “manger” and change the label based on the Oracle Field Service Cloud configuration.
3. Make sure to change the “managed_user_type” label.

```
<user_types>
 <user_type label="C2M OFSC" status="active" login_policy="Default policy" display_profile="display5d17997f7623f">
  <translations>
   <translation lang="en" value="C2M OFSC"/>
  </translations>
  <managers>
   <manager label="UT16_DISPLAY_PROFILE"/>
   <manager label="C2M OFSC"/>
  </managers>
  <managed_user_types>
   <managed_user_type label="UT16_DISPLAY_PROFILE"/>
   <managed_user_type label="C2M OFSC"/>
```

Quota Configuration

Oracle Field Service Cloud Capacity allows to achieve an optimal resource utilization. Use this feature to plan the resource capacity in advance, forecast the resource allocation, and identify where the quota is under utilized or over utilized.

Capacity Management: Manages the volume of workforce. Capacity ensures that there are enough qualified resources to implement the expected amount and type of work.

Quota Management: Allocates work across the shifts and time slots for the available field resources.

In Oracle Field Service Cloud, quota and capacity can be managed in the capacity management matrix. The quota matrix is generated with real-time data based on the requirements. Update quota values to the business needs using either time-slot based or time-interval based (availability-based) quota management.

The capacity components are described below:

- **Work Skills**: A client-specific set of skills assigned to the resources to determine their skill sets and the qualification level within each skill set.
- **Work Skill Conditions**: A set of rules defined to assign required work skills and work skill levels to the activities.
- **Capacity Categories**: A group of activities with similar work skill requirements. These are used for the quota management purpose.
- **Time Slots**: The amount of quota reserved for a capacity category at a specific time of the day. Time slots are associated with the buckets and individual capacity categories used to manage the capacity management grid. They are also used to manage the activities.
- **Time Intervals**: Define the configured time intervals for booking activities. This value is used to show available capacity, max available resources, and the value for Booking Status time intervals.

For steps to create Work Skills and Work Skill Conditions, see the Work Skills section.

Creating Capacity Categories

To create a capacity category to configure work skills, work skill groups, and time slots:

1. Navigate to the **Configuration** page and click **Capacity Categories**.
2. Click **Add New**.
3. Enter the necessary details. The table below provides the fields available and the description of each field.

Field	Description
Name	Enter the name of the capacity category. The name is displayed in the list and in the quota matrix. If the application is configured for multiple languages, input boxes will appear for each language.
Label	Specify a label. It is used in the context of APIs and it must conform to a standard naming convention.
Active	Select the Active check box to mark this capacity category as active. Only active capacity categories are used in the quota matrix.

4. Click **Save**.

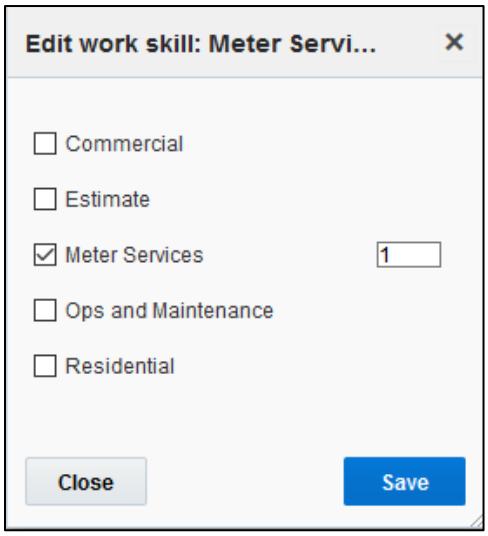
After the capacity category is created, add work skills, work skill groups and time slots to it.

Example:

Adding Work Skill Groups to a Capacity Category

To assign work skills and work skill groups to a capacity category:

1. Navigate to the **Configuration** page and click **Capacity Categories**.
2. Click the pencil icon to edit the work skills.
3. Select the work skill group and provide the work skill condition level value.



4. Click **Save**.

Time Slots

A time slot is a fixed time interval specified in the activity management to perform activities. It denotes the starting time and is assigned to a bucket in the capacity management.

Creating a Time Slot

To create a time slot:

1. Navigate to the **Configuration** page and click **Time Slots**.
2. Click **Add New**.
3. Enter the following details:
    - **Name**: Name the time slot in the *start time – end time* format. Example: 8-10
    - **Time slot label**: Enter the specific label name for the time slot.
    - **Status**: Select **Active** or **Inactive** from the drop-down.
      Note that Oracle Field Service Cloud assigns activities and capacity management to active time slots only.
    - **All-day time slot**: Select it for the time slot to last the entire day.
    - **Time from**: Enter the time to indicate when the time slot begins.
    - **Time to**: Enter the time when the time slot ends.
    - **Capacity Categories**: Select to add activity types and work skill types.

4. Click **Add**.

Adding Time Slots to a Capacity Category

To add a time slot to a capacity category:

1. Navigate to the **Configuration** page and click **Capacity Categories**.
2. Hover over the **Time Slot** column to view the pencil icon.
3. Click it to edit the time slot.
4. Select the required time slots to assign to the capacity category.
5. Click **Save**.

Enabling Quota Management at Bucket Level

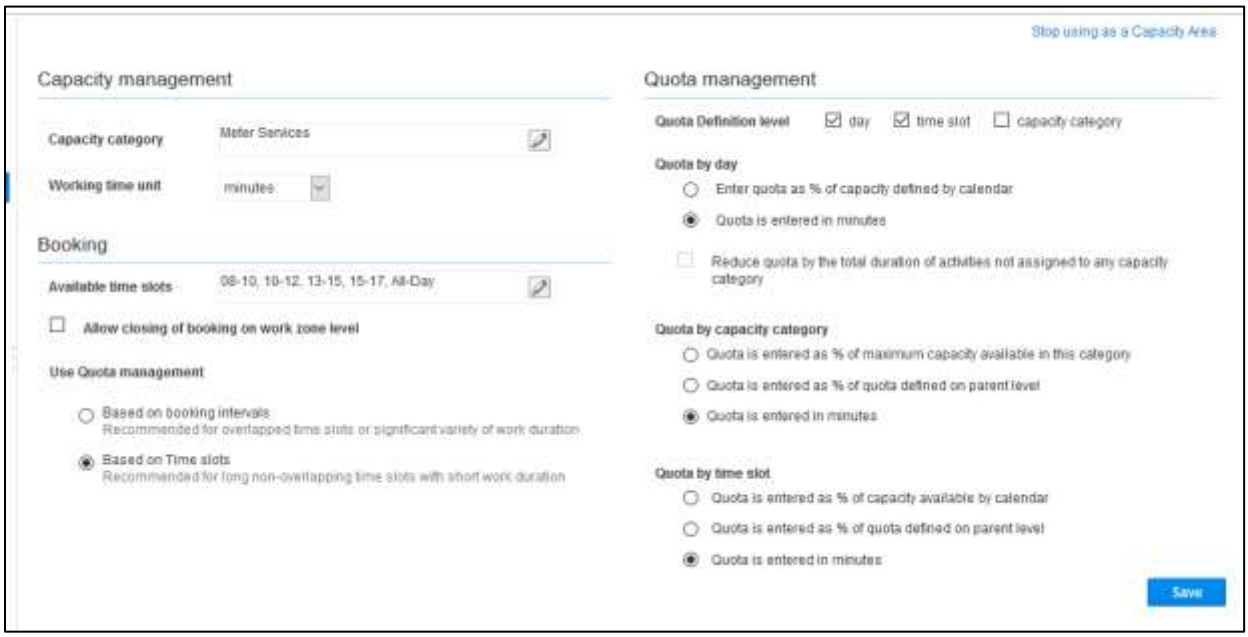
Note that quota management can only be enabled at a bucket level. To do so:

1. Navigate to the **Configuration** page and click **Quota Management.**
2. Select quota, capacity area, resource info.
3. Select the **Use as Capacity Area** check box.
   The quota Management feature is enabled for this bucket. You can now add the management information to your quota matrix.
4. In the **Quota Management** section, configure the following features:
   - **Time Slots**: Edit to add time slots to this bucket. If the time-interval (availability) based booking is configured, do not add time-slots.
   - **Capacity Categories**: Edit to define capacity category types.
5. Click **OK**.

Configuring Quota Options

To configure the quota management settings:

1. Navigate to the Configuration page.
2. Select **Time slot based quota** check box and select **Quota**.
3. Select a capacity area/bucket from the left-hand pane.
4. Click the **Configuration** icon.
5. On the **Configuration** page for the selected bucket, configure the parameters as shown in the figure below.

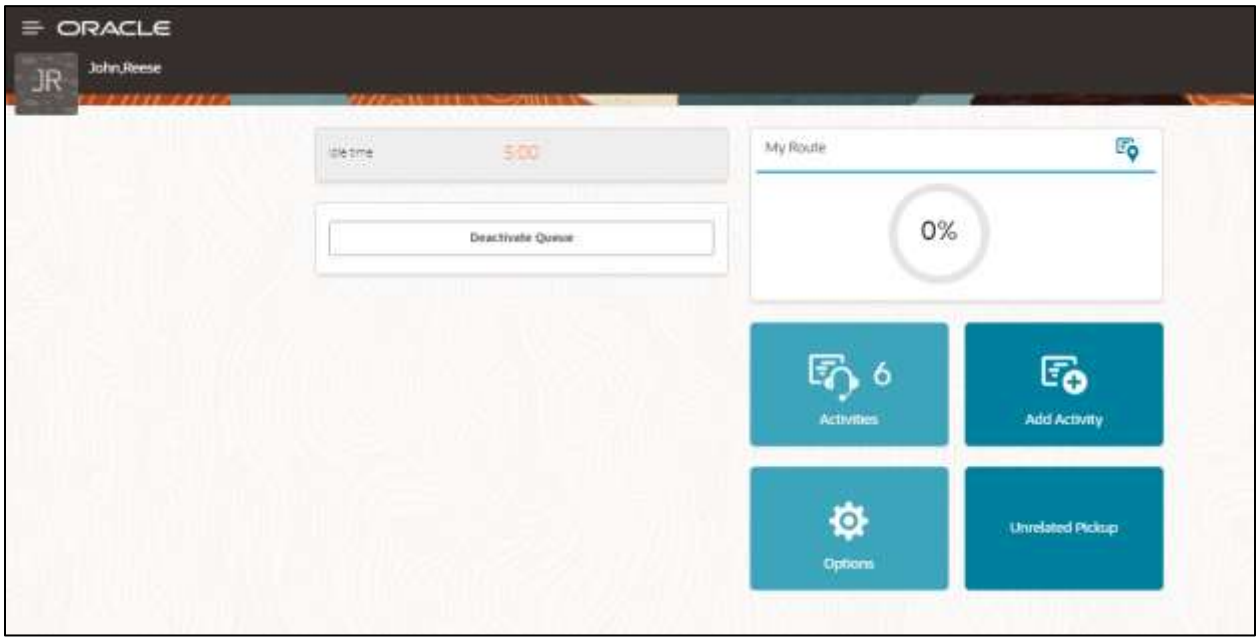

Stop using as a Capacity Area
Capacity management
Capacity category
Meter Services
Working time unit
minutes
Booking
Available time slots
08-10, 10-12, 13-15, 15-17, All-Day
Allow closing of booking on work zone level
Use Quota management
Based on booking intervals
Recommended for overlapped time slots or significant variety of work duration
Based on Time slots
Recommended for long non-overlapping time slots with short work duration
Quota management
Quota Definition level
day
time slot
capacity category
Quota by day
Enter quota as % of capacity defined by calendar
Quota is entered in minutes
Reduce quota by the total duration of activities not assigned to any capacity category
Quota by capacity category
Quota is entered as % of maximum capacity available in this category
Quota is entered as % of quota defined on parent level
Quota is entered in minutes
Quota by time slot
Quota is entered as % of capacity available by calendar
Quota is entered as % of quota defined on parent level
Quota is entered in minutes
Save

Chapter 4: User Operations

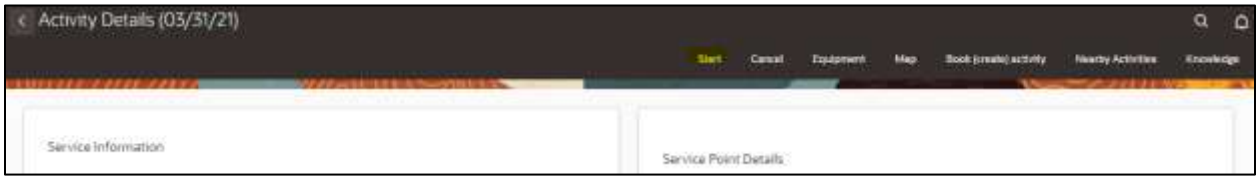
This chapter provides step by step instructions for user operations.

1. Login to Oracle Field Service Cloud Mobility application.

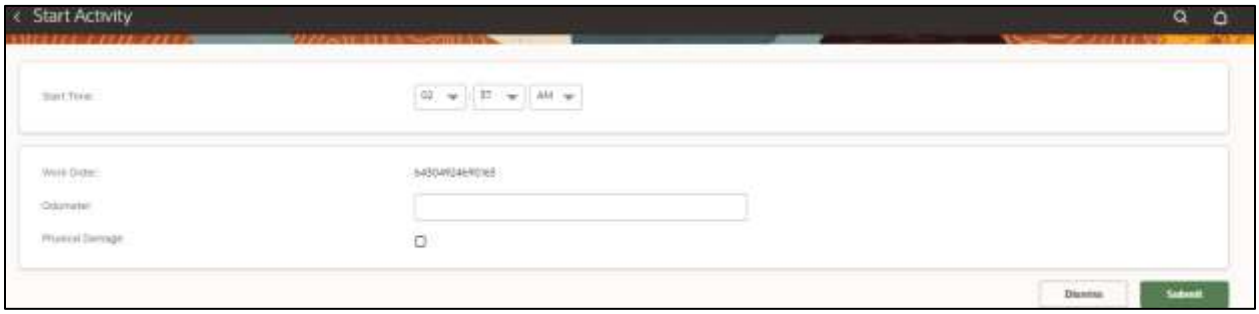
   You can access the application by adding '/m' to the Oracle Field Service Cloud URL <ofsc_link/m>.
2. Access the **Mobility** page using the worker/technician's credentials. The page shows activities in the queue of the worker.
3. Click **Start** to start the activity in the worker's queue.



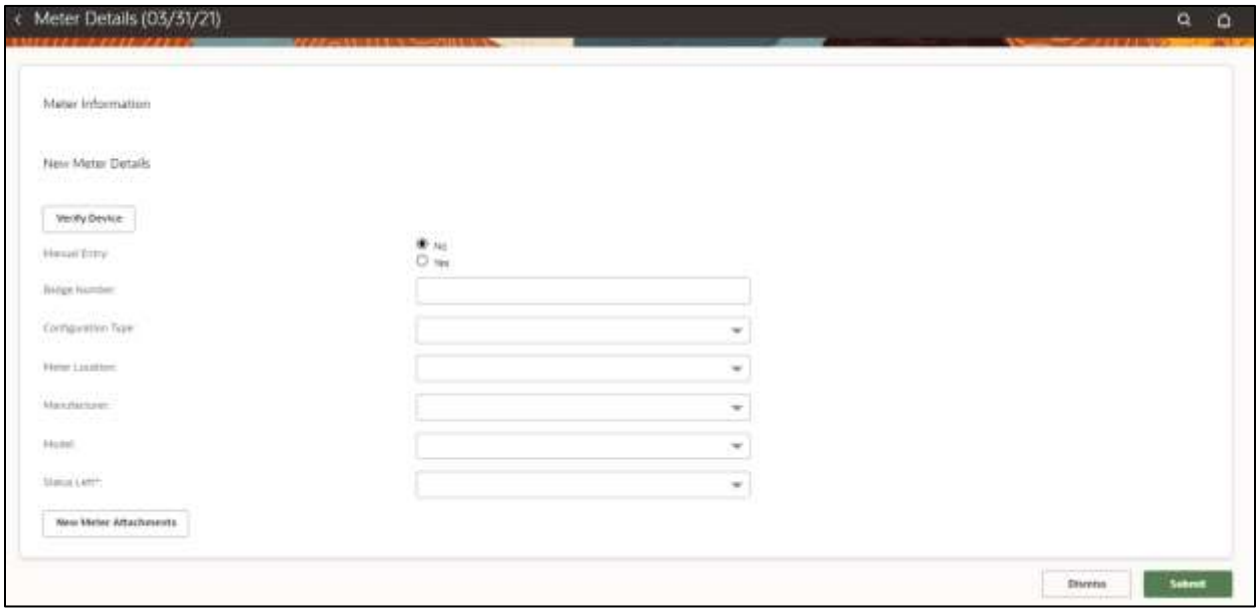
4. Click ">" against the activity. The options **Start**, **Cancel**, **Suspend**, **Map**, and **Book Activity** are displayed.



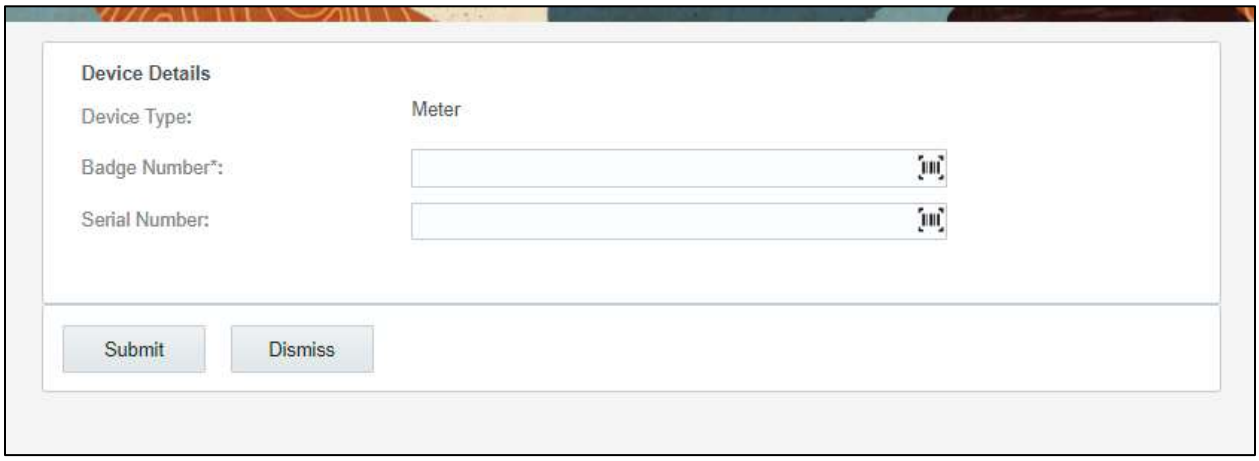
5. Click **Start** to start the activity in the worker's queue.
6. Enter the odometer details and click **Submit**.



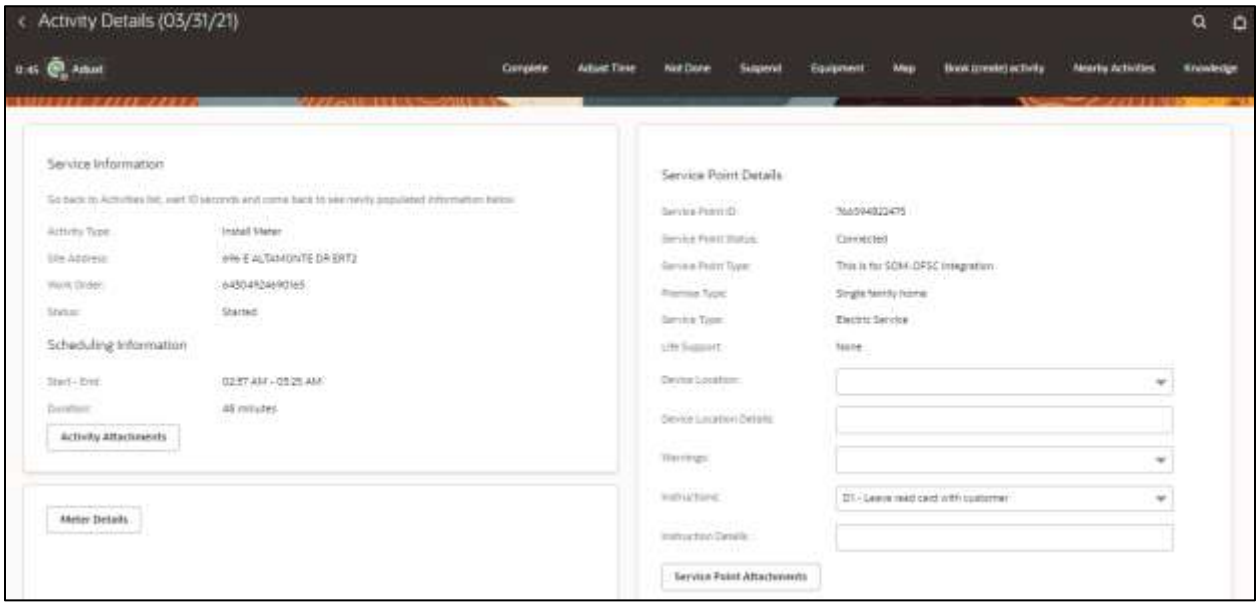
7. Click **Meter Details**. Enter the **Badge Number** and click **Submit**



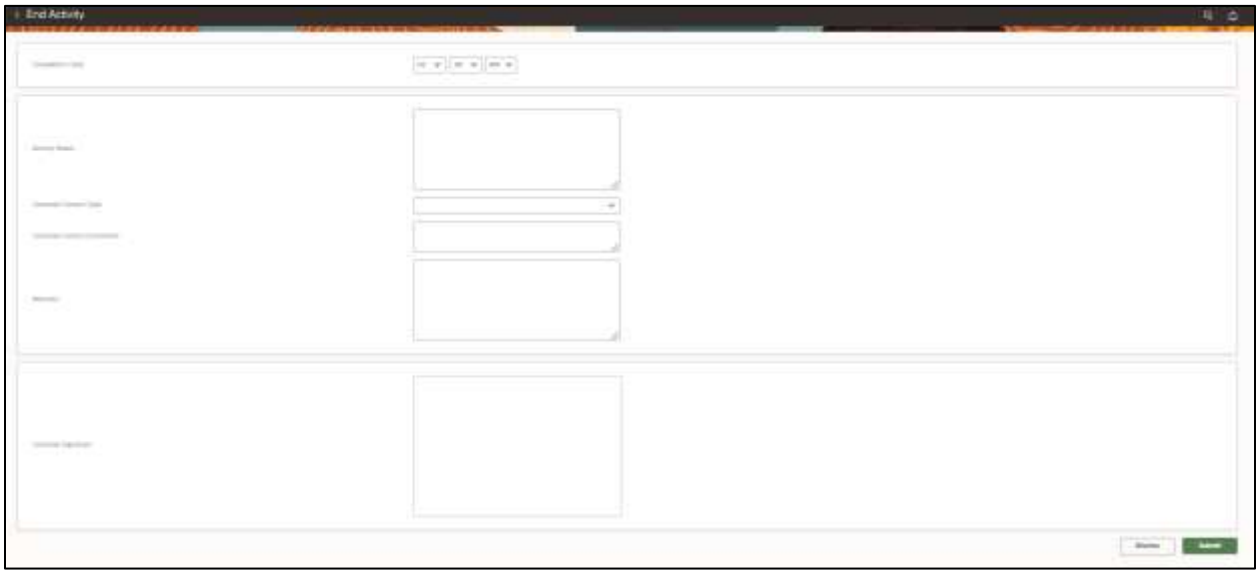
8. Click **Meter Details** and click **Verify**. After the verification is successful, the meter reading information is displayed in the **Registers Information** section.



9. Enter the respective details in the **Meter Information** and **Registers Information** sections. Click **Submit**.
10. Click **Complete.**



11. On the **End Activity** page, enter the required details. Click **Submit**.



Chapter 5: Customizations

Property additions and customizations help customers using this integration to enhance the functionality of the integration and increase the usability too. Customizations are done in Oracle Integration Cloud, Oracle Field Service Cloud and Oracle Utilities Customer Cloud Service depending on the fields, elements or properties to be added and their availability.

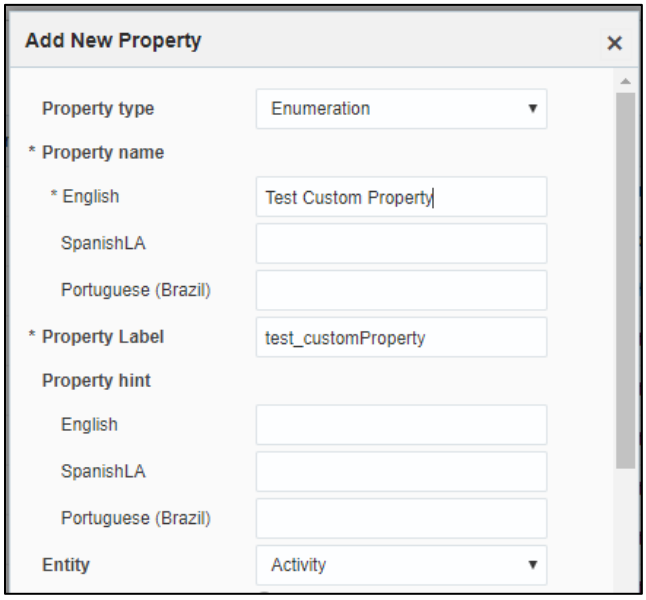
This chapter focusses on the following customizations:

Adding New Fields to Field Activity

This section includes steps to add new fields to Field Activity. These fields are available but not present in Field Activity.

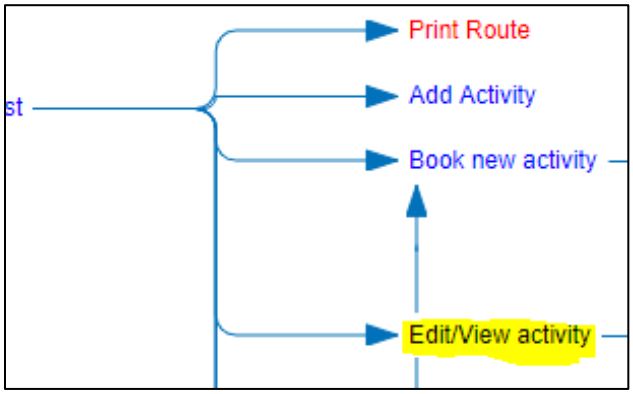
Oracle Field Service Cloud Configurations

1. Login to Oracle Field Service Cloud.
2. Navigate to **Configuration > Properties > Add New Property**.
3. Select the **Entity** and **Type of GUI**. Enter the enumeration values (example: customprop1 and customprop2).

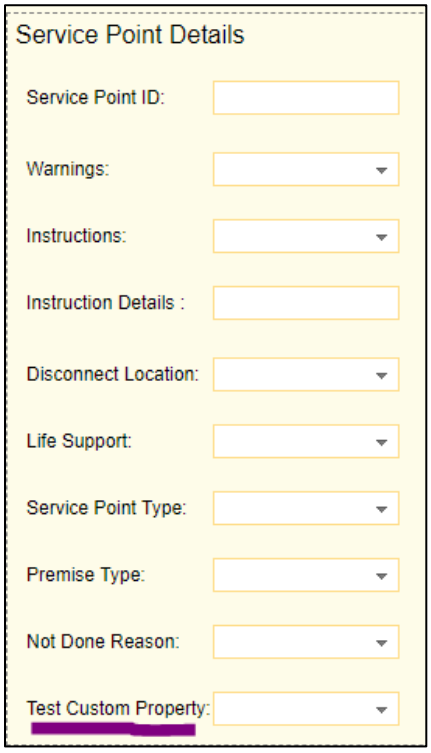


4. Click **Save**.
5. Navigate to **User Types** and select the required user type.

6. Navigate to **Screen Configurations** of the selected user type and open the **Edit/View activity** section.



7. In the **Add New Element** section, drag and drop a new 'Input' to add a new element.
8. Map the element to **Test Custom Property**. Save this screen configuration after mapping the field.



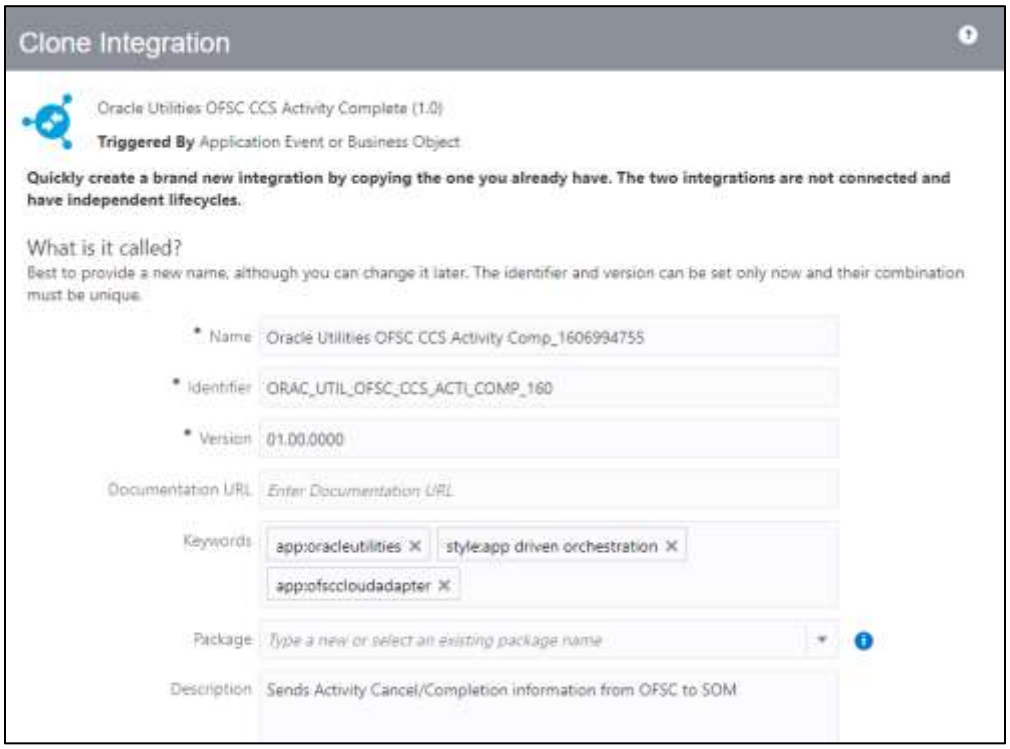
Oracle Integration Cloud Configurations

In Oracle Integration Cloud configurations use xsl files and not graphical mapper to include new properties. Since the changes are made in Oracle Field Service Cloud and the flow is from Oracle Field Service Cloud to Oracle Utilities Customer Cloud Service, modify the .iar file for *Complete Activity*.

For xsl files to include the new field mappings as properties in Oracle Field Service Cloud:

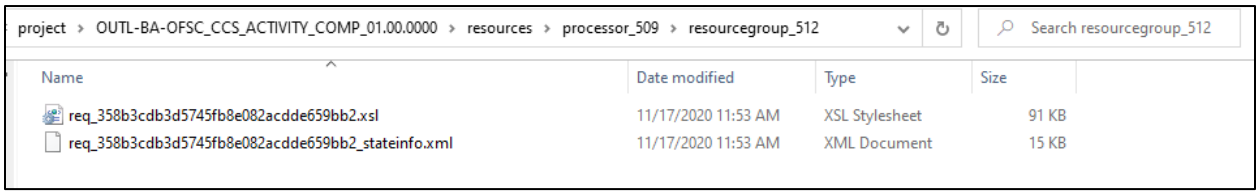
1. Login to Oracle Integration Cloud.
2. Navigate to **Integrations** and clone Oracle Utilities OFSC CCS Activity Complete (1.0).

3. On the **Clone Integration** window, change the **Name** and **Identifier** as required.

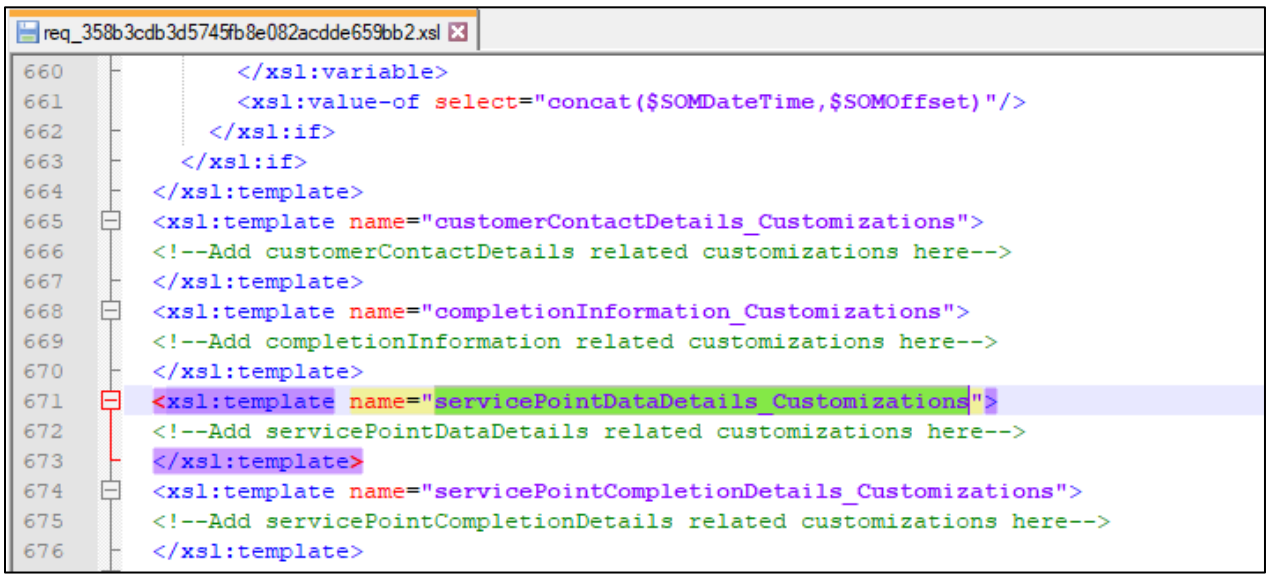


4. Select the package or enter the package name. Click **Clone**.
   The new cloned integration is created under the package name entered during the cloning of an integration.
5. Extract the cloned Integration .iar file.

6. For Oracle Field Service Cloud response use the following xsl file. Navigate to the file location and select it.
   OUTL-BA-OFSC_CCS_ACTIVITY_COMP_01.00.0000\icspackage\project\ OUTL-BA-OFSC_CCS_ACTIVITY_COMP_01.00.0000\resources\processor_509\resourcegroup_512\req_358b3cdb3d5745fb8e082acdde659bb2.xsl
   For detailed information refer to *Oracle Customer Cloud Service Integration to Oracle Field Service Cloud Configuration Guide v20C*.



7. Navigate to <xsl: template..> tags towards the end of the file.
8. Select the appropriate template tag based on the new UI property to be added in Oracle Field Service Cloud UI.
   For example: To add a new field on the **Service Point Details** screen, choose the following xsl tag:
   <xsl:template name="servicePointDataDetails_Customizations">



9. Add the new customized property in this tag. The sample custom property named u_custom is as below:
   <tns:custom1>
   <xsl:value-of select="$invokeOFSCGetActivity/nsmpr0:canonical_GETResponse/nsmpr0:activities.definitions.getActivitySchema/nsmpr1:u_custom"/>
   </tns:custom1>

```
<xsl:template name="servicePointDataDetails_Customizations">
  <tns:custom1>
    <xsl:value-of select="$invokeOFSCGetActivity/nsmpr0:canonical_GETResponse/nsmpr0:activities.definitions.getActivitySchema/nsmpr1:u_custom"/>
  </tns:custom1>
</xsl:template>
```

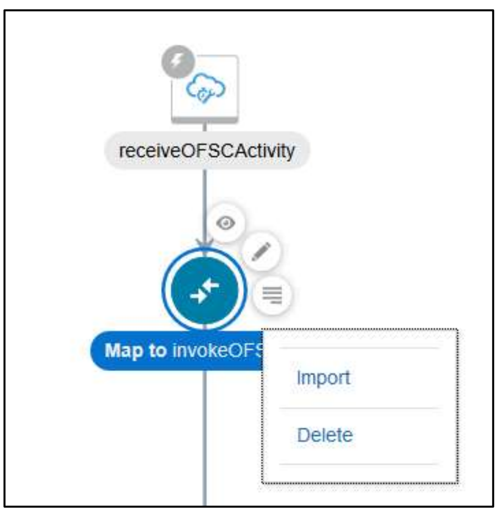
10. After editing, save the xsl and test the syntax by opening it in a web browser. It should open as shown without any errors.

[redacted]OUTL-BA-OFSC_CCS_ACTIVITY_COMP_01.00.0000\icspackage\project\OUTL-BA- Search...

[redacted]

```
<?xml version="1.0" encoding="UTF-8"?>
- <xsl:stylesheet xmlns:ns14="http://www.oracle.com/XSL/Transform/java/oracle.tip.pc.services.functions.JsExecutor_xpath673895125"
xmlns:nsmpr3="http://www.oracle.com/XSL/Transform/java/oracle.tip.pc.services.functions.JsExecutor_xpath123170385"
xmlns:ns2="http://xmlns.oracle.com/ics/tracking/ics_tracking_context.xsd" xmlns:ns12="http://xmlns.oracle.com/cloud/adapter/items"
xmlns:ns11="http://xmlns.oracle.com/cloud/adapter" xmlns:ns10="http://xmlns.oracle.com/cloud/adapter/ofsccloudadapter/GetDeinstalledInventory_REQUEST
xmlns:ns9="http://xmlns.oracle.com/cloud/adapter/ofsccloudadapter/GetInstalledInventory_REQUEST/types"
xmlns:ns8="http://xmlns.oracle.com/cloud/adapter/ofsccloudadapter/GetCustomerInventory_REQUEST/types"
xmlns:dvm="http://www.oracle.com/XSL/Transform/java/oracle.tip.dvm.LookupValue"
xmlns:xref="http://www.oracle.com/XSL/Transform/java/oracle.tip.xref.xpath.XRefXPathFunctions"
xmlns:mhdr="http://www.oracle.com/XSL/Transform/java/oracle.tip.mediator.service.common.functions.MediatorExtnFunction"
xmlns:ns0="http://xml.oracle.com/adapters/extension" xmlns:socket="http://www.oracle.com/XSL/Transform/java/oracle.tip.adapter.socket.ProtocolTranslator
xmlns:ns3="http://xmlns.oracle.com/cloud/generic/rest/fault/OfscCloudAdapter/invokeOFSCGetActivity"
xmlns:nsmpr2="http://www.oracle.com/XSL/Transform/java/com.bea.wli.sb.functions.dvm.DVMFunctions"
xmlns:nsmpr1="https://api.etadirect.com/rest/ofscCore/v1/metadata-
catalog/http://xmlns.oracle.com/cloud/adapter/ofsccloudadapter/invokeOFSCGetActivity_REQUEST/types" xmlns:xml="http://www.w3.org/XML/1998/namesp
xmlns:nsmpr0="http://xmlns.oracle.com/cloud/adapter/ofsccloudadapter/invokeOFSCGetActivity_REQUEST/types" ignore01:ignorexmlids="true"
xmlns:ignore01="http://www.oracle.com/XSL/Transform/java" exclude-result-prefixes="oraext xsd xp20 nssrcmpr ns7 ora oracle-xsl-mapper nssrcdfl xsi fn xsl ign
nsmpr1" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" xmlns:ouaf="http://ouaf.oracle.com/" xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
xmlns:fn="http://www.w3.org/2005/xpath-functions" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:wssutil="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" xmlns:nssrcdfl="http://xmlns.oracle.com/procmon"
xmlns:ns1="http://xmlns.oracle.com/cloud/adapter/Oracle_Utilities/invokeSOMActivity" xmlns:oracle-xsl-mapper="http://www.oracle.com/xsl/mapper/schemas"
xmlns:tns="http://ouaf.oracle.com/webservices/d1/D1-FieldActivityIBComm" xmlns:ora="http://schemas.oracle.com/xpath/extension"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" xmlns:ns7="http://www.oracle.com/ofsc-metadata-catalog" xmlns:nssrcmpr="http://www.oracle.com/ofsc-met
catalog/types" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xp20="http://www.oracle.com/XSL/Transform/java/oracle.tip.pc.services.functions.Xp
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsp="http://www.w3.org/ns/ws-policy" xmlns:plnk="http://schemas.xmlsoap.org/ws/2003/05/partn
xmlns:oraext="http://www.oracle.com/XSL/Transform/java/oracle.tip.pc.services.functions.ExtFunc"
xmlns:nstrgmpr="http://xmlns.oracle.com/cloud/adapter/Oracle_Utilities/invokeSOMActivity/types" xml:id="id_1" version="2.0">
  - <oracle-xsl-mapper:schema xml:id="id_2">
```

11. To upload the xsl file in Oracle Integration Cloud, deactivate the integration, open the flow and select the mapping icon. Click ***More Actions*** and select ***Import***. Browse the .xsl file and import it.



Adding New Fields and Lookup to Field Activity

This section focuses on adding new fields that are not available.

Oracle Field Service Cloud Configurations

For instructions see the Oracle Field Service Cloud Configurations section in Adding New Fields to Field Activity. Add the property, drag and drop it on the UI screen where it is needed and save the UI screen in the user types.

Oracle Integration Cloud Configurations

1. For a customized lookup in Oracle Field Service Cloud, follow the steps in the Oracle Integration Cloud Configurations section in in Adding New Fields to Field Activity.

   Extract .iar and navigate to the required xsl tag (based on the location of the new lookup) in the xsl file you are editing as per the process flow.

2. Instead of adding the custom property, modify the following:

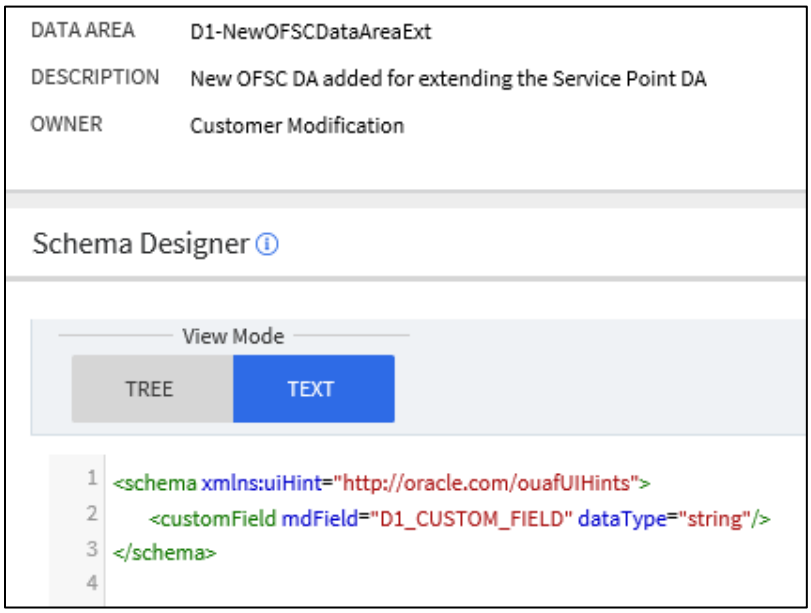
   <tns:customLookup>
   <xsl:value-of select="nsmpr2:lookupValue('tenant/resources/dvms/OFSCSOM_customLookup', 'OFSC_customLookup', $invokeOFSCGetActivity/nsmpr0:canonical_GETResponse/nsmpr0:activities.definitions.getActivitySchema/nsmpr1:u_Remarktypes, 'SOM_customLookup', $invokeOFSCGetActivity/nsmpr0:canonical_GETResponse/nsmpr0:activities.definitions.getActivitySchema/nsmpr1:u_Remarktypes)"/>
   </tns:customLookup>

3. Upload the xsl file in Oracle Integration Cloud after verification in a browser.

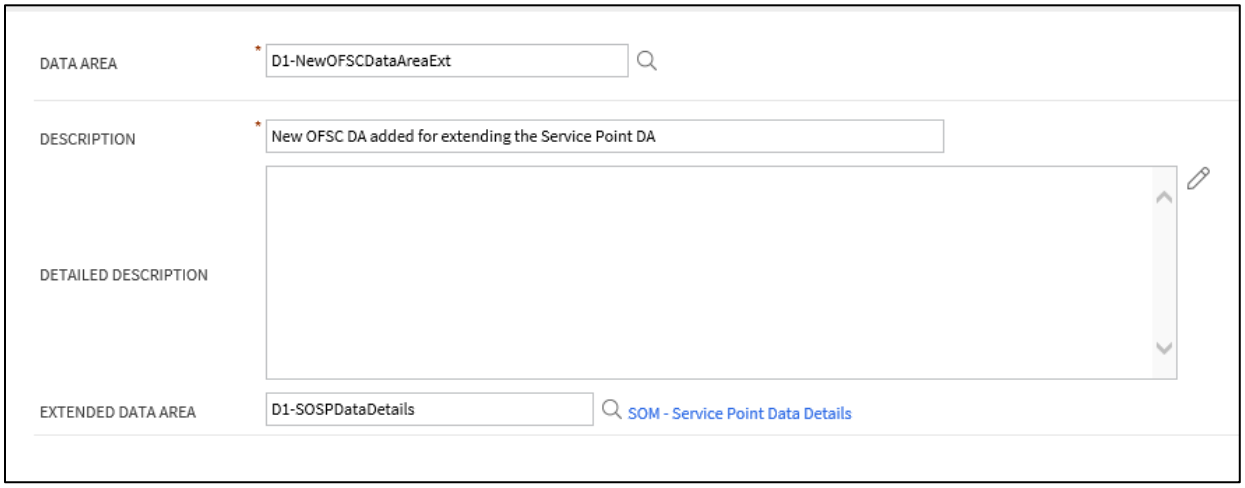
Oracle Utilities Customer Cloud Service Configurations

To configure Oracle Utilities Customer Cloud Service with a new schema element:

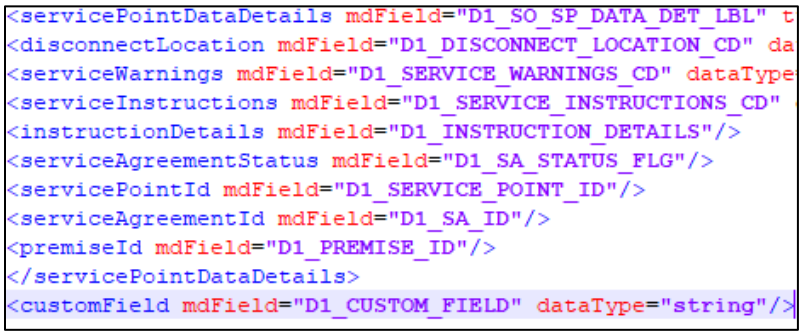
1. Navigate to the *D1-FieldActivityOBComm* business object and identify the data area to add the new schema element.
   For example: To make changes to the **Service Point Details** section, the data area to be modified is a custom data area created for Oracle Field Service Cloud.



2. Extend the data area by adding the Service Point Details DA in the extended DA section.



3. New schema element should now be displayed in BO schema.



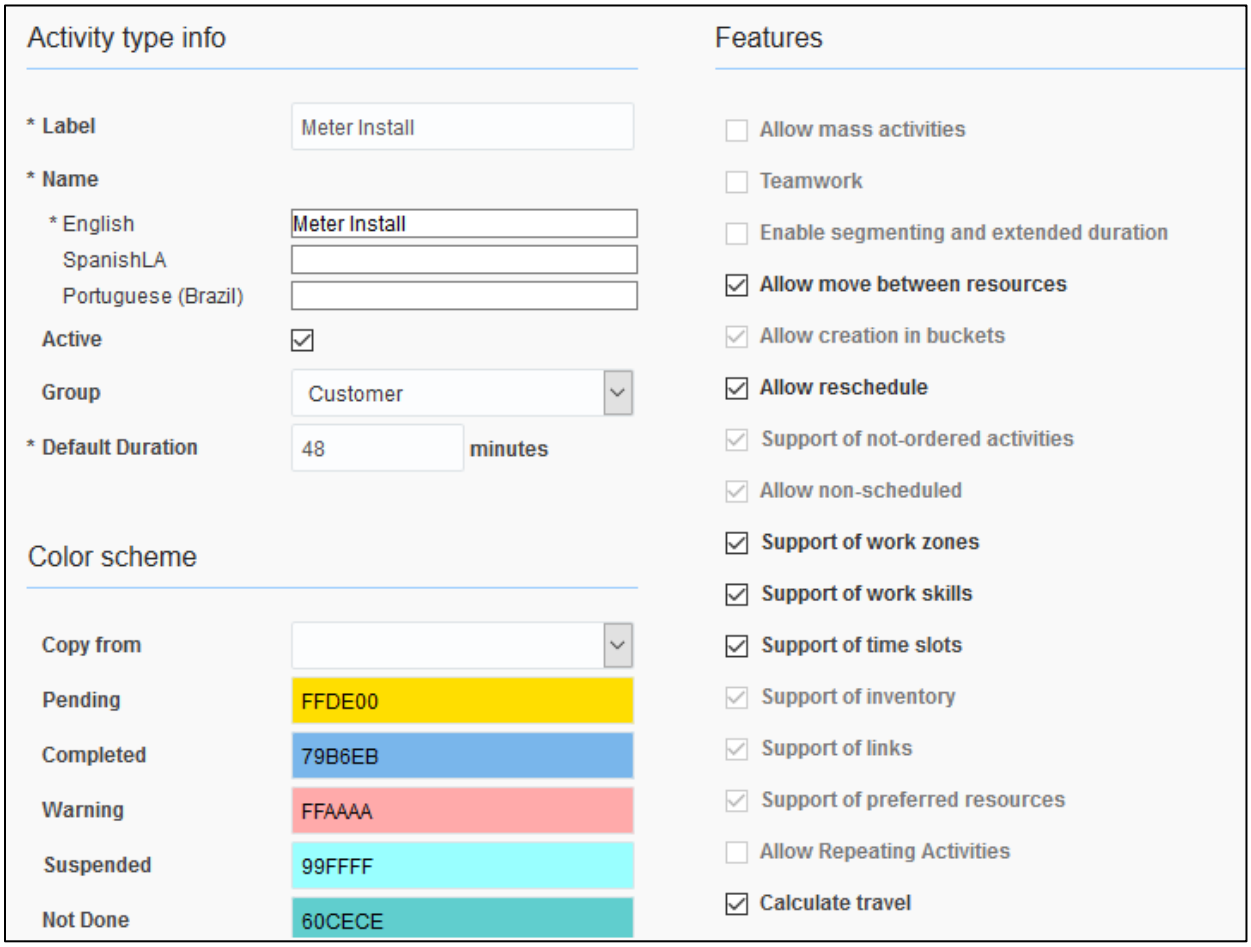
Adding New/Custom Activity Types

Oracle Field Service Cloud allows users to create/update or clone the activity types.

Creating an Activity Type

To create and activity:

1. Navigate to **Configuration** > **Resources, Activities, Inventories** > **Activity Types**.
2. Click **Add Activity Type**.



3. Enter the label and name for activity in the respective **Label** and **Name** fields.
4. Select **Activate** to activate the activity type.
5. Select the necessary features.

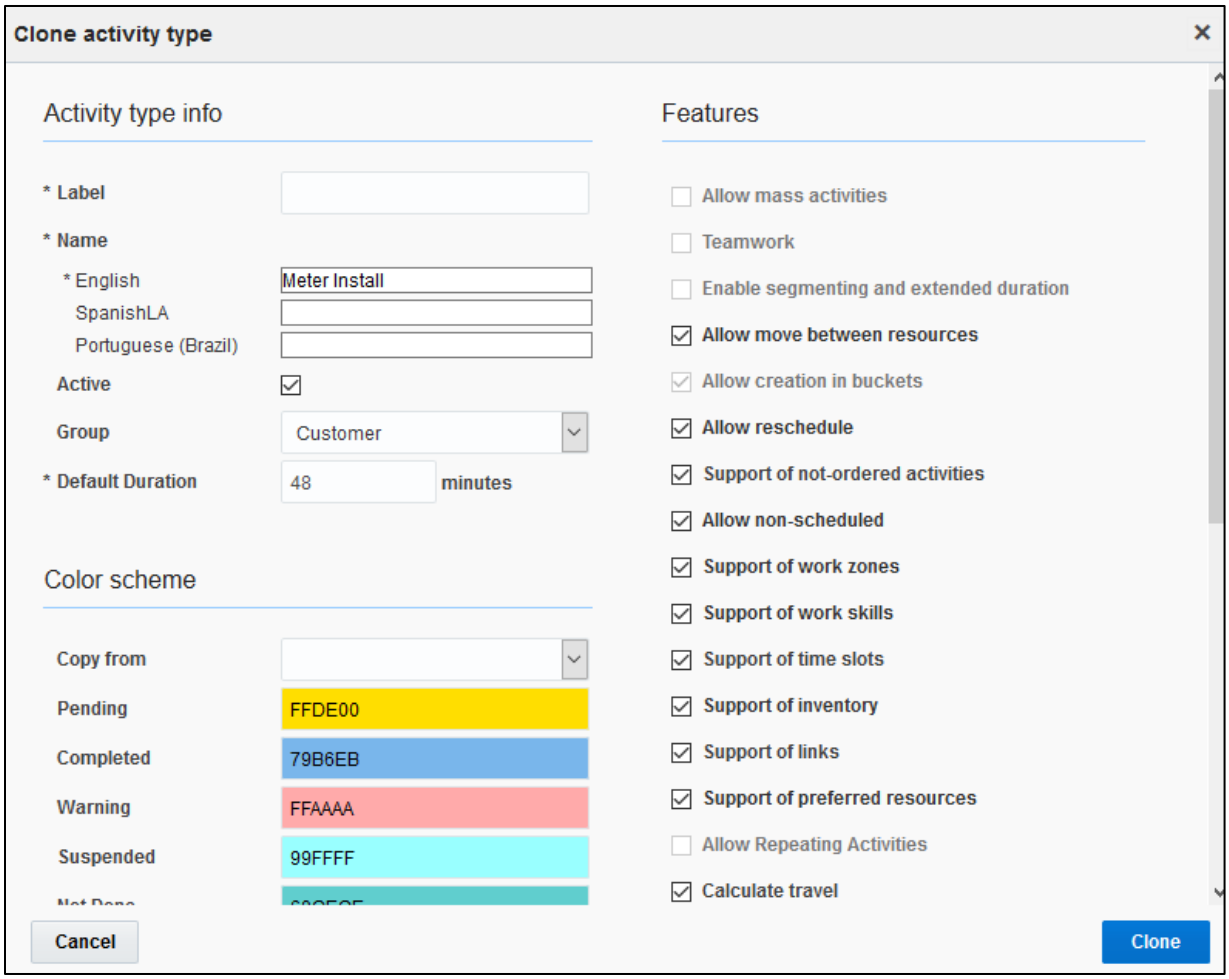
Cloning an Activity Type

To clone an activity type:

1. Navigate to **Configuration** > **Resources, Activities, Inventories** > **Activity Types**.
2. In the list of activity types, click **Clone** for the activity type to be cloned.

After the clone is complete, all features of the existing activity are applied to the new activity type.

3. Enter a new activity label and name. Click **Clone**.

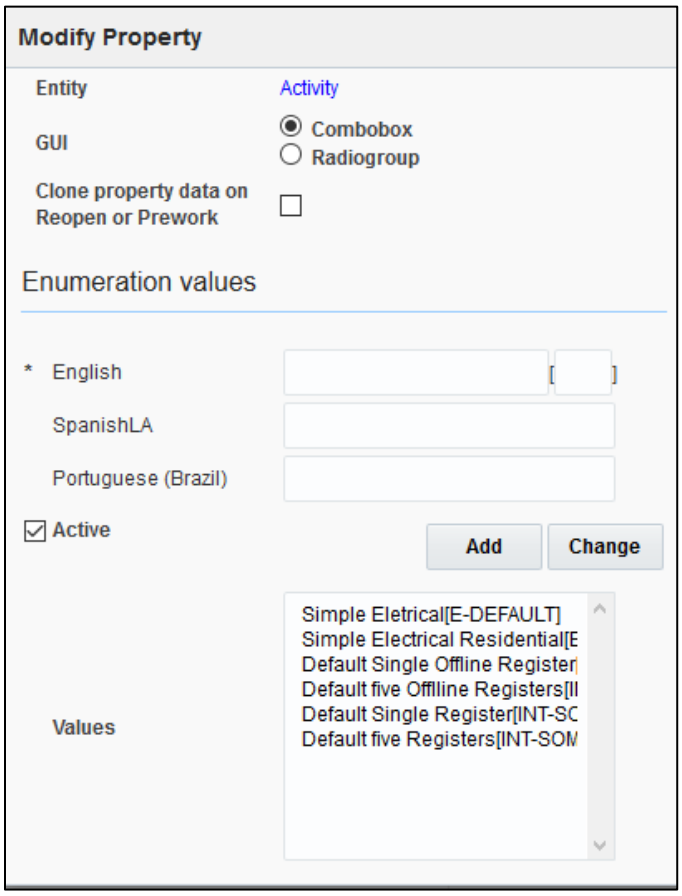


Adding Enumeration Values to OFSC Property

Oracle Filed Service Cloud includes enum properties that need to add values to Oracle Utilities Customer Cloud Service, such as SQI, TOU, UOM, meter configuration type, etc.

To add values to the enum property:

1. Login to Oracle Field Service Cloud.
2. Navigate to **Configuration** > **Properties**.
3. Search for the property with label.
4. Click **Modify Property**.
   Values field shows a combination of *Description[id]*. Example: Simple Electrical[E-DEFAULT]



5. In the **English** field, enter the description and code.
6. Enter “Item” to verify an item as part of custom activity and activity as part of ID. Example: Item[Custom_item_activity_type]
7. Click **Add** to add the values to the **Values** list.
8. Click **Update** to save the value to the property.

   The table below lists the properties to be updated to add custom values apart of the demo values (that are part of the accelerator.

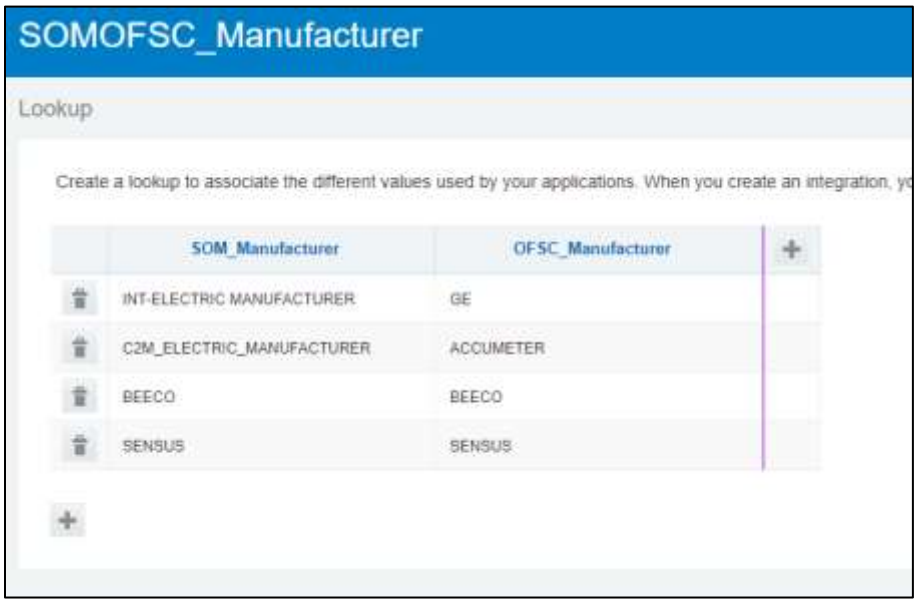
OFSC Property	Oracle Utilities Customer Cloud Service Admin Table
Service Point Status Code	Service Point Status
New Item Type	Device Type
New Meter TOU	Time Of Use
Customer Contact Type	Customer Contact Type
New Meter SQI	Service Quantity Identifier
Disconnect Location	Disconnect Location
Service Point Instructions	Service Instructions
Service Point Warnings	Service Point Warnings
New Item Model	Model
New Meter Model	Model
New Item Manufacturer	Manufacturer
New Meter Manufacturer	Manufacturer
New Meter UOM	Unit Of Measure
Item Configuration Type	Device Configuration Type
Unit Of Measure	Unit Of Measure
Time Of Use	Time Of Use
Premise Type	Premise Type
Service Point Type	Service Point Type
Meter Configuration Type	Device Configuration Type
Remark Type	Remark Type
Premise Warning	Service Point Warnings
Cancellation Reason	FA Cancel Reason
Customer Contact Type	Customer Contact Type
Meter ID Types	Meter ID Type
Read Type	Read Type

9. Add entry to the corresponding Oracle Integration Cloud look up.

   Example: After adding value to the Manufacturer properties, add an entry to the SOMOFSC_Manufacturer Oracle Integration Cloud look up.

   To add an entry to the look up:

   a. Login to Oracle Integration Cloud.
   b. Navigate to **Designer** > **Lookups**.
   c. Search for the respective look up. Example: SOMOFSC_Manufacturer

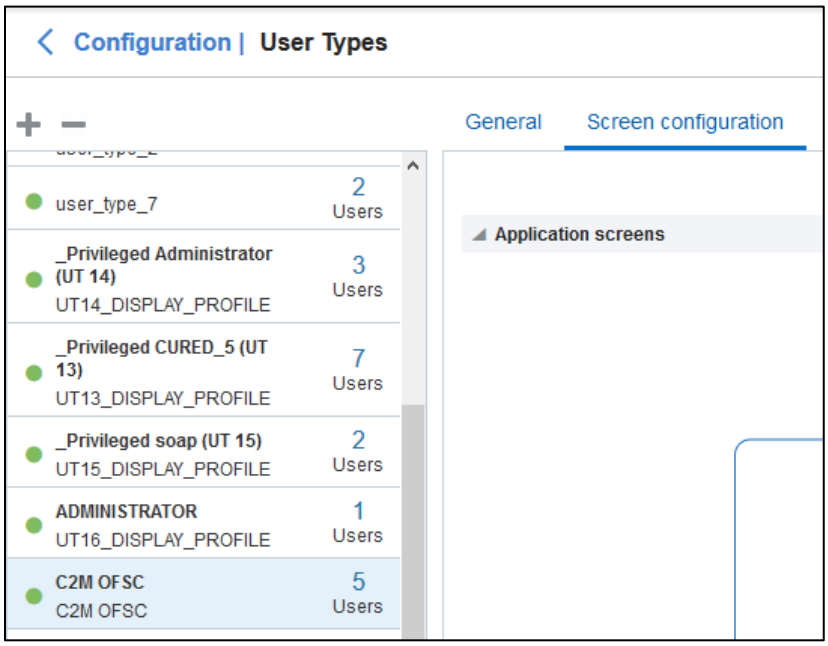


d. Click **+**.
e. Enter the SOM code in the **SOM_Manufacturer** column.
f. Enter the ofsc enum field ID in the **OFSC_Manufacturer** column.
g. Click **Save**.
h. Deactivate and activate the integration using the look up.

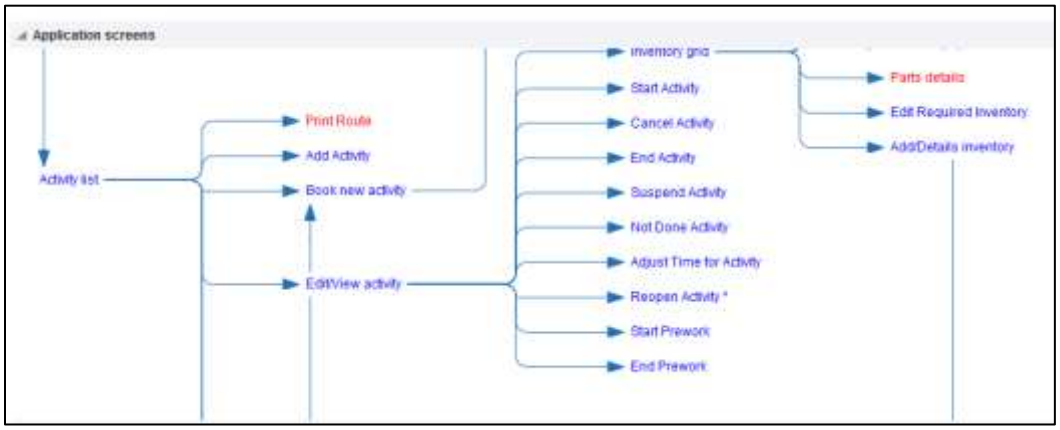
Adding Fields to UI in OFSC

To add newly created properties to the Mobility/UI screen:

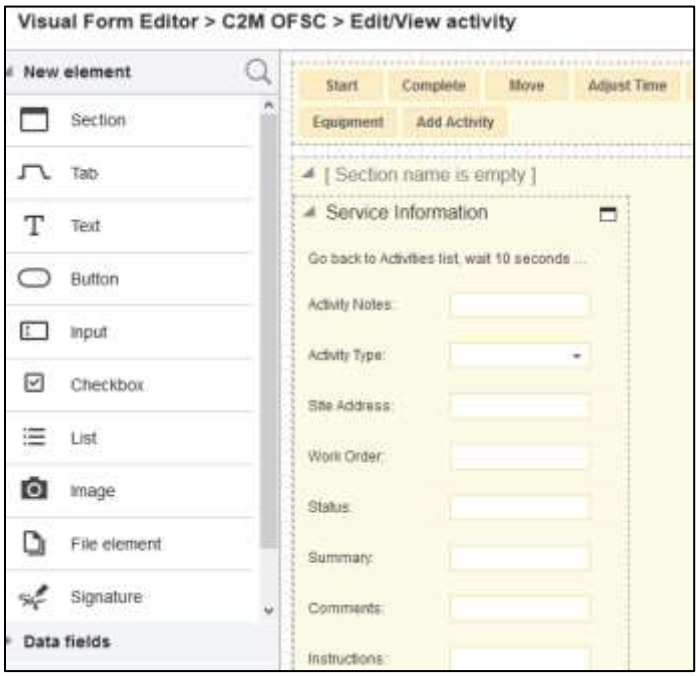
1. Login to Oracle Field Service Cloud.
2. Navigate to **Configuration** > **User Types**.
3. Click the **C2M OFSC** user type and click **Screen configuration**.



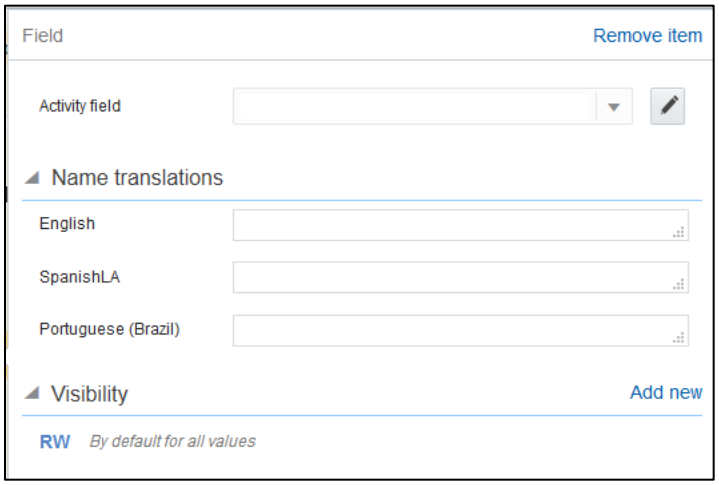
The **Application screens** tab shows different screens.



4. Click **Edit/View Activity** to add a field to the activity level.



5. Drag and drop the required elements available in the left pane.



6. Select the required property from the **Activity field** section drop down.
7. In the **Name translations** section, enter the label name in the respective language field.
8. In the **Visibility** section, enter if the property should be read or read-write.
9. Click **Save**.

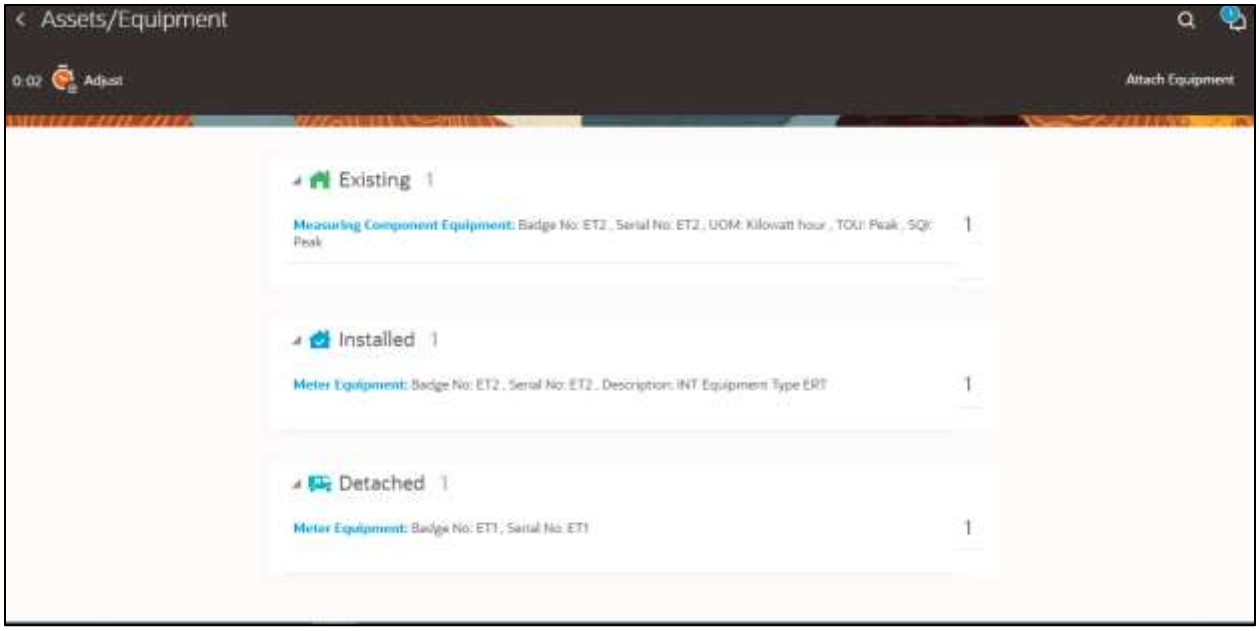
Glossary Customization

The labels of equipment and install and detach screens can be changed using the glossary file available as part of the accelarator zip.

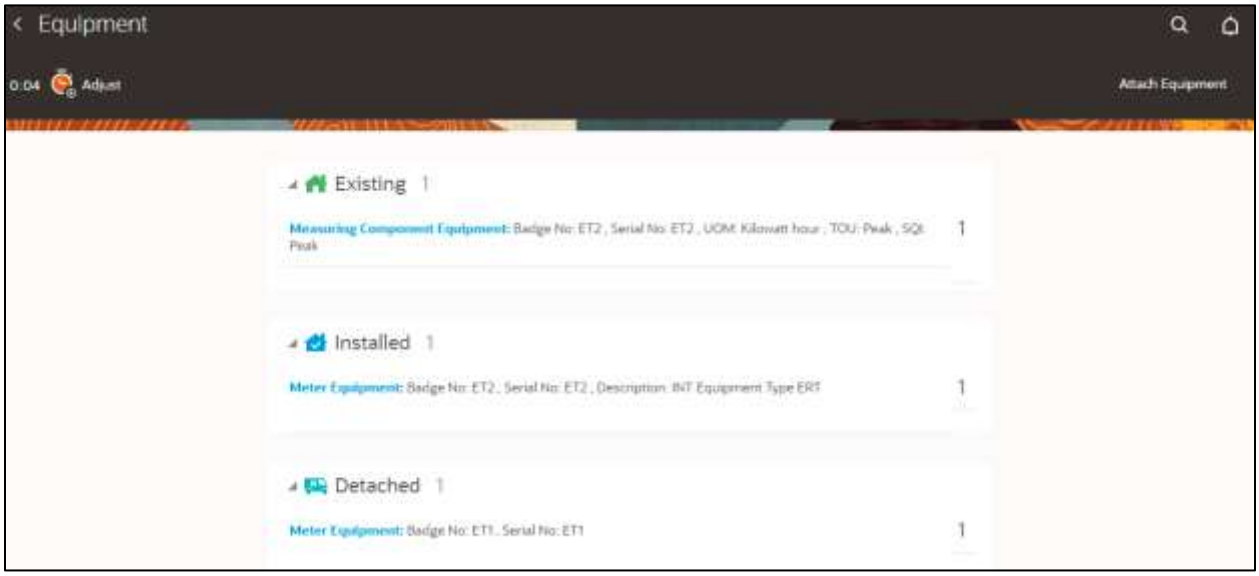
Category (ctg)	Identifier (id)	Type (tp)	ID/Label (lbl)	User Type	English (en-US)
Glossary: mobile_shared, wap_inventory	glossary	translation	10109		Assets/Equipment
Glossary: mobile_shared	glossary	translation	10865		Assets/Equipment
Glossary: mobile_shared	glossary	translation	10767		Asset/Equipment Details
Glossary: wap_inventory	glossary	translation	10111		Existing

To change the label, modify the text in the **English(en-us)** column and re-import the glossary file.

Before changing the glossary file.



After changing the glossary file.



Chapter 6: Hosting Plug-Ins in OFSC

Plugins can be hosted within Oracle Field Service Cloud or externally.

Oracle Field Service Cloud has now the ability to host more than 10 plugins that can be hosted within Oracle Field Service cloud. However, the plugin can be hosted on different server as well.

The steps to host a Plug-In within Oracle Field Service cloud is documented in https://docs.oracle.com/en/cloud/saas/field-service/21a/fapcf/configure-and-use-plug-ins.html#c_hostingPlugins

The plugins can be hosted externally on:

- Any webserver (example: Tomcat) running on a virtual machine either on premise or on cloud
- It can be stored In Object Storage on a cloud instance by uploading the files either in a public bucket

Additionally, if the plugins are hosted externally:

1. Navigate to **Configuration** > **Application** > **Additional Resources**.
2. Select **Allow Cross-origin resource sharing (CORS) from the following web domains** and provide the domain of the server on which the plugins are hosted.

Hosting Files on a Web Server

Plugins can be hosted on a webserver running on a virtual machine either on premise or on cloud. The mobile device or browser needs to be able to reach and communicate with the server hosting the plugin files.

Please refer to the documentation of the webserver of choice on how setup and host the static content. The unzipped files of the plugin is then hosted on the webserver. The path to the index.html or the directory containing the index.html is configured in the URL field of the plugin screen as defined in: https://docs.oracle.com/en/cloud/saas/field-service/21a/fapcf/configure-and-use-plug-ins.html#configure-and-use-plug-ins

The externally hosted plugin can be secured and Oracle Field Service Cloud supports authentication mechanism as defined in: https://docs.oracle.com/en/cloud/saas/field-service/21a/fapcf/configure-and-use-plug-ins.html#c_authentication

Storing files on Object Storage

Before storing files in Object Storage make sure the basic administration tasks in Oracle Cloud Infrastructure related to Object Storage are complete and the compartments and buckets where the plugin files are stored are set up.

For more information on Oracle Cloud Object Storage setup for Oracle Utilities Cloud Services, refer to *Oracle Utilities Cloud Services Object Storage Setup Guide* at:
https://docs.oracle.com/cd/F35460_01/PDF/UGBU_Cloud_Services_Object_Storage_Setup_20C.pdf

Using Public Bucket

The unzipped plugin files can be uploaded into a public bucket in which case the files are not protected and is open to public. The URL to index.html in the public bucket is configured in URL field in Oracle Field Service Cloud.

Chapter 7: Equipment Support in OFSC

The Oracle Field Service Cloud screens are enhanced to support equipment that includes attaching, detaching, and replacing or exchanging which comes as part of activity from the source application.

The equipment includes support at service point level, meter level measuring component level.

This chapter includes the following:

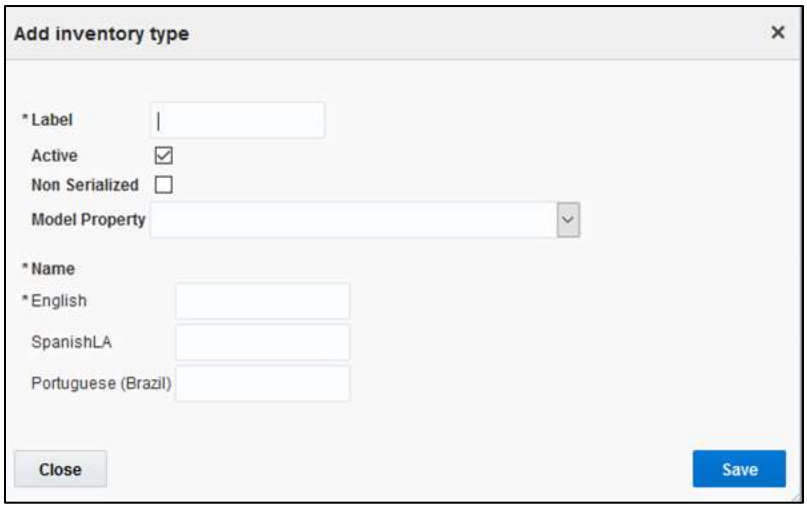
Pre-requisites

To support equipment in Oracle Field Service Cloud create the following inventory types:

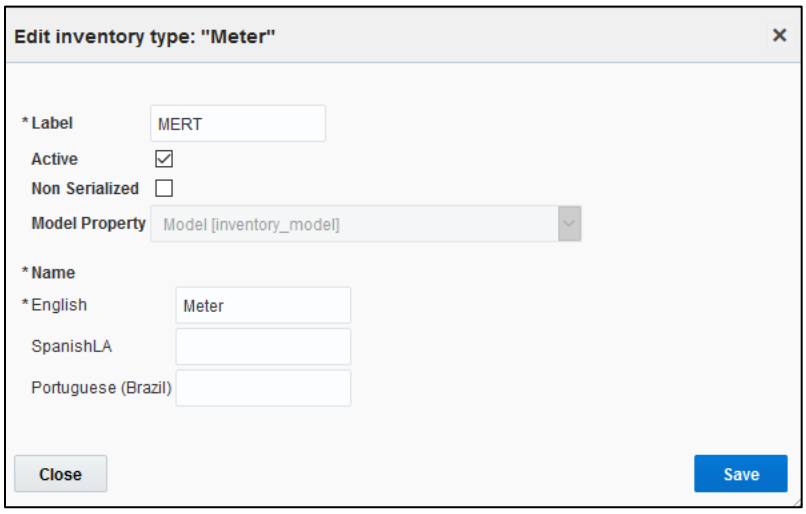
- MERT
- SERT
- CERT

To create an inventory type:

1. Login to Oracle Field Service Cloud with admin credentials.
2. Navigate to **Configuration** > **Inventory types**.
3. Click Add New.



4. Enter 'MERT' in the **Label** field.
5. Select 'inventory_model' from the **Model Property** drop-down list.
6. Enter the name in the **Name** field against the language.
7. Click **Save**.

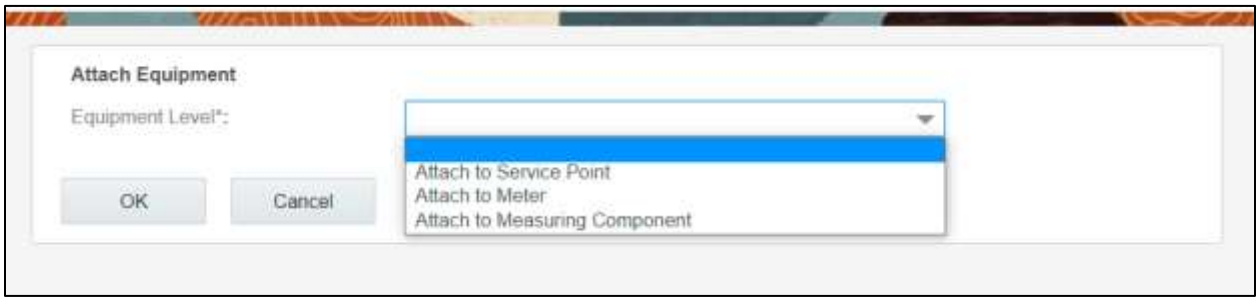


8. Repeat steps 4 to 7 to create other inventory types.

Equipment Screens

Oracle Field Service Cloud includes the following screens to attach an equipment:

- Attach Equipment to Service Point
- Attach Equipment to Meter
- Attach Equipment to Measuring Component



Attach Equipment to Service Point

This screen allows to attach an equipment to the Service Point.

Provide the badge number and/or serial number to verify the equipment. After the verification is successful, equipment navigates to the **Attached** screen labeled 'SP'.

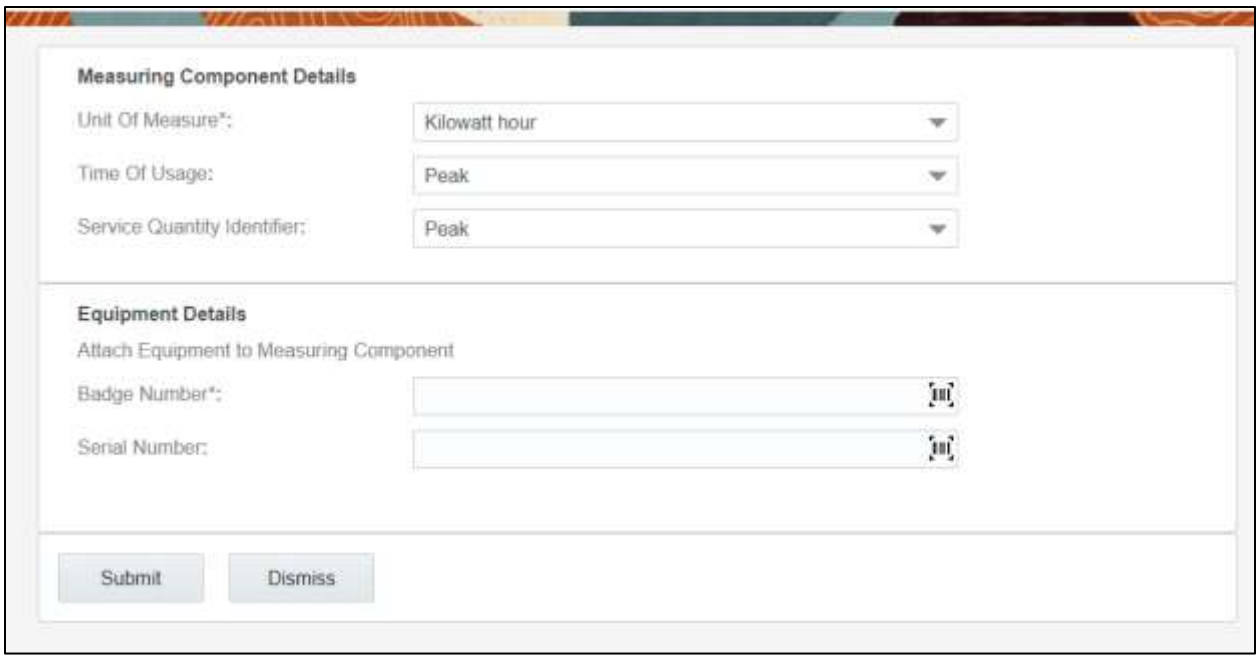
Attach Equipment to Meter

This screen allows to verify the attach. After the verification is successful, equipment will be attached to Meter.

Provide the badge number and/or serial number and click **Submit**. After the verification is successful, equipment navigates to the **Attached** screen labeled with Meter.

Attach Equipment to Measuring Component

This screen allows you to verify the attach. After successful verification, equipment will be attached to Measuring Component.



Enter the Unit Of Measure, Time Of Usage, Service Quantity Identifier and Badge Number and/or Serial Number. Click **Submit**. After verification is successful, equipment navigates to the **Installed** screen labeled with Measurement Component.

Undo Attach

After attaching an equipment, it can be detached.

To undo an equipment attach:

1. Click the attached equipment. The equipment details are displayed along with the **Undo Attach** option.

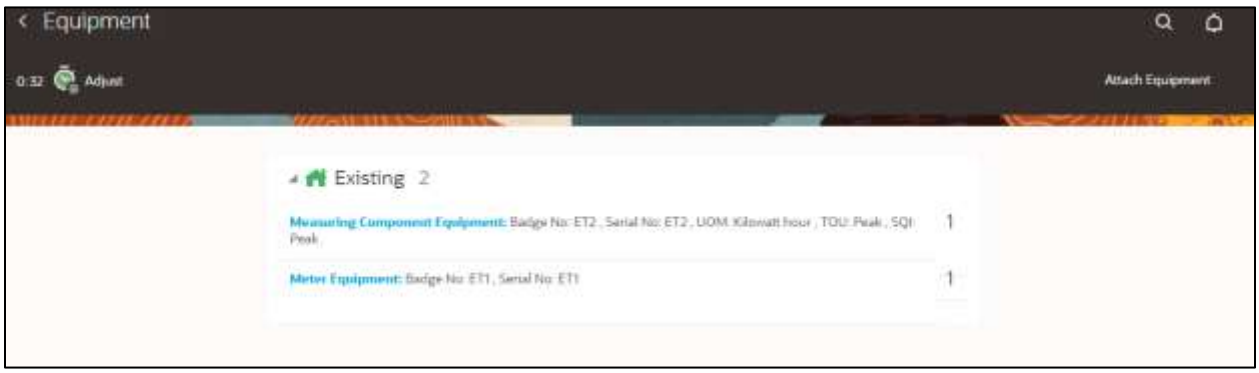
2. Click **Undo Attach**. A confirmation alert is displayed.
3. Click **Yes** to delete the equipment from the inventory.

Replace Equipment

The existing equipment can be replaced from the Service Point or Meter or Measuring Component level.

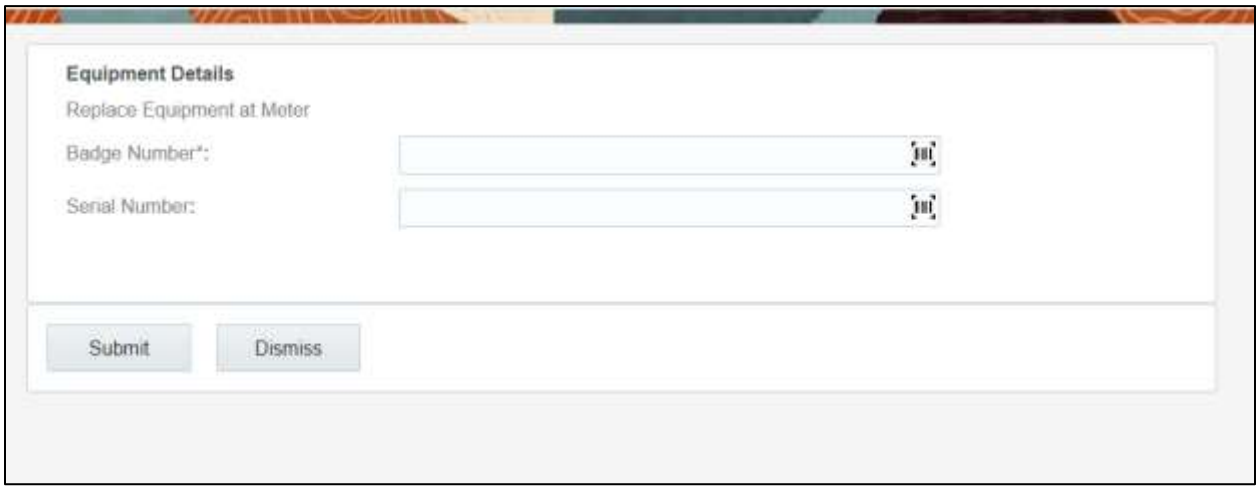
To replace an existing equipment:

1. Navigate to the **Existing** screen and click the equipment.

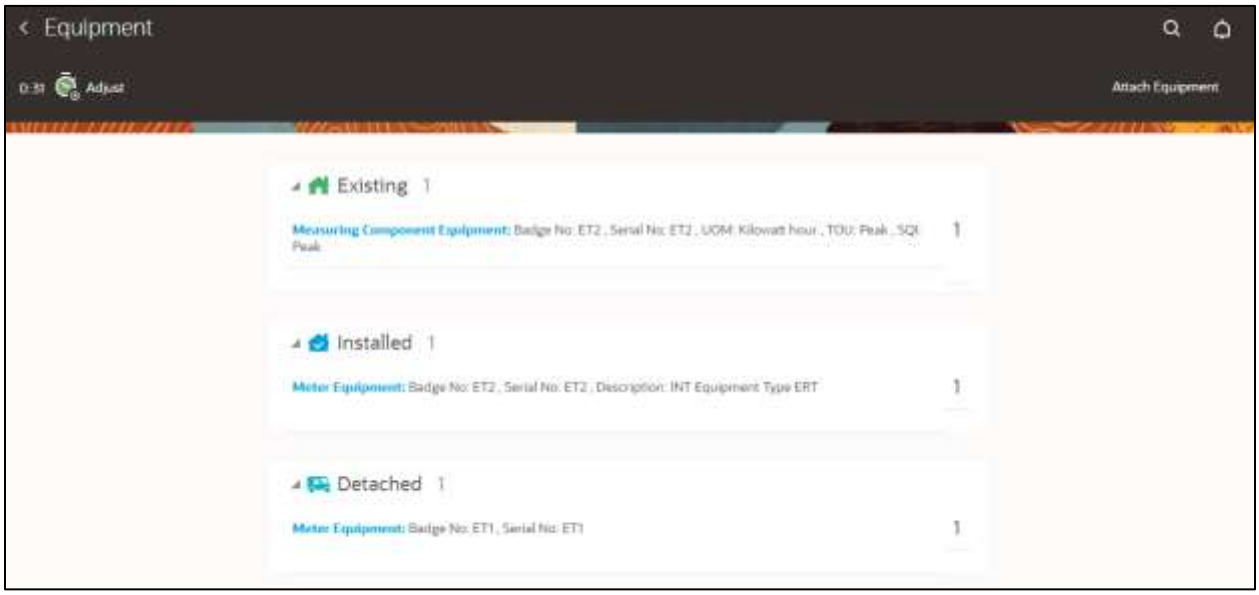


2. Click **Replace**.

3. Enter the **Badge Number** and/or **Serial Number** values to verify. Click **Submit**.



The existing equipment is added to the **Detached** screen and the new equipment appears in the **Installed** screen.



Exchange Meter

Meter from the Service Point can be exchanged with a new meter. You can either move all equipment attached to the existing meter to the new meter or attach new equipment to the new meter.

After verifying the new device, Equipment screen displays the following options:

- Attach Equipment
- Move Equipment to New Meter

Attach Equipment

This attach screen similar to attach equipment screen which is used to verify the equipment and install the equipment to new meter.

Move Equipment to New Meter

This screen allows you to move all equipment attached to the existing meter to the new meter.

Click **Move Equipment to New Meter** to move all the equipment of old meter to installed screen.

Note: we can undo the Equipment move by clicking on Undo Equipment Move button.

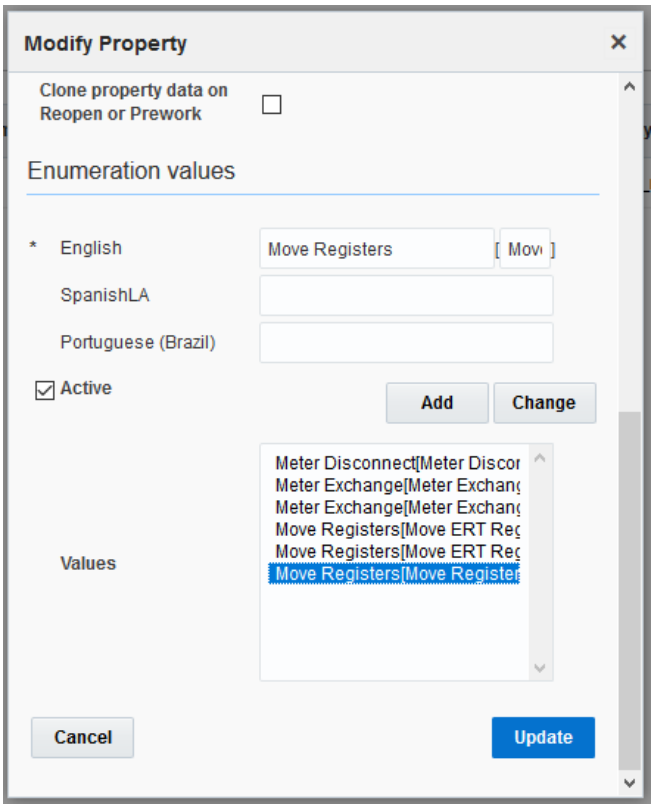
Custom Activities Support for Move Equipment to New Meter

Currently, the Exchange Meter and Meter Disconnect activities support the Move operation. It does not work for other operations.

To support custom activities:

1. Configure the Custom Activity property.
    a. Login to Oracle Field Service Cloud.
    b. Navigate to **Properties** and search for “c2m_ert_custom_move_act_types” property.

    c. Click **Modify** and add the custom activity to the property.



    Syntax: [description][Activity type label]

    d. In the **English** field, enter the description and Activity type label.

    Example: Move Registers[Move ERT Registers]

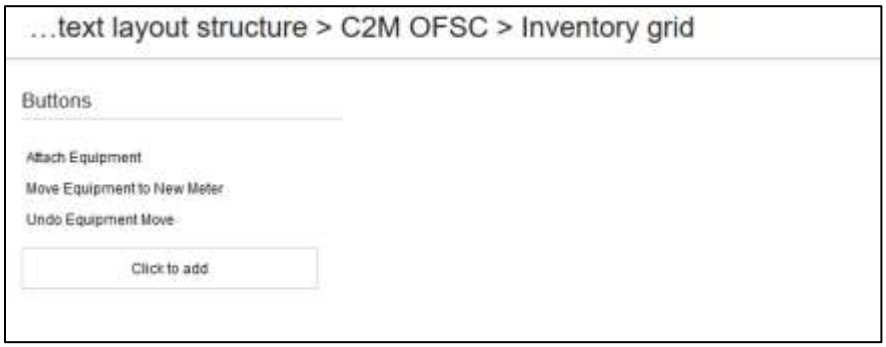
    e. Click **Update**. The value is updated in the property list.

2. Add the **Condition** to the **Move Register** operation in Inventory Grid.

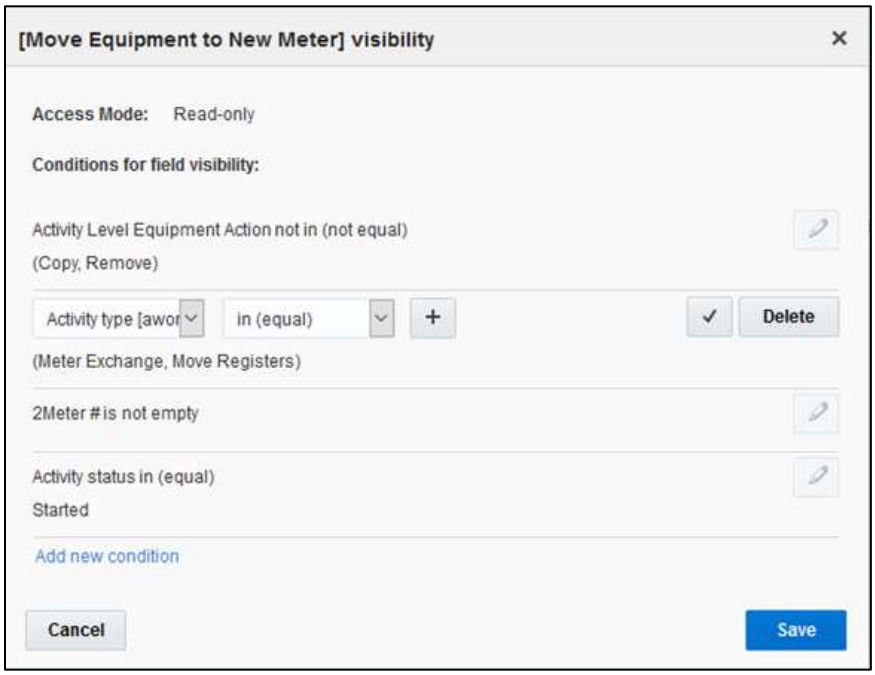
    After adding the custom activity to property, add the custom activity type to the inventory grid condition.

    a. Login to Oracle Field Service Cloud.
    b. Navigate to **Configuration** > **User Type** > **C2M OFSC**.

c. Navigate to **Screen Configuration** > **Inventory Grid**.



d. Click **Move Equipment to New Meter** operation and add the condition as below.



e. Select the custom activity type from list of activity types available in the Oracle Field Service Cloud environment.
f. Click **Save**.
g. Add the same condition for the **Undo Equipment Move** operation.

Chapter 8: Attachments Support in OFSC

The Oracle Field Service Cloud screens are enhanced to support attachments at service point level, existing meter level, new meter level and activity level.

This chapter includes the following:

Pre-requisites

To support attachments at various levels, import Attachments_Plugin.xml into the Oracle Field Service Cloud environment.
To import plugins into Oracle Field Service Cloud:

1. Login to Oracle Field Service Cloud with Admin credentials.
2. Navigate to **Configurations** > **Forms & Plugins**.

3. Click **Import Plugins**.
4. Upload the Attachments_Plugin.xml file and import.

Attachment Screens

As part of 20C changes, a technician can upload the attachments at the following levels.

- Attachments at Service point
- Attachments at New Device
- Attachments at Existing Device
- Attachments at Activity

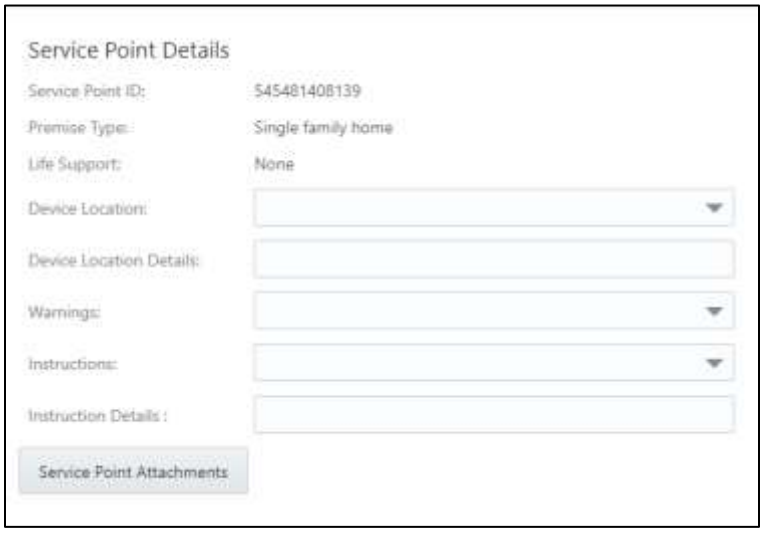
Attachments at Service Point

The Technician can upload the attachments of below Mime types at Service Point level in Oracle Field Service Cloud.

- image/gif
- image/jpeg
- text/plain
- text/html
- video/mpeg

- audio/x-wav
- application/zip
- application/vnd.ms-excel
- application/pdf
- application/msword

The figure below shows the **Attachment** option available in the **Service Point** section.



After uploading the attachments, saved and unsaved attachments can be viewed as shown below.

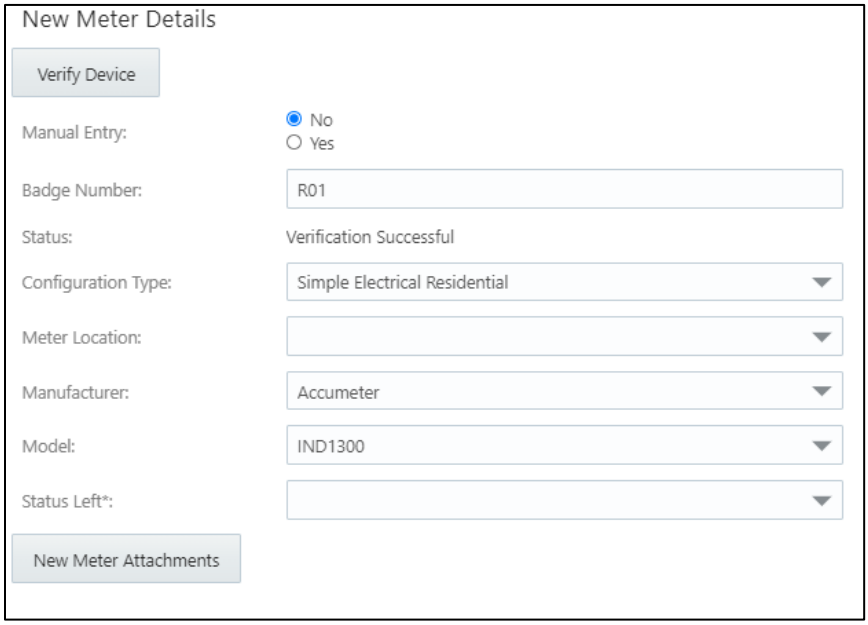
Attachments at New Device

A Technician can upload the attachments of below Mime types at New Device level in Oracle Field Service Cloud.

- image/gif
- image/jpeg

- text/plain
- text/html
- video/mpeg
- audio/x-wav
- application/zip
- application/vnd.ms-excel
- application/pdf
- application/msword

The figure below shows the **Attachment** option available at the **New Device** section.



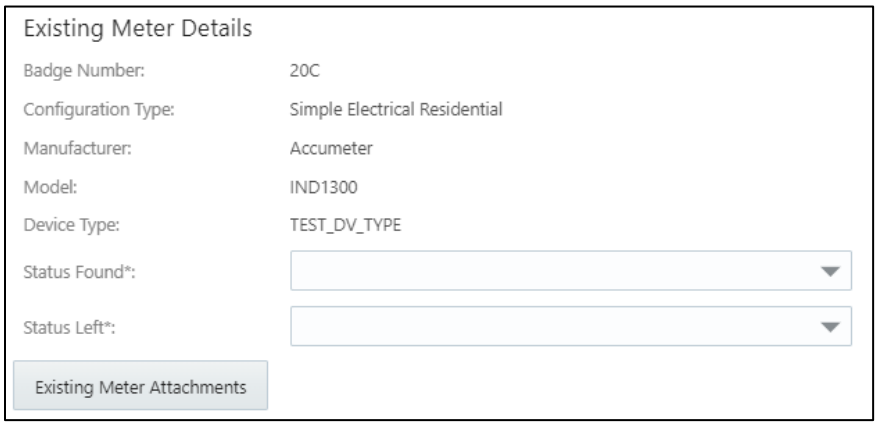
After uploading attachments, saved and unsaved attachments can be viewed as below.

Attachments at Existing Device

A Technician can upload the attachments of below Mime types at Existing Device level in Oracle Field Service Cloud.

- image/gif
- image/jpeg
- text/plain
- text/html
- video/mpeg
- audio/x-wav
- application/zip
- application/vnd.ms-excel
- application/pdf
- application/msword

The figure below shows the **Attachment** button available in the **Existing Device** section.



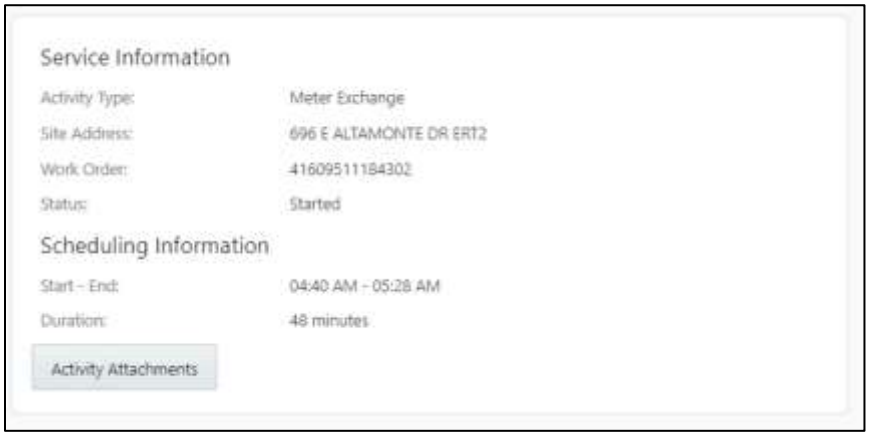
After uploading attachments, saved and unsaved attachments can be viewed as below.

Attachments at Activity

A Technician can upload the attachments of below Mime types at Activity level in Oracle Field Service Cloud.

- image/gif
- image/jpeg
- text/plain
- text/html
- video/mpeg
- audio/x-wav
- application/zip
- application/vnd.ms-excel
- application/pdf
- application/msword

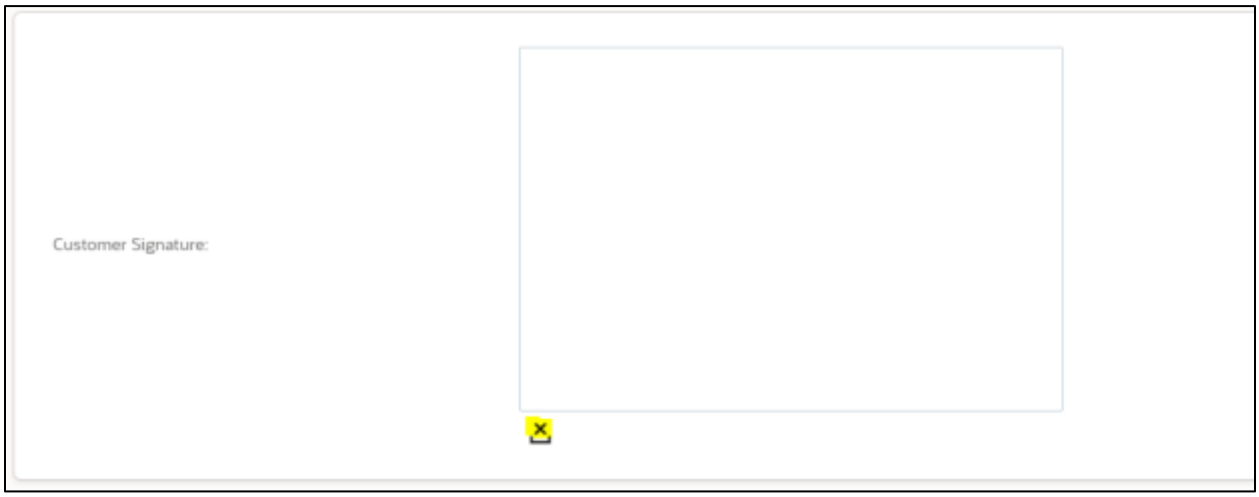
The figure below shows the **Attachment** button available in the **Attachments at Activity** section.



After uploading attachments, saved and unsaved attachments can be viewed as below.

Customer Signature

As part of the 20C changes, Oracle Field Service Cloud is enhanced to allow technicians to take the customer signature before completing an activity and Oracle Integration Cloud sends the customer signature to Oracle Utilities Customer Cloud Service as part of activity completion information.



After the customer signs in the **Customer Signature** field, the technician clicks **Submit** to complete the activity.

Note: Use **Clear** to clear the customer signature.

Chapter 9: Admin Sync Support in OFSC

As part of the 21A release, the Admin Sync flow is introduced to sync the service point data, activity types, activity data, device data and register data to Oracle Field Service Cloud. Hence, the end user need not configure any data on the Oracle Field Service Cloud side.

This chapter includes:

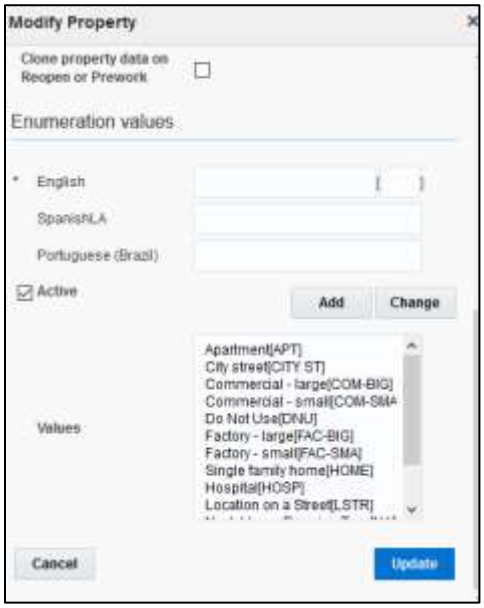
Admin sync flow does not override existing data. However, it is recommend to take a backup of Oracle Field Service Cloud data for the customers who are already implementing Oracle Customer Care Cloud Service integration to Oracle Field Service Cloud before running the Admin Sync flow for the first time.

Service Point Data Sync

The service point data is synced to Oracle Field Service Cloud when the Admin Sync flow runs successfully. The Oracle Field Service Cloud enum properties shown below are updated with Admin data.

Property Label	Description
c2m_premise_type	Premise Type
c2m_Service_type	Service Type
c2m_SP_instructions	SP Instructions
c2m_SP_warnings	SP Warnings
c2m_disconnect_location	Disconnect Location

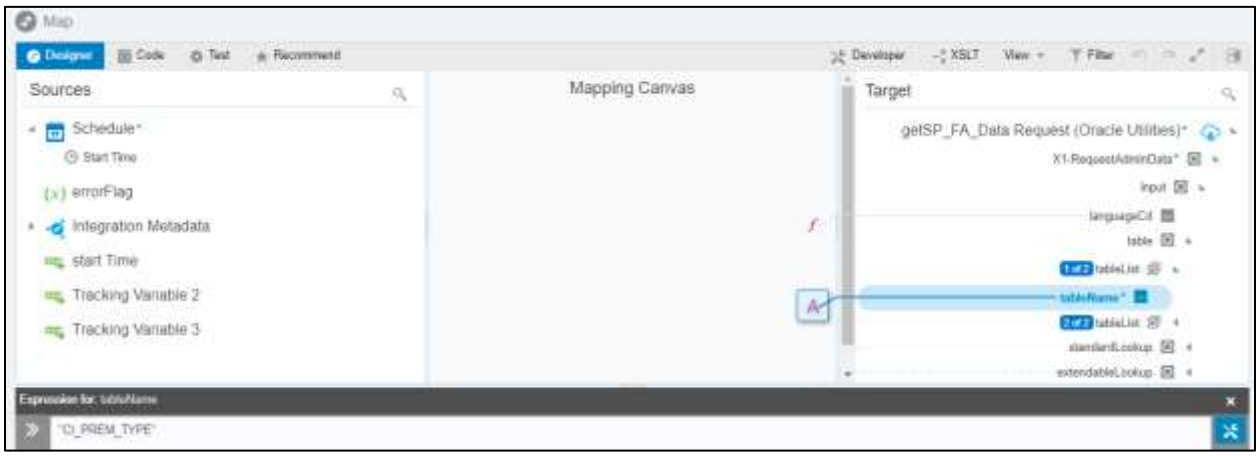
Example data of property:



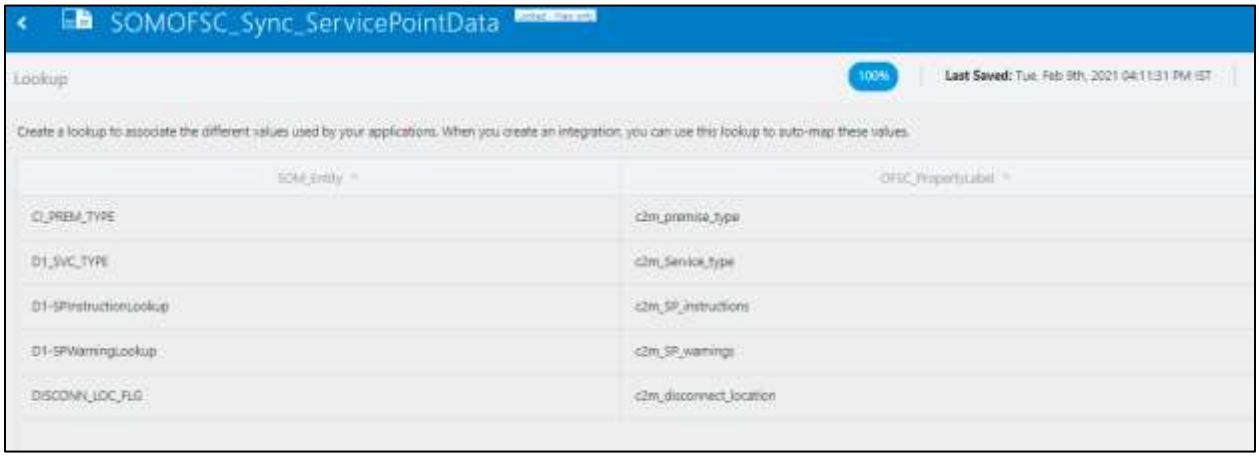
Customization

If the end user wants to add new properties related to service point and the data should sync to the property through Admin Sync flow, follow the steps below.

1. Identify whether the data comes from a table, standard lookup or extendable lookup from Oracle Utilities Customer Cloud Service.
2. Navigate to the request mapper and hardcode the value based on the entities.



3. Navigate to the SOMOFSC_Sync_ServicePointData lookup and add the tablename, standard lookup name or extendable lookup name in the **SOM_Entity** column and property label in the **property_label** column.



Activity Types Sync

The Activity Types automatically syncs to Oracle Field Service Cloud when the Admin Sync flow runs successfully. Hence, there is no need to create the activity types manually.

Customizations

The end user can skip the activity types sync using config property in SOMOFSC_ConfigProps lookup.

Config property: som.adminsync.activitytypes.sync

By default, the property value is delivered as 'false'. Change the property value to 'true' to sync activity types as part of Admin Sync. The activity type features/colors can be customized. These properties can be modified using the SOMOFSC_ActivityTypeConfigProps lookup.

Below are the some important properties and the values delivered as part of the 21A release.

Property Name	Default value	Comments
groupLabel	Customer	Change this value if end user wants to create activity types in another group.
timeslots.label	all-day	Change this value if end user want to set the another time slot by default.
duration	48	Change this value if end user want to extend the activity duration
features.isTeamworkAvailable	FALSE	Change this value if the activity supports the team work
features.allowMoveBetweenResources	TRUE	Change this value if end user want to do not allow activity type between resources
features.supportOfTimeSlots	TRUE	Chang this value if activity type does not support time slots
features.supportOfWorkZones	TRUE	This property enables the works zone support.
features.supportOfWorkSkills	TRUE	This property enables the support of work skills
features.supportOfInventory	TRUE	This property enables the support of inventories.
features.allowCreationInBuckets	TRUE	This property enables the activity creation in buckets.

Note : As part of Admin Sync all activity types in the Field Task Type extendable lookup will be synced to Oracle Field Service Cloud.

Device Data Sync

The following device information will be synced in Oracle Field Service Cloud when the Admin Sync flow runs successfully. Hence, there is no need to add the data to the Oracle Field Service Cloud properties manually.

- Device Manufacturer
- Device Model

- Device Configuration Type
- Device Types
- Device Head End System

Device Manufacturer

The following Oracle Field Service Cloud properties will sync with device manufacturer data created in Oracle Utilities Customer Cloud Service.

Property Description	Property Label
New Item Manufacturer	c2m_newitem_manufacturer
Existing Item Manufacturer	c2m_item_manufacturer
New Meter Manufacturer	c2m_newmeter_manufacturer
Existing Meter Manufacturer	c2m_meter1_mfg

Device Model

The following Oracle Field Service Cloud properties will sync with device model data created in Oracle Utilities Customer Cloud Service.

Property Description	Property Label
New Meter Model	c2m_newmeter_model
Existing Meter Model	c2m_meter1_model
New Item Model	c2m_newitem_model
Existing Item Model	c2m_item_model

Device Configuration Type

The following Oracle Field Service Cloud properties will sync with device configuration data created in Oracle Utilities Customer Cloud Service.

Property Description	Property Label
New Meter Configuration Type	c2m_new_meter_type
Existing Meter Configuration Type	c2m_meter1_type
New Item Configuration Type	c2m_new_item_type
Existing Item Configuration Type	c2m_item_type

Device Types

The following Oracle Field Service Cloud properties will sync with device types data created in Oracle Utilities Customer Cloud Service.

Property Description	Property Label
New Meter Device Type	c2m_newmeter_devicetype
Existing Meter Device Type	c2m_deviceType
New Item Device Type	c2m_newitem_deviceType
Existing Item Device Type	c2m_item_device_type

Device Head End System

The following Oracle Field Service Cloud properties will sync with device head end system data created in Oracle Utilities Customer Cloud Service.

Property Description	Property Label
New Meter Head End System	c2m_newmeter_headend
Existing Meter Head End System	c2m_headendSystem

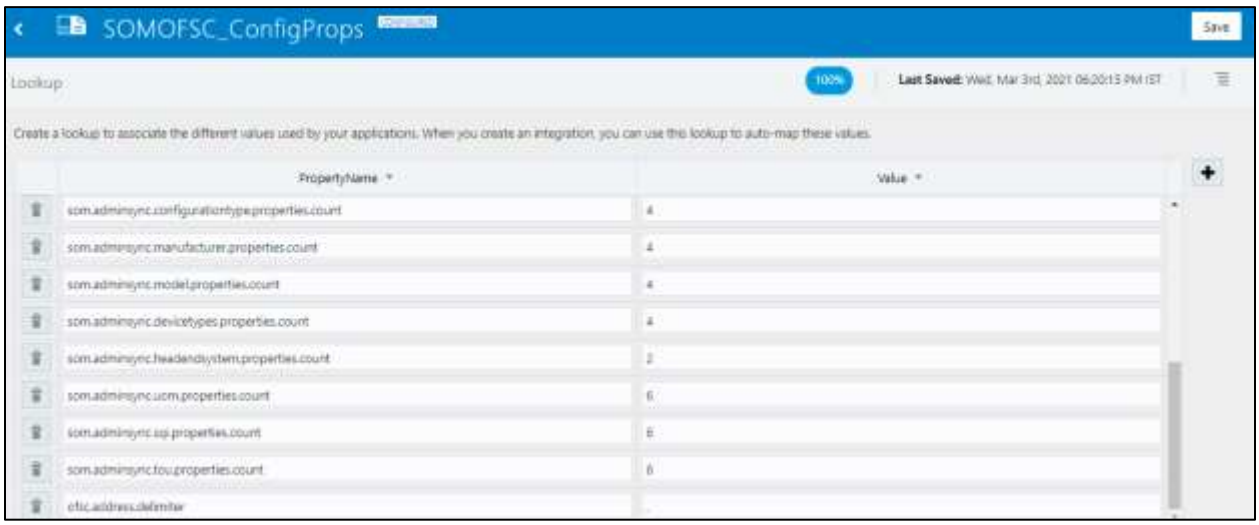
Customizations

To add new elements related to device data, such as manufacturer, model, configuration type, device types or head end system:

1. Create the property in Oracle Field Service Cloud.
2. Configure the property count in SOMOFSC_ConfigProps lookup.

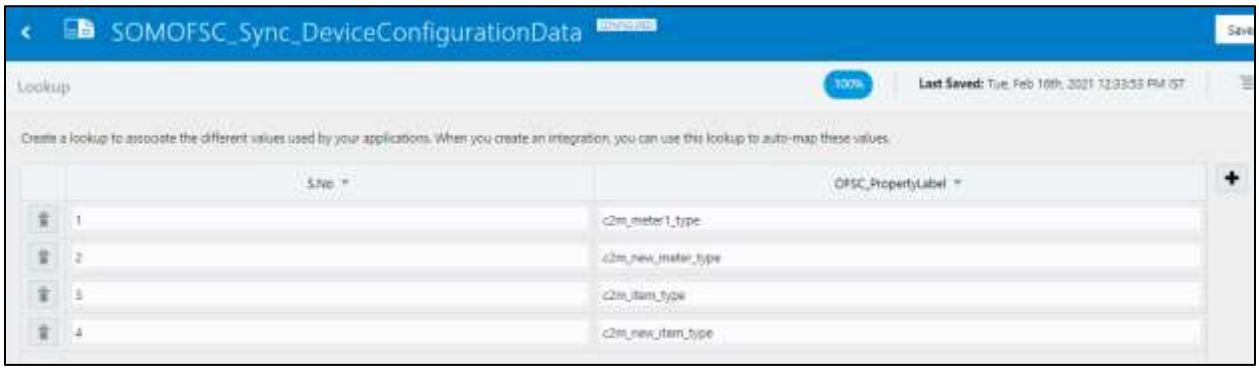
   Below are the configuration properties to be modified as part of the Device Data sync.

Property Name	Default Value	Comments
som.adminsync.configurationtype.properties.count	4	Change the value if you want to add new property for configuration type
som.adminsync.manufacturer.properties.count	4	Change the value if you want to add new property for manufacturer
som.adminsync.model.properties.count	4	Change the value if you want to add new property for model
som.adminsync.devicetypes.properties.count	4	Change the value if you want to add new property for device types
som.adminsync.headendsystem.properties.count	2	Change the value if you want to add new property for head end system

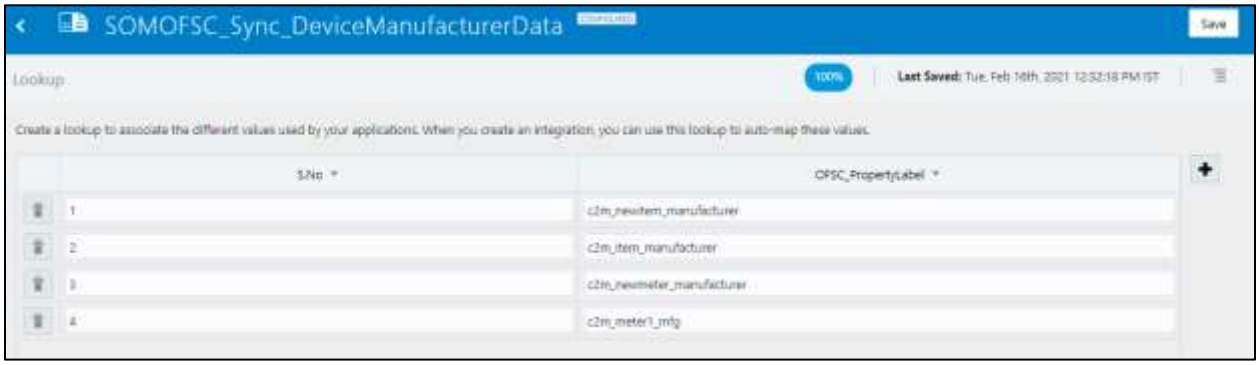


3. Once the value of the configuration properties are changed based on the requirement, add the property label in the lookup based on the property that belongs to manufacturer, model or configuration type.

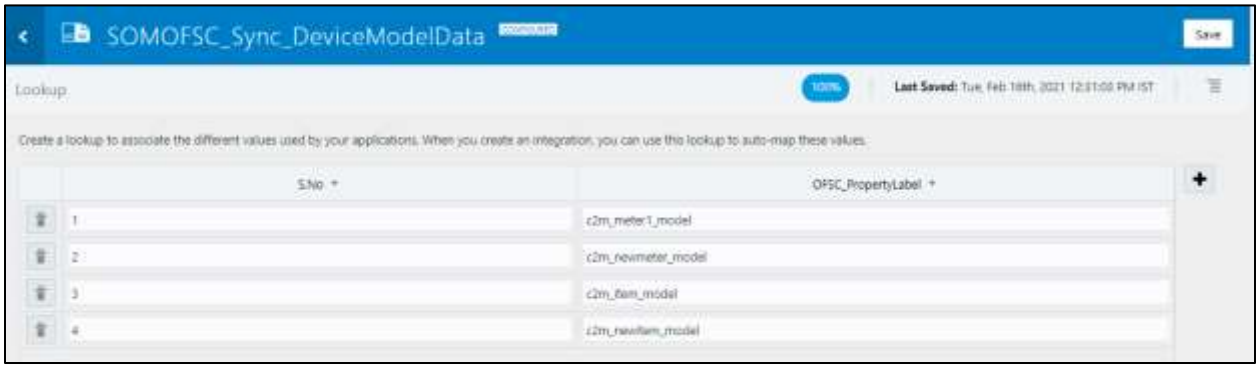
4. Add the property label to the lookup if the property belongs to Configuration type.



5. Add the property label to the lookup if the property belongs to manufacturer.

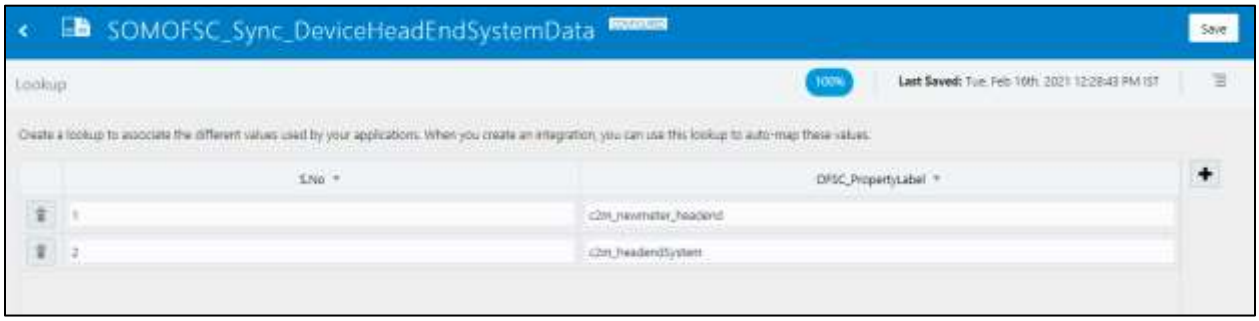


6. Add the property label to the lookup if the property belongs to model.



7. Add the property label to the below lookup if the property belongs to device types.

8. Add the property to the below lookup if the property belongs to head end system.



Register Data Sync

When the Admin Sync flow runs successfully, the following register data will be synced to Oracle Field Service Cloud. Hence, the data need not be entered manually at the Oracle Field Service Cloud side.

- Unit of Measure
- Time of Usage
- SQI

Unit of Measure

The following properties will be synced with unit of measure data in Oracle Utilities Customer Cloud Service.

Property description	**Property label**
Unit of Measure 1	c2m_meter1_uom
Unit of Measure 2	c2m_meter1_uom2
Unit of Measure 3	c2m_meter1_uom3
Unit of Measure 4	c2m_meter1_uom4
Unit of Measure 5	c2m_meter1_uom5
ERT Unit of Measure	c2m_ert_uom

Time of Usage

The following properties will be synced with time of usage data created in Oracle Utilities Customer Cloud Service.

Property description	Property label
Time of Usage 1	c2m_meter1_TOU1
Time of Usage 2	c2m_meter1_TOU2
Time of Usage 3	c2m_meter1_TOU3
Time of Usage 4	c2m_meter1_TOU4
Time of Usage 5	c2m_meter1_TOU5
ERT Time of Usage	c2m_ert_tou

SQI

The following properties will be synced with SQI data created in Oracle Utilities Customer Cloud Service.

Property description	Property label
SQI 1	c2m_meter1_sqi
SQI 2	c2m_meter1_sqi2
SQI 3	c2m_meter1_sqi3
SQI 4	c2m_meter1_sqi4
SQI 5	c2m_meter1_sqi5
ERT SQI	c2m_ert_sqi

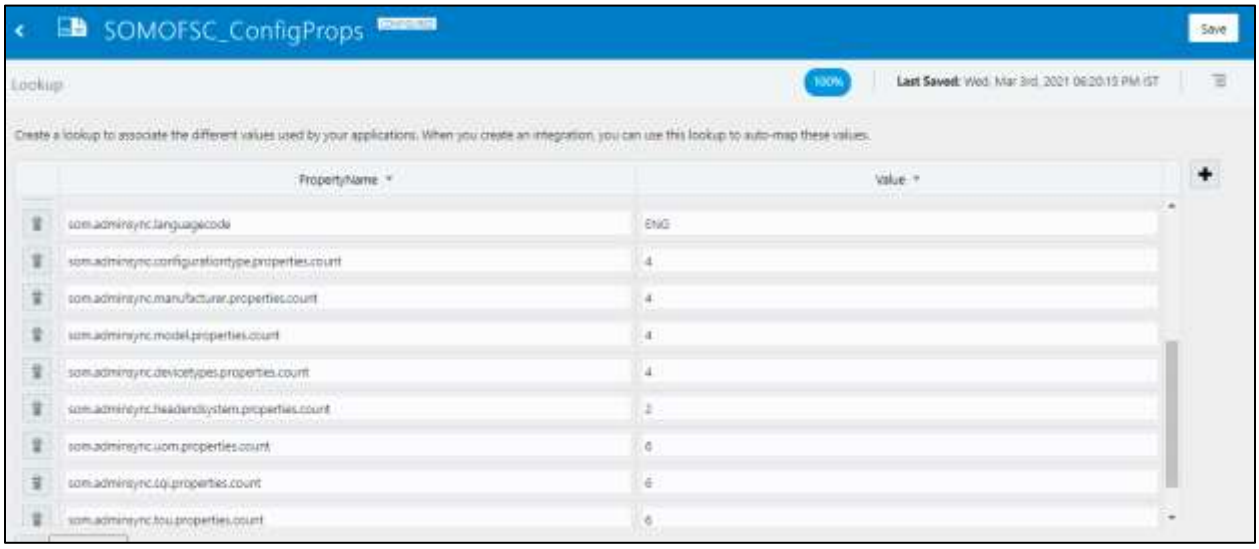
Customizations

The end user can create property of UOM, TOU or SQI type.

To add to Admin Sync without touching the Admin Sync flow:

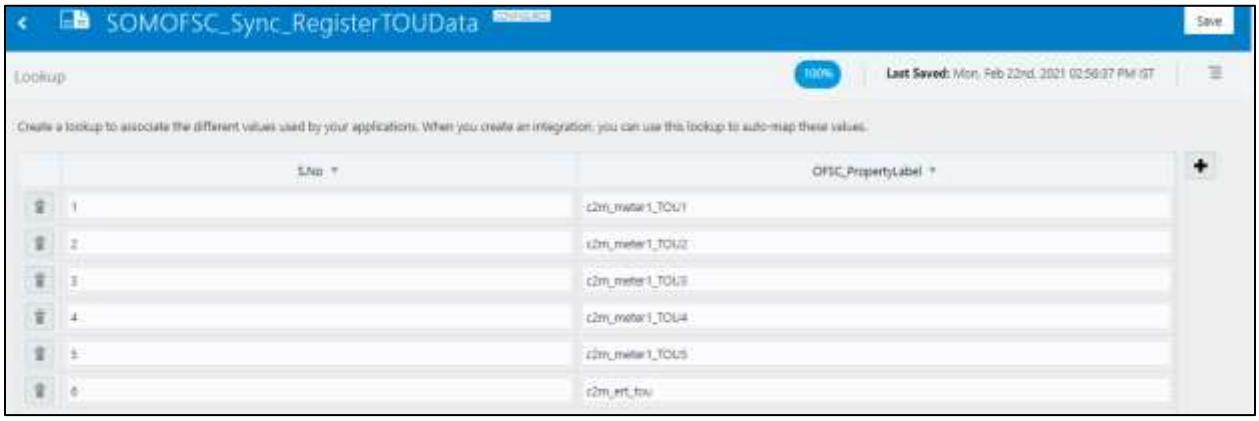
1. Create the property in Oracle Field Service Cloud.
2. Modify the value in the below configuration properties based on the property. These properties should be modified as part of register sync.

Property Name	Default value	Comments
som.adminsync.uom.properties.count	6	Change this value if the property is created for UOM.
som.adminsync.sqi.properties.count	6	Change this value if the property is created for SQI.
som.adminsync.tou.properties.count	6	Change this value if the property is created for TOU.



3. Add the property label to lookup if the property belongs to UOM.

4. Add the property label to the lookup if the property belongs to TOU.



5. Add the property label to the lookup if the property belongs to SQI.