

ORACLE FIELD SERVICE CLOUD CONFIGURATIONS

FOR

ORACLE CUSTOMER CLOUD SERVICE TO ORACLE FIELD SERVICE CLOUD

(ALSO APPLICABLE TO ORACLE UTILITIES
CUSTOMER TO METER)

V19.1



Disclaimer

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

July 2019

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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 to be used in the 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 which provides a complete end-to-end set up for the integration.


The contents of package are:

- **User Types** – It is used to define layouts and UI screens. The new UIs of Service Point Details, New Meter Details, Existing Meter Details are linked to user types. The details are discussed in UI Validations section.
- **Properties** – The properties are used for creating layouts and mapping.
- **Plugins** – The Device Verification and Unrelated Pickup query (service point query) plugins are part of the package, where the earlier takes in badge number and returns the device details if a corresponding device exists and the later gets the service points based on the search criteria. Further details about enabling plugins are given in later chapter.

Accelerator Activity Types

This accelerator is a sample and supports only ten Activity Types in this release. The customers should create UIs, described in Customization section, for additional activity types or customize the existing UIs for the supported 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 takes us through the import of 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 in order to walk on happy-path scenario.

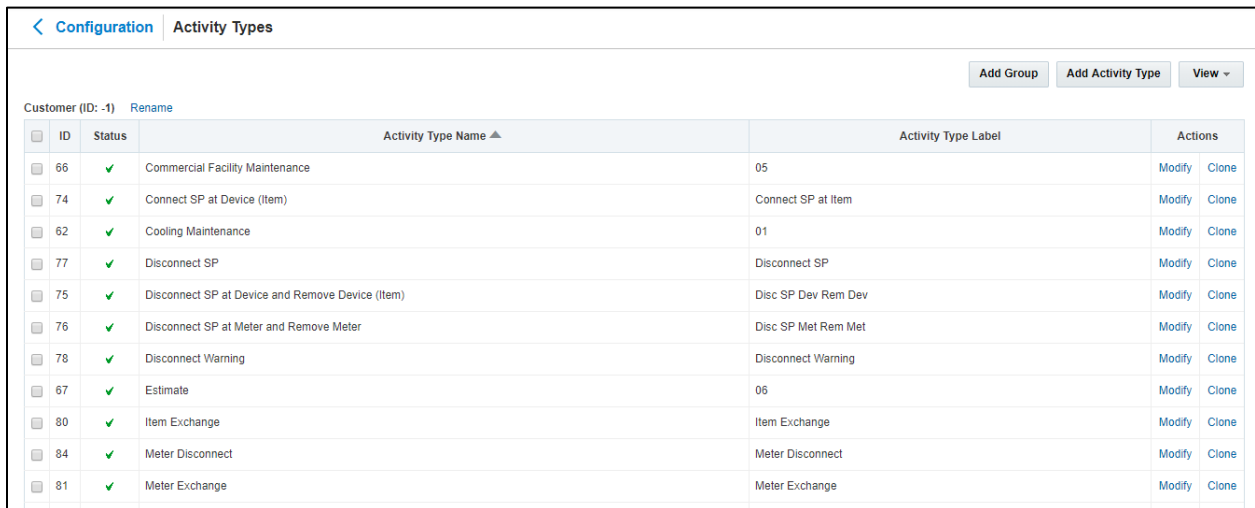
The chapter expands on the following configurations:

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

Activity Types

The activity types are used to define the categories of the activity that are supported by the Oracle Field Service Cloud and in this case, Oracle Utilities Customer Cloud Service Integration with Oracle Field Service Cloud. In the activity type, there are various fields such as time slots, activity status denoted using colors and features that each activity type supports and these can be customized for each activity type.

1. Navigate to **Configurations**.
2. On the **Configuration** page, select **Activity Type**.
3. Select 'Customer' from the list.

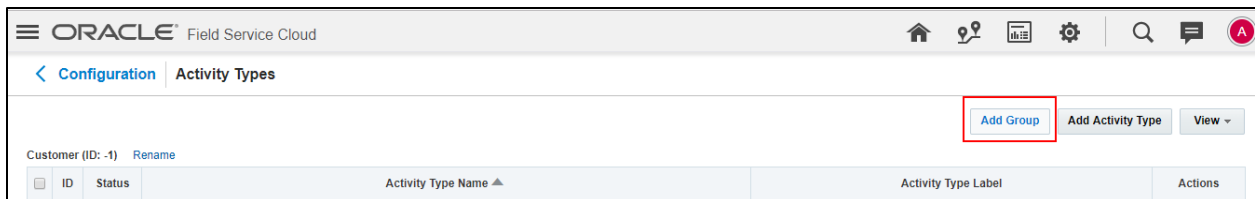


The screenshot shows the 'Configuration' page for 'Activity Types'. At the top right, there are buttons for 'Add Group', 'Add Activity Type', and a 'View' dropdown. Below these is a table with columns: ID, Status, Activity Type Name, Activity Type Label, and Actions. The table lists 13 activity types, all with a green checkmark in the Status column. The Actions column for each row contains 'Modify' and 'Clone' links.

ID	Status	Activity Type Name	Activity Type Label	Actions
66	✓	Commercial Facility Maintenance	05	Modify Clone
74	✓	Connect SP at Device (Item)	Connect SP at Item	Modify Clone
62	✓	Cooling Maintenance	01	Modify Clone
77	✓	Disconnect SP	Disconnect SP	Modify Clone
75	✓	Disconnect SP at Device and Remove Device (Item)	Disc SP Dev Rem Dev	Modify Clone
76	✓	Disconnect SP at Meter and Remove Meter	Disc SP Met Rem Met	Modify Clone
78	✓	Disconnect Warning	Disconnect Warning	Modify Clone
67	✓	Estimate	06	Modify Clone
80	✓	Item Exchange	Item Exchange	Modify Clone
84	✓	Meter Disconnect	Meter Disconnect	Modify Clone
81	✓	Meter Exchange	Meter Exchange	Modify Clone

If it does not exist, create the group as follows.

- 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		Features
* Label	<input type="text" value="Disconnect Warning"/>	<input type="checkbox"/> Teamwork
* Name		<input type="checkbox"/> Multi-day activity
* English	<input type="text" value="Disconnect Warning"/>	<input checked="" type="checkbox"/> Allow move between resources
SpanishLA	<input type="text"/>	<input checked="" type="checkbox"/> Allow creation in buckets
Portuguese (Brazil)	<input type="text"/>	<input checked="" type="checkbox"/> Allow reschedule
Active	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Support of not-ordered activities
Group	<input type="text" value="Customer"/>	<input checked="" type="checkbox"/> Allow non-scheduled
* Default Duration	<input type="text" value="48"/> minutes	<input checked="" type="checkbox"/> Support of work zones
Color scheme		<input checked="" type="checkbox"/> Support of work skills
Copy from	<input type="text"/>	<input checked="" type="checkbox"/> Support of time slots
Pending	<input type="text" value="FFDE00"/>	<input checked="" type="checkbox"/> Support of inventory
Completed	<input type="text" value="79B6EB"/>	<input checked="" type="checkbox"/> Support of links
Warning	<input type="text" value="FFAAAA"/>	<input checked="" type="checkbox"/> Support of preferred resources
		<input type="checkbox"/> Allow mass activities
		<input type="checkbox"/> Allow Repeating Activities
		<input checked="" type="checkbox"/> Calculate travel

Suspended	<input type="text" value="99FFFF"/>	<input checked="" type="checkbox"/> Calculate activity duration using statistics
Not Done	<input type="text" value="60CECE"/>	<input checked="" type="checkbox"/> Allow to search
Not Ordered	<input type="text" value="FFCC99"/>	<input checked="" type="checkbox"/> Allow to create from Incoming interface
Started	<input type="text" value="5DBE3F"/>	<input type="checkbox"/> Enable 'day before' trigger
Cancelled	<input type="text" value="80FF80"/>	<input type="checkbox"/> Enable 'reminder' and 'change' triggers
		<input type="checkbox"/> Enable 'not started' trigger
		<input checked="" type="checkbox"/> Enable 'SW warning' trigger
		<input checked="" type="checkbox"/> Calculate delivery window
		<input checked="" type="checkbox"/> SLA and Service window use customer time zone (required for routing)
		<input checked="" type="checkbox"/> Support of required inventory
<input type="checkbox"/> Available time slots		
<input checked="" type="checkbox"/> 08-10 (08:00 AM - 10:00 AM)		
<input checked="" type="checkbox"/> 10-12 (10:00 AM - 12:00 PM)		
<input checked="" type="checkbox"/> 13-15 (01:00 PM - 03:00 PM)		
<input checked="" type="checkbox"/> 15-17 (03:00 PM - 05:00 PM)		
<input checked="" type="checkbox"/> All-Day (All-day time slot)		
<input checked="" type="checkbox"/> Lunch break (12:00 PM - 12:30 PM)		

Cancel
Add

6. For other Activity Types listed earlier (*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*) you can just clone and modify the name and details as required.

Note: Make sure the label names are exactly the same as given below other wise the new name should be updated in the activity type lookup of OIC.

7. Make sure you have corresponding lookup values in the SOMOFSC_ActivityType lookup for all activity types in OIC.
For example: D1-InstallMeter (SOM Task Type) corresponding to Meter Install (OFSC Activity Type)
8. Only those Activity Types needed for and specific to the customers are to be added from the above mentioned list.

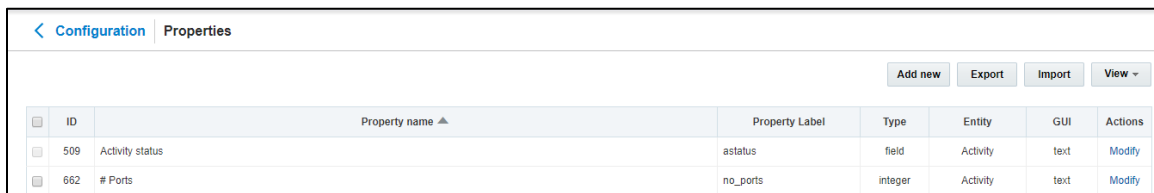
Activity Type Name	Activity Type Label
Turn on Pilot light	Turn on Pilot light
Service Investigation	Service Investigation
Trim Tree	Trim Tree
Disconnect SP at Device and Remove Device (Item)	Disc SP Dev Rem Dev
Item Exchange	Item Exchange
Connect SP at Item	Connect SP at Item
Meter Exchange	Meter Exchange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

The properties are used to enable the Utility Integration specific UIs created and they are used to map the Oracle Field Service Cloud UI element with a property. Each property can be classified into types such as field, integer, enumeration, string on the basis of requirements and need to be addressed using this property.

This section deals with importing the property file that comes as a part of the accelerator package.

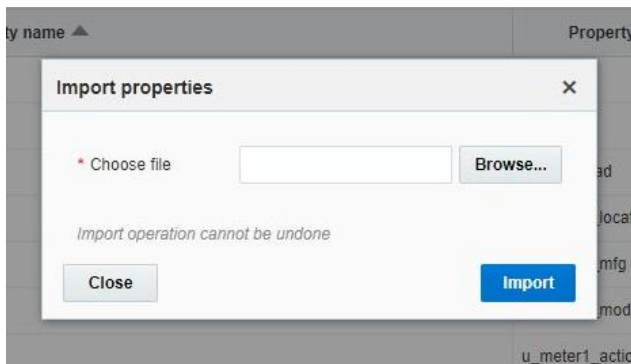
1. Click the **Properties** icon on the **Configuration** page.
2. Click **Import**.



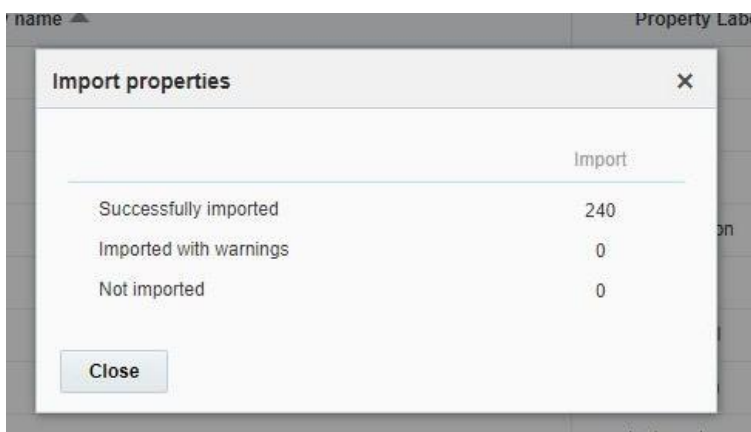
The screenshot shows the 'Configuration Properties' page. At the top right, there are buttons for 'Add new', 'Export', 'Import', and 'View'. Below these is a table with the following data:

ID	Property name	Property Label	Type	Entity	GUI	Actions
509	Activity status	astatus	field	Activity	text	Modify
662	# Ports	no_ports	integer	Activity	text	Modify

3. Browse to the location of the file to be imported and click **Import**.



4. Verify the successful import of the file.



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. Here we are using plugins to invoke the response for badge number input from Oracle Utilities Customer Cloud Service in the device verification plugin and to retrieve the service points from Oracle Utilities Customer Cloud Service based on the search criteria by the crew in Oracle Field Service Cloud so as to create unrelated pickup activity using unrelated pickup activity plugin.

The device verification plugin accepts the 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.

The crew has to populate the search criteria in the unrelated pickup activity then this plugin fetches the 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. On the **Configuration** page, navigate to **Forms and Plugins**.
2. Click the **Import** icon to import the **Device Verification** plugin provided in the package.



Configuration		Forms & Plugins		Add Form	Add Plugin	Export Plugins	Import Plugins	View
	Test Form test_form1	Size: Created: Updated: User:	1.41 KB 02/19/19 07:58 AM 02/19/19 08:01 AM Admin				2 Configured links	
	Hit EQ mobile_inventory_request#2#	Size: Created: Updated: User:	0.93 KB 02/07/19 01:30 AM 02/07/19 01:30 AM User:				6 Configured links	
	Send Request mobile_provider_request#4#	Size: Created: Updated: User:	0.97 KB 02/07/19 01:30 AM 02/07/19 01:30 AM User:				3 Configured links	

3. On the **Plugin Settings** page, 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)

Name (Portuguese (Brazil))

Name (SpanishLA)

*Label

Entity

Visibility rules similar to

Plugin settings

Type

Use Plugin API

Hosted plugin

Plugin archive No file chosen [Info](#)

Disable plugin in offline

Secure parameters

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

url	<input type="text" value="Value"/>
uname	<input type="text" value="Value"/>
pwd	<input type="text" value="Value"/>

Version history

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

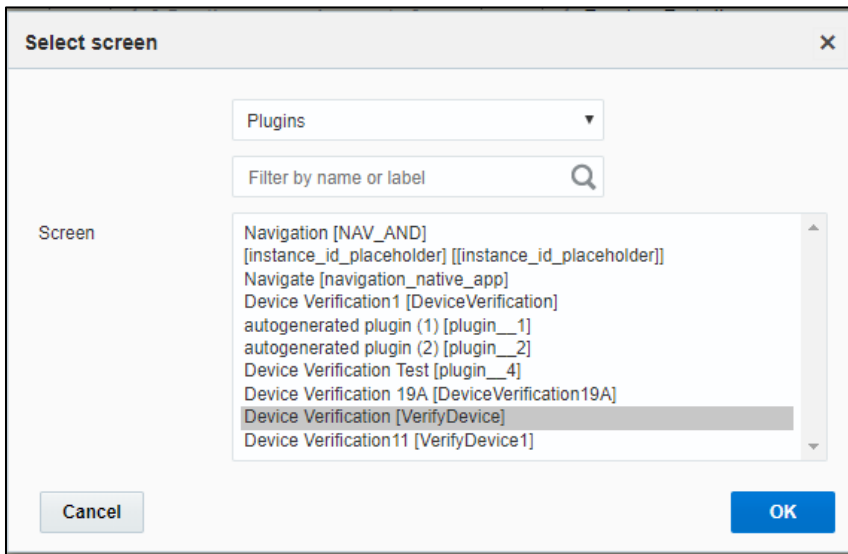
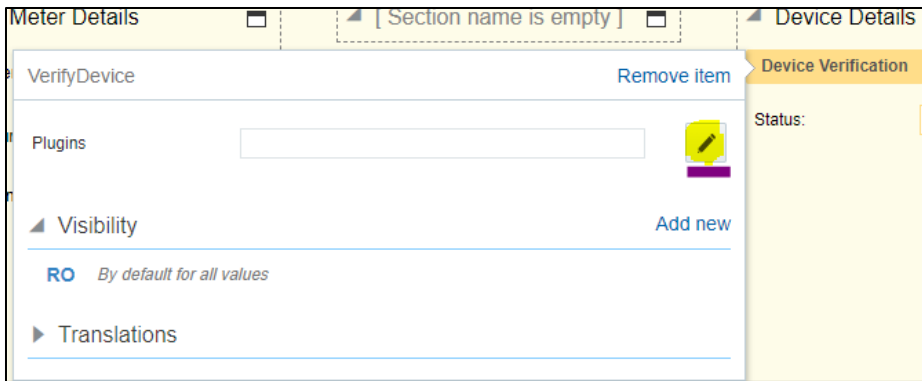
- Ensure that the **Available Properties** tab is populated with all the properties shown below.

Available Properties

Add properties that must be available through Plugin API

Activity

- Click **Device Verification** to configure the plugin.
- 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, select **Install Meter Activity > New Meter Details**. Click **Verify Device** to view the existence of the device.

Service Point Details

Service Point ID: 016352720152

Warnings:

Instructions:

Instruction Details :

Life Support: None

Meter Information

New Meter Details

Verify Device

Manual Entry: No Yes

Badge Number:

Configuration Type:

Meter Location:

Manufacturer:

Model:

Status Left*:

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

Device Details

Device Type Meter

Badge Number

Serial Number

Dismiss

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.

Configuration		Forms & Plugins		Add Form	Add Plugin	Export Plugins	Import Plugins	View
	Test Form test_form1	Size: 1.41 KB Created: 02/19/19 07:58 AM Updated: 02/19/19 08:01 AM User: Admin	2 Configured links					
	Hit EQ mobile_inventory_request#2#	Size: 0.93 KB Created: 02/07/19 01:30 AM Updated: 02/07/19 01:30 AM User:	6 Configured links					
	Send Request mobile_provider_request#4#	Size: 0.97 KB Created: 02/07/19 01:30 AM Updated: 02/07/19 01:30 AM User:	3 Configured links					

3. Select the unrelated pickup plugin and enter the following details:
 - a. URL – Oracle Integration Cloud integration point URL for service point query
 - b. uname/password – Oracle Integration Cloud username/password

where, ofscname/password are username@ofscinstanceid/password

< Forms & Plugins Modify plugin

General Information

*Name (English) Unrelated Pickup

Name (Portuguese (Brazil))

Name (SpanishLA)

*Label UnrelatedPickup

Entity Activity

Visibility rules similar to

Cancel

Plugin settings

Type HTML5 application

Use Plugin API

Hosted plugin

Plugin archive Choose File No file chosen Info

Disable plugin in offline

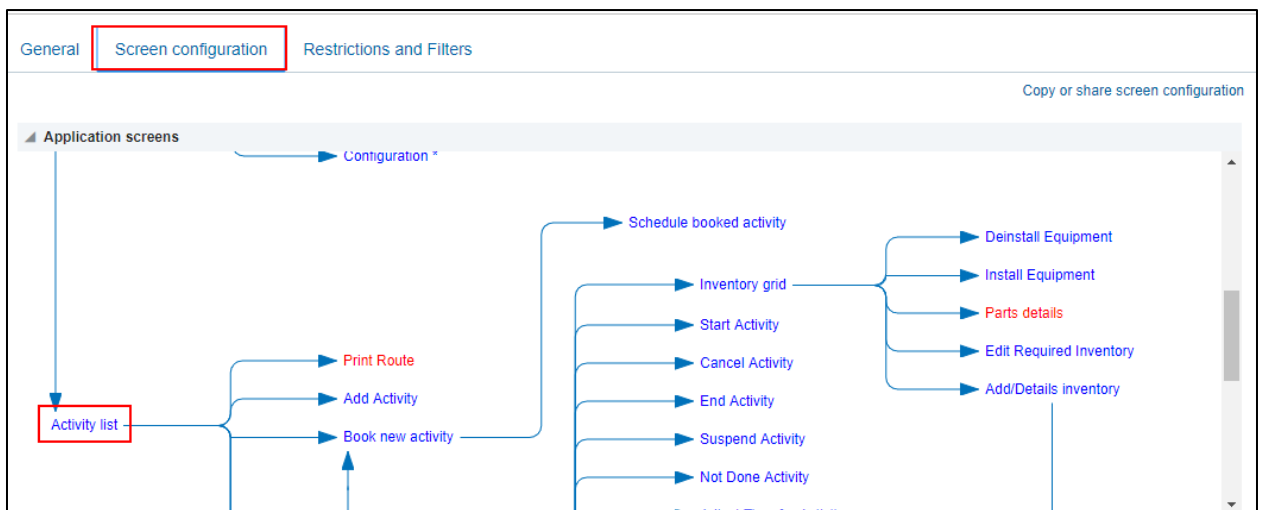
Secure parameters

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

url	Value
uname	Value
pwd	Value
ofscuname	Value
ofscpwd	Value

Save

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



d. Click **Application screens** to display the structure. Click **Activity list**.

e. On the left pane, click **Click to add** and select the unrelated plugin.

f. On the right pane, add new visibility.

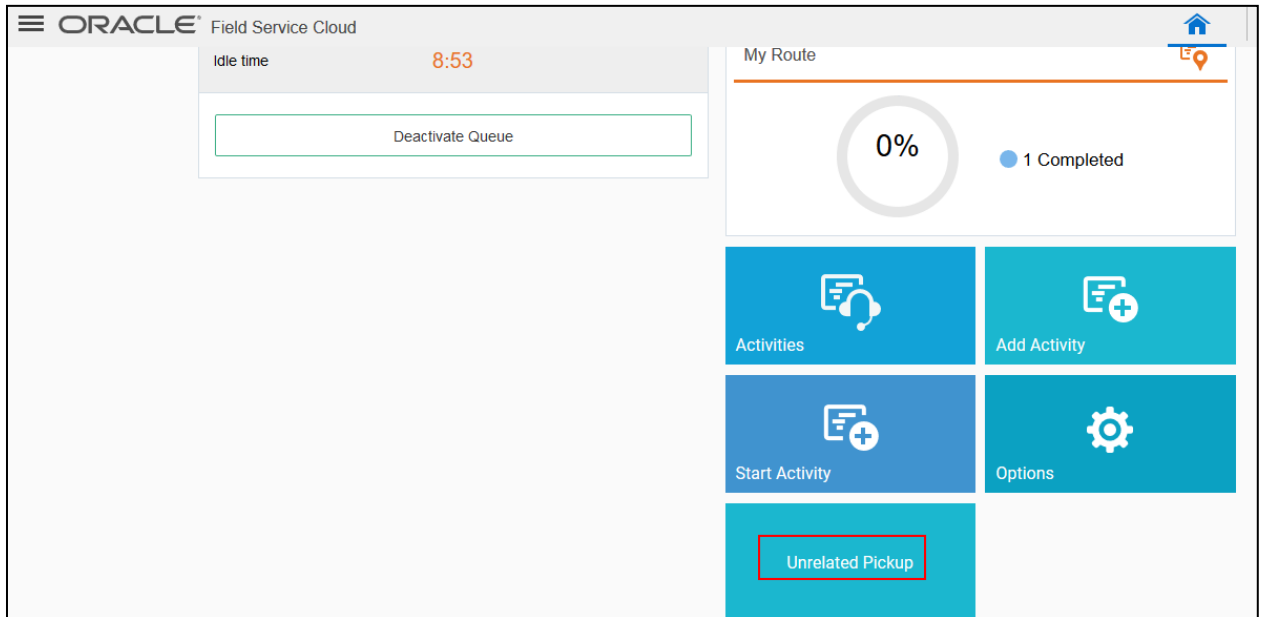
[Unrelated Pickup] visibility		
Access	Conditions	Action
<input type="checkbox"/>		
<input type="checkbox"/>	*	Modify

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

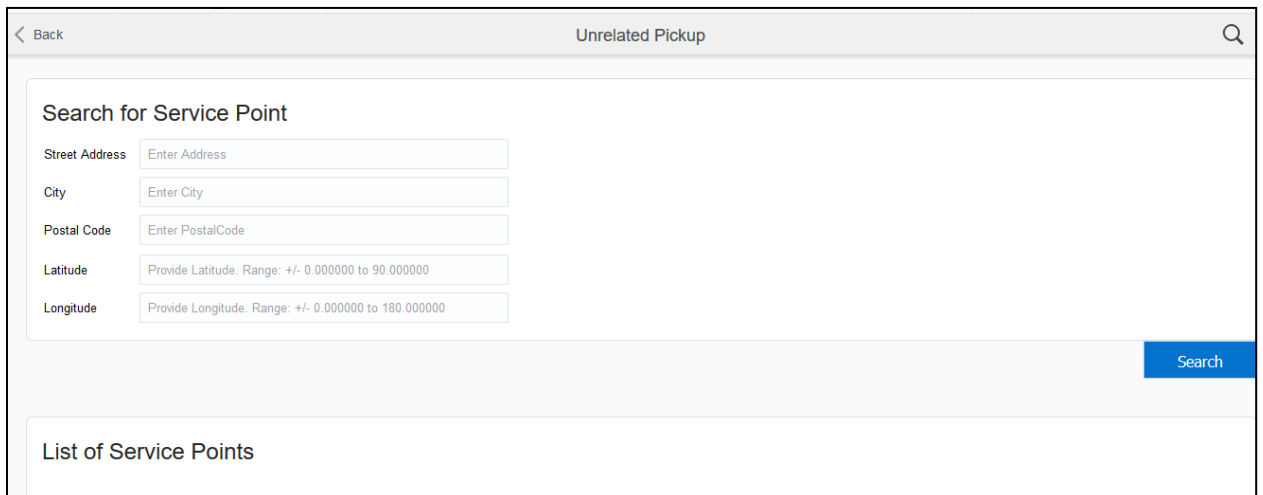
h. After the plugin is configured, select the XML file in the **User Type Screen Configurations** field to connect it to the specific field on the UI in the **Mobility** page.

In this 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 include 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: Enter PostalCode
 Latitude: Provide Latitude. Range: +/- 0.000000 to 90.000000
 Longitude: Provide Longitude. Range: +/- 0.000000 to 180.000000

Search

List of Service Points

Select	Address	Service Point Type	SP Source Status
<input type="radio"/>	404, Not Found Drive, Error Road, Stark, OH	Generic Electric Meter	Connected
<input checked="" type="radio"/>	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: 618303598544
 Activity Notes:

Activity has been created successfully. OFSC Activity ID: 4224311

User Types

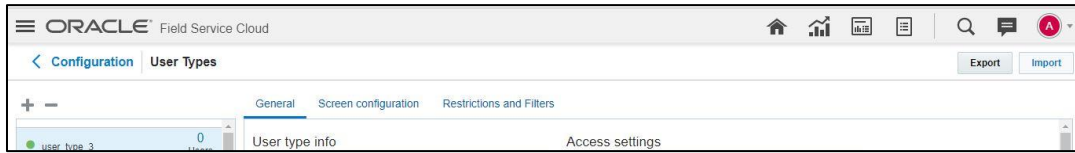
The user types are used to manage permissions for all users. Each user type has a profile that defines security and display permissions, such as the user’s login method, the ability to use certain functions, and access to menu items and properties. Screen configuration settings define the screens, windows, 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.

Create custom screen context layouts for Oracle Customer Cloud Service Integration to Oracle Field Service Cloud by accessing the screen configuration settings in the specific user types.

Prerequisites: make sure to load the Properties, Activity Types, and Plugins before getting started.

To create a user type:

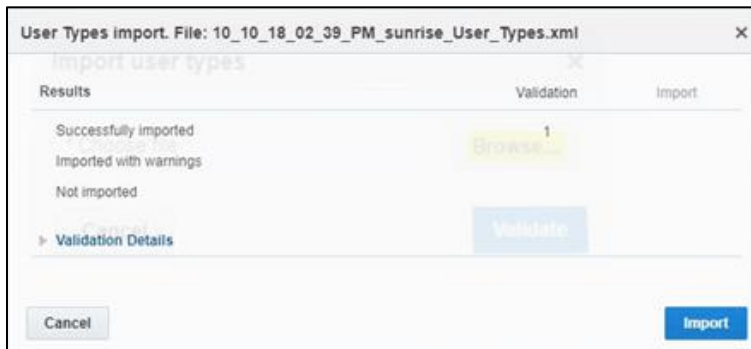
1. On the **Configuration** screen click the **User Types** icon.
2. Click **Import** to import the user types.



3. Browse to the location and click **Validate**.



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



5. Verify the successful import.



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](#)
- [Resource and Bucket Info](#)
- [Outbound Channel](#)
- [UI Validations](#)

Checklist

Before getting started with Oracle Field Service Cloud configuration, verify that the following files and data are available:

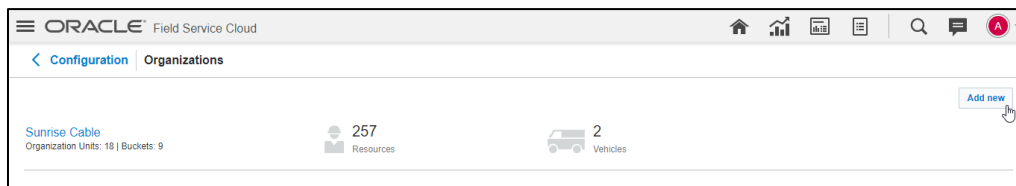
- All the Activity Types specific to customer are created
- Properties are imported
- User Types are imported
- Plugins are configured
- Quota is allocated and does not need to be configured
- Name of Organization
- Work Skills to be created
- Name of the resources, work zones
- Details of Oracle Integration Cloud to be used 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:

1. On the **Configuration** page, click **Organization**.
2. Click **Add New** to add a new Organization.



3. Enter the name of the Organization and click **Submit** to save it.

Edit Organization [X]

* English: Sunrise Utilities

Portuguese (Brazil):

SpanishLA:

* Label: Sunrise Utilities

Type: In-house ▼

Discard changes | Submit

Work Zones

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

1. On the **Configuration** page, click **Work Zone**.
2. Make sure the **Work Zone Key** (top-left corner) displays the ZIP/Postal Code.

< Configuration | Work Zones

Work Zone Key: ZIP/Postal Code(5, case insensitive) Modify

Add New | Travel Areas | Export | Import | View ▼

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 as the work zone keys.

* Work zone name: Stark

* Work zone label: Stark

Status: Active ▼

Delimiter: new line ▼

Travel Area: Sunrise Ente ▼

Work Zone Keys: 32704
44720

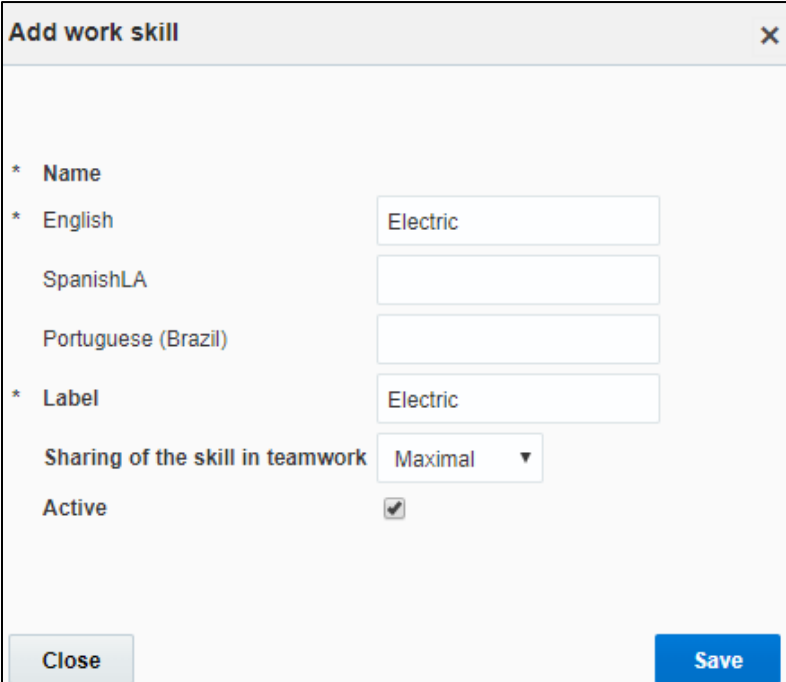
4. Click **Add** to save the new work zone.

Work Skills

The work skills are used to assign activities to workers. Incoming activities are also assigned work skills based on certain conditions being met, and are matched up with resources with corresponding skills during routing.

This integration includes only two skills:

1. On the **Configuration** page, click **Work Skills**.
2. Click **Add New** to add new work skill.
3. Enter the details of the work skill.
4. Add the work skills “*Meter Services, Ops and Maintenance*”. (Replace “Electric” as shown in the figure below.)

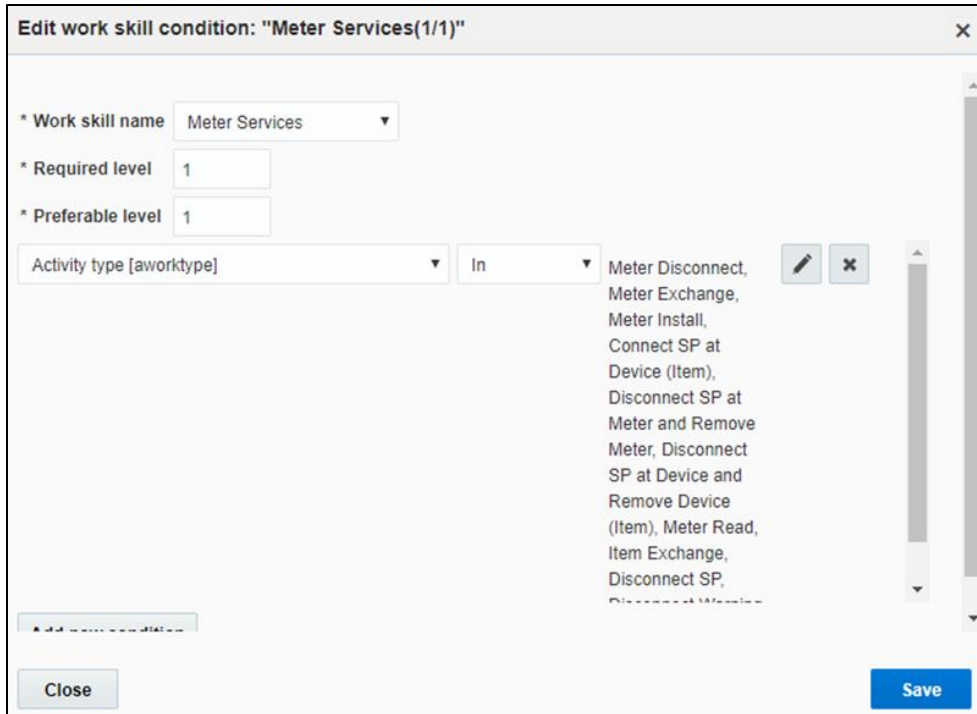


The screenshot shows a dialog box titled "Add work skill" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Name**: A required field, indicated by an asterisk (*).
- English**: A text input field containing the word "Electric".
- SpanishLA**: An empty text input field.
- Portuguese (Brazil)**: An empty text input field.
- Label**: A required field, indicated by an asterisk (*), with a text input field containing "Electric".
- Sharing of the skill in teamwork**: A dropdown menu with "Maximal" selected.
- Active**: A checkbox that is checked.

At the bottom of the dialog, there are two buttons: "Close" on the left and "Save" on the right.

5. After adding the work skills, click **Work Skill Condition**.
6. Make sure “*Meter Services*” is included and configured as shown below. Click **Save**.

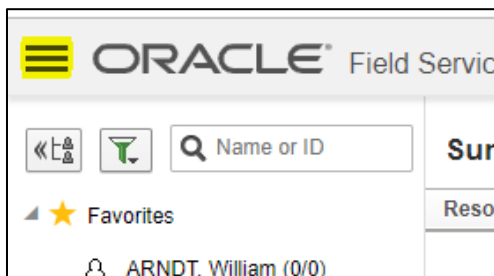


Resource and Bucket Information

Oracle Field Service Cloud uses bucket and resources to categorize the resources. Use the bucket as a resource type to route the entire meter service tasks to workers. In this bucket, create two resources - field workers assigned the field activities from Oracle Utilities Customer Cloud Service.

To configure resource and bucket information:

1. Click the icon on the top left corner of the title bar.



2. Select **Resource & Bucket Info** and click **Add**.

Resource & Bucket Info > Sunrise Cable Add Child Resource History

Resource Information

External ID Credence

* Name

Status

* Resource type

* Organization

Time zone

* Time format

* Date format

Work Skills

Work Skills +

3. Add a new bucket by selecting **Bucket** in the **Resource type** on the **Add Child** page.
4. Enter the required details and click **OK**.
5. Click **Add Child**. Select **Technician** in the **Resource type** drop-down list.

New Resource, Bucket, or Group Info ×

* Name

External ID

Status

Email address Write

Phone Call

Time format

Date format

* Resource type

* Organization

Credence

Close OK

9. Add Work Skills for this Technician by selecting the various available work skills and click on Save button

Add Work Skills [X]

Search:

- Electric 100
- Install
- Meter Services 100
- Non-Pay
- Ops and Maintenance 100
- Preventive
- Restart/Reconnect

Date From: [Calendar icon]

Date To: [Calendar icon]

Outbound Channel

This element is used to create a channel to communicate with Oracle Utilities Customer Cloud Service through Oracle Integration Cloud. We can choose from various channel types but since Oracle Customer Cloud Service Integration to Oracle Field Service Cloud is through Oracle Integration Cloud, use Integration Cloud Service as a channel type.

To configure an outbound channel:

1. On the **Configuration** page, click the **Outbound Integration** icon.
2. Click **Add Channel**. Enter the necessary details and click **OK**.

Add Channel [X]

Channel Type:

*Name:

*Host:

*User Name:

*Password:

*Confirm Password:

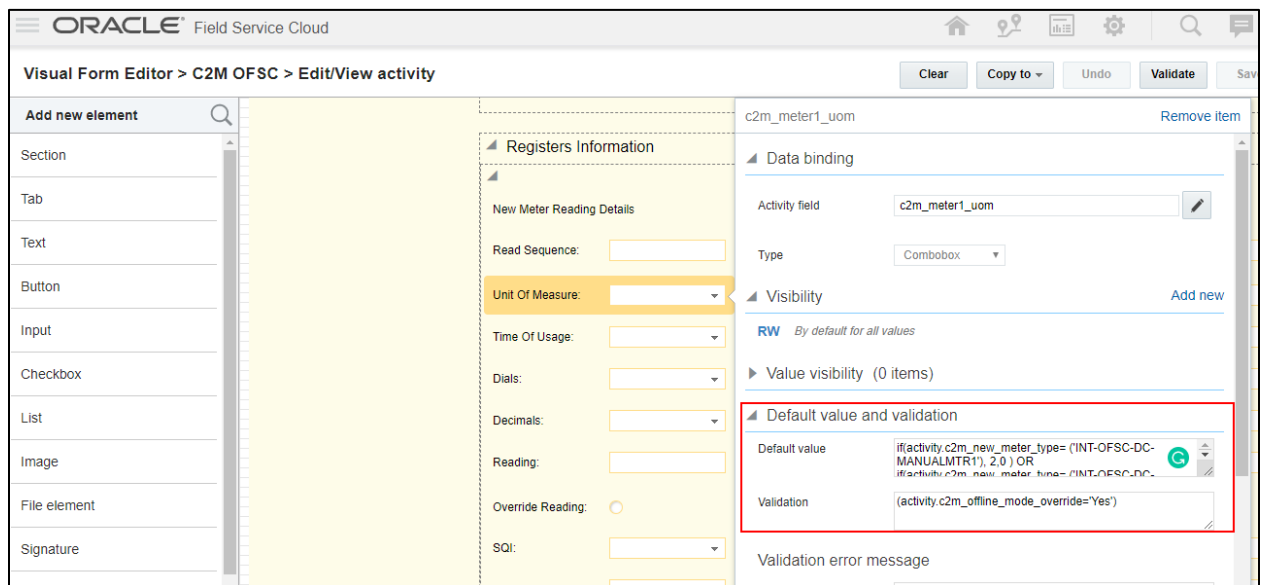
Offline Vs Online Mode

In the field when the crew is enroute to perform an activity there can be chances that the location may not have the network which we call it as offline mode where as if the network exists the mode is online.

In the earlier case the crew cannot fetch device information as lack of network he/she cannot send a request for device verification. In order to overcome this the crew has to say the manual entry as 'Yes' and then select appropriate configuration type which will auto populate all the registers information.

Offline Mode Configurations

1. As different customers may have various configurations in order to auto populate the registers information one has to do the following configuration.
2. Click on UOM in the new meter reading details section and expand default value and validation section.



3. The default value code is displayed as
4. `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)`
5. In the above code, `if(activity.c2m_new_meter_type= ('INT-OFSC-DC-MANUALMTR1'), 2,0)` tells OFSC that if the meter type is "INT-OFSC-DC-MANUALMTR1" then the UOM value is 2 otherwise it is 0.
6. In order to know what is 2 open respective property and see the index value 2 in the above code represents KWH as shown below.

Note: Users can extend values in the property of type enumeration and can have values in the index based on their requirement. For example: KWH can have an index KWH.

Modify Property [X]

Property hint

English []

SpanishLA []

Portuguese (Brazil) []

Entity **Activity**

GUI Combobox Radiogroup

Clone property data on Reopen or Prework

Enumeration values

* English [] []

SpanishLA []

Portuguese (Brazil) []

Active

[Add] [Change]

KW[1]
KWH[2]

7. Same with the case TOU, SQI, Dials, Decimals for all registers.
8. No configurations required for online mode.

To perform the offline operations the user has to perform the following steps.

1. Login to the mobile application.
2. From the activities assigned to the crew, select **Install Meter**.
3. In the displayed user interface select 'Meter Details' to enter the information and if the crew finds that there is no network, then the crew has to first select Manual Entry as 'Yes' and then select the configuration type.

Service Point Details

Service Point ID: 016352720152

Warnings:

Instructions:

Instruction Details :

Life Support: None

Meter Information

New Meter Details

Manual Entry: No Yes

Badge Number:

Configuration Type:

Meter Location:

Manufacturer:

Model:

Status Left*:

4. Once the above fields are selected based on the pre-configuration (as explained in the earlier section) the registers information is displayed as below. Crew needs to populate reading and submit.

Service Point Details

Service Point ID: 016352720152

Warnings:

Instructions:

Instruction Details :

Life Support: None

Meter Information

New Meter Details

Manual Entry: No Yes

Badge Number:

Configuration Type: Default Single Register

Meter Location:

Manufacturer:

Model:

Status Left*:

Registers Information

New Meter Reading Details

Read Sequence: 1

Unit Of Measure: KWH

Time Of Usage: ON

SQI: PEAK

Dials: 5

Decimals: 2

Reading*:

Dismiss Submit

Meter Read Override

This functionality is applicable in online mode only. Based on the type of activity the crew has to enter the meter readings and should be between the high/low boundaries received by Oracle Field Service Cloud from Oracle Utilities Customer Cloud Service upon device

verification. If the reading is outside of these limits then Oracle Field Service Cloud displays corresponding error messages and if crew thinks the meter reading is actually outside the limits then they need to select the override reading and submit the readings.

In order to perform the meter read override the user has to perform the following steps.

1. Login to mobile application.
2. In the displayed activities assigned to the crew select respective activity.
3. Select Meter Details and navigate to the user interface.

Service Point Details Service Point ID: 618303598544 Warnings: <input type="text"/> Instructions: <input type="text"/> Instruction Details : <input type="text"/> Life Support: None	Registers Information Reading Details Read Sequence: 0 Unit Of Measure: KWH Dials: 7 Decimals: 2 Reading*: <input type="text"/> Override Reading: <input checked="" type="radio"/> No <input type="radio"/> Yes Lower Limit: 0 Upper Limit: 28.00
--	---

4. In the above user interface the lower and upper limit is part of the message from Oracle Utilities Customer Cloud Service and it infers that reading should be ideally between these limits but a crew can always override the recommendations.
5. If the reading is not between these limits then application displays an error.

Service Point Details Service Point ID: 618303598544 Warnings: <input type="text"/> Instructions: <input type="text"/> Instruction Details : <input type="text"/> Life Support: None	Registers Information Reading Details Read Sequence: 0 Unit Of Measure: KWH Dials: 7 Decimals: 2 Reading*: 30 <small>Please double check and select override reading if needed</small> Override Reading: <input checked="" type="radio"/> No <input type="radio"/> Yes Lower Limit: 0 Upper Limit: 28.00
--	---

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

<h3>Service Point Details</h3> <p>Service Point ID: 618303598544</p> <p>Warnings: <input type="text"/></p> <p>Instructions: <input type="text"/></p> <p>Instruction Details: <input type="text"/></p> <p>Life Support: None</p>	<h3>Registers Information</h3> <h4>Reading Details</h4> <p>Read Sequence: 0</p> <p>Unit Of Measure: KWH</p> <p>Dials: 7</p> <p>Decimals: 2</p> <p>Reading*: <input type="text" value="30"/></p> <p>Override Reading: <input type="radio"/> No <input checked="" type="radio"/> Yes</p> <p>Lower Limit: 0</p> <p>Upper Limit: 28.00</p>
<h3>Meter Information</h3> <h4>Existing Meter Details</h4> <p>Manufacturer: Accumeter</p> <p>Model: IND1300</p> <p>Status Found*: <input type="text"/></p>	

Display Profile

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

If there is a need to change the display profile, then open the usertype.xml file search for manger and change the label based on the OFSC configuration. Also, make sure to change managed_user_type label.

```

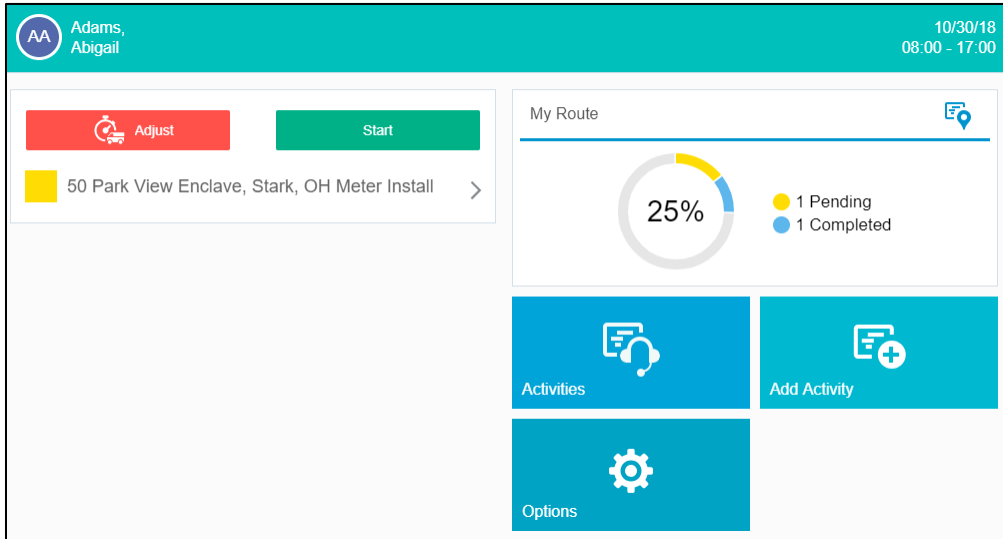
<user_types>
  <user_type label="C2M OFSC" status="active" login_policy="Default policy" display_profile="display5d17997f7623f">
    <translations>
      <translation lang="en" value="C2M OFSC"/>
    </translations>
    <managers>
      <manager label="UT16_DISPLAY_PROFILE"/>
      <manager label="C2M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

```

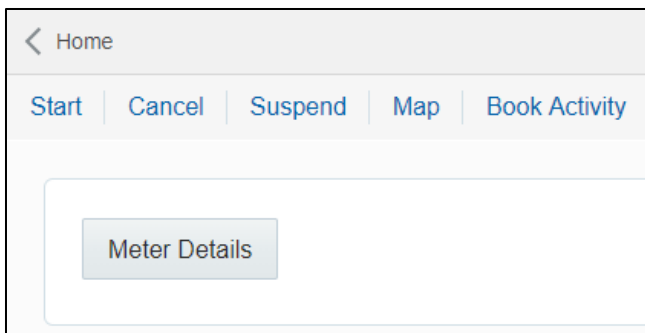

Chapter 4: User Operations

This chapter provides step by step instructions about user operations.

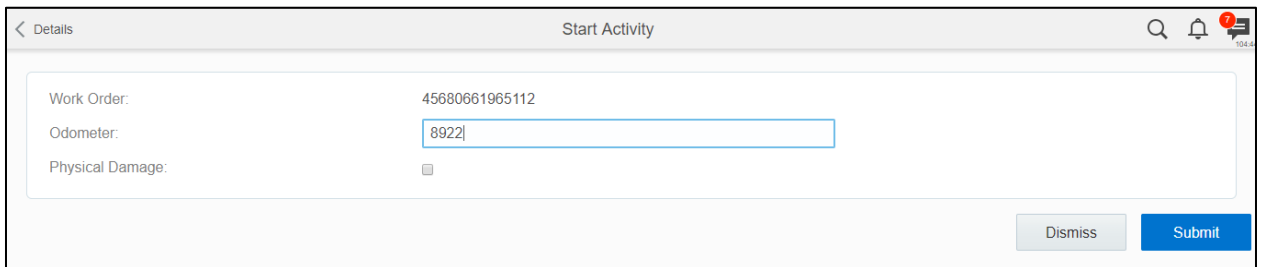
- 1) Login to Oracle Field Service Cloud Mobility application, which can be derived by adding '/m' to Oracle Field Service Cloud link <ofsc_link/m>
- 2) Access the mobility screen using worker/technician's credentials. The screen would show the activities in the queue of the worker as shown below.



- 3) Click on the Activity (forward arrow) to see a screen with the options to Start, Book Activity. Click on Start to start the activity in the worker's queue.



- 4) Once you click on Start, fill in the Odometer details and click Submit.



- 5) Click on the Meter Details button on the screen resulting after clicking on submit.
- 6) Once you see a screen similar to the one shown below, enter the badge number and click on submit button

The screenshot shows a form titled "Meter Information" with the following sections:

- Existing Meter Details:** Two dropdown menus labeled "Status Found*" and "Status Left*".
- Device Verification:** A "Verify" button and a dropdown menu labeled "Manual Entry" with the value "No".
- New Meter Details:** Three input fields labeled "Badge Number:", "Configuration Type:", and "Meter Location:".

The screenshot shows a mobile application screen titled "Device Verification". At the top, there is a "Back" button and a search icon. The main content area is titled "Device Details" and contains:

- Device Type: Meter
- Badge Number: [Input field]
- Serial Number: [Input field]

At the bottom right, there are two buttons: "Dismiss" and "Submit".

- 7) Again click on Meter Details and land on the same screen where you entered the badge number and click on the verify button below the badge number. You should be able to see a screen as shown below with Verification Successful message and Meter reading information in Registers Information section.

- 8) Enter the information in all the fields of Meter Information Section and Registers Information and click Submit.
- 9) Click Complete.

- 10) After clicking on Complete, you should land on the page shown below. Fill in the required details and submit

Details End Activity

Completed

Activity Notes:

Customer Contact Type:

Customer Contact Comments:

Remarks:

Dismiss Submit

Chapter 5: Customizations

Many times the customer needs to add new properties according to their requirement. These additions and customizations help the customers using this integration to enhance the functionality of the integration and increase the usability too. The customizations need to be done in Oracle Integration Cloud, Oracle Field Service Cloud and Oracle Utilities Customer Cloud Service depending on what fields, elements or properties need to be added and whether they are available. Below are the cases that discuss the same.

This chapter includes the following:

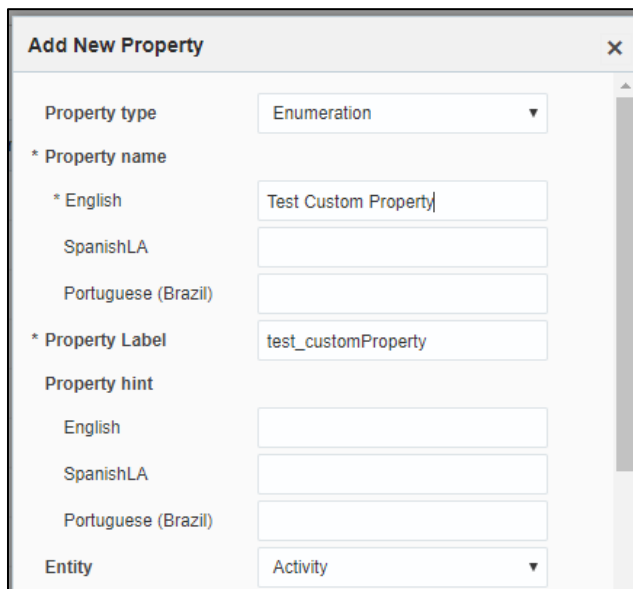
- [Adding New Fields to Field Activity](#)
- [Adding New Fields and Lookup to Field Activity](#)

Adding New Fields to Field Activity

In this step, we are adding new field to the field activity, which are already available but not present in the field activity

Oracle Field Service Cloud Configurations

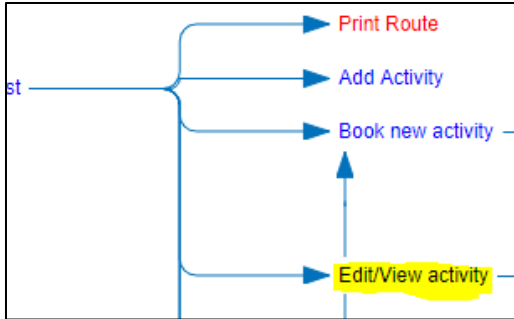
1. In Oracle Field Service Cloud, we first need to add the property as shown below, by navigating to configuration and opening the properties.
2. Select the entity, and type of GUI, text or combobox and add the enumeration values say customprop1 and customprop2.



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)

3. Now navigate to user types and select the required user type, navigate to screen configurations for the user type and open the edit/view activity section as shown below.



- Now, on the screen add a new element by dragging and dropping a new 'Input' from the 'Add New Element' section. Now, map the element to the 'Test Custom Property'. Save this screen configuration after mapping the field.

Service Point Details

Service Point ID:

Warnings:

Instructions:

Instruction Details :

Disconnect Location:

Life Support:

Service Point Type:

Premise Type:

Not Done Reason:

Test Custom Property:

OIC Configurations

For the OIC Configurations we would be using the xsl files and not the graphical mapper to include the new properties that need to be included. The xsl files after going through the following steps would be have the new field mappings needed to be added as properties in OFSC. Since the changes are being made in OFSC and the flow would be from OFSC to CCS we need to make changes to the .iar file for *Complete Activity*.

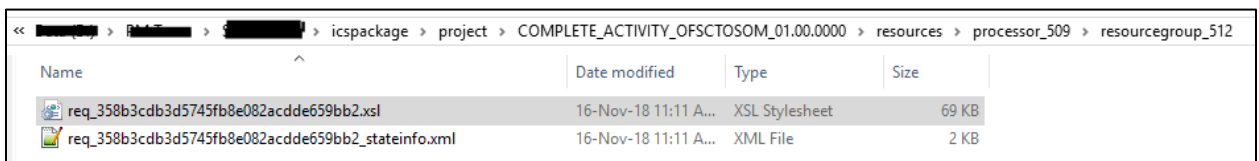
Follow the steps given below:

- Extract the .iar file by logging into OIC and navigating to integrations and exporting the *Complete_Activity_OFSCtoSOM* as shown in the image below.



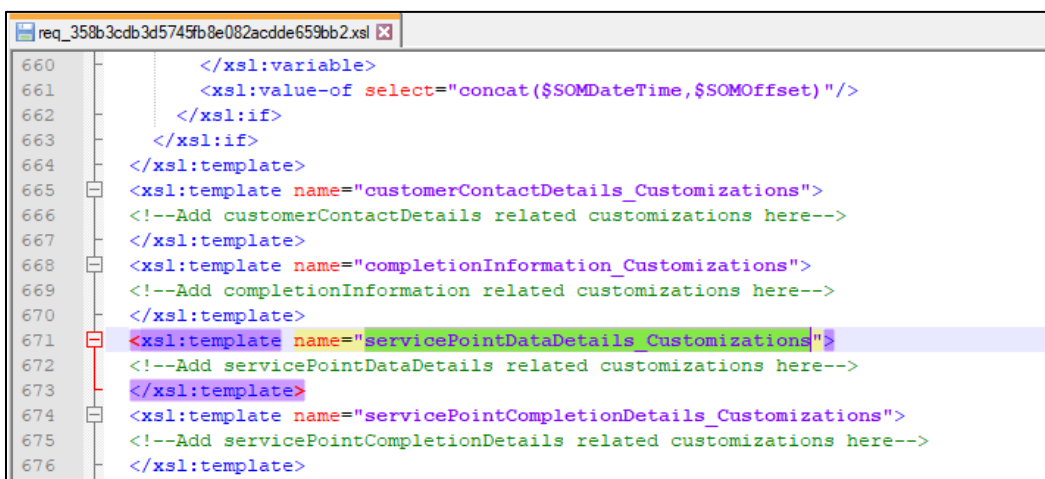
- Referring to the configuration guide's chapter 7 on customizations we can see that for OFSC response we need to use the following xsl file:

COMPLETE_ACTIVITY_OFSCToSOM_01.00.0000\icspackage\project\COMPLETE_ACTIVITY_OFSCToSOM_01.00.0000\resources\processor_509\resourcegroup_512\req_358b3cdb3d5745fb8e082acdde65
 so we navigate to file location and open it (For location of the file of other flows refer to table in the configuration guide's chapter 7).



- Navigate to `<xsl:template...>` tags towards the end of the file
- Select the appropriate template tag based on where the new UI property has to be added in OFSC UI. For example, in case you need to add a new field on Service Point Details screen then choose the following xsl tag:

`<xsl:template name="servicePointDataDetails_Customizations">`



- 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.getAct
ivitySchema/nsmpr1:u_custom"/>
</tns:custom1>

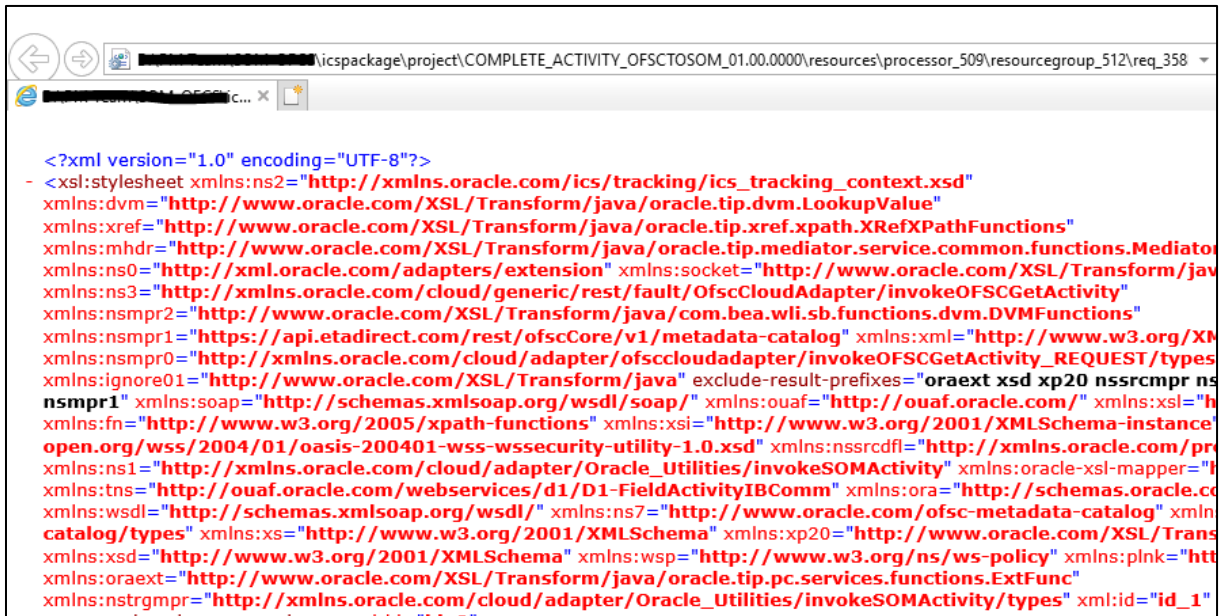
```

```

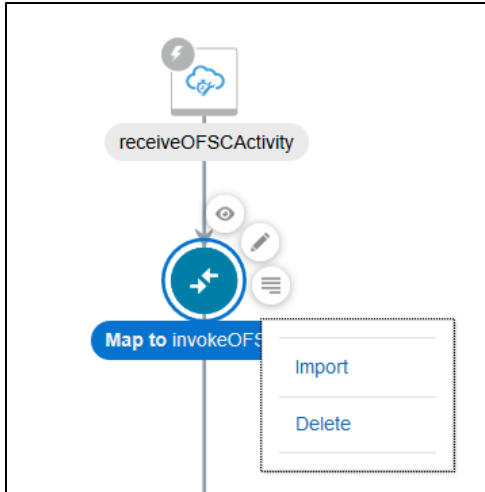
<xsl:template name="servicePointDataDetails_Customizations">
<tns:custom1>
<xsl:value-of select="$invokeOFSCGetActivity/nsmpr0:canonical_GETResponse/nsmpr0:activities.definitions.getActivitySchema/nsmpr1:u_custom"/>
</tns:custom1>
</xsl:template>

```

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



- To upload the xsl file in the OIC, deactivate the integration, open the flow and select the mapping icon. Click on the *More Actions* option and then on the *Import* option as shown below. Browse the .xsl file and import it.



Adding New Fields and Lookup to Field Activity

In this step, we are adding new fields, which are not present, and hence we would be adding a lookup along with the new field that we need to add to the field activity

Oracle Field Service Cloud Configurations

Perform the same steps as previous section. Add the property, then 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 adding a customized lookup in Oracle Field Service Cloud, you need to follow similar steps as above, so extract .iar and navigate to required xsl tag (based on the location of the new lookup) in the xsl file you are editing as per your process flow.
2. Instead of adding the custom property as above, you make changes as follows:

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

```
<xsl:template name="servicePointDataDetails_Customizations">
<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>
</xsl:template>
```

3. Perform the same steps of uploading the xsl file in OIC after verification in an internet 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.

The screenshot shows the Schema Designer interface. At the top, the following information is displayed:

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

Below this is the 'Schema Designer' section with a 'View Mode' dropdown set to 'TEXT'. The XML code in the editor is as follows:

```
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 sections.

The screenshot shows the Schema Designer interface with the 'EXTENDED DATA AREA' section. The 'DATA AREA' is set to 'D1-NewOFSCDataAreaExt'. The 'DESCRIPTION' is 'New OFSC DA added for extending the Service Point DA'. The 'EXTENDED DATA AREA' is set to 'D1-SOSPDataDetails', with a search icon and the text 'SOM - Service Point Data Details' next to it.

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

```
<servicePointDataDetails mdField="D1_SO_SP_DATA_DET_LBL" t
<disconnectLocation mdField="D1_DISCONNECT_LOCATION_CD" da
<serviceWarnings mdField="D1_SERVICE_WARNINGS_CD" dataType
<serviceInstructions mdField="D1_SERVICE_INSTRUCTIONS_CD"
<instructionDetails mdField="D1_INSTRUCTION_DETAILS"/>
<serviceAgreementStatus mdField="D1_SA_STATUS_FLG"/>
<servicePointId mdField="D1_SERVICE_POINT_ID"/>
<serviceAgreementId mdField="D1_SA_ID"/>
<premiseId mdField="D1_PREMISE_ID"/>
</servicePointDataDetails>
<customField mdField="D1_CUSTOM_FIELD" dataType="string"/>
```