

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 20C



Disclaimer

Oracle Field Service Cloud Configurations for Oracle Customer Cloud Service Integration to Oracle Field Service Cloud, Release 20C

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Preface

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

The preface includes the following:

- [Audience](#)
- [Documentation and Accessibility](#)
- [Abbreviations](#)

Audience

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

Documentation and Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers have access to electronic support for the hearing impaired. Visit:

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or
<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 Service
SA	Service Agreement
SP	Service Point
CCS	Customer Cloud Service

Chapter 1: Accelerator Overview

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

- [Configuration Overview](#)
- [Accelerator Package](#)
- [Accelerator Activity Types](#)

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 integration as the integration package contains only Oracle Utilities Customer Cloud Service and Oracle Integration Cloud configuration files and instructions. It 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 [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

In this integration release, accelerator is a sample and supports only ten Activity Types. Create UIs for additional Activity Types or customize the existing UIs for the supported Activity Types. For information about customizing the UIs see the [Customization](#) chapter.

- 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:

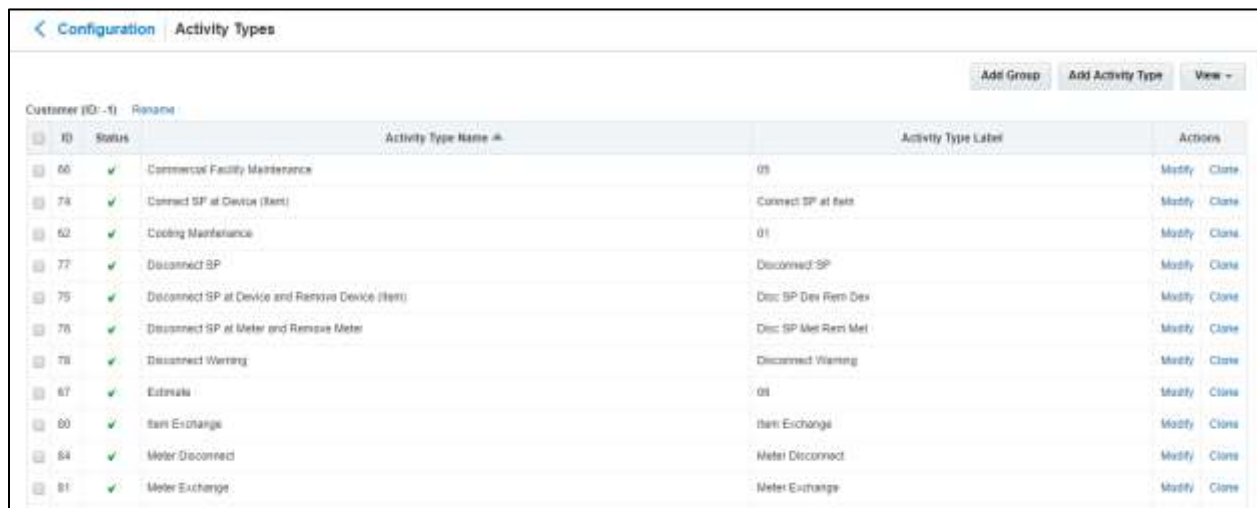
- [Activity Types](#)
- [Properties](#)
- [Forms and Plugins](#)
- [User Types](#)

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). In the activity type various fields, such as time slots and activity status are denoted using colors and features that each activity type supports. They can be customized for each activity type.

To create an activity type:

1. Navigate to the **Configuration** page.
2. Select **Activity Types** and click **Add Activity Type**.
3. Select **Customer** from the list.



The screenshot shows the 'Configuration' page for 'Activity Types'. At the top right, there are buttons for 'Add Group', 'Add Activity Type', and 'View'. Below these is a table with columns: 'Customer (ID: -1) Rename', 'ID', 'Status', 'Activity Type Name', 'Activity Type Label', and 'Actions'. The table contains 12 rows of activity types, each with a checkbox, an ID, a status icon (green checkmark), a name, a label, and 'Modify' and 'Close' action buttons.

Customer (ID: -1) Rename	ID	Status	Activity Type Name	Activity Type Label	Actions
	66	✓	Commercial Facility Maintenance	05	Modify Close
	74	✓	Connect SP at Device (Item)	Connect SP at field	Modify Close
	62	✓	Cooling Maintenance	01	Modify Close
	77	✓	Disconnect SP	Disconnect SP	Modify Close
	75	✓	Disconnect SP at Device and Remove Device (Item)	Dis: SP Dis Rem Dev	Modify Close
	76	✓	Disconnect SP at Meter and Remove Meter	Dis: SP Met Rem Met	Modify Close
	78	✓	Disconnect Warning	Disconnect Warning	Modify Close
	67	✓	Estimate	05	Modify Close
	80	✓	Item Exchange	Item Exchange	Modify Close
	64	✓	Meter Disconnect	Meter Disconnect	Modify Close
	81	✓	Meter Exchange	Meter Exchange	Modify Close

If it does not exist, create the group.

- a. Click **Add Group**.



- b. Enter the group name. Example: Customer
4. Click **Add Activity Type**.
5. Enter the name and other activity type details. Click **Add**.

Activity type info

* Label:

* Name:

* English:

SpanishLA:

Portuguese (Brazil):

Active:

Group:

* Default Duration: minutes

Color scheme

Copy from:

Pending:

Completed:

Warning:

Features

- Teamwork
- Multi-day activity
- Allow move between resources
- Allow creation in buckets
- Allow reschedule
- Support of not-ordered activities
- Allow non-scheduled
- Support of work zones
- Support of work skills
- Support of time slots
- Support of inventory
- Support of links
- Support of preferred resources
- Allow mass activities
- Allow Repeating Activities
- Calculate travel

Suspended:

Not Done:

Not Ordered:

Started:

Cancelled:

Available time slots

- 08-10 (08:00 AM - 10:00 AM)
- 10-12 (10:00 AM - 12:00 PM)
- 13-15 (01:00 PM - 03:00 PM)
- 15-17 (03:00 PM - 05:00 PM)
- All-Day (All-day time slot)
- Lunch break (12:00 PM - 12:30 PM)

- Calculate activity duration using statistics
- Allow to search
- Allow to create from Incoming interface
- Enable 'day before' trigger
- Enable 'reminder' and 'change' triggers
- Enable 'not started' trigger
- Enable 'SW warning' trigger
- Calculate delivery window
- SLA and Service window use customer time zone (required for routing)
- Support of required inventory

Cancel
Add

- For other Activity Types listed (Install Meter, Disconnect SP Meter and Remove Meter, Meter Read, Meter Exchange, Connect SP at Item, Disconnect SP Device and Remove Device, Disconnect Warning, Item Exchange, Service Investigation, Turn on Pilot Light and Trim Tree), clone and modify the name and details as required.

Note: Make sure the label names are exactly the same as given below. Else, the new name should be updated in the activity type lookup of Oracle Integration for Cloud.

- Make sure to have corresponding lookup values in SOMOFSC_ActivityType lookup for all activity types in Oracle Integration for Cloud.

For example: D1-InstallMeter (SOM Task Type) corresponding to Meter Install (OFSC Activity Type)

- Add only those Activity Types that are needed and specific to the customers.

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)	Disc 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 custom fields used to enable the Utility Integration specific UIs created and are used 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 **Properties** icon and click **Import**.



ID	Property Label	Type	Entity	GLE	Actions
588	Activities Status	Field	Activity	Text	Modify
882	to_parts	Stage	Activity	Text	Modify

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



Import properties

* Choose file

Import operation cannot be undone

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



Import properties

	Import
Successfully imported	240
Imported with warnings	0
Not imported	0

Forms and Plugins

The plugins are used to make changes to 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

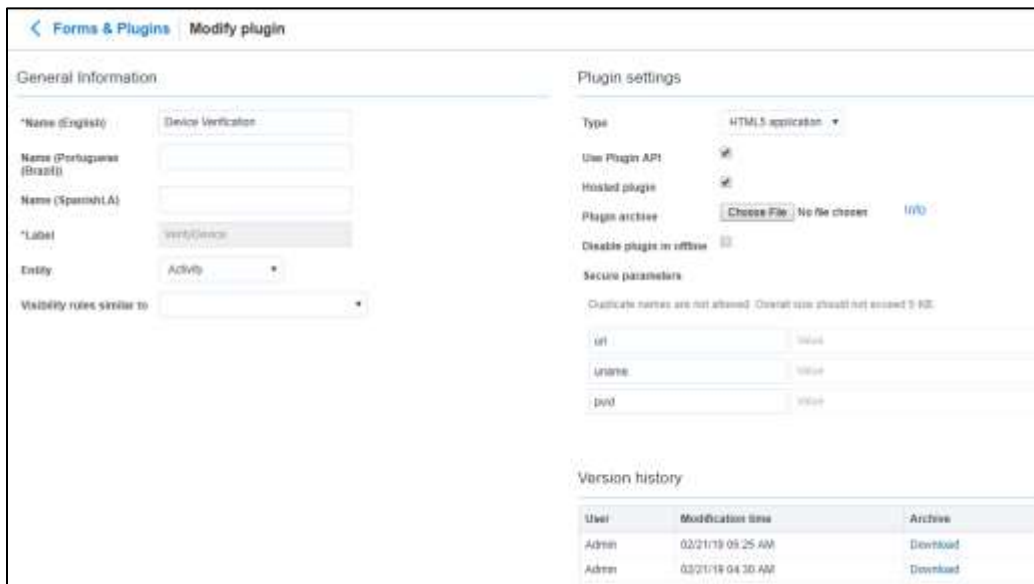
To configure a Device Verification plugin:

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



Form Name	Size	Created	Updated	Owner	Count	Configured
Test Form test_form	1.41 KB	02/15/19 07:55 AM	02/19/19 00:41 AM	Admin	2	Configured
HR EQ hr_eq_plugin_requestor	9.63 KB	02/17/19 01:33 AM	02/19/19 01:43 AM		6	Configured
Send Request hr_eq_plugin_requestor	0.87 KB	02/17/19 01:39 AM	02/19/19 01:39 AM		3	Configured

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.



Forms & Plugins Modify plugin

General Information

*Name (English): Device Verification

Name (Portuguese (Brazil))

Name (Spanish/LA)

*Label: VerifyDevice

Entity: Active

Visibility rules similar to

Plugin settings

Type: HTML5 application

Use Plugin API:

Hosted plugin:

Plugin archive: Choose File No file chosen (info)

Disable plugin in offline:

Secure parameters

Duplicate names are not allowed. Overall size should not exceed 2 KB.

url: Value

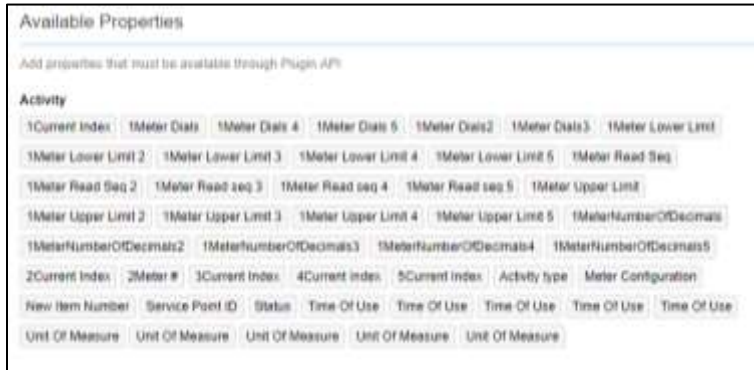
urlInfo: Value

urlV: Value

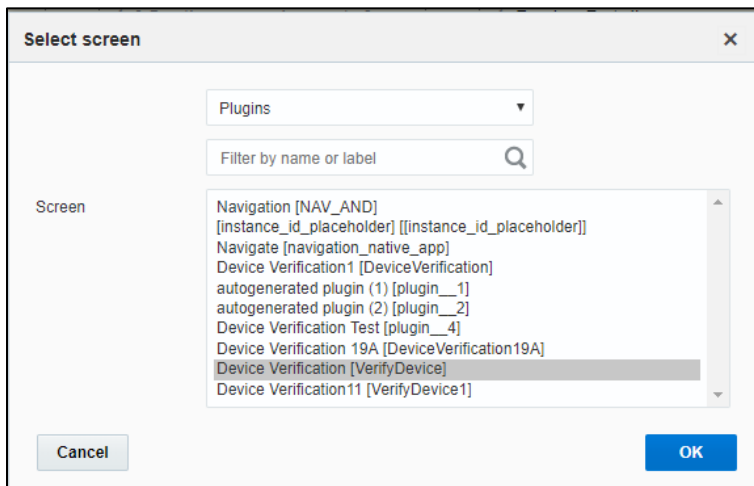
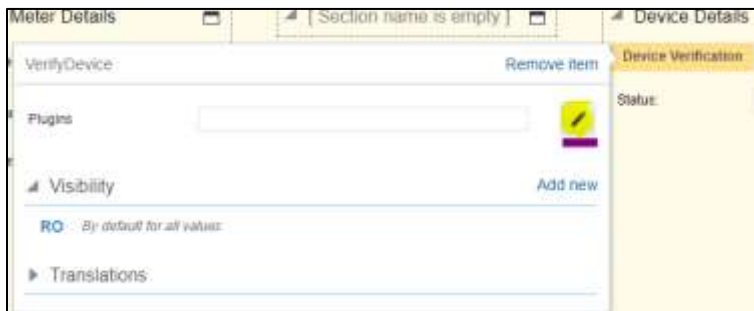
Version history

User	Modification time	Action
Admin	02/21/19 05:25 AM	Download
Admin	02/21/19 04:30 AM	Download

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



- e. Click **Device Verification** to configure the plugin.
- f. 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 screenshot shows a web form with two main sections: 'Service Point Details' and 'New Meter Details'. The 'Service Point Details' section includes fields for Service Point ID (79887516702), Service Point Type (CCS-OFSC Service Point Type), Premise Type (Single Family Home), Service Type (Electric Service 1), Life Support (None), Device Location (In Garage), Device Location Details (device in garage), Warnings (Bad dog), Instructions (Check Seal), and Instruction Details (Details to check seal). The 'New Meter Details' section includes a 'Verify Device' button (highlighted with a red box), Manual Entry (No), Badge Number, Configuration Type, Meter Location, and Manufacturer. There are also radio buttons for 'No' and 'Yes' under Manual Entry.

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

The screenshot shows the 'Device Details' form. It includes a 'Device Type' dropdown menu set to 'Meter'. Below this are two input fields: 'Badge Number' and 'Serial Number'. At the bottom right of the form, there are two buttons: 'Dismiss' and 'Submit'.

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.

New Meter Details

Verify Device

Manual Entry: No
 Yes

Badge Number:

Status: Verification Successful

Configuration Type:

Meter Location:

Manufacturer:

Model:

Status Left*:

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:
 - a. oic_int_url– Oracle Integration Cloud integration point URL for service point query

Example:
https://oichost/ic/api/integration/v1/flows/rest/QUERY_SERVICEPOINT_OFSCITOSOM/1.0/

 - b. oic_username and oic_password – Oracle Integration Cloud username and password
 - c. ofsc_username and ofsc_password – Oracle Field Service Cloud user name and password in the format of username@ofscinstanceid/password

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

< Forms & Plugins | Modify plugin

General Information

*Name (English): Unrelated Pickup

Name (Portuguese (Brazil)):

Name (SpanishLA):

*Label: Unrelated Pickup

Entity: Activity

Visibility rules similar to:

Plugin settings

Type: HTML5 application

Use Plugin API:

Hosted plugin:

Plugin archive: [Browse...](#) No file selected. [Info](#)

Disable plugin in offline:

Secure parameters

Duplicate names are not allowed. Overall size should not exceed 5 KB

sic_int_url	Value	+
sic_username	Value	+
sic_password	Value	+
sic_username	Value	+
sic_password	Value	+

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.

Add button [X]

* Screen type

- Standard action screen
- Plugins
- Custom forms

unr

Available:

- Unrelated Pickup
- UnrelatedPickup

Selected:

Add before selected

Close OK

8. On the right pane, add new visibility.

Name: [] Original name: Unrelated Pickup Plugin label: UnrelatedPickup

English [] Spanish,LA [] Portuguese (Brazil) []

Save name Use original name

[Unrelated Pickup] visibility

Access	Conditions	Action
<input type="checkbox"/> Read-only	*	Modify

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

Available Properties

Add properties that must be available through Plugin API []

Activity

- Activity Notes
- Activity type
- Address
- City
- Service Point ID
- Service Point Source Status Code
- Service Point Source Status Description
- Service Point Status Code
- Service Point Status Description
- Service Point Type
- Service Point Type Description
- State
- ZIP/Postal Code

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:

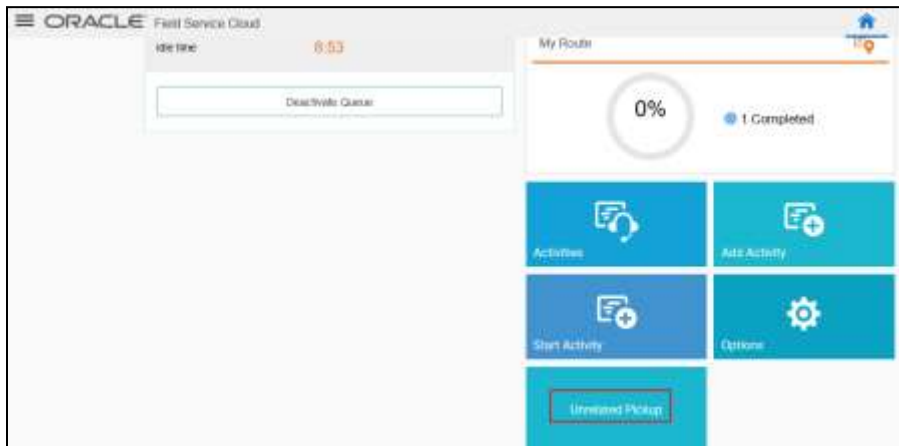
- Navigate to **Configuration > Application > Additional restrictions**.
- Select **Allow Cross-origin resource sharing (CORS)** from the following web domains and provide the Oracle Field Service Cloud domain.

- 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.



Search for Service Point

Street Address: 404
City: Stark
Postal Code: Error Road, Stark, OH
Latitude: 40.444444, Longitude: -80.000000
Longitude: 40.444444, Latitude: -80.000000

Search

List of Service Points

Select	Address	Service Point Type	SP Service Meter
<input type="checkbox"/>	404, Not Found Drive, Error Road, Stark, OH	Electric Residential	Connected
<input checked="" type="checkbox"/>	404, Not Found Drive, Error Road, Stark, OH	Electric Residential	Connected

Select

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.

Add Activity

Activity Type: Service Investigation

Address: 404, Not Found Drive, Error Road

City: Stark

State: OH

Country: US

Postal Code: 44720

Service Point Type: Electric Residential

Service Point ID: 618383598544

Activity Notes

Activity has been created successfully. OFSC Activity ID: 4224311

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**.



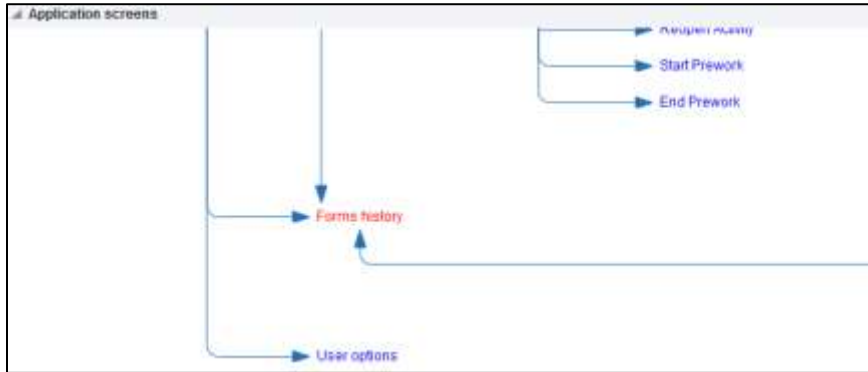
Configuring Time Format

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.

The screenshot shows the 'Property' configuration page for the field 'sutime_fid'. The 'Value visibility' section is expanded, showing a table with one entry: '12-hour'. The 'User field' is 'Time Format (sutime_fid)' and the 'Type' is 'Combobox'. There are 'Add new' buttons for both the 'Visibility' and 'Value visibility' sections.

The screenshot shows the 'Value Visibility Settings' dialog box. Under the 'Values' section, there is a 'Select values' dropdown menu with a '*' icon. Below it, a list of values is shown with checkboxes: '12-hour' and '24-hour'. A 'Co' label is next to the list, and a '+' icon is at the bottom right. A 'Show conditions as formula' link is at the bottom left.

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](#)
- [Organization](#)
- [Work Zones](#)
- [Work Skills](#)
- [Activities and Scheduling Information](#)
- [Resource and Bucket Info](#)
- [Outbound Channel](#)
- [UI Validations](#)
- [Quota](#)

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.

ID	Status	Work zone name	Work Zone Keys	Actions	Shapes
10	✓	WINTER SPRINGS	32708	Modify	Shape
13	✓	STARK	44720	Modify	

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.

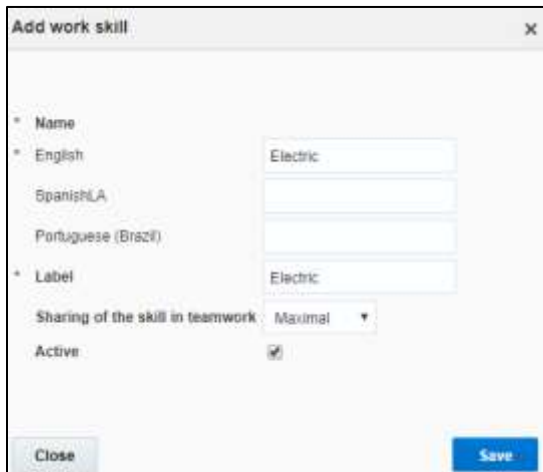
Work Skills

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**.



The screenshot shows the 'Add work skill' dialog box. It contains the following fields and options:

- Name:** (empty)
- English:** Electric
- SpanishLA:** (empty)
- Portuguese (Brazil):** (empty)
- Label:** Electric
- Sharing of the skill in teamwork:** Maximal (dropdown)
- Active:**

Buttons: Close, Save

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



The screenshot shows the 'Edit work skill condition: Meter Services(1/1)' dialog box. It contains the following fields and options:

- Work skill name:** Meter Services (dropdown)
- Required level:** 1
- Preferable level:** 1
- Activity type (activitytype):** in (dropdown)
- Activity list:** Meter Disconnect, Meter Exchange, Meter Install, Connect SP at Device (Item), Disconnected SP at Meter and Remove Meter, Disconnect SP at Device and Remove Device (Item), Meter Read, Item Exchange, Disconnected SP.

Buttons: Close, Save

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

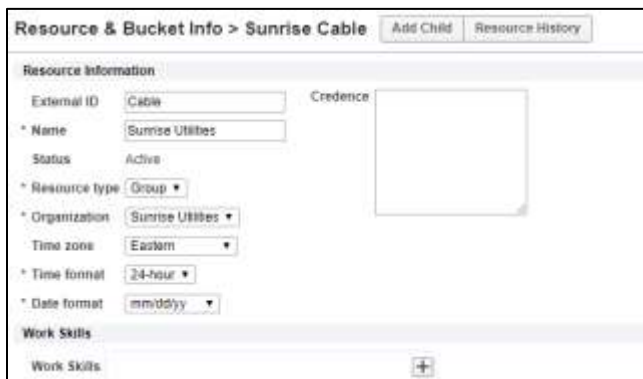
Oracle Field Service Cloud uses bucket and resources to categorize the resources. In this integration, use the bucket as a resource type to route the entire meter service tasks to workers. In the bucket, create two resources (field workers) who are assigned field activities coming from Oracle Utilities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

To configure resource and bucket information:

1. On the Oracle Field Service Cloud Home page, click the three lines on the top left corner.



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** and select **Technician** from the **Resource type** drop-down list. Click **OK**.

9. Select the required work skills to this Technician. Click **Save**.

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**.

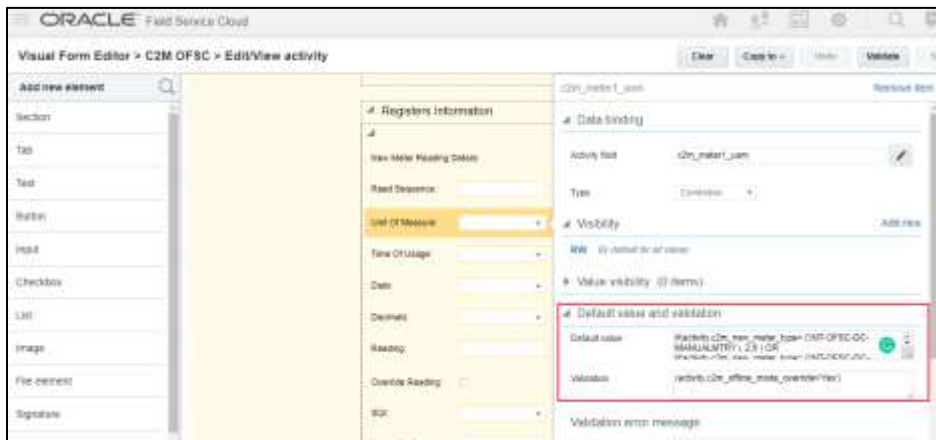
Offline Vs Online Mode

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.



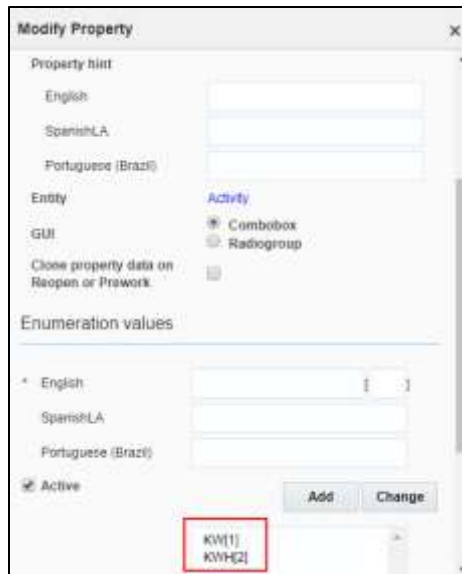
The default value code is displayed as:

```
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 KWH.

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.

Service Point Details

Service Point ID: 7088216702
 Service Point Type: CCS-OPSC Service Point Type
 Service Type: Single Family Home
 Service Type: Electric Service
 Life Support: None

Device Location: [Dropdown]
 Device Location Details: [Text Field]
 Warnings: [Dropdown]
 Instructions: [Dropdown]
 Instructions Details: [Text Field]

Meter Information

New Meter Details

Manual Entry: No Yes
 Badge Number: [Text Field]
 Configuration Type: [Dropdown]
 Meter Location: [Dropdown]

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

Service Point Details

Service Point ID: 0983222402
 Warnings: [Dropdown]
 Instructions: [Dropdown]
 Instructions Details: [Text Field]
 Life Support: None

Meter Information

New Meter Details

Manual Entry: No Yes
 Badge Number: [Text Field]
 Configuration Type: Default Single Register
 Meter Location: [Dropdown]
 Manufacturer: [Dropdown]
 Model: [Dropdown]
 Meter IOP: [Dropdown]

Registers Information

New Meter Reading Details

Total Consumption: 0
 Low CT Boundary: 0.000
 Meter CT Range: 100
 TSD: PCIM
 Date: 5
 Duration: 2
 Reading: [Text Field]

Buttons: Cancel, 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.

Service Point Details		Registers Information	
Service Point ID:	703887314752	New Meter Reading Details	
Service Point Status:	Connected	Read Sequence:	1
Service Point Type:	CCS-OFSC Service Point Type	Unit Of Measure:	KWH
Premise Type:	Single family home	Time Of Usage:	Peak
Service Type:	Electric Service	SDI:	FEAR
Life Support:	None	Class:	5
Device Location:	In Garage	Decimals:	2
Device Location Details:	Device in garage	Reading*:	<input type="text"/>
Warnings:	Bad dog	Override Reading:	<input checked="" type="radio"/> No <input type="radio"/> Yes
Instructions:	Check Seal	Lower Limit:	0
Instruction Details:	Details to check seal	Upper Limit:	25.00

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 recommendations. If the reading is not between these limits the application displays an error.

Service Point Details		Registers Information	
Service Point ID:	010032566544	Reading Details	
Warnings:		Read Sequence:	0
Instructions:		Unit Of Measure:	KWH
Instruction Details:		Time:	T
Life Support:	None	Decimals:	2
Meter Information		Reading*:	30
Existing Meter Details		<small>Please double check & select override reading if needed</small>	
Manufacturer:	Accumeter	Cylinder Reading:	<input checked="" type="radio"/> No <input type="radio"/> Yes
Model:	MD1300	Lower Limit:	0
Meter Found:		Upper Limit:	25.00

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

Service Point Details		Registers Information	
Service Point ID:	70467314752	New Meter Reading Details	
Service Point Status:	Connected	Read Sequence:	1
Service Point Type:	CCS-OFSC Service Point Type	Unit Of Measure:	KWH
Premise Type:	Single family home	Time Of Usage:	Peak
Service Type:	Electric Service	SDI:	FEAR
Life Support:	None	Class:	5
Device Location:	In Garage	Decimals:	2
Device Location Details:	Device in garage	Reading*:	<input type="text"/>
Warnings:	Bad dog	Override Reading:	<input type="radio"/> No <input checked="" type="radio"/> Yes
Instructions:	Check Seal	Lower Limit:	0
Instruction Details:	Details to check seal	Upper Limit:	0

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.



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:



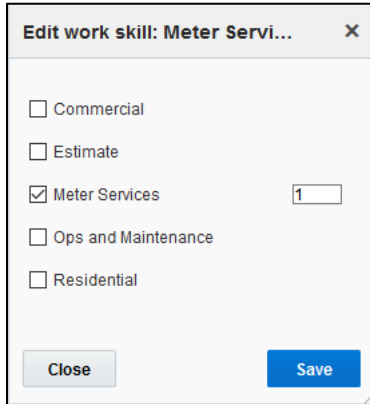
The screenshot shows the 'Configuration | Capacity categories' page. It features a search bar with 'Name, Label or ID' and an 'Add New' button. Below is a table with columns: ID, Name, Label, Status, Work Skills, and Time slots. A single row is visible with ID 157, Name Estimate, Label EST, Status checked, Work Skills Estimate(1), and Time slots 08-10; 10-12; 13-15; 15-17; All-Day.

ID	Name	Label	Status	Work Skills	Time slots
157	Estimate	EST	<input checked="" type="checkbox"/>	Estimate(1)	08-10; 10-12; 13-15; 15-17; All-Day

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.



Dialog box titled "Edit work skill: Meter Servi...". It contains a list of work skill groups with checkboxes and a text input field for the condition level value.

Work Skill Group	Condition Level Value
<input type="checkbox"/> Commercial	
<input type="checkbox"/> Estimate	
<input checked="" type="checkbox"/> Meter Services	1
<input type="checkbox"/> Ops and Maintenance	
<input type="checkbox"/> Residential	

Buttons: Close, Save

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.

<input type="checkbox"/>	ID	Name	Time slot label	Status	Time Slot	Capacity Categories	Actions
<input type="checkbox"/>	1	08-10	08-10	Active	08:00 AM - 10:00 AM	Commercial, Estimate, Meter Services, Residential	Modify

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.

[Skip using as a Capacity Area](#)

Capacity management

Capacity category:

Working time unit:

Booking

Available time slots:

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](#)

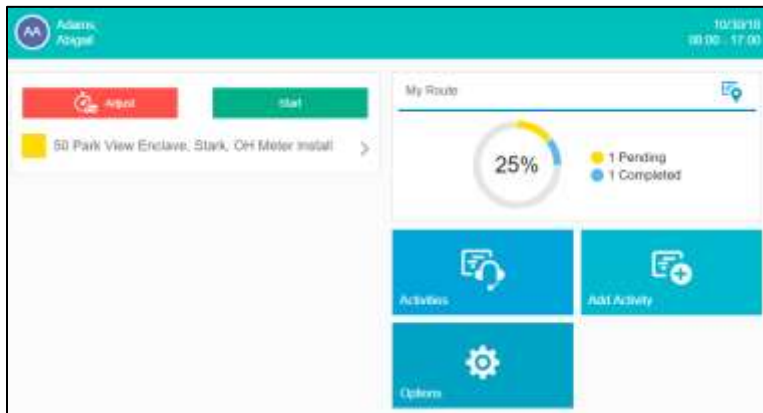
Chapter 4: User Operations

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**

Meter Information

New Meter Details

Verify Device

Manual Entry: No Yes

Badge Number:

Meter Information

Existing Meter Details

Status Found*:

Status Left*:

Device Verification

Verify

Manual Entry:

New Meter Details

Badge Number:

Configuration Type:

Meter Location:

Device Verification

Device Details

Device Type: Meter

Badge Number:

Serial Number:

Dismiss

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

<p>Service Point Details</p> <p>Service Point ID: 768774762</p> <p>Service Point Name: Loveland</p> <p>Service Point Type: CCS-CHS Service Point Type</p> <p>Parent Type: Single Family Home</p> <p>Service Type: Electric Service</p> <p>City System: None</p> <p>Device Location: <input type="text" value="In Garage"/></p> <p>Service Location (State): <input type="text" value="device in garage"/></p> <p>Manufacturer: <input type="text" value="Bad tag"/></p> <p>Installation Date: <input type="text" value="Direct Read"/></p> <p>Installation Date: <input type="text" value="Spoke to check use"/></p>	<p>Registers Information</p> <p>New Meter Reading Detail</p> <p>Read Sequence: 1</p> <p>Time Of Day: 0804</p> <p>Time Of Day: 0804</p> <p>CC: 0000</p> <p>Day: 8</p> <p>Sequence: 3</p> <p>Reading: <input type="text" value="00"/></p> <p>Device Reading: <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p>Serial ID: 8</p> <p>Serial ID: 8</p>
<p>Meter Information</p> <p>New Meter Details</p> <p>Verify Device</p> <p>Manual Entry: <input checked="" type="radio"/> No <input type="radio"/> Yes</p> <p>Badge Number: <input type="text" value="8896"/></p> <p>Configuration Type: <input type="text"/></p> <p>Meter Location: <input type="text"/></p>	

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

Activity Details (04/2)

Complete Adjust Time Not Done Suspend Map Book Activity Nearby Activities Knowledge

Service Information

Go back to Activities list, wait 10 seconds and come back to see newly populated information below

Activity Type:	Meter Install
Site Address:	00 TestScate2
Work Order:	90027794238015
Status:	Started

Customer Information

Account Number:	1200880052
-----------------	------------

Scheduling Information

Start - End:	06:53 - 07:19
Start Time - End Time:	07:56 AM
Duration:	46 minutes

Meter Details

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

End Activity

Completed

Activity Notes

Customer Contact Type

Customer Contact Comments

Remarks

Done 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:

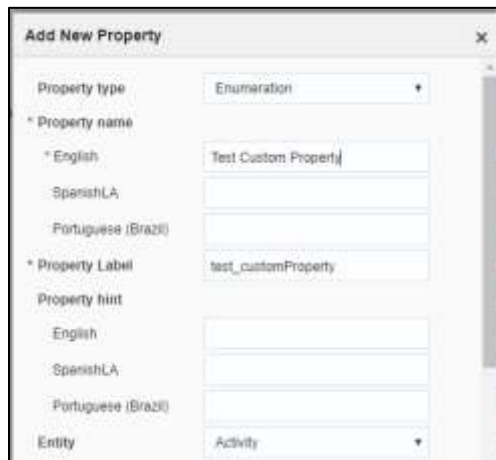
- [Adding New Fields to Field Activity](#)
- [Adding New Fields and Lookup to Field Activity](#)
- [Adding New/Custom Activity Types](#)
- [Adding Enumeration Values to OFSC Property](#)
- [Adding Fields to UI in OFSC](#)

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

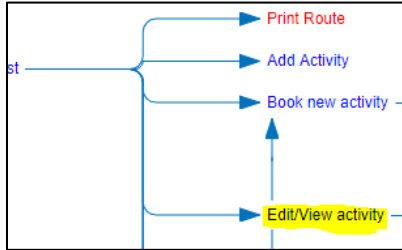
1. Login to Oracle Field Service Cloud.
2. Navigate to **Configuration > Properties > Add New Property**.
3. Select the **Entity** and **Type of GUI**. Enter the enumeration values (example: customprop1 and customprop2).



The screenshot shows a dialog box titled "Add New Property" with a close button (X) in the top right corner. The dialog contains the following fields:

- Property type: Enumeration (dropdown menu)
- * Property name: English: Test Custom Property (text input)
- SpanishLA: (empty text input)
- Portuguese (Brazil): (empty text input)
- * Property Label: test_customProperty (text input)
- Property hint: English: (empty text input)
- SpanishLA: (empty text input)
- Portuguese (Brazil): (empty text input)
- Entity: Activity (dropdown menu)

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.

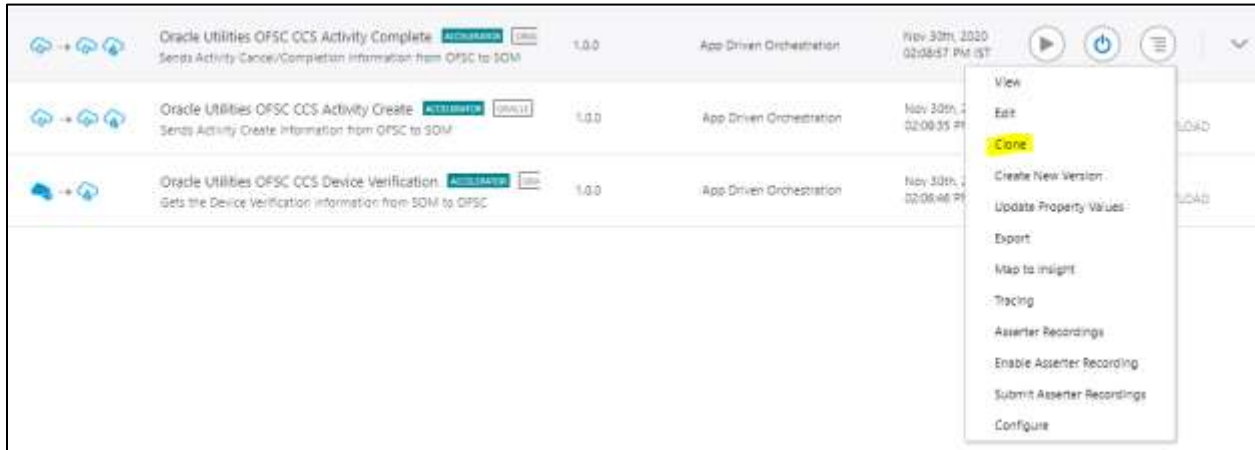
The screenshot shows a form titled 'Service Point Details' with the following fields: Service Point ID, Warnings, Instructions, Instruction Details, Disconnect Location, Life Support, Service Point Type, Promise Type, Not Done Reason, and Test Custom Property. The 'Test Custom Property' field is highlighted in purple.

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*.

Name	Date modified	Type	Size
req_358b3cdb3d5745fb8e082acd6659bb2.xsl	11/17/2020 11:53 AM	XSL Stylesheet	91 KB
req_358b3cdb3d5745fb8e082acd6659bb2_stateinfo.xml	11/17/2020 11:53 AM	XML Document	15 KB

- Navigate to `<xsl: template..>` tags towards the end of the file.
- 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">`

```

660         </xsl:variable>
661         <xsl:value-of select="concat($SOMDate,$SOMOffset)"/>
662     </xsl:if>
663 </xsl:if>
664 </xsl:template>
665 <xsl:template name="customerContactDetails_Customizations">
666 <!--Add customerContactDetails related customizations here-->
667 </xsl:template>
668 <xsl:template name="completionInformation_Customizations">
669 <!--Add completionInformation related customizations here-->
670 </xsl:template>
671 <xsl:template name="servicePointDataDetails_Customizations">
672 <!--Add servicePointDataDetails related customizations here-->
673 </xsl:template>
674 <xsl:template name="servicePointCompletionDetails_Customizations">
675 <!--Add servicePointCompletionDetails related customizations here-->
676 </xsl:template>

```

- 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.getActivity
Schema/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>

```

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

```

<?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:nsmp3="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:mhb="http://www.oracle.com/XSL/Transform/java/oracle.tip.mediator.service.common.functions.MediatorExtnFunction"
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:nsmp2="http://www.oracle.com/XSL/Transform/java/com.bea.wli.sb.functions.dvm.DVMFunctions"
xmlns:nsmp1="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/1996/namespace"
xmlns:nsmp10="http://xmlns.oracle.com/cloud/adapter/ofsccloudadapter/invokeOFSCGetActivity_REQUEST/types" ignore01:ignorexmlds="true"
xmlns:ignore01="http://www.oracle.com/XSL/Transform/java" exclude-result-prefixes="oraext xsd xp20 nsrccmpr ns7 ora oracle-xsl-mapper nsrccdlf xsi fn xsl igno
nsmp1" 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:nsrccdlf="http://xmlns.oracle.com/procmon"
xmlns:ns1="http://xmlns.oracle.com/cloud/adapter/Oracle_Utillities/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:nsrccmpr="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.Xpa
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsp="http://www.w3.org/ns/ws-policy" xmlns:ptnk="http://schemas.xmlsoap.org/ws/2003/05/partn
xmlns:oraext="http://www.oracle.com/XSL/Transform/java/oracle.tip.pc.services.functions.ExtFunc"
xmlns:nsrccmpr="http://xmlns.oracle.com/cloud/adapter/Oracle_Utillities/invokeSOMActivity/types" xmlns:id="id_1" version="2.0">
<oracle-xsl-mapper:schema xmlns: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 [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.

DATA AREA	D1-NewOFSCDataAreaExt
DESCRIPTION	New OFSC DA added for extending the Service Point DA
OWNER	Customer Modification

Schema Designer ⓘ

View Mode

TREE **TEXT**

```

1 <schema xmlns:uiHint="http://oracle.com/ouafUIHints">
2   <customField mdField="D1_CUSTOM_FIELD" dataType="string"/>
3 </schema>
4
```

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.

```

<servicePointDataDetails mdField="DI_SO_SF_DATA_DET_LEL" >
  <disconnectLocation mdField="DI_DISCONNECT_LOCATION_CD" ds
<serviceWarnings mdField="DI_SERVICE_WARNINGS_CD" dataType
<serviceInstructions mdField="DI_SERVICE_INSTRUCTIONS_CD"
<instructionDetails mdField="DI_INSTRUCTION_DETAILS"/>
<serviceAgreementStatus mdField="DI_SA_STATDS_FLG"/>
<servicePointId mdField="DI_SERVICE_POINT_ID"/>
<serviceAgreementId mdField="DI_SA_ID"/>
<premiseId mdField="DI_PREMISE_ID"/>
</servicePointDataDetails>
<customField mdField="DI_CUSTOM_FIELD" dataType="string"/>

```

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.

ID	Status	Activity Type Name	Activity Type Label	Actions
66	✓	Commercial Facility Maintenance	05	Modify Clone
62	✓	Coating Maintenance	01	Modify Clone
78	✓	Disconnected Warning	Disconnected Warning	Modify Clone
67	✓	Estimate	05	Modify Clone
81	✓	Meter Install	Meter Install	Modify Clone
65	✓	Miscellaneous	04	Modify Clone
73	✓	Multi-Day Activity	80	Modify Clone
63	✓	Natural Gas Maintenance	02	Modify Clone
58	✓	No Charge Service	07	Modify Clone
70	✓	Sale	03	Modify Clone
69	✓	System Overhaul Install	08	Modify Clone
77	✓	Turn on Pilot Light	Turn on Pilot Light	Modify Clone
72	✓	VP Service Commercial	10	Modify Clone
71	✓	VP Service Residential	11	Modify Clone

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

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

Clone activity type

Activity type info

* Label:

* Name:

* English: Meter install

Spanish LA:

Portuguese (Brazil):

Active:

Group: Customer

* Default Duration: 48 minutes

Color scheme

Copy from:

Pending: FFDE00

Completed: 7080E0

Warning: FF0000

Suspended: 80FFFF

Features

Allow mass activities

Teamwork

Enable segmenting and extended duration

Allow move between resources

Allow creation in buckets

Allow reschedule

Support of not-ordered activities

Allow non-scheduled

Support of work zones

Support of work skills

Support of time slots

Support of inventory

Support of links

Support of preferred resources

Allow Repeating Activities

Calculate travel

Cancel 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 Eletrical[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



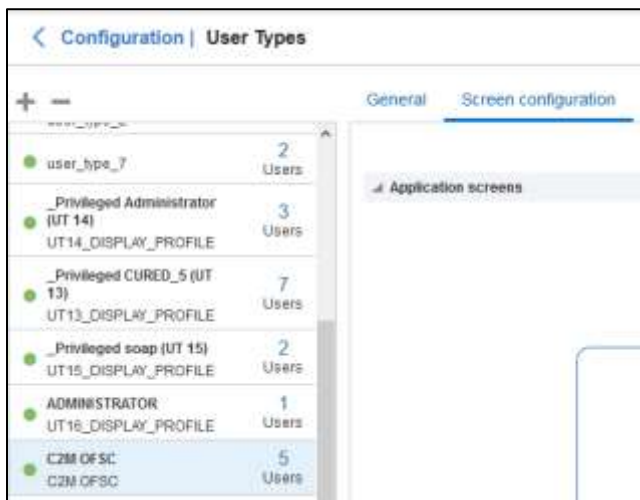
- d. Click +.

- 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:

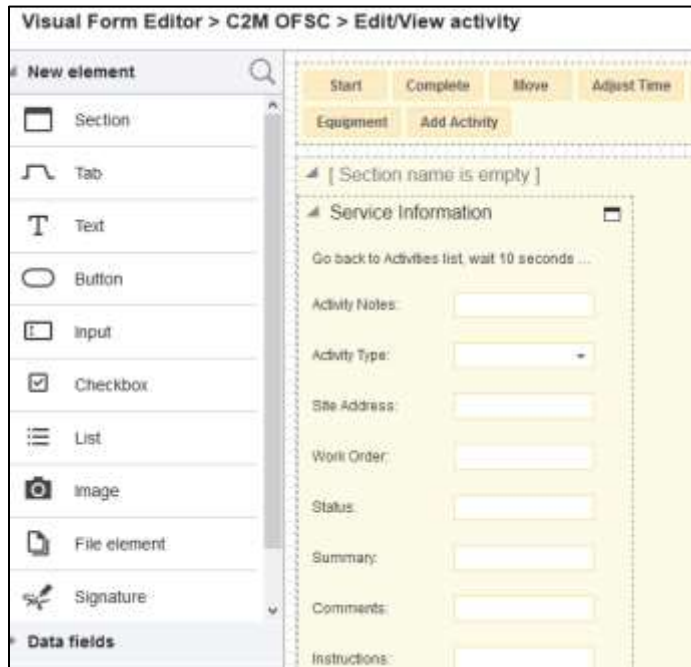
1. Login to Oracle Field Service Cloud.
2. Navigate to **Configuration > User Types**.
3. Click the **C2M OFSC** user type and click **Screen configuration**.



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 accelerator zip.

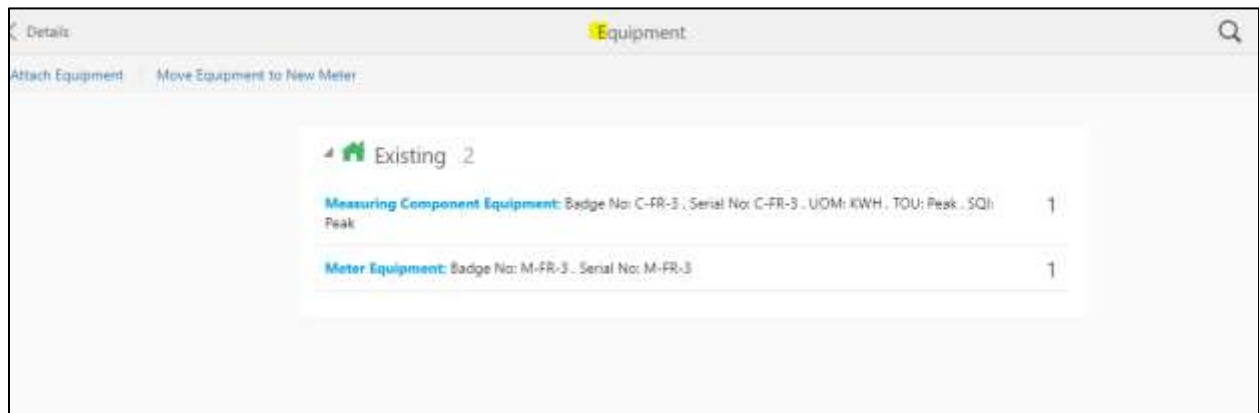
Category (ctg)	Identifier (id)	Type (tp)	ID/Label (lbl)	User Type	English (en-US)
Glossary: mobile_shared_wap_inventory	glossary	translation	10109		Assets/Equipment
Glossary: mobile_shared	glossary	translation	10865		Assets/Equipment
Glossary: mobile_shared	glossary	translation	10767		Asset/Equipment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

Plug-Ins can be hosted within Oracle Field Service or externally.

Oracle Field Service cloud has a limit of up to 10 plug-ins that can be hosted within Oracle Field Service cloud.

The steps to host a Plug-In within Oracle Field Service cloud is documented in https://docs.oracle.com/en/cloud/saas/field-service/20d/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/20d/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/20d/fapcf/configure-and-use-plug-ins.html#c_authentication

Storing files on Object Storage

Before storing files in Object Storage please ensure that the basic administration tasks in Oracle Cloud Infrastructure related to Object Storage have been completed properly, and that the compartments and buckets where the plugin files are stored have been setup.



For more information on Oracle Cloud Object Storage setup for Oracle Utilities Cloud Services, please see the latest Oracle Utilities Cloud Services Object Storage Setup Guide.

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](#)
- [Equipment Screens](#)
- [Undo Attach](#)
- [Replace Equipment](#)
- [Exchange Meter](#)

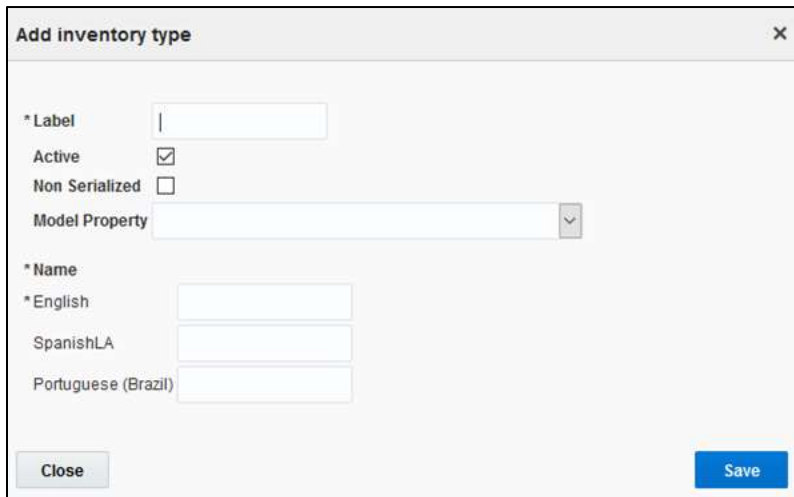
Pre-requisites

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.



The screenshot shows a web form titled "Add inventory type" with a close button (X) in the top right corner. The form contains the following fields and controls:

- * Label: A text input field.
- Active: A checked checkbox.
- Non Serialized: An unchecked checkbox.
- Model Property: A dropdown menu.
- * Name: A section header for the name fields.
- * English: A text input field.
- SpanishLA: A text input field.
- Portuguese (Brazil): A text input field.
- Close: A button in the bottom left corner.
- Save: A blue button in the bottom right corner.

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 verify the attach. After the verification is successful, equipment will be attached to 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.

A screenshot of a mobile application interface. The title is 'Equipment Details'. Below the title, there is a section titled 'Attach Equipment to Meter'. This section contains two input fields: 'Badge Number*' and 'Serial Number:'. Below the input fields, there are two buttons: 'Submit' and 'Dismiss'.

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 screenshot shows a mobile application interface with a header 'Equipment Details' and a sub-header 'Replace Equipment at Service Point'. Below this, there are two input fields: 'Badge Number:' and 'Serial Number:'. At the bottom of the form, there are two buttons: 'Submit' and 'Dismiss'.

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

Existing	1
SP Equipment: Badge No: R-SP-ERT , Serial No: R-SP-ERT	
Installed	1
SP Equipment: Badge No: R-SP-ERT , Serial No: R-SP-ERT , Description: C2M-OFSC-SP_AssetType	
Detached	1
SP Equipment: Badge No: S-ERT2 , Serial No: S-ERT2	

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](#)

Existing	2
Measuring Component Equipment: Badge No: C-FR-3 , Serial No: C-FR-3 , UOM: KWH , TOU: Peak , SQI: Peak	
Meter Equipment: Badge No: M-FR-3 , Serial No: M-FR-3	

Attach Equipment

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

Equipment Details

Attach Equipment to Meter

Badge Number*:

Serial Number:

Move Equipment to New Meter

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

Move Equipment to New Meter

Existing 2

Measuring Component Equipment: Badge No: C-FR-3 , Serial No: C-FR-3 , UOM: KWH , TOU: Peak , SQI: Peak	1
Meter Equipment: Badge No: M-FR-3 , Serial No: M-FR-3	1

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

Attach Equipment Undo Equipment Move

Installed 2

Measuring Component Equipment: Badge No: C-FR-3 , Serial No: C-FR-3 , UOM: KWH , TOU: Peak , SQI: Peak	1
Meter Equipment: Badge No: M-FR-3 , Serial No: M-FR-3	1

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

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](#)
- [Attachment Screens](#)
- [Customer Signature](#)

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.

The screenshot shows the 'Service Point Details' form. It includes the following fields and values:

- Service Point ID: 545481408139
- Premise Type: Single family home
- Life Support: None
- Device Location: (Dropdown menu)
- Device Location Details: (Text input field)
- Warnings: (Dropdown menu)
- Instructions: (Dropdown menu)
- Instruction Details: (Text input field)

At the bottom of the form, there is a button labeled 'Service Point Attachments'.

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

The screenshot shows the 'Attachment' management interface. It includes the following elements:

- An 'Attach' section with a 'Browse...' button and a note: 'Maximum file size limit is 3 MB'.
- A 'Comments' section with a large text input area.
- A 'Saved Attachments' section showing a list of saved files, including '1.jpeg'.
- An 'Unsaved Attachments' section showing a list of unsaved files, including '2.pdf'.
- At the bottom, there are three buttons: 'Upload', 'Save', and 'Dismiss'.

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.

The screenshot shows a form titled "New Meter Details". At the top left is a "Verify Device" button. Below it, the "Manual Entry:" field has radio buttons for "No" (selected) and "Yes". The "Badge Number:" field contains "R01". The "Status:" field shows "Verification Successful". The "Configuration Type:" dropdown is set to "Simple Electrical Residential". Other dropdowns include "Meter Location:", "Manufacturer:" (set to "Accumeter"), "Model:" (set to "IND1300"), and "Status Left*:". At the bottom left is a "New Meter Attachments" button.

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

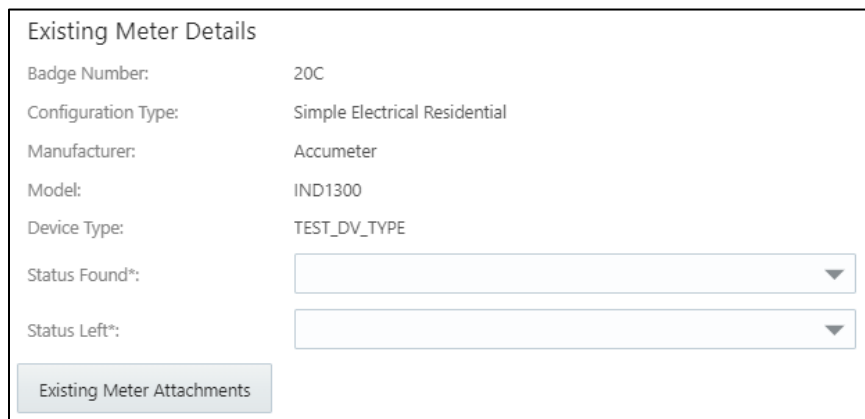
The screenshot shows the "Attachment" section. It features an "Attach" button with a "Browse..." link and a note "Maximum file size limit is 5 MB". Below this is a "Comments" text area. At the bottom, there is a summary: "Saved Attachments: 1 .jpeg" and "Unsaved Attachments: 2 .xlsx". At the very bottom are "Upload", "Save", and "Dismiss" buttons.

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

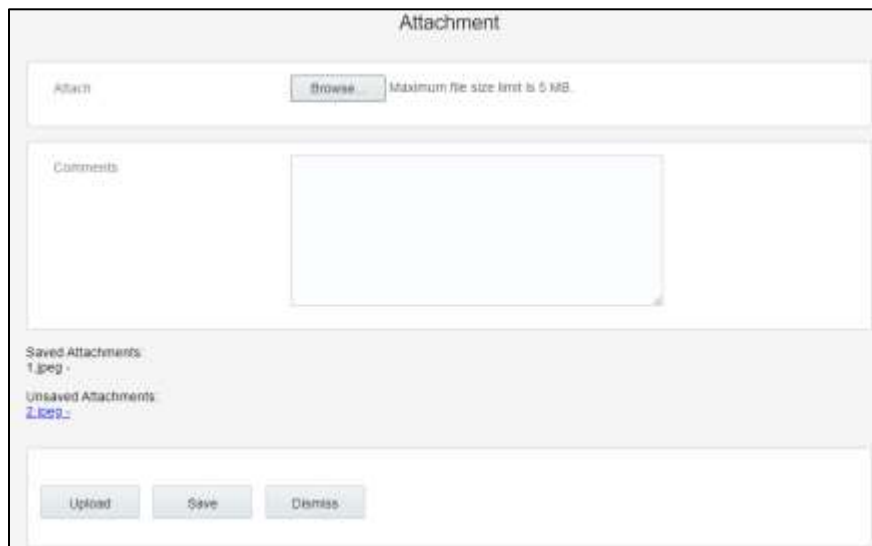
The figure below shows the **Attachment** button available in the **Existing Device** section.



Existing Meter Details

Badge Number:	20C
Configuration Type:	Simple Electrical Residential
Manufacturer:	Accumeter
Model:	IND1300
Device Type:	TEST_DV_TYPE
Status Found*:	<input type="text"/>
Status Left*:	<input type="text"/>

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



Attachment

Attach Maximum file size limit is 5 MB.

Comments:

Saved Attachments:
1.jpg

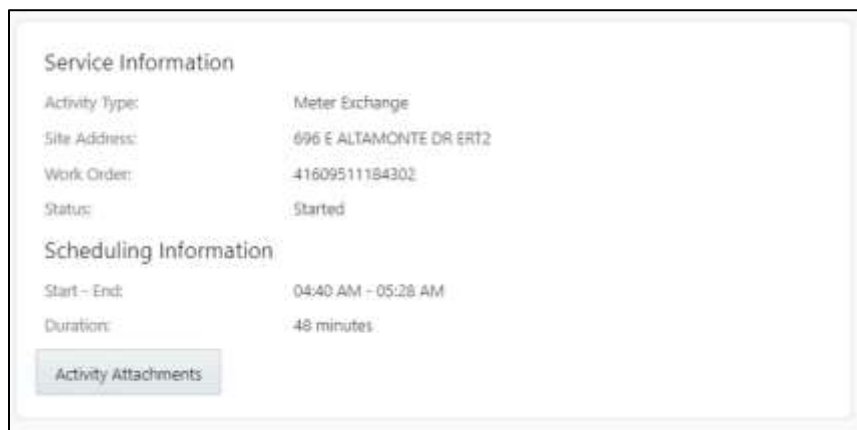
Unsaved Attachments:
[2.jpg](#)

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.



The screenshot shows a form with two sections: "Service Information" and "Scheduling Information".

Service Information	
Activity Type:	Meter Exchange
Site Address:	696 E ALTAMONTE DR ERT2
Work Order:	41609511184302
Status:	Started

Scheduling Information	
Start - End:	04:40 AM - 05:28 AM
Duration:	48 minutes

At the bottom of the form, there is a button labeled "Activity Attachments".

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

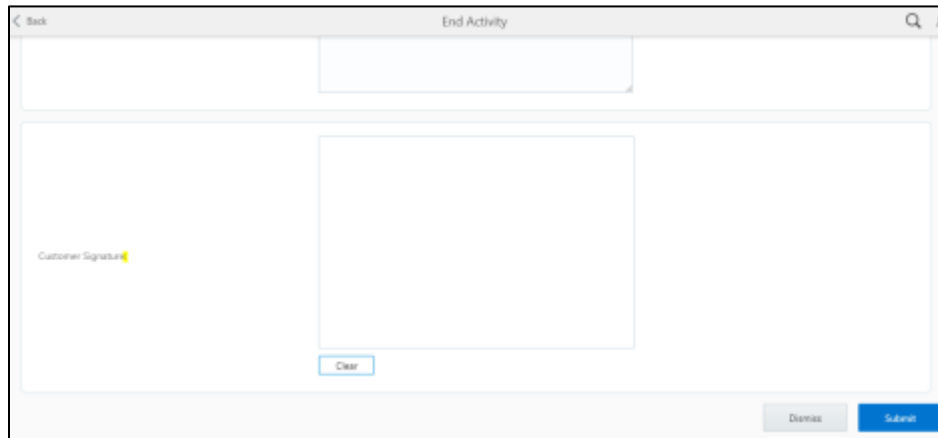


The screenshot shows the "Attachment" form with the following sections:

- Attach:** A "Browse..." button and the text "Maximum file size limit is 5 MB".
- Comments:** A large text area for entering comments.
- Saved Attachments:** A list showing "1 .jpg".
- Unsaved Attachments:** A list showing "2 .doc".
- Buttons:** "Upload", "Save", and "Dismiss" buttons at the bottom.

Customer Signature

As part of 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.

The image shows a screenshot of a web application interface titled "End Activity". At the top left, there is a "Back" button. The main content area contains a large, empty rectangular box labeled "Customer Signature" with a yellow cursor. Below this box is a "Clear" button. At the bottom right of the interface, there are two buttons: "Dismiss" and "Submit".

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