

**Oracle Utilities Customer Care and Billing  
Integration to Oracle Field Service Cloud**

Configuration Guide

Release 19.1

**F12506-01**

February 2019

Oracle Utilities Customer Care and Billing Integration to Oracle Field Service Cloud Configuration Guide

Copyright © 2018, 2019 Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

# Contents

---

---

## Chapter 1

<b>Introduction .....</b>	<b>1-1</b>
Overview of the Integration .....	1-2
About Oracle Utilities Customer Care and Billing .....	1-2
About Oracle Field Service Cloud .....	1-2
About Oracle Integration Cloud .....	1-3
Software Requirements .....	1-3

## Chapter 2

<b>Solution Architecture .....</b>	<b>2-1</b>
Solution Diagram .....	2-2
Synchronous .....	2-2
One-way Asynchronous .....	2-3
Business Flows .....	2-4
Create/Update Field Activity (Oracle Utilities Customer Care and Billing initiated) .....	2-4
Cancel Field Activity (Oracle Utilities Customer Care and Billing initiated) .....	2-5
Appointment Window Request (Oracle Utilities Customer Care and Billing initiated) .....	2-7
Interim Activity Status (Oracle Field Service Cloud initiated) .....	2-8
Device Verification (Oracle Field Service Cloud initiated) .....	2-10
Create Activity (Oracle Field Service Cloud initiated) .....	2-11
Activity Completion/Cancellation (Oracle Field Service Cloud initiated) .....	2-12

## Chapter 3

<b>Configuring Oracle Utilities Customer Care and Billing .....</b>	<b>3-1</b>
System Configuration .....	3-2
Message Senders .....	3-2
Outbound Message Types .....	3-3
External System .....	3-4
Service Provider .....	3-5
Feature Configuration .....	3-5
Dispatch Group .....	3-6
Managing Catalog Services .....	3-7
Field Activity Types .....	3-7
Configuring Admin Data Tables .....	3-8
Adding Oracle Integration Cloud Certificates .....	3-9
Accessing XAI Inbound Service as Inbound Web Service (IWS) .....	3-10

## Chapter 4

<b>Configuring Oracle Field Service Cloud .....</b>	<b>4-1</b>
Integrating Using Oracle Integration Cloud .....	4-2
Configuring Oracle Field Service Cloud .....	4-2
Creating Time Slots .....	4-3
Creating Work Skills .....	4-3
Creating Capacity Categories .....	4-4
Designating Buckets for Capacity or Quota Management .....	4-6
Adding Quota to Bucket .....	4-7

Configuring Plug-ins .....	4-8
<b>Chapter 5</b>	
<b>Importing, Configuring, and Testing Integration Connections in Oracle Integration Cloud .....</b>	<b>5-1</b>
Importing the Oracle Integration Cloud Package from Oracle Cloud Marketplace .....	5-2
Verifying the Package Import .....	5-2
Configuring Connections in Oracle Integration Cloud .....	5-4
Configuring UAC_CCB Connection .....	5-4
Configuring REST_CCBOFSC_DV Connection .....	5-4
Configuring OFSC Connection .....	5-4
Configuring REST_CCBOFSC_APPT Connection .....	5-5
Configuring Agent (if applicable) .....	5-5
Possible Combinations .....	5-5
Creating an Agent Group .....	5-5
Downloading Agent Installer .....	5-6
Installing On-Premises Agent .....	5-6
Setting up Certificates for Security .....	5-7
<b>Chapter 6</b>	
<b>Configuring Lookups, Error Handling, and Email Notifications .....</b>	<b>6-1</b>
Configuring Lookups .....	6-2
Editing Lookups .....	6-4
Configuration Properties .....	6-5
Error Handling .....	6-6
Error Handling Ways .....	6-6
Resubmitting the Error Instances in Oracle Integration Cloud .....	6-7
Email Notifications .....	6-7
<b>Chapter 7</b>	
<b>Extension Libraries in Oracle Integration Cloud .....</b>	<b>7-1</b>
<b>Chapter 8</b>	
<b>Customizations .....</b>	<b>8-1</b>
Adding New Mappings .....	8-2
<b>Chapter 9</b>	
<b>Activating and Testing the Integration Flows .....</b>	<b>9-1</b>
Prerequisites .....	9-2
Activating Integration Flows .....	9-2
Testing the Integration Flows .....	9-2
<b>Chapter 10</b>	
<b>Monitoring and Troubleshooting .....</b>	<b>10-1</b>
Oracle Utilities Customer Care and Billing .....	10-2
Oracle Utilities Customer Care and Billing Error Logs .....	10-2
Oracle Integration Cloud .....	10-2
Monitoring Integration Flows .....	10-2
Troubleshooting .....	10-3
<b>Appendix A</b>	
<b>Known Issues .....</b>	<b>A-1</b>
Oracle Field Service Cloud .....	A-2
Oracle Utilities Customer Care and Billing .....	A-2
<b>Appendix B</b>	
<b>Data Mapping .....</b>	<b>B-1</b>
Activity Completion .....	B-2
Activity ID Mapping .....	B-2
Activity Completion Request Mapping .....	B-2
Activity Creation .....	B-54

---

Activity Creation Request Mapping .....	B-54
Activity Creation Response Mapping.....	B-55
Cancel Activity .....	B-57
Cancel Activity Request Mapping.....	B-57
Cancel Activity Response Mapping.....	B-58
Create/Update Activity.....	B-60
Create/Update Activity Request Mapping.....	B-60
Create/Update Activity Response Mapping .....	B-93
Device Verification.....	B-94
Device Verification Request Mapping .....	B-94
Device Verification Response Mapping .....	B-94
Get Appointment .....	B-98
Get Appointment Request Mapping.....	B-98
Get Appointment Response Mapping.....	B-100
Interim Status .....	B-102
Interim Status Activity ID Mapping.....	B-102
Interim Status Request Mapping.....	B-102

# Chapter 1

---

## Introduction

This chapter provides an overview about the integration between Oracle Utilities Customer Care and Billing and Oracle Field Service Cloud using Oracle Integration Cloud. It focuses on software requirements, Oracle Integration Cloud, and business standpoint of the integration.

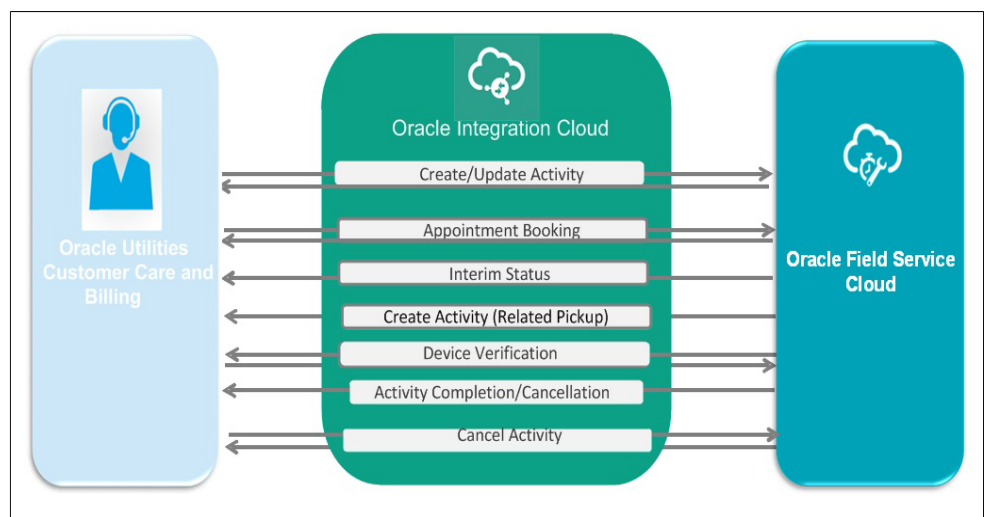
The chapter includes the following:

- [Overview of the Integration](#)
- [About Oracle Utilities Customer Care and Billing](#)
- [About Oracle Field Service Cloud](#)
- [About Oracle Integration Cloud](#)
- [Software Requirements](#)

## Overview of the Integration

Oracle Utilities Customer Care and Billing Integration to Oracle Field Service Cloud helps to manage a fieldwork originated in the Oracle Utilities Customer Care and Billing solution in Oracle Field Service Cloud. The integration can be leveraged to create appointments and initiate/update/cancel activities in the field using the Oracle Field Service Cloud solution.

The major business flows revolve around activities, appointments, devices, and service points. The activities are created in Oracle Utilities Customer Care and Billing and sent to Oracle Field Service Cloud for the mobile worker to perform the activity. The field activity completion information is sent from Oracle Field Service Cloud to Oracle Utilities Customer Care and Billing where it is processed by Oracle Utilities Customer Care and Billing. In addition, the integration supports item/device verification, an ability to send interim status of a field activity and the related pick-up orders from Oracle Field Service Cloud to Oracle Utilities Customer Care and Billing.



## About Oracle Utilities Customer Care and Billing

Oracle Utilities Customer Care and Billing manages customer information associated with field activities and processes the associated billing. Typically processing begins when a customer logs a request, or field activity, for work. Oracle Utilities Customer Care and Billing communicates this field activity to Oracle Field Service Cloud as a work order/activity.

## About Oracle Field Service Cloud

Oracle Field Service Cloud is built on time-based, self-learning, and predictive technology, empowering to solve business problems while evolving the field service organization. It has various modules to choose, such as forecasting, routing, capacity, mobility, collaboration, core manage, smart location, customer communication, and more. It leverages the performance pattern profiles to create optimal daily routes and schedules and continues to learn as employee work patterns change over time.

# About Oracle Integration Cloud

Oracle Integration Cloud is a unified platform to integrate the applications, automate processes, and create applications.

Using the Process Builder the business processes can be rapidly designed, automated, and managed in the cloud. Using integrations connect the applications into a continuous business flow. The applications that are on cloud and on premises can be integrated using Oracle Integration Cloud. The lookups help to match application specific codes between the two applications.

Integration Insights and Stream Analytics helps to simplify and extract business metrics and create custom dashboards.

## Software Requirements

The application supported versions are:

- Oracle Utilities Customer Care and Billing - V2.7.x or higher
- Oracle Integration Cloud - V19.1.3.0.0 or higher
- Oracle Field Service Cloud - 19A or higher



# Chapter 2

---

## Solution Architecture

This chapter provides an overview of the application architecture used by the integration, including:

- [Solution Diagram](#)
- [Business Flows](#)

# Solution Diagram

The technical aspects involved in Oracle Utilities Customer Care and Billing Integration to Oracle Field Service Cloud are:

- It is an integration between Oracle Utilities Customer Care and Billing and Oracle Field Service Cloud.
- The integration layer is made up of integration processes deployed on Oracle Integration Cloud.
- It uses web services and REST APIs to facilitate communication between these two applications.
- In the Oracle Utilities Customer Care and Billing initiated processes, outbound messages are sent and Oracle Field Service Cloud uses REST API to receive the messages.
- In the Oracle Field Service Cloud initiated processes, events are triggered and Oracle Utilities Customer Care and Billing uses inbound web services (IWS) to receive the messages.

The integration patterns used in this solution are:

- [Synchronous](#)
- [One-way Asynchronous](#)

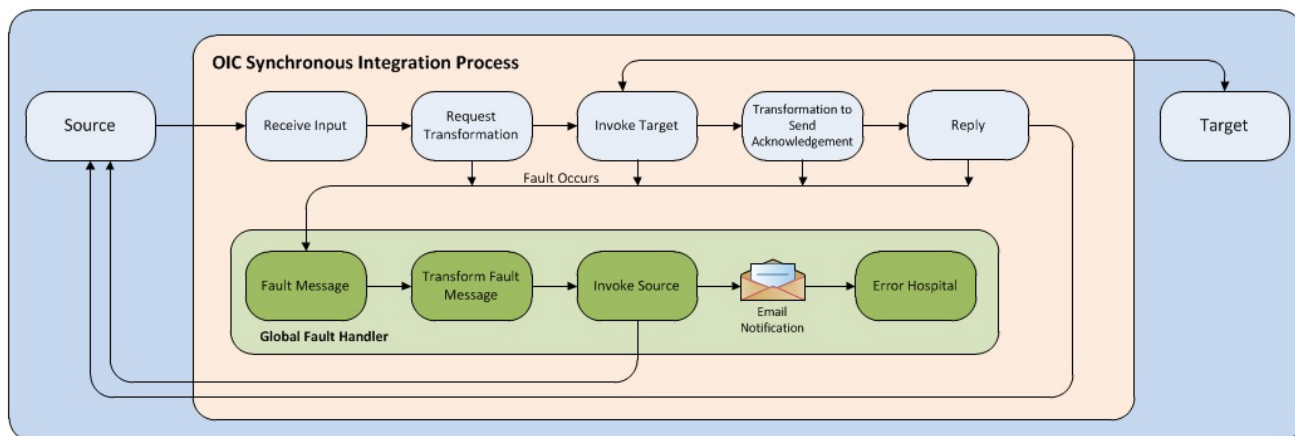
## Synchronous

The synchronous integration process:

1. Receives request message from the source application.
2. Transforms the message from source format to the target format. Lookups are used for data translations.
3. Invokes the target application.
4. Transforms the message (after invoking the target application) from the target format back to the source format. It sends back an acknowledgment/synchronous response to the source application.
5. In case of any error, the global fault handler catches them and sends the transformed error message to the source application.
6. An optional email notification is sent to the respective users as configured.

The integration processes using this pattern are:

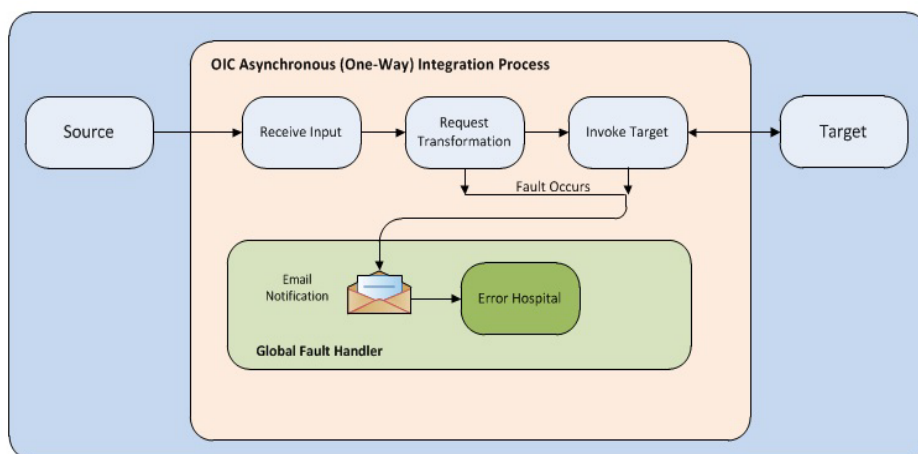
- Create/Update Activity (Oracle Utilities Customer Care and Billing initiated)
- Cancel Activity (Oracle Utilities Customer Care and Billing initiated)
- Appointment Window Request (Oracle Utilities Customer Care and Billing initiated)
- Device Verification (Oracle Field Service Cloud initiated)



## One-way Asynchronous

The one-way asynchronous integration process:

1. Receives request message from the source application.
2. Transforms message from the source to the target format. Lookups are used for data translations.
3. Invokes target application to send the request message.
4. In case of any error, the global fault handler catches them.
5. An optional email notification is sent to the respective users as configured.
6. The error instance can be re-submitted from Oracle Integration Cloud. Refer to the [Error Handling](#) section in [Chapter 6: Configuring Lookups, Error Handling, and Email Notifications](#) for more details.



The integration processes using this pattern are:

- Create Activity (Oracle Field Service Cloud initiated)
- Activity Completion/Cancellation (Oracle Field Service Cloud initiated)
- Interim Activity Status (Oracle Field Service Cloud initiated)

## Business Flows

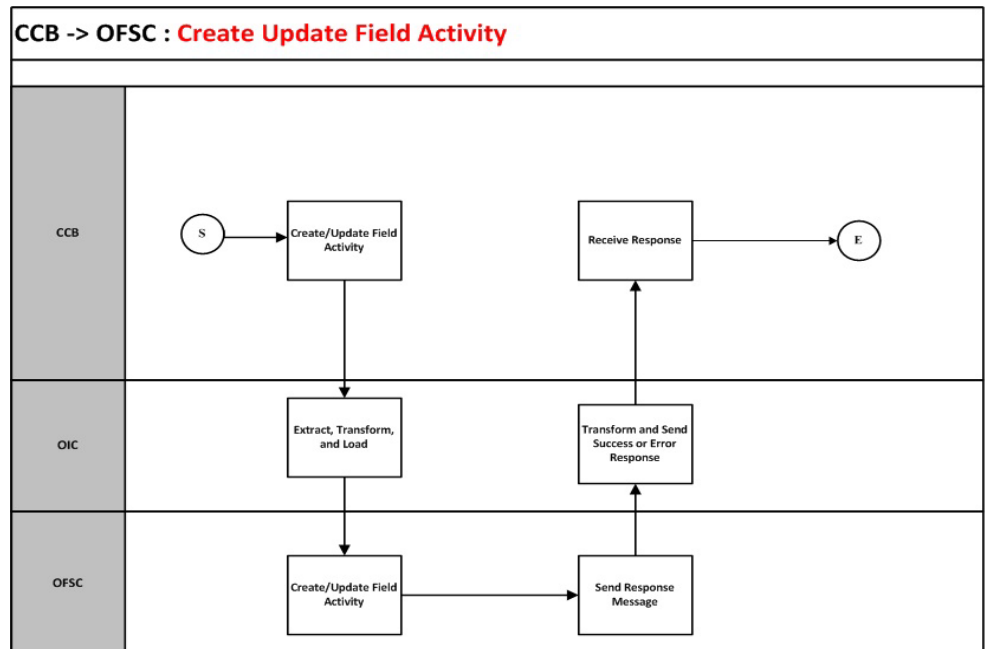
The integration scope supports the following business processes:

- Create/Update Field Activity (Oracle Utilities Customer Care and Billing initiated)
- Cancel Field Activity (Oracle Utilities Customer Care and Billing initiated)
- Appointment Window Request (Oracle Utilities Customer Care and Billing initiated)
- Interim Activity Status (Oracle Field Service Cloud initiated)
- Device Verification (Oracle Field Service Cloud initiated)
- Create Activity (Oracle Field Service Cloud initiated)
- Activity Completion/Cancellation (Oracle Field Service Cloud initiated)

### Create/Update Field Activity (Oracle Utilities Customer Care and Billing initiated)

This integration process is used to accept request from Oracle Utilities Customer Care and Billing to create or update activities in Oracle Field Service Cloud. The information is sent synchronously from Oracle Utilities Customer Care and Billing, regardless of the activity type, and Oracle Field Service Cloud sends back a synchronous response.

The following diagram shows a graphical representation of the Create Update Field Activity integration process.



## Business Processing

The integration process includes the following activities:

1. Oracle Utilities Customer Care and Billing sends the create/update field activity request to the CreateUpdate\_Activity\_CCBToOFSC integration process deployed on Oracle Integration Cloud.
2. The CreateUpdate\_Activity\_CCBToOFSC process transforms the create/updateactivity request message from Oracle Utilities Customer Care and Billing to the request message format in Oracle Field Service Cloud and invokes bulkUpdate API.
3. Oracle Field Service Cloud sends the success or failure response to the integration transformed and sent to Oracle Utilities Customer Care and Billing.
4. In case of any error response from Oracle Field Service Cloud, a business fault is thrown to Oracle Utilities Customer Care and Billing.
5. Any other errors are captured through the global fault handler and reported back to Oracle Utilities Customer Care and Billing.
6. An optional email notification with error details is sent to the users configured in the CCBOFSC\_Email\_ID lookup.

## Technical Details

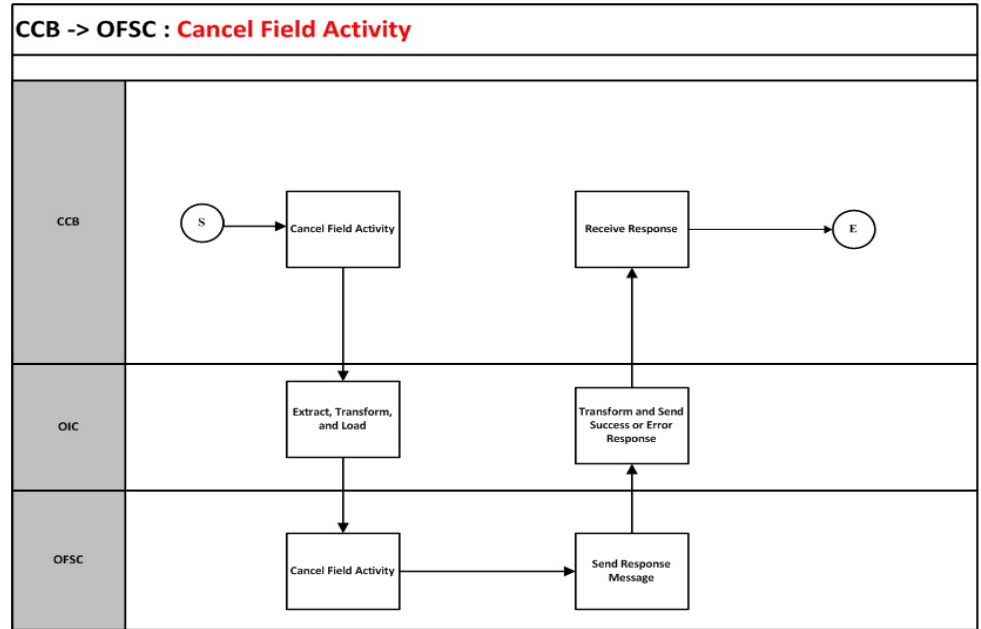
The following table describes the integration processes and the respective Oracle Utilities Customer Care and Billing and Oracle Field Service Cloud artifacts used in this integration process.

Artifacts	Value
Integration Process Name	CreateUpdate_Activity_CCBToOFSC
Integration Package Name	oracle.util.ccbofsc.fieldwork
OFSC BO/Operation	Activity/Bulk Update Activity
OFSC API	bulkUpdate
CCB BO	C1-FASendOutMsg

## Cancel Field Activity (Oracle Utilities Customer Care and Billing initiated)

This integration process is used to accept request from Oracle Utilities Customer Care and Billing to cancel activity in Oracle Field Service Cloud. The information is sent synchronously from Oracle Utilities Customer Care and Billing, regardless of the activity type, and Oracle Field Service Cloud sends back a synchronous response.

The following diagram shows a graphical representation of the Cancel Field Activity integration process.



## Business Processing

The integration process includes the following activities:

1. Oracle Utilities Customer Care and Billing sends the cancel field activity request to the Cancel\_Activity\_CCBToOFSC integration process deployed on Oracle Integration Cloud.
2. The Cancel\_Activity\_CCBToOFSC process transforms the request message from Oracle Utilities Customer Care and Billing to the request message format in Oracle Field Service Cloud and invokes bulkUpdate API.
3. Oracle Field Service Cloud sends the success or failure response to the integration transformed and sent to Oracle Utilities Customer Care and Billing.
4. In case of any error response from Oracle Field Service Cloud, a business fault is thrown to Oracle Utilities Customer Care and Billing.
5. Any other errors are captured through the global fault handler and reported back to Oracle Utilities Customer Care and Billing.
6. An optional email notification with error details is sent to the users configured in the CCBOFSC\_Email\_ID lookup.

## Technical Details

The following table describes the integration processes and the respective Oracle Utilities Customer Care and Billing and Oracle Field Service Cloud artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Cancel_Activity_CCBToOFSC
Integration Package Name	oracle.util.cbbofsc.fieldwork

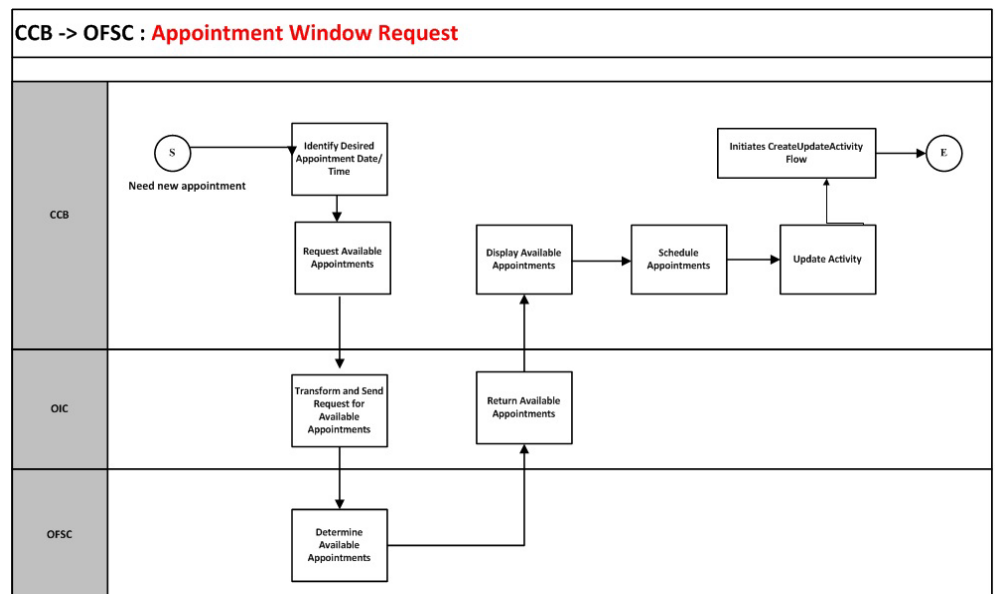
Artifacts	Value
OFSC BO/Operation	Activity/Bulk Update Activity
OFSC API	bulkUpdate
CCB BO	C1-FACancelOutMsg

## Appointment Window Request (Oracle Utilities Customer Care and Billing initiated)

This integration process provides a list of available appointments.

Oracle Utilities Customer Care and Billing sends the activity start and end date times from the **Appointment** portal and Oracle Field Service Cloud sends back the list of appointments available on those dates.

The following diagram shows a graphical representation of the Appointment Window Request integration process.



### Business Processing

The integration process includes the following activities:

1. Oracle Utilities Customer Care and Billing sends the get available appointment request to Get\_Appointment\_CCBToOFSC integration process deployed on Oracle Integration Cloud.
2. The Get\_Appointment\_CCBToOFSC process transforms the request message from Oracle Utilities Customer Care and Billing to the request message format in Oracle Field Service Cloud and invokes the activityBookingOptions REST API with start and end date values.
3. Oracle Field Service Cloud sends the success or failure response to the integration.

4. The integration process transforms and sends the available timeslots only when it is not a 'Break' time and has some quota allocated to it and invokes Oracle Utilities Customer Care and Billing.
5. Any errors are reported back to Oracle Utilities Customer Care and Billing through the global fault handler.
6. An optional email notification with error details is sent to the users configured in the CCBOFSC\_Email\_ID lookup.

**Note:** In Oracle Field Service Cloud make sure the employee-based activities have 'Break' in the time slot label.

For example: Lunch Break, Second Lunch Break, and more

### Technical Details

The following table describes the integration processes and the respective Oracle Utilities Customer Care and Billing and Oracle Field Service Cloud artifacts used in this integration process.

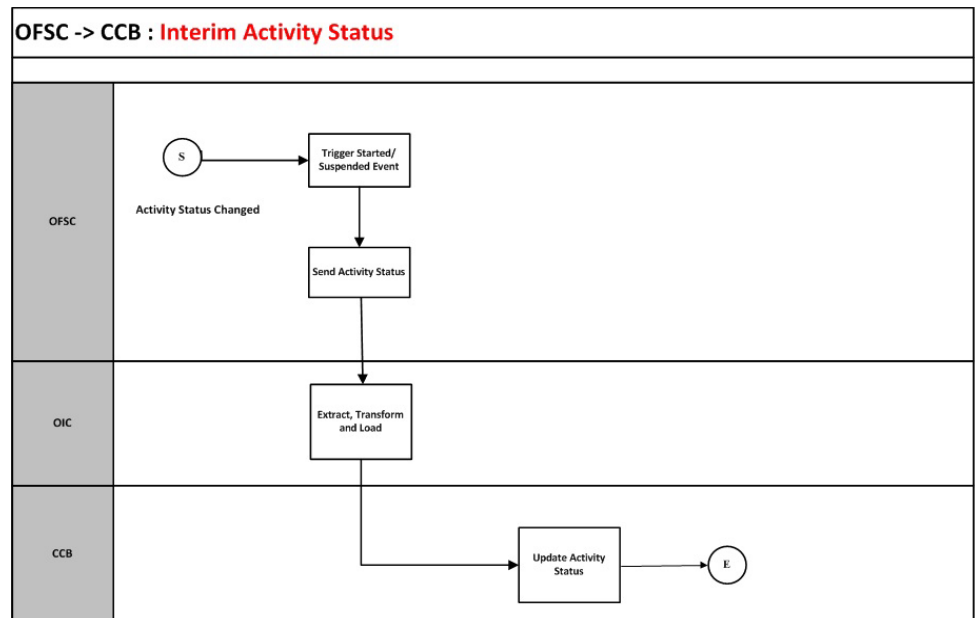
Artifacts	Value
Integration Process Name	Get_Appointment_CCBToOFSC
Integration Package Name	oracle.util.ccbofsc.fieldwork
OFSC API/Method	activityBookingOptions/GET
CCB BO	C1-GetAvailApptOutMsg

### Interim Activity Status (Oracle Field Service Cloud initiated)

Oracle Field Service Cloud sends the interim activity status of the field activities to Oracle Utilities Customer Care and Billing.



The following diagram shows a graphical representation of the Interim Activity Status integration process.



## Business Processing

The integration process includes the following activities:

1. Oracle Field Service Cloud sends the interim activity status to the Send\_ActivityStatus\_OFSCToCCB integration process deployed on Oracle Integration Cloud.
2. Integration process transforms the message to Oracle Utilities Customer Care and Billing format and sends it to Oracle Utilities Customer Care and Billing.
3. Any errors are caught in the global fault handler.
4. An optional email notification with error details are sent to the users configured in the CCBOFSC\_Email\_ID lookup.

## Technical Details

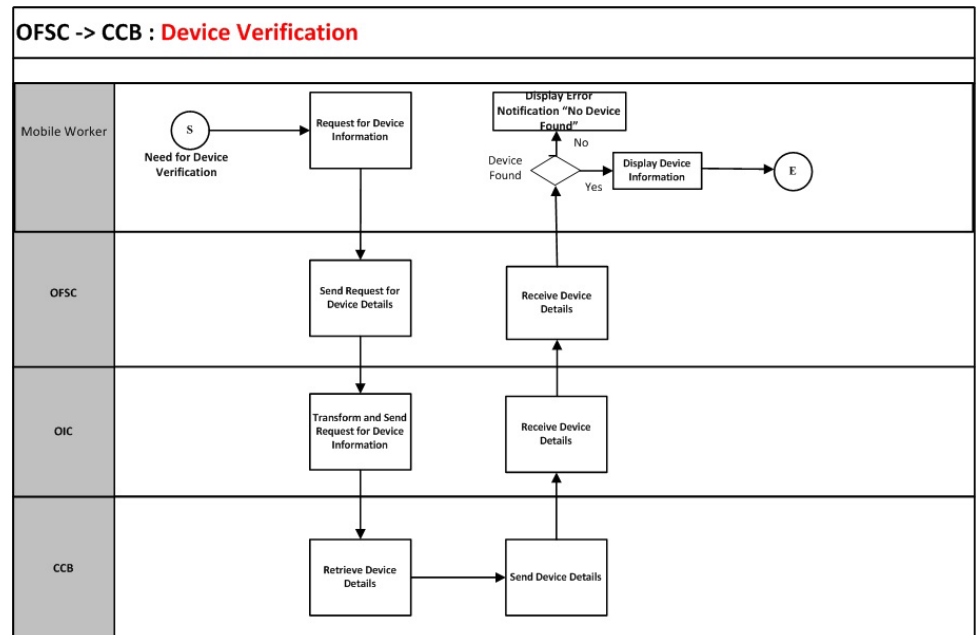
The following table describes the integration processes and the respective Oracle Utilities Customer Care and Billing and Oracle Field Service Cloud artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Send_ActivityStatus_OFSCToCCB
Integration Package Name	oracle.util.ccbofsc.fieldwork
OFSC Events	Activity Started Activity Suspended
CCB XAI IWS	C1-FieldActivityMaintenance

## Device Verification (Oracle Field Service Cloud initiated)

This integration process is used to verify if the item/device is present in Oracle Utilities Customer Care and Billing. Oracle Field Service Cloud synchronously sends the requests for device verification with the device's badge number and Oracle Utilities Customer Care and Billing sends back the details, such as device configuration type and verification status.

The following diagram shows a graphical representation of the Device Verification integration process.



### Business Processing

The integration process includes the following activities:

1. Oracle Field Service Cloud sends the device verification request to the Device\_Verification\_OFSCToCCB integration process deployed on Oracle Integration Cloud.
2. The Device\_Verification\_OFSCToCCB process transforms the request message from Oracle Field Service Cloud to the request message format in Oracle Utilities Customer Care and Billing and invokes the ValidateMeterItemResponse inbound service.
3. Oracle Utilities Customer Care and Billing sends the success or failure response to the integration transformed and sent to Oracle Field Service Cloud.
4. Any errors are handled by the custom plug-in hosted on Oracle Field Service Cloud. A pop-up blocker appears in Oracle Field Service Cloud with the respective error details.

## Technical Details

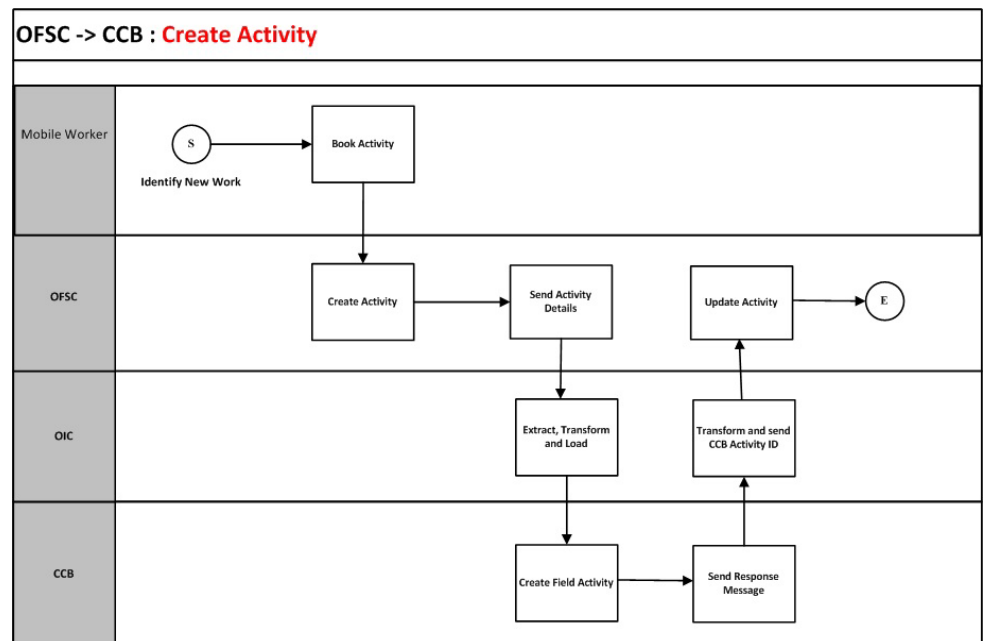
The following table describes the integration processes and the respective Oracle Utilities Customer Care and Billing and Oracle Field Service Cloud artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Device_Verification_OFSCToCCB
Integration Package Name	oracle.util.ccbofsc.fieldwork
OFSC Entity	Custom Plugin
CCB XAI IWS	ValidateMeterItemResponse

## Create Activity (Oracle Field Service Cloud initiated)

This integration process is used to create an activity (related pickup) in an external system. Oracle Field Service Cloud sends a request to create activity in Oracle Utilities Customer Care and Billing.

The following diagram shows a graphical representation of the Create Activity integration process.



## Business Processing

The integration process includes the following activities:

1. Oracle Field Service Cloud sends the create activity request to the Create\_Activity\_OFSCToCCB integration process deployed on Oracle Integration Cloud.
2. The Create\_Activity\_OFSCToCCB process checks for the product code and the activity status. If the product code is not equal to 'CCB' or if the activity is not in suspended state then it transforms the request message from Oracle Field Service

Cloud to the request message format in Oracle Utilities Customer Care and Billing and invokes the C1-AddFAandCustomerContact inbound web service.

3. The integration process transforms and sends the Oracle Utilities Customer Care and Billing response to Oracle Field Service Cloud Update Activity REST API.
4. Any errors are captured through the global fault handler.
5. An optional email notification with error details are sent to the users configured in the CCBOFSC\_Email\_ID lookup.

### Technical Details

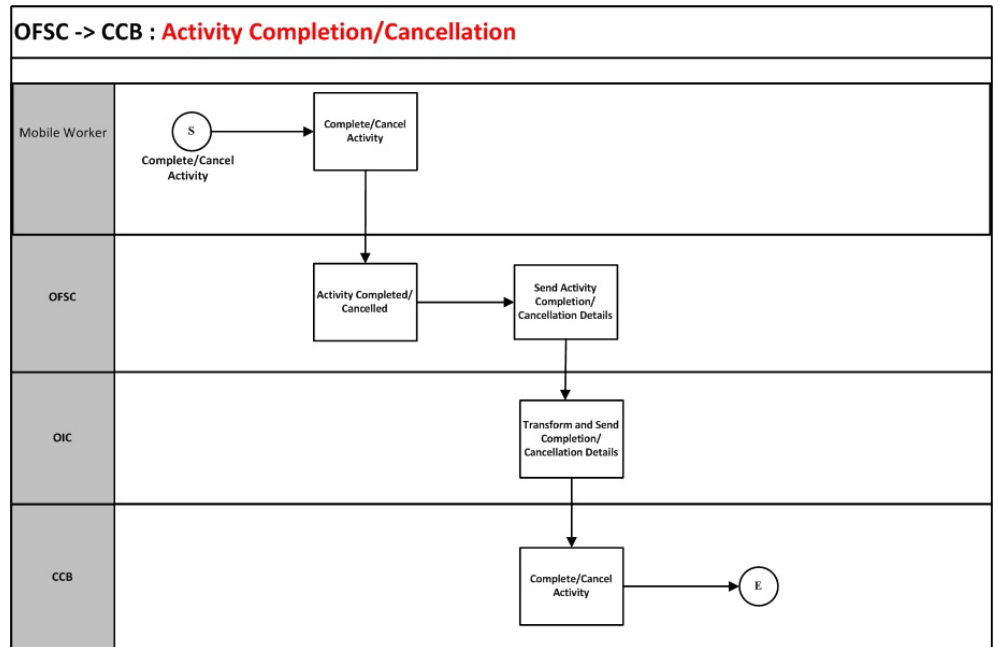
The following table describes the integration processes and the respective Oracle Utilities Customer Care and Billing and Oracle Field Service Cloud artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Create_Activity_OFSCToCCB
Integration Package Name	oracle.util.ccbofsc.fieldwork
OFSC Events	Activity Created
OFSC BO/Operation	Activity/Update Activity
OFSC API	UpdateActivity
CCB XAI IWS	C1-AddFAandCustomerContact

## Activity Completion/Cancellation (Oracle Field Service Cloud initiated)

This integration process is used to send the field activity completion/cancellation details from Oracle Field Service Cloud to Oracle Utilities Customer Care and Billing. Oracle Field Service Cloud sends the activity completion/cancellation details, along with the completion/cancellation status, to complete/cancel the activity in Oracle Utilities Customer Care and Billing.

The following diagram shows a graphical representation of the Activity Completion/Cancellation integration process:



## Business Processing

The integration process includes the following activities:

1. Oracle Field Service Cloud sends the activity completion details to the Complete\_Activity\_OFSCToCCB integration process deployed on Oracle Integration Cloud.
2. The Complete\_Activity\_OFSCToCCB process invokes Get Activity REST API and extracts the OFSC Activity details.
3. The integration process transforms the message from Oracle Field Service Cloud to the message format in Oracle Utilities Customer Care and Billing and invokes the C1FACompletionFieldWork Oracle Utilities Customer Care and Billing inbound web service.
4. Any errors are captured through the global fault handler.
5. An optional email notification with error details are sent to the users configured in the CCBOFSC\_Email\_ID lookup.

## Technical Details

The following table describes the integration process and the respective Oracle Utilities Customer Care and Billing and Oracle Field Service Cloud artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Complete_Activity_OFSCToCCB
Integration Package Name	oracle.util.ccbfsc.fieldwork

---

<b>Artifacts</b>	<b>Value</b>
OFSC BO/Event	Activity/Activity Completed Activity/Activity Cancelled Activity/Activity Not Done
OFSC BO/Operation	Activity/Get Activity
OFSC API	GetActivity
CCB XAI IWS	C1FACompletionFieldWork

---

# Chapter 3

---

## Configuring Oracle Utilities Customer Care and Billing

This chapter elaborates about the configuration of various data, messages and catalog for the integration used by Oracle Utilities Customer Care and Billing. It includes the following sections:

- [System Configuration](#)

# System Configuration

To configure the Oracle Utilities Customer Care and Billing setup for the integration:

1. Login to Oracle Utilities Customer Care and Billing.
2. Set up message senders. Refer to the [Message Senders](#) section for details.
3. Set up outbound message types. Refer to the [Outbound Message Types](#) section for details.
4. Set up an external system. Refer to the [External System](#) section for details.
5. Setup a Service Provider. Refer to the [Service Provider](#) section for details.
6. Manage feature configuration. Refer to the [Feature Configuration](#) section for details.
7. Setup the Dispatch group. Refer to the [Dispatch Group](#) section for details.
8. Manage Catalog Service. Refer to the [Managing Catalog Services](#) section for details.
9. Setup field activity types. Refer to the [Field Activity Types](#) section for details.
10. Generate certificates. Refer to the [Adding Oracle Integration Cloud Certificates](#) section for more details.

## Message Senders

Create a new message sender for each integration process initiated from Oracle Utilities Customer Care and Billing.

To create a message sender:

1. Navigate to the **Message Sender** page from the **Admin** menu or from the **Search** menu.
2. Enter a unique message sender and its description.
3. Populate the following values:
  - Invocation Type - Real-time
  - Message Class - SOAPSNDR
  - Active - Select the checkbox.
  - MSG Encoding - UTF-8 message encoding
4. Select the **Context** tab and set values for the following context types:
  - HTTP Header - SOAPAction:”<operation name in the integration process wsdl>”
  - HTTP Login User - User ID to access the Oracle Integration for Cloud (OIC) flow
  - HTTP Password - Password to access the OIC flow
  - HTTP Method (POST/GET) - POST
  - HTTP Timeout - 60
  - HTTP Transport Method - SendReceive
  - HTTP URL 1 - Set the integration process URL to be accessed.



If the URL value does not fit, use the additional HTTP URL types to set the complete URL.

- SOAP Insert Timestamp (Y/N) - Y
- Sender Security Type - TEXT

### Message sender configuration for integration services

Message Sender	Description	HTTP Header	HTTP URL
<b>Create/Update Activity</b>			
INT_OFSC_CUA	INT Create Update Activity-Message Sender-OFSC	SOAPAction:"OIC_OFSC_C1-FASND"	https:// OIC_Host:OIC_Port/ic/ws/ integration/v1/ flows/ oracleutilities/ CREATEUPDATE_ACTIVITY_CCBTOOFSC/1.0/
<b>Get Appointment</b>			
INT_OFSC_GA	INT Get Appointment-Message Sender-OFSC	SOAPAction:"OIC_OFSC_C1-GETAPPPTS"	https:// OIC_Host:OIC_Port/ic/ws/ integration/v1/ flows/ oracleutilities/ GET_APPOINTMENT_CCBTOOFSC/1.0/
<b>Cancel Activity</b>			
INT_OFSC_CA	INT Cancel Activity Message Sender - OFSC	SOAPAction:"OIC_OFSC_C1-FACAN"	https:// OIC_Host:OIC_Port/ic/ws/ integration/v1/ flows/ oracleutilities/ CANCEL_ACTIVITY_CCBTOOFSC/1.0/

## Outbound Message Types

The following outbound message types are provided for each integration process.

On the **Admin** menu, navigate to the **Outbound Message Type** page. You can also navigate from the **Search** menu.

### Outbound message types for integration services

Integration Service	Outbound Message Type	Description	Outbound Message
Create/Update Activity	C1-FASND	Interface Field Activity	C1-FASendOutMsg
Get Appointment	C1-GETAPPTS	Get Available Appointment	C1-GetAvailApptOutMsg
Cancel Activity	C1-FACAN	Cancel Field Activity	C1-FACancelOutMsg

## External System

To create a new external system to support the integration:

1. Navigate to the **External System** page from the **Admin** menu or from the **Search** menu.
2. Enter a unique external system and description.

For example: Name = INT\_OFSC\_ES, Description = OFSC External System

3. Set the **Our Name in Their System** field to Oracle Utilities Customer Care and Billing.
4. Associate the outbound message types and message senders created to the external system.

For each outbound message type, set the following:

- Outbound Message Type - Outbound message type created for the respective integration service
- Processing Method - Real-time
- Message Sender - Set the message sender created for the integration service
- Date/Time Format - XSD
- Namespace Option - Standard Namespace

For more information about message senders and outbound message type for each integration service, refer to the [Message Senders](#) and [Outbound Message Types](#) sections respectively.

### External system configuration for integration services

Example External System - INT\_OFSC\_ES

Integration Service	Outbound Message Type	Message Sender
CreateUpdate Activity	C1-FASND	INT_OFSC_CUA
Get Appointment	C1-GETAPPTS	INT_OFSC_GA
Cancel Activity	C1-FACAN	INT_OFSC_CA

## Service Provider

Create a service provider with the respective external system.

To create a new service provider to support the integration:

1. From the **Admin** menu, navigate to the **Service Provider** page. You can also navigate from the **Search** menu.
2. Enter a unique **Service Provider** and **Description**.

For example: Name = INT\_OFSC\_SP, Description = INT\_OFSC Service Provider

3. Set **External System** to the external system created for the integration layer. For details about external system, refer to the [External System](#) section.

For example: INT\_OFSC\_ES

4. Set **Person ID** to the Person representing this service provider. If it does not exist, create one in the **Person** page.

## Feature Configuration

To create a new feature configuration:

1. Navigate to the **Feature Configuration** page from the **Admin** menu or from the **Search** menu.
2. Create a new feature configuration with Workforce Management as the **Feature Type** and enter required option types and values for the service provider you have configured for this integration.
3. Populate entries for the applicable options.

Option	Possible Values	Notes
Allow Forced Appointments	Y/N	Set to Y Use this option to indicate if forced appointments are supported.
Allow Manual Appointment	Y/N	Set to Y Use this option to indicate if a user is allowed to manually set up an appointment.
Allow Manual Appointment Cancellation	Y/N	Set to Y Use this option to indicate if a user is allowed to manually cancel an appointment.
Allow Multiple Reservations	Y/N	Set to N Use this option to indicate if booking appointments for multiple field activities is allowed.
Allow Narrowing Of Appointment Window	Y/N	Set to Y Use this option to indicate if the user is allowed to further narrow down a selected appointment window.
Allow Slot Group	Y/N	Set to Y

Option	Possible Values	Notes
Appointment Forced Characteristic Type	APPT FRC	APPT FRC When an appointment reservation is forced, a characteristic of this type is added to the field activity. Note that the field activity's FA type must also define this as a valid characteristic type.
Appointment Java Class Interface	com.splwg.wfm i.workforce. ExternalWFM System	This Java class implementation used to interface with the external system to support real time appointment interaction.
Default Days Of Available Appointment	10	Set it to 10 Determines the end date of the search period when choosing a dispatch group on the appointment page.
Hi-Low Review	Y/N	Set to Y Indicates if meter reads coming from the external system should be reviewed for Hi-Low failures and trended.
Intermediate Status to Prevent FA Cancel	ACTV	Used to identify FA Intermediate Status values that should prevent the system from automatically canceling a Field Activity.
Intermediate Status To Skip Message	CREX	Identifies FA Intermediate Status value used when a Field Activity is created by an external system or when other information for a field activity is updated by an external system.
Service Provider	INT_OFSC_SP	The service provider defined for your external system.
To Do Type for FA Response		Indicates the To Do type to use to create a To Do entry.
User Defined Criteria Field		Used on the <b>Appointment</b> page to add specific appointment selection criteria.
User Defined Result Field		Used on the <b>Appointment</b> page to add specific appointment selection result information.

## Dispatch Group

A dispatch group is a logical group of representatives located at an operations area. When a field activity is created, the system assigns it to a dispatch group based on the type of activity, the type of service point, and the operations area that manages the service point.

Create a dispatch group to be used for field activities that are to be integrated with the other participating applications.

The code defined here must exactly match value for the property “ccb.dispatchgroup” defined in the CCBOFSC\_ConfigProps DVM for Dispatch Group indicated.

Navigate to the **Dispatch Group** page from the **Admin** menu or from the **Search** menu. Ensure this dispatch group is linked to the above feature configuration.

## Managing Catalog Services

The catalog service is used by Oracle Integration Cloud to communicate with the respective application. It is configured in Catalog URL in the Oracle Integration Cloud connection.

To configure the catalog service in Oracle Utilities Customer Care and Billing:

1. Login to Oracle Utilities Customer Care and Billing.
2. Navigate to the **Web Service Catalog** page either from the **Admin** menu or the **Search** menu.

The external system and inbound web services are added to the catalog.

3. To get the catalog URL, append “webservicess/builtin/ServiceCatalog?wsdl” to the Oracle Utilities Customer Care and Billing URL.

For example: `http(s)://<CCB_HOST>:<CCB_PORT>/<ContextRoot>/webservicess/builtin/ServiceCatalog?wsdl`

The following services to be added in the catalog:

Service Type	Service Name
External System	INT_OFSC_ES
Inbound Web Service	C1FACompletionFieldWork
XAI Inbound Service	C1FieldActivityMaintenance
XAI Inbound Service	ValidateMeterItemResponse
XAI Inbound Service	C1AddFAandCustomerContact

**Note:** For instructions to add an XAI Inbound Service to the web service catalog, refer to [Accessing XAI Inbound Service as Inbound Web Service \(IWS\)](#).

For more information about configuration, refer to the Oracle Utilities Customer Care and Billing documentation.

## Field Activity Types

While setting up field activity types, make sure that a field activity cannot include more than 7 steps if it has to be completed by an external system.

Following is the list of supported Field Activity Types:

FA Type Description	Steps to be Configured
Connect SP	Step 1: Connect SP
Install Meter	Step 1: Connect SP Step 2: Install Meter
Remove Meter	Step 1: Remove Meter Step 2: Disconnect SP
Disconnect SP	Step 1: Disconnect SP

FA Type Description	Steps to be Configured
Read Meter	Step 1: Read Meter
Replace Meter	Step 1: Remove Meter Step 2: Install Meter
Replace Item	Step 1: Remove Item Step 2: Install Item
Install Item	Step1: Connect SP Step2: Install Item

## Configuring Admin Data Tables

These are the global data values configured in Oracle Utilities Customer Care and Billing and can be used within the system for this integration.

The codes defined in these fields must exactly match values in the DVM/Lookups defined in integration layer.

Navigate to these pages from the **Admin** menu or from the **Search** menu.

Field Name	Description	Corresponding DVM/Lookup
Disconnect Location	When a service point is disconnected from the supply source, a disconnect location must be specified.	CCBOFSC_DisconnectLocation
Meter Read Instruction	When setting up a premise you may define instructions to be supplied to the individuals who read the meters located at the premise.	CCBOFSC_ServiceInstructions
Meter Read Warning	When setting up a premise you may define warnings to be supplied to the individuals who read the meters located at the premise.	CCBOFSC_ServiceWarnings
Meter Location	When you set up a metered service point you must define where the meter's service point is located on the property. A meter can be associated with the on-site installation location.	CCBOFSC_MeterLocation
Time of Use	Every meter register can be associated with a time of use code.	CCBOFSC_TOU

Field Name	Description	Corresponding DVM/Lookup
Unit of Measure	Every meter register must be associated with a unit of measure (read type) code.	CCBOFSC_UOM
Read Type	Use Read Type to define WHO made the read and HOW the read was made	OFSCCCB_ReadType
Meter Configuration Type	Every meter configuration must reference a meter configuration type. The meter configuration type indicates the valid (required or optional) unit of measure and time of use registers for the configuration.	CCBOFSC_MeterConfigurationType
Country	Create a country code.  The <b>Main</b> page is used to customize the fields and field descriptions that are displayed where addresses are used in the system. This ensures that all addresses conform to the customary address format and conventions of the particular country you have defined.	CCBOFSC_CountryCode
Field Activity Type	Create the types required by your business and populate the necessary information to define your set of field activity types required for your business.	CCBOFSC_ActivityType
Premise Type	Define the premise types used to categorize your premises	CCBOFSC_PremiseType
SP Type	Define a service point type	CCBOFSC_ServicePointType
Manufacturer	Create the required device Manufacturer code	CCBOFSC_Manufacturer
Model	Create the required model code	CCBOFSC_Model

## Adding Oracle Integration Cloud Certificates

Add the Oracle Integration for Cloud certificate to the Oracle Utilities Customer Care and Billing stores where ever applicable to send transactions to the Oracle Integration for Cloud layer.

## Accessing XAI Inbound Service as Inbound Web Service (IWS)

To access XAI Inbound Service as an IWS service (to be added in the Web Service Catalog):

1. Navigate to **Feature Name (PMEMLCONFIG) > Feature Type (External Messages)**.
2. Add the **Support XAI Deployment via IWS** option and set the value to 'true'.
3. Redeploy the IWS services.
4. Reboot the Oracle Utilities Customer Care and Billing environment.



# Chapter 4

---

## Configuring Oracle Field Service Cloud

This chapter provides information about the necessary Oracle Field Service Cloud configurations. It focuses on the following:

- [Integrating Using Oracle Integration Cloud](#)
- [Configuring Oracle Field Service Cloud](#)

**Prerequisite:** Make sure the accelerator related configurations are complete in Oracle Field Service Cloud before proceeding with these. Download the accelerator package from Oracle Technology Network.

<https://www.oracle.com/technetwork/indexes/samplecode/utilities-5068606.html>

# Integrating Using Oracle Integration Cloud

One of the ways of integrating the applications is through Oracle Integration Cloud. Oracle Integration Cloud creates an integration point in Oracle Field Service Cloud. When an event occurs in Oracle Field Service Cloud, it is sent to the appropriate application through Oracle Integration Cloud.

**Note:** Configure this integration only to send events or data from Oracle Field Service Cloud to Oracle Integration Cloud.

To configure the applications:

1. Login to Oracle Field Service Cloud.
2. Click **Configuration > Outbound Integration**.
3. On the **Outbound Integration** page, click **Add New Channel**.
4. From the **Channel Type** drop down list, select **Integration Cloud Service**.
5. Enter the name/description of the application for which the integration is created.

If multiple instances of an application are used, such as production and testing, create multiple access points for the application.

6. Enter the host name of the application for which the integration is created.

For example: If the URL is “https://integration-a12345.integration.us2.oraclecloud.com/integration/flowsvc/ofsccloudadapter/NAME/v01/” then the host is: “integration-a12345.integration.us2.oraclecloud.com”.

7. Enter the user name of the Oracle Integration Cloud user Service.

Make sure this user exists in Oracle Integration Cloud and has permissions to access the integration process endpoint.

8. Enter the password for the user name. The user name and password are used to authenticate Oracle Integration Cloud when Oracle Field Service Cloud starts sending events to Oracle Integration Cloud.
9. Confirm the password.
10. Click **OK**.

## Configuring Oracle Field Service Cloud

This section provides information about the configurations in Oracle Field Service Cloud.

- [Creating Time Slots](#)
- [Creating Work Skills](#)
- [Creating Capacity Categories](#)
- [Designating Buckets for Capacity or Quota Management](#)
- [Adding Quota to Bucket](#)
- [Configuring Plug-ins](#)

## Creating Time Slots

Time slots define the availability of crew who can book based on the customer priority.

To define a time slot:

1. Click **Configuration > Time slots**.
2. On the **Time slots** page, click **Add New**.
3. Enter the appropriate information in the following fields:

Option	Description
Name	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 appear for each language.
Label	Specify a label.  It is used in the context of APIs and should conform to a standard naming convention.
Active	Select the check box to mark the capacity category as 'active'. Only active capacity categories are used in the quota matrix.
Status	Mark the capacity category as 'active'. Only active capacity categories are used in the quota matrix.
Time from	Start time
Time To	End time

4. Select the work skill type and click **Add**.

## Creating Work Skills

To create a work skill:

1. Click **Configuration > Work skills**.
2. On the **Time slots** page, click **Add New**.
3. On the **Work skills** page, enter the appropriate information in the fields:

Option	Description
Name	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 appear for each language.
Label	Specify a label.  It is used in the context of APIs and should conform to a standard naming convention.
Active	Select the check box to mark the capacity category as 'active'. Only active capacity categories are used in the quota matrix.

4. Click **Work skill conditions**.

5. Select the work skill created in step 3.
6. On the **Work Skill Conditions** page, from the drop down box, select the work skill name created in step 4.
7. Select the required level as 1.
8. Select the preferable level as 1.
9. Click **Add New Condition**.
10. Select the **Activity Type** property and add the required activity types.

## Creating Capacity Categories

A capacity category is a predefined set of work skills and/or work skill groups and time slots visible to a user booking the activities for the customers.

Based on the number of minutes available (Capacity = Initial quota allocation minus Used minutes), the user decides if enough time is available within a time slot to realistically promise a specific service window to the customer. This information is sent to the CSR via Capacity API. Capacity Categories are visible only if the Oracle Field Service Cloud Capacity Cloud Service module is used.

**Note:** The Used Minutes value is calculated based on the exact time (in minutes) from start to end of a working day.

You must enable the Capacity Categories visibility profile permission for each user to access the Capacity Categories window:

- Read-Only: Select this option to display capacity categories in a view only mode.
- Read/Write: Select this option to let the user manage Capacity Categories in Oracle Field Service Cloud.

If the permissions are not configured for a user type, the activity types will not be visible to the users. Oracle Field Service Cloud maps the work skills to assign incoming activities to the resources. In general, many companies define quota for a work skill group rather than for an individual work skill. For example: Separate skills are required for installation, un-installing and maintenance of modems, but from a scheduling perspective, quota is defined for all the modem-related works group.

A capacity category can also consist of a single work skill and the minimum required level of the skill level. For example: A category can be created for all the customer-oriented work and a separate group for VIP customers or for highly difficult tasks. The two categories would contain the same work skills but the minimal qualification level in the VIP group is higher. Because of the categories and the multi-skill functionality, the same activity can match several rows in the quota table and can be added to the used capacity several times. The duration of this activity will be taken into account for all the capacity categories it matches.

The operations performed on a capacity category are:

- [Creating a Capacity Category](#)
- [Modifying a Capacity Category](#)
- [Deleting a Capacity Category](#)
- [Adding/Editing Work Skills within a Capacity Category](#)
- [Adding/Editing Time Slots within a Capacity Category](#)

## Creating a Capacity Category

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

1. Click **Configuration > Capacity Categories**.
2. On the **Capacity Categories** page, click **Add New**.
3. On the **Add Capacity Category** page, enter the appropriate information in the fields.

The following table describes the fields available on the **Add Capacity Category** page.

Option	Description
Name	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 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 to mark the capacity category as 'active'. Only active capacity categories are used in the quota matrix.

4. Click **Save**.

After creating the capacity category, add work skills, work skill groups, and time slots to the category.

## Modifying a Capacity Category

To edit an existing capacity category:

1. Click **Configuration > Capacity Categories**.
2. On the **Capacity Categories** page, select the checkbox next to the capacity category to be modified.
3. Click the pencil icon in the **Name** column.
4. On the **Edit Capacity Categories** page, change the required fields.
5. Click **Save**.

## Deleting a Capacity Category

To delete a capacity category when no longer needed:

1. Click **Configuration > Capacity Categories**.
2. On the **Capacity Categories** page, select the checkboxes next to the capacity categories to be deleted.
3. Click **Delete**.
4. Click **OK**.

## Adding/Editing Work Skills within a Capacity Category

A capacity category can contain one or more work skills and each work skill must meet a minimum required level.

To add/edit work skills within a capacity category:

1. Click **Configuration**.
2. In the **General** section, click **Capacity Categories**.
3. On the **Capacity Categories** page, click the pencil icon in the **Work Skills** column to add/edit the capacity categories.
4. On the **Edit Work Skill** page, select a work skill and add the minimum level of the skill required in the corresponding text box.

The default value is 1. When the minimum level of a work skill is defined, an activity matches a capacity category, if a required skill level for the activity skill is equal to or more than the level of the capacity category.

**Note:** If a capacity category contains a group of work skills, the activity matches the category if it requires at least one of work skills from the group.

Recalculate activities after any edits or updates have been made to apply changes to pending and future activities in the system.

## Adding/Editing Time Slots within a Capacity Category

A capacity category can contain one or more time slot associations.

To add/edit time slots within a capacity category:

1. Click **Configuration**.
2. In the **General** section, click **Capacity Categories**.
3. On the **Capacity Categories** page, click the pencil icon in the **Time Slots** column to add/edit the capacity category.
4. On the **Edit Time Slots** page, select a time slot.
5. Click **Save**.

## Designating Buckets for Capacity or Quota Management

After adding a bucket, select whether to use it for capacity management or quota management. The selection is done on the **Resource Information** page.

1. Click the bucket name in the **Resource Tree**.
2. Select the **Quota Management** checkbox.

The routing profile, capacity categories, and time slots fields are displayed.

## Adding Capacity Categories and Time Slots

If a bucket is designated as a capacity bucket used for quota calculation, the screen displays the capacity categories and time slots fields. The selections made here determine how the **Quota** section appears. Configuring capacity categories and time slots on a

bucket-by-bucket basis is helpful when different regions and types of resources within these buckets require different skills and time slots.

To add capacity categories and time slots:

1. Click the bucket name in the **Resource Tree**.
2. Select the **Quota Management** check box.  
The routing profile, capacity categories, and time slots appear.
3. Select the time slots used for quota management in this bucket.
4. Click the pencil icon next to the Time Slots field to edit the time slots.
5. On the **Edit Time Slots** box, select the time slots to be used for quota management for this bucket.
6. Click **Save**.
7. Select the capacity categories used for quota management in this bucket.
8. Click the pencil icon next to the **Capacity Categories** field.
9. On the **Edit Capacity Categories** window, select the capacity categories used for quota management for this bucket. Click **Save**.
10. Select the level at which quota is defined in this bucket (day, time slot, capacity category).  
This determines the visibility of the Day, Time slot, and Capacity Category tables in the Quota view.
11. Select the levels on which quota can be closed in this bucket.  
Note that quota can also be closed by work zone.
12. Select the levels for which maximum capacity should be estimated.  
Maximum capacity is the maximum number of minutes for activities booking. The application checks that the total duration of booked activities plus the total duration of other activities does not exceed maximum capacity.
13. Click **OK** to save the bucket information.

## Adding Quota to Bucket

To add quota to bucket:

1. Navigate to **Bucket > Dispatch > Quota**.
2. Select **View filter by > Quota by Day**.

Capacity area	Wednesday, February 27th, 2019	
	Quota	Used
Meter Services		
OH Meter Services		

3. Provide quota per the day in minutes.
4. Select **Bucket > Dispatch > Quota**.
5. Select **View filter by > Time slots**.
6. Add the quota for each time slot in minutes.

Time Slot	Wednesday, February 27th, 2019		
	Quota	Used	% when booking stops
Day			
08-08:05			
08-10			
10-12			
13-15			
15-17			
8:15-8:20			
All-Day			
Lunch break			
Second Lunch Break			

## Configuring Plug-ins

Oracle Field Service Cloud is a highly developed application that can be customized for the unique purposes and specialized business needs of organizations. That extensibility is achieved in part through the use of plug-ins, which can perform actions not found in the standard solution. Plug-ins appear as selectable links on the application. They open a new window, tab, or frame in a browser where an external HTML5 application is executed.

**Prerequisite:** Download the **Device\_Verify\_Plugins\_op.xml** file from Oracle Technology Network.

<https://www.oracle.com/technetwork/indexes/samplecode/utilities-5068606.html>

To configure a plug-in:

1. Navigate to **Configuration > Form & Plugins**.
2. Click **Import Plugin** on the top right corner.
3. Select the **plugin.xml** file (downloaded from My Oracle Support) and click **Validation**.
4. Click **Import**.
5. Verify if the plug-in is imported with the **VerifyDevice** label.
6. Modify **VerifyDevice**.
7. Navigate to **Plug-in Settings > Secure Parameter** and configure the following parameters.

Parameter	Value
url	Device Verification OIC activated URL  Example: <a href="https://hostname:port/ic/api/integration/v1/flows/rest/DEVICE_VERIFICATION_OFSCTOCCB/1.0/">https://hostname:port/ic/api/integration/v1/flows/rest/DEVICE_VERIFICATION_OFSCTOCCB/1.0/</a>

**Note:** Replace host and port values with the respective OIC details.



---

<b>Parameter</b>	<b>Value</b>
uname	User name of the OIC instance
pwd	Password of OIC instance

# Chapter 5

---

## Importing, Configuring, and Testing Integration Connections in Oracle Integration Cloud

This chapter explains the process for importing the connections, packages, and files needed for the integration and the configuration of these connections imported through the packages. After a successful import and configuration the chapter lists out steps to help test the connections. It includes the following sections:

- [Importing the Oracle Integration Cloud Package from Oracle Cloud Marketplace](#)
- [Verifying the Package Import](#)
- [Configuring Connections in Oracle Integration Cloud](#)
- [Configuring Agent \(if applicable\)](#)
- [Setting up Certificates for Security](#)

# Importing the Oracle Integration Cloud Package from Oracle Cloud Marketplace

All integration points are shipped as part of single package (oracle.util.ccbofsc.fieldwork.par) file.

## To import a pre-built integration from Oracle Cloud Marketplace:

1. Launch the Oracle Cloud Marketplace portal.

[https://cloudmarketplace.oracle.com/marketplace/en\\_US/homePage.jspx](https://cloudmarketplace.oracle.com/marketplace/en_US/homePage.jspx)

2. Click **Applications**.
3. Browse through the list of applications and select the pre-built integration package to import.

Alternatively, you can search for “Oracle Utilities” and select the **CCB-OFSC** integration option.

4. Click **GetApp**.
5. Review and accept the “Oracle Standard Terms and Restrictions”.
6. Click **Next**. The My Oracle Support portal opens.
7. Download the integration package from My Oracle Support.
8. When prompted, select the server where the pre-built integration file should be uploaded.

The pre-built integration is imported as a package file (.par) that is visible on the **Packages** page in Oracle Integration Cloud.

9. On the **Integrations** page, the individual integrations of the imported package file that are designated with a BUILT BY ORACLE message are displayed.

## To import a package in Oracle Integration Cloud:

1. Login to Oracle Integration Cloud.
2. Navigate to **Integrations > Designer > Packages**.
3. Click **Import**.
4. Select the .par file downloaded from Oracle Cloud Marketplace.
5. Verify if the package is imported is successfully.

## Verifying the Package Import

To verify the package import was successful:

1. Verify whether the following integrations are imported successfully.
  - CreateUpdate\_Activity\_CCBToOFSC
  - Get\_Appointment\_CCBToOFSC
  - Send\_ActivityStatus\_OFSCToCCB

- 
- Device\_Verification\_OFSCToCCB
  - Create\_Activity\_OFSCToCCB
  - Cancel\_Activity\_CCBToOFSC
  - Complete\_Activity\_OFSCToCCB
2. Verify if the following connections are in place.
    - UAC\_CCB
    - OFSC
    - REST\_CCBOFSC\_APPT
    - REST\_CCBOFSC\_DV
  3. Make sure that the following look ups are imported successfully.
    - CCBOFSC\_Email\_ID
    - CCBOFSC\_ConfigProps
    - CCBOFSC\_ActivityType
    - CCBOFSC\_CountryCode
    - CCBOFSC\_LifeSupport
    - CCBOFSC\_Manufacturer
    - CCBOFSC\_MeterLocation
    - CCBOFSC\_Model
    - CCBOFSC\_DisconnectLocation
    - CCBOFSC\_ServiceInstructions
    - OFSCCCB\_Appt\_TimeSlots
    - OFSCCCB\_InterimStatus
    - CCBOFSC\_ServicePointType
    - CCBOFSC\_PremiseType
    - OFSCCCB\_TimeZone
    - CCBOFSC\_ServiceWarnings
    - OFSCCCB\_DeviceStatus
    - OFSCCCB\_ReadType
    - CCBOFSC\_MeterConfigurationType
    - CCBOFSC\_UOM
    - CCBOFSC\_TOU

# Configuring Connections in Oracle Integration Cloud

After the packages are imported and verified, the respective connections have to be configured.

This section describes the procedure to set up the connections.

## Configuring UAC\_CCB Connection

This connection is used to communicate with Oracle Utilities Customer Care and Billing using the Oracle Utilities adapter.

To configure the UAC\_CCB connection:

1. Add the Oracle Utilities Customer Care and Billing catalog to the **catalogURL** section.
2. On the **Security policy** tab, select the **User Name and Password** token policy.
3. On the **Connection** page, enter the user name and password.
4. Configure the Agent in the **Agent group** section if the Oracle Utilities Customer Care and Billing application is on-premise. Refer to the [Configuring Agent \(if applicable\)](#) section for more details.
5. After the connection is tested successfully, click **Save**.

## Configuring REST\_CCBOFSC\_DV Connection

This connection is used to communicate with Oracle Field Service Cloud using the REST adapter. It is also used for the Device Verification flow triggered by Oracle Field Service Cloud.

Edit the REST\_CCBOFSC\_DV connection and test it to make sure it is successful. Click **Save**.

## Configuring OFSC Connection

This connection is used to communicate with Oracle Field Service Cloud using the OFSC adapter.

Configure the OFSC connection with the required details:

1. Enter the API URL in the **Field Service Cloud API URL** field.
2. Enter the **Instance ID**.
3. From the **Security Policy** drop-down list, select **Basic Authentication**.
4. On the **Connection** page, enter the user name and password and then click **Test** at the upper-right corner.
5. After the connection is tested successfully, click **Save**.

## Configuring REST\_CCBOFSC\_APPT Connection

This connection is used to communicate with the ActivityBooking API of Oracle Field Service Cloud using the REST adapter. It is used in the Appointment Request flow inbound to Oracle Field Service Cloud.

Configure the REST\_CCBOFSC\_APPT connection with required details:

1. In the **Connection Properties** section:
  - a. From the **Connection Type** drop-down box, select **REST API Base URL**.
  - b. Select the **TLS Version** as **TLSV1.2**.
  - c. Enter **https://api.etadirect.com/rest/ofscCapacity/v1/** in the **Connection URL** field.
2. In the **Security** section:
  - a. From the **Security Policy** drop-down list, select **Basic Authentication**.
  - b. Enter the user name and password.
  - c. Click **Test** at the upper-right corner.
3. After the connection is tested successfully, click **Save**.

## Configuring Agent (if applicable)

Create an agent group in Oracle Integration Cloud and install agent on the on-premises server before creating/activating an integration in which messages are exchanged between the on-premises applications and Oracle Integration Cloud. The agent related configurations are needed only if the server points to an on-premises application.

This section includes:

- [Possible Combinations](#)
- [Creating an Agent Group](#)
- [Downloading Agent Installer](#)
- [Installing On-Premises Agent](#)

### Possible Combinations

The possible combinations of an agent group are:

- Oracle Utilities Customer Care and Billing on-premises and Oracle Field Service Cloud

### Creating an Agent Group

Create an agent group in Oracle Integration Cloud before running the agent installer. When the on-premises agent is installed in the environment, the on-premises agent is associated with the agent group identifier. Only one on-premises agent can be associated with an agent group.

For a single Oracle Integration Cloud instance, you can create up to five agent groups. Creating the agent group also creates the necessary queues required for message exchange.

To create an agent group:

1. Login to Oracle Integration Cloud.
2. On the **Home** page, click **Agents**.
3. Click **Create Agent Group**.
4. Enter the following information:
  - Agent Group Name
  - Identifier

**Note:** The agent group name and identifier must be same.

- Agent Type: “Connectivity Agent”
  - Description
5. Click **Create**.

## Downloading Agent Installer

Download the agent installer from Oracle Integration Cloud and run the installer to install the on-premises agent in your local environment. During the installation, associate the agent with the Agent Group Identifier generated when creating an agent group in Oracle Integration Cloud.

For more information on agent installer, see <https://docs.oracle.com/en/cloud/paas/integration-cloud/integrations-user/downloading-and-running-premises-agent-installer.html>.

## Installing On-Premises Agent

To install an on-premises agent:

1. Login to Oracle Integration Cloud.
2. On the **Home** page, click **Agents**.
3. Click **Download**.
4. Select **Connectivity Agent**.
5. Select **Save File** when prompted to save the file to a directory location on your on-premises host.
6. Navigate to that directory and unzip **oic\_connectivity\_agent.zip**.
7. Change the file permissions to be executable.
8. Download the Oracle Utilities Customer Care and Billing certificate and upload by running the below command from agent home directory.

```
keytool -import -file directoryPath/sample.crt -alias SampleCert -keystore <Agent_Home>/agenthome/agent/cert/keystore.jks
```

9. Modify **InstallerProfile.cfg** to include the following information.
  - a. Provide the `oic_URL` value with the OIC SSL host name. For example: `https://OIC_host:OIC_port`
  - b. Provide the `agent_GROUP_IDENTIFIER`. It should be the agent group created in Oracle Integration Cloud.
  - c. Set the proxy parameters if the connectivity agent is used with a proxy in the on-premises environment.
  - d. Set the `JAVA_HOME` property to the directory/folder where JDK is installed.
 

**Note:** Before running the connectivity agent installer, perform the steps in the link below.  
<https://docs.oracle.com/en/cloud/paas/integration-cloud/utilities-adapters/you-begin-setting-oracle-utilities-adapter.html#GUID-7F770AD1-5B87-4C62-968A-3AB30D043835>
  - e. Run the connectivity agent installer from the command prompt.
 

```
java -jar connectivityagent.jar
```
  - f. Provide the Oracle Integration Cloud credentials when prompted.
  - g. Wait for a successful installation message to appear.

After the installation is complete, an agent instance is created to interact with Oracle Integration Cloud.

To verify if the agent instance was created:

1. Navigate to the **Agents** page in Oracle Integration Cloud.
2. Check if the agent count for your **Agent Group** is increased by one.
3. Click the number to view the agent details.

For more details, refer to Oracle Integration Cloud documentation at <https://docs.oracle.com/en/cloud/paas/integration-cloud-service/index.html>.

## Setting up Certificates for Security

**Important!** Please skip this section if there are valid CA certificates for the integration.

If there are no valid certificates for this integration, download the Oracle Utilities Customer Care and Billing certificates and upload them to Oracle Integration Cloud to handshake with Oracle Utilities Customer Care and Billing.

To download the Oracle Utilities Customer Care and Billing certificate:

1. Login to Oracle Utilities Customer Care and Billing.
2. Click the URL on the top-left corner.
3. On the **Security** tab, click **View Certificate**.
4. On the **Details** tab, click **Export**.
5. Save the certificate.



To upload the certificate to Oracle Integration Cloud:

1. Login to Oracle Integration Cloud with Admin credentials.
2. Navigate to **Settings > Certificates**.
3. On the **Certificate** window, click **Upload**.
4. Select **Certificate Type** as **Trust Certificate**.
5. Provide the **Certificate Alias Name**.
6. Select the certificate to upload.
7. Click **Upload**.

# Chapter 6

---

## Configuring Lookups, Error Handling, and Email Notifications

This chapter focuses on the lookups configuration, handling business and technical errors, and sending email notifications in this integration. It includes the following sections:

- [Configuring Lookups](#)
- [Configuration Properties](#)
- [Error Handling](#)
- [Email Notifications](#)

## Configuring Lookups

The following table lists the lookups and integration processes where these lookups are used.

Lookup Name	Integration Name	Purpose
CCBOFSC_ConfigProps	CreateUpdate_Activity_ CCBToOFSC	Mainly used for configuring the properties with appropriate values.
	Cancel_Activity_ CCBToOFSC	
	Complete_Activity_ OFSCToCCB	
	Create_Activity_ OFSCToCCB	
	Get_Appointment_ CCBToOFSC	
CCBOFSC_ActivityType	CreateUpdate_Activity_ CCBToOFSC	Used to translate Oracle Utilities Customer Care and Billing Activity Type to Oracle Field Service Cloud Activity Type.
	Complete_Activity_ OFSCToCCB	
	Create_Activity_ OFSCToCCB	
CCBOFSC_CountryCode	CreateUpdate_Activity_ CCBToOFSC	Translates the Oracle Utilities Customer Care and Billing Country code to Oracle Field Service Cloud.
CCBOFSC_LifeSupport	CreateUpdate_Activity_ CCBToOFSC	Translates the Oracle Utilities Customer Care and Billing life support to Oracle Field Service Cloud.
CCBOFSC_Manufacturer	CreateUpdate_Activity_CC BToOFSC	Translates the Oracle Utilities Customer Care and Billing Manufacturer to Oracle Field Service Cloud and vice versa.
	Complete_Activity_OFSC ToCCB	
CCBOFSC_MeterLocation	CreateUpdate_Activity_ CCBToOFSC	Used to translate the Oracle Utilities Customer Care and Billing Meterlocation to Oracle Field Service Cloud and Vice versa.
	Complete_Activity_ OFSCToCCB	
CCBOFSC_Model	CreateUpdate_Activity_ CCBToOFSC	Translates the Oracle Utilities Customer Care and Billing Model to Oracle Field Service Cloud and Vice versa.
	Complete_Activity_ OFSCToCCB	

Lookup Name	Integration Name	Purpose
CCBOFSC_ DisconnectLocation	Complete_Activity_ OFSCToCCB	Translates the Oracle Utilities Customer Care and Billing Disconnection location to Oracle Field Service Cloud and Vice versa.
	CreateUpdate_Activity_ CCBToOFSC	
CCBOFSC_ ServiceInstructions	Complete_Activity_ OFSCToCCB	Translates the Oracle Utilities Customer Care and Billing Service instructions to Oracle Field Service Cloud and Vice versa.
	CreateUpdate_Activity_ CCBToOFSC	
OFSCCCB_Appt_ TimeSlots	Get_Appointment_ CCBToOFSC	Translates the Oracle Utilities Customer Care and Billing timeslots to Oracle Field Service Cloud time slots and vice versa.
OFSCCCB_InterimStatus	Send_ActivityStatus_ OFSCToCCB	Translates the Oracle Utilities Customer Care and Billing status to Oracle Field Service Cloud.
CCBOFSC_ServicePoint Type	CreateUpdate_Activity_ CCBToOFSC	Translates the Oracle Utilities Customer Care and Billing Service point type to Oracle Field Service Cloud.
CCBOFSC_Email_ID	CreateUpdate_Activity_ CCBToOFSC	Used to maintain the email address of 'from' (sender) and 'to' (receiver) fields.
	Cancel_Activity_ CCBToOFSC	
	Complete_Activity_ OFSCToCCB	
	Create_Activity_ OFSCToCCB	
	Get_Appointment_ CCBToOFSC	
	Send_ActivityStatus_ OFSCToCCB	
CCBOFSC_PremiseType	CreateUpdate_Activity_ CCBToOFSC	Translates the Oracle Utilities Customer Care and Billing Premise type to Oracle Field Service Cloud.
OFSCCCB_TimeZone	Complete_Activity_ OFSCToCCB	Used to maintain the Oracle Field Service Cloud time zones and their offsets.

Lookup Name	Integration Name	Purpose
CCBOFSC_ ServiceWarnings	Complete_Activity_ OFSCToCCB	Translates the Oracle Utilities Customer Care and Billing Service warnings to Oracle Field Service Cloud service Warnings and vice versa.
	CreateUpdate_Activity_ CCBToOFSC	
OFSCCCB_DeviceStatus	Complete_Activity_ OFSCToCCB	Translates the Oracle Field Service Cloud device status to Oracle Utilities Customer Care and Billing.
OFSCCCB_ReadType	Complete_Activity_ OFSCToCCB	Translates the Oracle Field Service Cloud read type to Oracle Utilities Customer Care and Billing.
CCBOFSC_ MeterConfigurationType	CreateUpdate_Activity_ CCBToOFSC	Translates the Oracle Utilities Customer Care and Billing configuration type to Oracle Field Service Cloud and vice versa.
	Complete_Activity_ OFSCToCCB	
	Device_Verification_OFSC ToCCB	
CCBOFSC_UOM	Complete_Activity_ OFSCToCCB	Translates the Oracle Utilities Customer Care and Billing Unit Of Measure to Oracle Field Service Cloud and vice versa.
	Device_Verification_OFSC ToCCB	
CCBOFSC_TOU	Complete_Activity_ OFSCToCCB	Translates the Oracle Utilities Customer Care and Billing TimeOfUse to Oracle Field Service Cloud and vice versa.
	Device_Verification_OFSC ToCCB	

## Editing Lookups

To edit a lookup to add or update any value in it:

1. Login to Oracle Integration for Cloud.
2. Navigate to **Integrations > Designer > Lookups**.
3. Click the look up to edit.
4. Make the necessary changes.
5. Click **Save** and **Close**.

**Note:** While editing a lookup, if the changes are not reflected during the runtime, make sure to deactivate and activate the integration that is using the edited DVM for the changes to reflect. Refer to the [Activating Integration Flows](#) section for more details.

# Configuration Properties

CCBOFSC\_ConfigProps.dvm contains the properties that can be defaulted in the integration. It also contains a flag to enable email notifications.

Property Name	Sample Value	Description	Used in Integration Process Name
send.email.flag	true/false	Used to configure optional email notification. If the value is set to true, email notification will be sent to the configured users.	All
ofsc.bucket	OHMeter	Used to configure the bucket name available in Oracle Field Service Cloud to assign the tasks.	CreateUpdate_Activity_CCBToOFSC
ccb.system.id	CCB	Used to define Oracle Utilities Customer Care and Billing product code.	CreateUpdate_Activity_CCBToOFSC Create_Activity_OFSCToCCB
ofsc.system.id	OFSC	Used to define the Oracle Field Service Cloud product code.	Create_Activity_OFSCToCCB
ccb.offset	-8.00	Used to provide offset for Oracle Utilities Customer Care and Billing timezone.	CreateUpdate_Activity_CCBToOFSC Complete_Activity_OFSCToCCB
ofsc.offset	-5.00	Used to provide offset for Oracle Field Service Cloud bucket timezone.	CreateUpdate_Activity_CCBToOFSC
ccb.dispatchgroup	AIADSPGR	Used to define your organization's dispatch group. This must match the dispatch group defined in Oracle Utilities Customer Care and Billing.	Create_Activity_OFSCToCCB
ccb.readsource	FWI	Used to define the source of the read	Complete_Activity_OFSCToCCB

# Error Handling

This section provides information about the different ways used to handle errors in the integration and also resubmitting the instances after rectifying the errors.

- [Error Handling Ways](#)
- [Resubmitting the Error Instances in Oracle Integration Cloud](#)

## Error Handling Ways

In this integration, the errors are handled in different ways in Oracle Integration Cloud.

- [Synchronous Flow Error Handling](#)
- [Asynchronous Flow Error Handling](#)

### Synchronous Flow Error Handling

As part of this error handler the errors are sent back to the respective source system in the same flow.

#### Technical Fault

This fault occurs when there is a data mismatch in DVM or any Xpath related error. On this error, the flow immediately goes to global fault handler and the fault is sent back to the respective system.

#### Remote Fault

This fault occurs when there is a connectivity issue. For example, the target system is down. When this error occurs the flow immediately goes to global fault handler and the fault is sent back to the respective system.

#### Business Fault

This fault occurs only when the error occurs in the target system due to invalid data. When this error occurs the fault is thrown to the respective source system.

### Asynchronous Flow Error Handling

#### Technical Fault

This fault occurs when there is a data mismatch in DVM or any Xpath related error. When this error occurs, the flow immediately goes to global fault handler and an optional email to the respective user is sent.

#### Remote Fault

This fault occurs when the target system is down. When this error occurs, the flow immediately goes to global fault handler and an optional email is sent to the respective user.

#### Business Fault

This fault occurs only when the business fault occurs in the target system due to invalid data. When this error occurs the flow immediately goes to global fault handler and an optional email is sent to the respective user.

## Resubmitting the Error Instances in Oracle Integration Cloud

In this integration, the flows initiated by Oracle Field Service Cloud are asynchronous flows, and the resubmit option is available only for asynchronous flows.

To resubmit the error instances in Oracle Integration Cloud:

1. Login to Oracle Integration Cloud.
2. Navigate to **Integrations > Monitoring > Errors**.
3. Select the integration to resubmit.
4. Click the **Resubmit** icon.

## Email Notifications

This pre-built integration includes a configurable email notification.

To receive an email notification:

1. Login to Oracle Integration Cloud.
2. Navigate to **Integrations > Designer > Lookups**.
3. Edit the **CCBOFSC\_ConfigProps** look up.
  - a. Change the **send.email.flag** property value to 'true'.
4. Edit the **CCBOFSC\_Email\_ID** look up.
  - a. In the **from** field, enter the email ID to receive an email from.
  - b. In the **to** field, enter the email ID to send the email to.
  - c. In the **Email\_Id** field, provide the comma separated email IDs.

**Note:** In the CCBOFSC\_Email\_ID lookup, do not edit the values provided under the **Recipient** column.



# Chapter 7

## Extension Libraries in Oracle Integration Cloud

The extension libraries provide a means to register and organize JavaScript for use in integrations. Library functions are automatically available for you to drag from the **Actions** palette to your orchestration integrations.

This integration includes the following extension libraries.

Extension Library	Function	Description	Used in Integration Process
Address	addressFormat	Used to concatenate all address fields from Oracle Utilities Customer Care and Billing and map it to single address field in Oracle Field Service Cloud.	CreateUpdate_Activity_ CCBToOFSC
CCBOFSC_DateTime ZoneConversion	CCBOFSC_DateTime ZoneConversion	Used to convert datetime value from one time zone to another timezone.	CreateUpdate_Activity_ CCBToOFSC  Complete_Activity_ OFSCToCCB  Create_Activity_OFSCToCCB
CCBOFSCAppt TimeSlots	CCBOFSC_Appt_ StartTime	Derives the start datetime value in XSD datetime format based on the values from Oracle Field Service Cloud input and the values configured in OIC lookups.	Get_Appointment_ CCBToOFSC
CCBOFSCAppt TimeSlots	CCBOFSC_Appt_ EndTime	Derive the end datetime value in XSD datetime format based on the values from Oracle Field Service Cloud input and the values configured in OIC lookups.	Get_Appointment_ CCBToOFSC

The same extension libraries can be accessed from the **Libraries** page in Oracle Integration Cloud.

For more information regarding extension libraries refer to the Oracle Integration Cloud documentation at <https://docs.oracle.com/en/cloud/paas/integration-cloud-service/icsug/using-libraries-manage-functions-integrations.html>.

# Chapter 8

---

## Customizations

This chapter describes options for customizing the integration to meet specific business requirements, including:

- [Adding New Mappings](#)

## Adding New Mappings

To add a new mapping for custom elements created in the Oracle Integration Cloud application schema, the pre-built integration provides a customization template for all the integration flows.

This section provides the steps to add a new mapping using the import xsl.

To map any custom elements, add the extra element in both the source and target schema.

In this integration, Oracle Utilities Customer Care and Billing is the source and Oracle Field Service Cloud is the target.

To add custom mappings in Oracle Integration Cloud layer:

1. Login to Oracle Integration Cloud.
2. Identify the integration to add custom mappings.
3. Export the respective integration from Oracle Integration Cloud to your local machine.
4. Unzip the .iar file and identify the mapping/xsl file in which the custom mappings have to be added.
5. This integration has all mappers as import xsls. To add any new mapping, edit the respective mapper/xsl file.

**Note:** Mappings cannot be added using the Mapper Design view.

6. In all integration mappings, a template is added under every complex element. Any custom elements under that complex element can be added directly in the template provided.
7. Add the mapping under the respective customization template. Save the changes.
8. In Oracle Integration Cloud, click the integration to add the mapping for an extra element, and then select the respective map activity.
9. Click **Import** and upload the updated mapper/xsl file.
10. Save and close and activate the integration to reflect the custom mappings.

Following is the list of integrations and the respective mappers/xsels with customization templates defined.

Every integration process (.iar) file has a folder structure after exporting and unzipping it. Mappings/xsels are found under the **Resources** folder.

For example:

```
<integration_process_identifier_name>\icspackage\project\<integration_process_identifier_name>\resources\<processor_xxx>\<resourcegroup_xxx>\<req_xxx.xsl>
```

Integration process folder path/ mapping name	XSL file relative path
CREATEUPDATE_ACTIVITY_CCBT OOFSC_01.00.0000\icspackage\project\ CREATEUPDATE_ACTIVITY_CCBT OOFSC_01.00.0000\resources\ 	

<b>Integration process folder path/ mapping name</b>	<b>XSL file relative path</b>
Request mapping	processor_498\resourcegroup_501\req_6e21ceb5522142739d746a495b257f99.xsl
Business fault	processor_640\resourcegroup_643\req_c9e77fc916d947728ed47c196f551994.xsl
Business fault when OFSC activity is in final state	processor_645\resourcegroup_648\req_7da1cd10a1b4400d85ca7cf721009b3f.xsl
Response mapping	processor_573\resourcegroup_576\req_6f07ad5053cd4866ab3a170a4d5648c7.xsl
Remote fault	processor_197\resourcegroup_200\req_3ab49d6f09b9493db74f036932dd6568.xsl
Sublangauge execution fault	processor_202\resourcegroup_205\req_5bbbb6ae0ed04687809da282320ade85.xsl
Unhandled faults	processor_207\resourcegroup_210\req_41b9293cd9904f33af9d758d8e7c8622.xsl
GET_APPOINTMENT_CCBTOOFSC_01.00.0000\icspackage\project\GET_APPOINTMENT_CCBTOOFSC_01.00.0000\resources\	
Request mapping	processor_46\resourcegroup_49\req_72e08f41f2e34c97a817c33dc7937d1d.xsl
Response mapping	processor_51\resourcegroup_54\req_7496a9fb1ea74c35abecd817a1f5b4a9.xsl
Business Fault	processor_198\resourcegroup_201\req_a1f6e7af41d245da829cdd49c4ce9beb.xsl
Remote fault	processor_203\resourcegroup_206\req_0240ab6161a64c60a0d9a126f1f933b0.xsl
Sublangauge execution fault	processor_208\resourcegroup_211\req_a72e8828d6dc444fa4d9fbf442260b28.xsl
Unhandled faults	processor_213\resourcegroup_216\req_909e2462e3b04d9dbbc4f24860a75e7a.xsl
CANCEL_ACTIVITY_CCBTOOFSC_01.00.0000\icspackage\project\CANCEL_ACTIVITY_CCBTOOFSC_01.00.0000\resources\	
Request mapping	processor_37\resourcegroup_40\req_a122c791382a465fa27b52274869c19d.xsl
Response mapping	processor_20\resourcegroup_23\req_ccde23ee5d59454b883bf3ccb5e4c78c.xsl
Business fault	processor_58\resourcegroup_61\req_4ab13098ee4d44f8bf67ba9421bcf857.xsl

<b>Integration process folder path/ mapping name</b>	<b>XSL file relative path</b>
Business fault when OFSC activity is in final state	processor_381\resourcegroup_384\req_3ccb36f3abfd494797c2e7842e0602d8.xsl
Remote Fault	processor_136\resourcegroup_139\req_face4cc92f46e199a021843b1b66cf.xsl
Sublanguage execution fault	processor_171\resourcegroup_174\req_239b5d7fd689497fac99b03a952c249d.xsl
Unhandled faults	processor_176\resourcegroup_179\req_166f43e5ea0a4bfd9f9ef8d57f551fe1.xsl
SEND_ACTIVITYSTATUS_OFSC TOC CB_01.00.0000\icspackage\project\SEN D_ACTIVITYSTATUS_OFSC TOCCB_ 01.00.0000\resources\	
Request mapping	processor_27\resourcegroup_30\req_57844054883c441a831e6a30d50a7e5f.xsl
COMPLETE_ACTIVITY_OFSC TOCC B_01.00.0000\icspackage\project\COMP LETE_ACTIVITY_OFSC TOCCB_01.00 .0000\resources\	
Request mapping	processor_305\resourcegroup_308\req_0a6a5d3849ed4e3484f158fa8855c135.xsl
CREATE_ACTIVITY_OFSC TOCCB_0 1.00.0000\icspackage\project\CREATE_ ACTIVITY_OFSC TOCCB_01.00.0000\re sources\	
Request mapping	processor_98\resourcegroup_101\req_e8e545d3e9ca45f8add58fcd4c94973.xsl
DEVICE_VERIFICATION_OFSC TOC CB_01.00.0000\icspackage\project\DEV ICE_VERIFICATION_OFSC TOCCB_0 1.00.0000\resources\	
Request mapping	processor_36\resourcegroup_39\req_971cbcf7636147c8b068427f05a6e323.xsl
Response mapping	processor_19\resourcegroup_22\req_07c1225bbce74a2993ba952652e25d89.xsl

# Chapter 9

---

## Activating and Testing the Integration Flows

This chapter provides an overview of how integration flows are activated and tested. It includes the following sections:

- [Prerequisites](#)
- [Activating Integration Flows](#)
- [Testing the Integration Flows](#)

## Prerequisites

Make sure the catalog in Oracle Utilities Customer Care and Billing is configured completely to activate an integration process.

## Activating Integration Flows

To activate the integration flows:

1. Navigate to the integration to activate.
2. Drag the slider for that integration. When prompted to enable tracing, click **Yes** to view the instances.
3. Click **Activate**.

The integration takes time to get activated. The activated integration appears at the top of the integrations list.

## Testing the Integration Flows

The following table lists the integration end point URLs and the respective applications in which these endpoints need to be configured. Configure the same and perform end-to-end testing.

Integration Name	End Point URL to be Configured	Application to be Configured
CreateUpdate_Activity_CCBToOFSC	https://OIC_Host:OIC_Port/ic/ws/integration/v1/flows/oracleutilities/CREATEUPDATE_ACTIVITY_CCBTOOFSC/1.0	CCB
Create_Activity_OFSCToCCB	https://OIC_Host:OIC_Port/ic/api/integration/v1/flows/ofsccloudadapter/CREATE_ACTIVITY_OFSCTOCCB/1.0/notify	As OFSC is event based, there is no need to configure the integration endpoint URLs. Subscription for the event will be created once the respective integration is activated.
Complete_Activity_OFSCToCCB	https://OIC_Host:OIC_Port/ic/api/integration/v1/flows/ofsccloudadapter/COMPLETE_ACTIVITY_OFSCTOCCB/1.0/Notify	As OFSC is event based, there is no need to configure the integration endpoint URLs. Subscription for the event will be created once the respective integration is activated.
Get_Appointment_CCBToOFSC	https://OIC_Host:OIC_Port/ic/ws/integration/v1/flows/oracleutilities/GET_APPOINTMENT_CCBTOOFSC/1.0/	CCB



Integration Name	End Point URL to be Configured	Application to be Configured
Send_ActivityStatus_OFSCToCCB	https://OIC_Host:OIC_Port/ic/ws/integration/v1/flows/oracleutilities/SEND_ACTIVITYSTATUS_OFSCTOCCB/1.0/	As OFSC is event based, there is no need to configure the integration endpoint URLs. Subscription for the event will be created once the respective integration is activated.
Device_Verification_OFSCToCCB	https://OIC_Host:OIC_Port/ic/api/integration/v1/flows/rest/DEVICE_VERIFICATION_OFSCTOCCB/1.0/	OFSC
Cancel_Activity_CCBToOFSC	https://OIC_Host:OIC_Port/ic/api/integration/v1/flows/rest/CANCEL_ACTIVITY_CCBTOOFSC/1.0/	CCB

# Chapter 10

---

## Monitoring and Troubleshooting

This chapter provides information about monitoring and troubleshooting the integration. It includes the following sections:

- [Oracle Utilities Customer Care and Billing](#)
- [Oracle Integration Cloud](#)

---

# Oracle Utilities Customer Care and Billing

This section provides information about monitoring Oracle Utilities Customer Care and Billing.

## Oracle Utilities Customer Care and Billing Error Logs

Monitoring the error logs is possible only in on-premises applications. Applications on cloud cannot access the error logs.

The following error logs can be monitored for Oracle Utilities Customer Care and Billing:

- Errors related to the online integration invocation from Oracle Utilities Customer Care and Billing are stored in the CCB\_ENVIRONMENT\_NAME/logs/system folder.

For example: V27\_CCB\_ORA\_WLS/logs/system\

For more information about errors and notifications, see the Oracle Utilities Customer Care and Billing documentation.

## Oracle Integration Cloud

This section focuses on the monitoring Oracle Integration Cloud and troubleshooting any issues that occur during the integration activation.

### Monitoring Integration Flows

Integration flows are monitored using the following:

- Dashboard
- Cloud Logs

**To monitor the integration flows from the Oracle Integration Cloud dashboard:**

1. Login to Oracle Integration Cloud.
2. On the **Home** page, click **Monitoring**.
3. Select any of the following as required:
  - **Dashboards** - To monitor the complete dashboard of integration.
  - **Integrations** - To monitor each integration.
  - **Tracking** - To monitor instance and flow trace/activity stream of the integration.
  - **Error** - To monitor the integrations in 'error' state. Re-submit the asynchronous integration flows.

**To monitor the integration flows using Oracle Integration Cloud logs:**

1. Login to Oracle Integration Cloud.
2. On the **Home** page, click **Monitoring**.

3. On the navigation pane, click **Dashboards** to view the overall success/failure rate of the integration.
4. Navigate to the **Logs** menu.
5. In the right pane, click the link to show options for downloading the Oracle Integration Cloud logs or diagnostics logs.
6. In case of any issues, attach the diagnostic logs to a service request for help.

## Troubleshooting

If an activation fails, the **Integrations** page displays an error message.

To troubleshoot the activation error:

1. Click **Download Diagnostic Logs** to download the logs for diagnosing the issue.
2. Select **Enable Tracing**.

TRACE ENABLED is displayed next to ACTIVE.

Some of the sample cases are as follows:

- For any connectivity errors while activating the integration, make sure the trigger connection is successful. Test the connection and refresh the metadata, and then activate the integration.
- If the integration (Oracle Utilities Customer Care and Billing initiated flows) is activated for the first time, ensure the Oracle Utilities Customer Care and Billing catalog is configured accurately.

# Appendix A

---

## Known Issues

This appendix focuses on the known issues in this integration and in the respective applications.

- [Oracle Field Service Cloud](#)
- [Oracle Utilities Customer Care and Billing](#)

---

## Oracle Field Service Cloud

While trying to update the datetime from Oracle Utilities Customer Care and Billing after moving an activity to a resource in Oracle Field Service Cloud, the activity is still with the resource and not moved to the bucket. It should be moved back to the bucket and is a known limitation in this integration.

## Oracle Utilities Customer Care and Billing

The known issues pertaining to Oracle Utilities Customer Care and Billing in this integration are:

- The appointment time slots are returned only for “From” and “To” dates specified in Oracle Utilities Customer Care and Billing Appointment Request.
- The Oracle Utilities Customer Care and Billing field activity cannot be canceled when the reopened activity in Oracle Field Service Cloud is in “pending” status.
- While rescheduling a canceled appointment in the **Appointment Booking** page, the expected result should be “No update is sent to the external system”. But, the actual result is “FA sync request is created”.
- The read sequence in the Reading details page is not in proper order in the message sent to Field work system as part of device verification.

# Appendix B

---

## Data Mapping

This appendix provides mapping details for each integration point, including the following:

- [Activity Completion](#)
- [Activity Creation](#)
- [Cancel Activity](#)
- [Create/Update Activity](#)
- [Device Verification](#)
- [Get Appointment](#)
- [Interim Status](#)

## Activity Completion

This section describes data mapping for the following:

- [Activity ID Mapping](#)
- [Activity Completion Request Mapping](#)

## Activity ID Mapping

Activity ID mapping details for Activity Completion/Cancellation integration point are as shown in the table below:

Oracle Field Service Cloud Complete Request Message			Oracle Field Service Cloud Get Activity Request Message			DVM Mapping	
Element Name	Parent Element	Type	Element Name	Parent Element	Type	Oracle Utilities Service Order Management Column	Oracle Field Service Cloud Column
events.definitions.activityEvent			TemplateParameters				
activityId	activityDetails	String	activityId		String		

## Activity Completion Request Mapping

The Activity Completion Request Mapping details for Activity Completion/Cancellation integration point are as shown in the table below:

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			C1FACompletionFieldWork					
			C1FACompletionExtSysStruct	C1FACompletionFieldWork				



Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			C1FACompletion ExtSysStructService	C1FACompletion ExtSysStruct				
activities.definitions. getActivitySchema			C1FACompletion ExtSysStructDetails	C1FACompletion ExtSysStructService				
“OFSC Status is Cancel hard code” “CANC” OFSC Status is Notdone hard code “UPLG”			FACompletionAction	C1FACompletion ExtSysStructDetails	String			
apptNumber	activities.definitions. getActivitySchema	String	UploadFieldActivity ID	C1FACompletion ExtSysStructDetails	String			
			UploadStatus	C1FACompletion ExtSysStructDetails	String			
resourceId	activities.definitions. getActivitySchema	String	Workedby	C1FACompletion ExtSysStructDetails	String			
			FieldActivityID	C1FACompletion ExtSysStructDetails	String			
endTime	activities.definitions. getActivitySchema	String	WorkDateTime	C1FACompletion ExtSysStructDetails	dateTime			
			Version	C1FACompletion ExtSysStructDetails	decimal			
			LongDescription	C1FACompletion ExtSysStructDetails	String			
activityType	activities.definitions. getActivitySchema	String	ExtFaTypeCode	C1FACompletion ExtSysStructDetails	String	CCBOFSC_ ActivityType	OFSC_ ActivityType	CCB_FAType

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			ExternalApplicationId	C1FACompletionExtSysStructDetails	String			
			SPTType	C1FACompletionExtSysStructDetails	String			
			ServicePointStatus	C1FACompletionExtSysStructDetails	String			
			InstallDate	C1FACompletionExtSysStructDetails	date			
			AbolishedDate	C1FACompletionExtSysStructDetails	date			
			ServicePointSourceStatus	C1FACompletionExtSysStructDetails	String			
u_disconnect_location	activities.definitions.getActivitySchema	enumeration	DisconnectLocation	C1FACompletionExtSysStructDetails	String	CCBOFSC_DisconnectLocation	OFSC_DiscLoc	CCB_DiscLoc
			ReadCycle	C1FACompletionExtSysStructDetails	String			
			ReadRoute	C1FACompletionExtSysStructDetails	String			
			ReadCycleRouteSequence	C1FACompletionExtSysStructDetails	decimal			
			MeterLocation	C1FACompletionExtSysStructDetails	String			
			LocationDetails	C1FACompletionExtSysStructDetails	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			LocationDetails	C1FACompletion ExtSysStructDetails	String			
u_not_done_code	activities.definitions. getActivitySchema	enumeration	ExtMsgRecd	C1FACompletion ExtSysStructDetails	String			
			FAUploadRemarks	C1FACompletion ExtSysStructDetails	Complex Type			
			FAUploadRemarks Row	FAUploadRemarks	Complex List Type			
			FieldActivityID	FAUploadRemarks Row	String			
			FieldActivityRemark	FAUploadRemarks Row	String			
			Version	FAUploadRemarks Row	decimal			
			MeterInfo	C1FACompletion ExtSysStructDetails	Complex Type			
			MeterInfoRow	MeterInfo	Complex List Type			
			MeterType	MeterInfoRow	String			
			MeterStatus	MeterInfoRow	String			
			Manufacturer	MeterInfoRow	String			
			Model	MeterInfoRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_meter1_number	activities.definitions.getActivitySchema	String	BadgeNumber	MeterInfoRow	String			
			SerialNumber	MeterInfoRow	String			
u_status_left	activities.definitions.getActivitySchema	enumeration	OnOffStatus	MeterInfoRow	String	OFSCCCB_DeviceStatus	OFSC_DeviceStatus	CCB_DeviceStatus
			DateReceived	MeterInfoRow	date			
			DateRetired	MeterInfoRow	date			
			LongDescription	MeterInfoRow	String			
			RetireReasonCode	MeterInfoRow	String			
			StockLocation	MeterInfoRow	String			
			InstallRemoveMeterorItem	MeterInfoRow	String			
			MeterConfigurationEffectiveDateTime	MeterInfoRow	dateTime			
			MeterConfigurationType	MeterInfoRow	String			
u_read_date_time	activities.definitions.getActivitySchema	String	ReadDateTime	MeterInfoRow	dateTime	OFSC_TimeZone	TimeZone	Offset
u_use_on_bill	activities.definitions.getActivitySchema		UseOnBill	MeterInfoRow	boolean			
			MeterReadSource	MeterInfoRow	String			
			MeterReader	MeterInfoRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			DateReceived	MeterInfoRow	date			
			Registers	MeterInfoRow	Complex Type			
			RegistersRow	Registers	Complex List Type			
			RegisterID	RegistersRow	String			
			MeterID	RegistersRow	String			
			EffectiveDateTime	RegistersRow	dateTime			
			DateReceived	RegistersRow	date			
u_existing_meter_read_seq	activities.definitions.getActivitySchema	Integer	Seq	RegistersRow	decimal			
u_existing_meter_uom	activities.definitions.getActivitySchema	String	UnitofMeasure	RegistersRow	String			
u_existing_meter_TOU	activities.definitions.getActivitySchema	String	TimeofUse	RegistersRow	String			
			RegisterConstant	RegistersRow	decimal			
			Consumptive Subtractive	RegistersRow	String			
			HowToUse	RegistersRow	String			
			NumberofDigitsLeft	RegistersRow	decimal			
			NumberofDigitsRight	RegistersRow	decimal			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			FullScale	RegistersRow	decimal			
			ReadOutType	RegistersRow	String			
			Protocol	RegistersRow	Protocol			
			Tolerance	RegistersRow	decimal			
			Version	RegistersRow	decimal			
			ChannelID	RegistersRow	String			
			IntervalRegisterType	RegistersRow	String			
			UnitofMeasure Description	RegistersRow	String			
			TimeofUse Description	RegistersRow	String			
			IntvDescription	RegistersRow	String			
			Interval	RegistersRow	boolean			
			RegistryType	RegistersRow	String			
			RegisterInformation	RegistersRow	String			
			ProtocolDescription	RegistersRow	String			
			ReadOutType Description	RegistersRow	String			
			RegisterID	RegistersRow	String			
			MeterID	RegistersRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			EffectiveDateTime	RegistersRow	dateTime			
			DateReceived	RegistersRow	date			
u_existing_meter_read_seq2	activities.definitions.getActivitySchema	Integer	Seq	RegistersRow	decimal			
u_existing_meter_uom2	activities.definitions.getActivitySchema	String	UnitofMeasure	RegistersRow	String			
u_existing_meter_TOU2	activities.definitions.getActivitySchema	String	TimeofUse	RegistersRow	String			
			RegisterConstant	RegistersRow	decimal			
			Consumptive Subtractive	RegistersRow	String			
			HowToUse	RegistersRow	String			
			NumberOfDigitsLeft	RegistersRow	decimal			
			NumberOfDigitsRight	RegistersRow	decimal			
			FullScale	RegistersRow	decimal			
			ReadOutType	RegistersRow	String			
			Protocol	RegistersRow	Protocol			
			Tolerance	RegistersRow	decimal			
			Version	RegistersRow	decimal			
			ChannelID	RegistersRow	String			
			IntervalRegisterType	RegistersRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			UnitofMeasure Description	RegistersRow	String			
			TimeofUse Description	RegistersRow	String			
			IntvDescription	RegistersRow	String			
			Interval	RegistersRow	boolean			
			RegistryType	RegistersRow	String			
			RegisterInformation	RegistersRow	String			
			ProtocolDescription	RegistersRow	String			
			ReadOutType Description	RegistersRow	String			
			RegisterID	RegistersRow	String			
			MeterID	RegistersRow	String			
			EffectiveDateTime	RegistersRow	dateTime			
			DateReceived	RegistersRow	date			
u_existing_meter_read_seq3	activities.definitions. getActivitySchema	Integer	Seq	RegistersRow	decimal			
u_existing_meter_uom3	activities.definitions. getActivitySchema	String	UnitofMeasure	RegistersRow	String			
u_existing_meter_TOU3	activities.definitions. getActivitySchema	String	TimeofUse	RegistersRow	String			



Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			RegisterConstant	RegistersRow	decimal			
			Consumptive Subtractive	RegistersRow	String			
			HowToUse	RegistersRow	String			
			NumberofDigitsLeft	RegistersRow	decimal			
			NumberofDigitsRight	RegistersRow	decimal			
			FullScale	RegistersRow	decimal			
			ReadOutType	RegistersRow	String			
			Protocol	RegistersRow	Protocol			
			Tolerance	RegistersRow	decimal			
			Version	RegistersRow	decimal			
			ChannelID	RegistersRow	String			
			IntervalRegisterType	RegistersRow	String			
			UnitofMeasure Description	RegistersRow	String			
			TimeofUse Description	RegistersRow	String			
			IntvDescription	RegistersRow	String			
			Interval	RegistersRow	boolean			
			RegistryType	RegistersRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			RegisterInformation	RegistersRow	String			
			ProtocolDescription	RegistersRow	String			
			ReadOutType Description	RegistersRow	String			
			RegisterID	RegistersRow	String			
			MeterID	RegistersRow	String			
			EffectiveDateTime	RegistersRow	dateTime			
			DateReceived	RegistersRow	date			
u_existing_meter_read_seq4	activities.definitions. getActivitySchema	Integer	Seq	RegistersRow	decimal			
u_existing_meter_uom4	activities.definitions. getActivitySchema	String	UnitofMeasure	RegistersRow	String			
u_existing_meter_TOU4	activities.definitions. getActivitySchema	String	TimeofUse	RegistersRow	String			
			RegisterConstant	RegistersRow	decimal			
			ConsumptiveSubtractive	RegistersRow	String			
			HowToUse	RegistersRow	String			
			NumberOfDigitsLeft	RegistersRow	decimal			
			NumberOfDigitsRight	RegistersRow	decimal			
			FullScale	RegistersRow	decimal			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			ReadOutType	RegistersRow	String			
			Protocol	RegistersRow	Protocol			
			Tolerance	RegistersRow	decimal			
			Version	RegistersRow	decimal			
			ChannelID	RegistersRow	String			
			IntervalRegisterType	RegistersRow	String			
			UnitofMeasure Description	RegistersRow	String			
			TimeofUse Description	RegistersRow	String			
			IntvDescription	RegistersRow	String			
			Interval	RegistersRow	boolean			
			RegistryType	RegistersRow	String			
			RegisterInformation	RegistersRow	String			
			ProtocolDescription	RegistersRow	String			
			ReadOutType Description	RegistersRow	String			
			RegisterID	RegistersRow	String			
			MeterID	RegistersRow	String			
			EffectiveDateTime	RegistersRow	dateTime			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			DateReceived	RegistersRow	date			
u_existing_meter_read_seq5	activities.definitions.getActivitySchema	Integer	Seq	RegistersRow	decimal			
u_existing_meter_uom5	activities.definitions.getActivitySchema	String	UnitofMeasure	RegistersRow	String			
u_existing_meter_TOU5	activities.definitions.getActivitySchema	String	TimeofUse	RegistersRow	String			
			RegisterConstant	RegistersRow	decimal			
			ConsumptiveSubtractive	RegistersRow	String			
			HowToUse	RegistersRow	String			
			NumberofDigitsLeft	RegistersRow	decimal			
			NumberofDigitsRight	RegistersRow	decimal			
			FullScale	RegistersRow	decimal			
			ReadOutType	RegistersRow	String			
			Protocol	RegistersRow	Protocol			
			Tolerance	RegistersRow	decimal			
			Version	RegistersRow	decimal			
			ChannelID	RegistersRow	String			
			IntervalRegisterType	RegistersRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			UnitofMeasure Description	RegistersRow	String			
			TimeofUse Description	RegistersRow	String			
			IntvDescription	RegistersRow	String			
			Interval	RegistersRow	boolean			
			RegistryType	RegistersRow	String			
			RegisterInformation	RegistersRow	String			
			ProtocolDescription	RegistersRow	String			
			ReadOutType Description	RegistersRow	String			
			RegisterReading	MeterInfoRow	String			
			RegisterReadingRow	RegisterReading	String			
			RegisterReadingID	RegisterReadingRow	dateTime			
			MeterReadID	RegisterReadingRow	date			
u_existing_meter_read_seq	activities.definitions. getActivitySchema	Integer	Seq	RegisterReadingRow	decimal			
			RegisterID	RegisterReadingRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_meter_read_type	activities.definitions.getActivitySchema	enumeration	ReadType	RegisterReadingRow	String	OFSCCCB_ReadType	OFSC_ReadType	CCB_ReadType
u_existing_meter_current_index	activities.definitions.getActivitySchema	String	RegisterReading	RegisterReadingRow	decimal			
			LowLimit	RegisterReadingRow	decimal			
			HighLimit	RegisterReadingRow	decimal			
			ReviewHighLow	RegisterReadingRow	boolean			
			Trended	RegisterReadingRow	boolean			
			Version	RegisterReadingRow	decimal			
			MeterConfigurationID	RegisterReadingRow	String			
			RegisterReadingMessage	RegisterReadingRow	String			
			RegisterInformation	RegisterReadingRow	String			
			PrevRegistryReadInfo	RegisterReadingRow	String			
			PrevMeterreadID	RegisterReadingRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			ReadOutsideLimit	RegisterReading Row	boolean			
			RegisterReadingID	RegisterReading Row	String			
			MeterReadID	RegisterReading Row	String			
u_existing_meter_read_seq2	activities.definitions.getActivitySchema	Integer	Seq	RegisterReading Row	decimal			
			RegisterID	RegisterReading Row	String			
u_meter_read_type	activities.definitions.getActivitySchema	enumeration	ReadType	RegisterReading Row	String	OFSCCCB_ReadType	OFSC_ReadType	CCB_ReadType
u_existing_meter_current_index2	activities.definitions.getActivitySchema	String	RegisterReading	RegisterReading Row	decimal			
			LowLimit	RegisterReading Row	decimal			
			HighLimit	RegisterReading Row	decimal			
			ReviewHighLow	RegisterReading Row	boolean			
			Trended	RegisterReading Row	boolean			
			Version	RegisterReading Row	decimal			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			MeterConfigurationID	RegisterReadingRow	String			
			RegisterReadingMessage	RegisterReadingRow	String			
			RegisterInformation	RegisterReadingRow	String			
			PrevRegistryReadInfo	RegisterReadingRow	String			
			PrevMeterreadID	RegisterReadingRow	String			
			ReadOutsideLimit	RegisterReadingRow	boolean			
			RegisterReadingID	RegisterReadingRow	String			
			MeterReadID	RegisterReadingRow	String			
u_existing_meter_read_seq3	activities.definitions.getActivitySchema	Integer	Seq	RegisterReadingRow	decimal			
			RegisterID	RegisterReadingRow	String			
u_meter_read_type	activities.definitions.getActivitySchema	enumeration	ReadType	RegisterReadingRow	String	OFSCCB_ReadType	OFSC_ReadType	CCB_ReadType
u_existing_meter_current_index3	activities.definitions.getActivitySchema	String	RegisterReading	RegisterReadingRow	decimal			



Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			LowLimit	RegisterReading Row	decimal			
			HighLimit	RegisterReading Row	decimal			
			ReviewHighLow	RegisterReading Row	boolean			
			Trended	RegisterReading Row	boolean			
			Version	RegisterReading Row	decimal			
			MeterConfiguration ID	RegisterReading Row	String			
			RegisterReading Message	RegisterReading Row	String			
			RegisterInformation	RegisterReading Row	String			
			PrevRegistryReadInfo	RegisterReading Row	String			
			PrevMeterreadID	RegisterReading Row	String			
			ReadOutsideLimit	RegisterReading Row	boolean			
			RegisterReadingID	RegisterReading Row	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			MeterReadID	RegisterReading Row	String			
u_existing_meter_read_seq4	activities.definitions.getActivitySchema	Integer	Seq	RegisterReading Row	decimal			
			RegisterID	RegisterReading Row	String			
u_meter_read_type	activities.definitions.getActivitySchema	enumeration	ReadType	RegisterReading Row	String	OFSCCCB_ReadType	OFSCCCB_ReadType	CCB_ReadType
u_existing_meter_current_index4	activities.definitions.getActivitySchema	String	RegisterReading	RegisterReading Row	decimal			
			LowLimit	RegisterReading Row	decimal			
			HighLimit	RegisterReading Row	decimal			
			ReviewHighLow	RegisterReading Row	boolean			
			Trended	RegisterReading Row	boolean			
			Version	RegisterReading Row	decimal			
			MeterConfiguration ID	RegisterReading Row	String			
			RegisterReading Message	RegisterReading Row	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			RegisterInformation	RegisterReading Row	String			
			PrevRegistryReadInfo	RegisterReading Row	String			
			PrevMeterreadID	RegisterReading Row	String			
			ReadOutsideLimit	RegisterReading Row	boolean			
			RegisterReadingID	RegisterReading Row	String			
			MeterReadID	RegisterReading Row	String			
u_existing_meter_read_seq5	activities.definitions.getActivitySchema	Integer	Seq	RegisterReading Row	decimal			
			RegisterID	RegisterReading Row	String			
u_meter_read_type	activities.definitions.getActivitySchema	enumeration	ReadType	RegisterReading Row	String	OFSCCB_ReadType	OFSC_ReadType	CCB_ReadType
u_existing_meter_current_index5	activities.definitions.getActivitySchema	String	RegisterReading	RegisterReading Row	decimal			
			LowLimit	RegisterReading Row	decimal			
			HighLimit	RegisterReading Row	decimal			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			ReviewHighLow	RegisterReading Row	boolean			
			Trended	RegisterReading Row	boolean			
			Version	RegisterReading Row	decimal			
			MeterConfiguration ID	RegisterReading Row	String			
			RegisterReading Message	RegisterReading Row	String			
			RegisterInformation	RegisterReading Row	String			
			PrevRegistryReadInfo	RegisterReading Row	String			
			PrevMeterreadID	RegisterReading Row	String			
			ReadOutsideLimit	RegisterReading Row	boolean			
			MeterInfoRow	MeterInfo	Complex List Type			
			MeterType	MeterInfoRow	String			
			MeterStatus	MeterInfoRow	String			
			Manufacturer	MeterInfoRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			Model	MeterInfoRow	String			
u_meter2_number	activities.definitions.getActivitySchema	String	BadgeNumber	MeterInfoRow	String			
			SerialNumber	MeterInfoRow	String			
u_new_meter_status_left	activities.definitions.getActivitySchema	enumeration	OnOffStatus	MeterInfoRow	String	OFSCCCB_DeviceStatus	OFSC_DeviceStatus	CCB_DeviceStatus
			DateReceived	MeterInfoRow	date			
			DateRetired	MeterInfoRow	date			
			LongDescription	MeterInfoRow	String			
			RetireReasonCode	MeterInfoRow	String			
			StockLocation	MeterInfoRow	String			
			InstallRemoveMeterorItem	MeterInfoRow	String			
			MeterConfigurationEffectiveDateTime	MeterInfoRow	dateTime			
			MeterConfigurationType	MeterInfoRow	String			
u_new_read_date_time	activities.definitions.getActivitySchema	String	ReadDateTime	MeterInfoRow	dateTime			
u_use_on_bill	activities.definitions.getActivitySchema		UseOnBill	MeterInfoRow	boolean			
			MeterReadSource	MeterInfoRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			MeterReader	MeterInfoRow	String			
			DateReceived	MeterInfoRow	date			
			Registers	MeterInfoRow	Complex Type			
			RegistersRow	Registers	Complex List Type			
			RegisterID	RegistersRow	String			
			MeterID	RegistersRow	String			
			EffectiveDateTime	RegistersRow	dateTime			
			DateReceived	RegistersRow	date			
u_meter1_read_seq	activities.definitions.getActivitySchema	Integer	Seq	RegistersRow	decimal			
u_meter1_uom	activities.definitions.getActivitySchema	enumeration	UnitofMeasure	RegistersRow	String	CCBOFSC_UOM	OFSC_UOM	CCB_UOM
u_meter1_TOU1	activities.definitions.getActivitySchema	enumeration	TimeofUse	RegistersRow	String	CCBOFSC_TOU	OFSC_TOU	CCB_TOU
			RegisterConstant	RegistersRow	decimal			
			ConsumptiveSubtractive	RegistersRow	String			
			HowToUse	RegistersRow	String			
			NumberofDigitsLeft	RegistersRow	decimal			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			NumberOfDigitsRight	RegistersRow	decimal			
			FullScale	RegistersRow	decimal			
			ReadOutType	RegistersRow	String			
			Protocol	RegistersRow	String			
			Tolerance	RegistersRow	decimal			
			Version	RegistersRow	decimal			
			ChannelID	RegistersRow	String			
			IntervalRegisterType	RegistersRow	String			
			UnitofMeasure Description	RegistersRow	String			
			TimeofUse Description	RegistersRow	String			
			IntvDescription	RegistersRow	String			
			Interval	RegistersRow	boolean			
			RegistryType	RegistersRow	String			
			RegisterInformation	RegistersRow	String			
			ProtocolDescription	RegistersRow	String			
			ReadOutTypeDescrip tion	RegistersRow	String			
			RegisterID	RegistersRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			MeterID	RegistersRow	String			
			EffectiveDateTime	RegistersRow	dateTime			
			DateReceived	RegistersRow	date			
u_meter1_read_seq2	activities.definitions.getActivitySchema	Integer	Seq	RegistersRow	decimal			
u_meter1_uom2	activities.definitions.getActivitySchema	enumeration	UnitofMeasure	RegistersRow	String	CCBOFSC_UOM	OFSC_UOM	CCB_UOM
u_meter1_TOU2	activities.definitions.getActivitySchema	enumeration	TimeofUse	RegistersRow	String	CCBOFSC_TOU	OFSC_TOU	CCB_TOU
			RegisterConstant	RegistersRow	decimal			
			ConsumptiveSubtractive	RegistersRow	String			
			HowToUse	RegistersRow	String			
			NumberOfDigitsLeft	RegistersRow	decimal			
			NumberOfDigitsRight	RegistersRow	decimal			
			FullScale	RegistersRow	decimal			
			ReadOutType	RegistersRow	String			
			Protocol	RegistersRow	String			
			Tolerance	RegistersRow	decimal			
			Version	RegistersRow	decimal			
			ChannelID	RegistersRow	String			



Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			IntervalRegisterType	RegistersRow	String			
			UnitofMeasureDescription	RegistersRow	String			
			TimeofUseDescription	RegistersRow	String			
			IntvDescription	RegistersRow	String			
			Interval	RegistersRow	boolean			
			RegistryType	RegistersRow	String			
			RegisterInformation	RegistersRow	String			
			ProtocolDescription	RegistersRow	String			
			ReadOutTypeDescription	RegistersRow	String			
			RegisterID	RegistersRow	String			
			MeterID	RegistersRow	String			
			EffectiveDateTime	RegistersRow	dateTime			
			DateReceived	RegistersRow	date			
u_meter1_read_seq3	activities.definitions.getActivitySchema	Integer	Seq	RegistersRow	decimal			
u_meter1_uom3	activities.definitions.getActivitySchema	enumeration	UnitofMeasure	RegistersRow	String	CCBOFSC_UOM	OFSC_UOM	CCB_UOM

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_meter1_TOU3	activities.definitions.getActivitySchema	enumeration	TimeofUse	RegistersRow	String	CCBOFSC_TOU	OFSC_TOU	CCB_TOU
			RegisterConstant	RegistersRow	decimal			
			Consumptive Subtractive	RegistersRow	String			
			HowToUse	RegistersRow	String			
			NumberofDigitsLeft	RegistersRow	decimal			
			NumberofDigitsRight	RegistersRow	decimal			
			FullScale	RegistersRow	decimal			
			ReadOutType	RegistersRow	String			
			Protocol	RegistersRow	String			
			Tolerance	RegistersRow	decimal			
			Version	RegistersRow	decimal			
			ChannelID	RegistersRow	String			
			IntervalRegisterType	RegistersRow	String			
			UnitofMeasure Description	RegistersRow	String			
			TimeofUse Description	RegistersRow	String			
			IntvDescription	RegistersRow	String			
			Interval	RegistersRow	boolean			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			RegistryType	RegistersRow	String			
			RegisterInformation	RegistersRow	String			
			ProtocolDescription	RegistersRow	String			
			ReadOutType Description	RegistersRow	String			
			RegisterID	RegistersRow	String			
			MeterID	RegistersRow	String			
			EffectiveDateTime	RegistersRow	dateTime			
			DateReceived	RegistersRow	date			
u_meter1_read_seq4	activities.definitions. getActivitySchema	Integer	Seq	RegistersRow	decimal			
u_meter1_uom4	activities.definitions. getActivitySchema	enumeration	UnitofMeasure	RegistersRow	String	CCBOFSC_UOM	OFSC_UOM	CCB_UOM
u_meter1_TOU4	activities.definitions. getActivitySchema	enumeration	TimeofUse	RegistersRow	String	CCBOFSC_TOU	OFSC_TOU	CCB_TOU
			RegisterConstant	RegistersRow	decimal			
			Consumptive Subtractive	RegistersRow	String			
			HowToUse	RegistersRow	String			
			NumberofDigitsLeft	RegistersRow	decimal			
			NumberofDigitsRight	RegistersRow	decimal			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			FullScale	RegistersRow	decimal			
			ReadOutType	RegistersRow	String			
			Protocol	RegistersRow	String			
			Tolerance	RegistersRow	decimal			
			Version	RegistersRow	decimal			
			ChannelID	RegistersRow	String			
			IntervalRegisterType	RegistersRow	String			
			UnitofMeasure Description	RegistersRow	String			
			TimeofUse Description	RegistersRow	String			
			IntvDescription	RegistersRow	String			
			Interval	RegistersRow	boolean			
			RegistryType	RegistersRow	String			
			RegisterInformation	RegistersRow	String			
			ProtocolDescription	RegistersRow	String			
			ReadOutType Description	RegistersRow	String			
			RegisterID	RegistersRow	String			
			MeterID	RegistersRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			EffectiveDateTime	RegistersRow	dateTime			
			DateReceived	RegistersRow	date			
u_meter1_read_seq5	activities.definitions.getActivitySchema	Integer	Seq	RegistersRow	decimal			
u_meter1_uom5	activities.definitions.getActivitySchema	enumeration	UnitofMeasure	RegistersRow	String	CCBOFSC_UOM	OFSC_UOM	CCB_UOM
u_meter1_TOU5	activities.definitions.getActivitySchema	enumeration	TimeofUse	RegistersRow	String	CCBOFSC_TOU	OFSC_TOU	CCB_TOU
			RegisterConstant	RegistersRow	decimal			
			Consumptive Subtractive	RegistersRow	String			
			HowToUse	RegistersRow	String			
			NumberofDigitsLeft	RegistersRow	decimal			
			NumberofDigitsRight	RegistersRow	decimal			
			FullScale	RegistersRow	decimal			
			ReadOutType	RegistersRow	String			
			Protocol	RegistersRow	String			
			Tolerance	RegistersRow	decimal			
			Version	RegistersRow	decimal			
			ChannelID	RegistersRow	String			
			IntervalRegisterType	RegistersRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			UnitofMeasure Description	RegistersRow	String			
			TimeofUse Description	RegistersRow	String			
			IntvDescription	RegistersRow	String			
			Interval	RegistersRow	boolean			
			RegistryType	RegistersRow	String			
			RegisterInformation	RegistersRow	String			
			ProtocolDescription	RegistersRow	String			
			ReadOutType Description	RegistersRow	String			
			RegisterReading	MeterInfoRow	String			
			RegisterReadingRow	RegisterReading	String			
			RegisterReadingID	RegisterReading Row	dateTime			
			MeterReadID	RegisterReading Row	date			
u_meter1_read_seq	activities.definitions. getActivitySchema	Integer	Seq	RegisterReading Row	decimal			
			RegisterID	RegisterReading Row	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_new_meter_read_type	activities.definitions.getActivitySchema	enumeration	ReadType	RegisterReadingRow	String			
u_meter1_current_index	activities.definitions.getActivitySchema	String	RegisterReading	RegisterReadingRow	decimal			
			LowLimit	RegisterReadingRow	decimal			
			HighLimit	RegisterReadingRow	decimal			
			ReviewHighLow	RegisterReadingRow	boolean			
			Trended	RegisterReadingRow	boolean			
			Version	RegisterReadingRow	decimal			
			MeterConfigurationID	RegisterReadingRow	String			
			RegisterReadingMessage	RegisterReadingRow	String			
			RegisterInformation	RegisterReadingRow	String			
			PrevRegistryReadInfo	RegisterReadingRow	String			
			PrevMeterreadID	RegisterReadingRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			ReadOutsideLimit	RegisterReading Row	boolean			
			RegisterReadingID	RegisterReading Row	String			
			MeterReadID	RegisterReading Row	String			
u_meter1_read_seq2	activities.definitions.getActivitySchema	Integer	Seq	RegisterReading Row	decimal			
			RegisterID	RegisterReading Row	String			
u_new_meter_read_type	activities.definitions.getActivitySchema	enumeration	ReadType	RegisterReading Row	String			
u_meter1_current_index2	activities.definitions.getActivitySchema	String	RegisterReading	RegisterReading Row	decimal			
			LowLimit	RegisterReading Row	decimal			
			HighLimit	RegisterReading Row	decimal			
			ReviewHighLow	RegisterReading Row	boolean			
			Trended	RegisterReading Row	boolean			
			Version	RegisterReading Row	decimal			



Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			MeterConfigurationID	RegisterReadingRow	String			
			RegisterReadingMessage	RegisterReadingRow	String			
			RegisterInformation	RegisterReadingRow	String			
			PrevRegistryReadInfo	RegisterReadingRow	String			
			PrevMeterreadID	RegisterReadingRow	String			
			ReadOutsideLimit	RegisterReadingRow	boolean			
			RegisterReadingID	RegisterReadingRow	String			
			MeterReadID	RegisterReadingRow	String			
u_meter1_read_seq3	activities.definitions.getActivitySchema	Integer	Seq	RegisterReadingRow	decimal			
			RegisterID	RegisterReadingRow	String			
u_new_meter_read_type	activities.definitions.getActivitySchema	enumeration	ReadType	RegisterReadingRow	String			
u_meter1_current_index3	activities.definitions.getActivitySchema	String	RegisterReading	RegisterReadingRow	decimal			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			LowLimit	RegisterReading Row	decimal			
			HighLimit	RegisterReading Row	decimal			
			ReviewHighLow	RegisterReading Row	boolean			
			Trended	RegisterReading Row	boolean			
			Version	RegisterReading Row	decimal			
			MeterConfiguration ID	RegisterReading Row	String			
			RegisterReading Message	RegisterReading Row	String			
			RegisterInformation	RegisterReading Row	String			
			PrevRegistryReadInfo	RegisterReading Row	String			
			PrevMeterreadID	RegisterReading Row	String			
			ReadOutsideLimit	RegisterReading Row	boolean			
			RegisterReadingID	RegisterReading Row	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			MeterReadID	RegisterReading Row	String			
u_meter1_read_seq4	activities.definitions.getActivitySchema	Integer	Seq	RegisterReading Row	decimal			
			RegisterID	RegisterReading Row	String			
u_new_meter_read_type	activities.definitions.getActivitySchema	enumeration	ReadType	RegisterReading Row	String			
u_meter1_current_index4	activities.definitions.getActivitySchema	String	RegisterReading	RegisterReading Row	decimal			
			LowLimit	RegisterReading Row	decimal			
			HighLimit	RegisterReading Row	decimal			
			ReviewHighLow	RegisterReading Row	boolean			
			Trended	RegisterReading Row	boolean			
			Version	RegisterReading Row	decimal			
			MeterConfiguration ID	RegisterReading Row	String			
			RegisterReading Message	RegisterReading Row	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			RegisterInformation	RegisterReading Row	String			
			PrevRegistryReadInfo	RegisterReading Row	String			
			PrevMeterreadID	RegisterReading Row	String			
			ReadOutsideLimit	RegisterReading Row	boolean			
			RegisterReadingID	RegisterReading Row	String			
			MeterReadID	RegisterReading Row	String			
u_meter1_read_seq5	activities.definitions.getActivitySchema	Integer	Seq	RegisterReading Row	decimal			
			RegisterID	RegisterReading Row	String			
u_new_meter_read_type	activities.definitions.getActivitySchema	enumeration	ReadType	RegisterReading Row	String			
u_meter1_current_index5	activities.definitions.getActivitySchema	String	RegisterReading	RegisterReading Row	decimal			
			LowLimit	RegisterReading Row	decimal			
			HighLimit	RegisterReading Row	decimal			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			ReviewHighLow	RegisterReading Row	boolean			
			Trended	RegisterReading Row	boolean			
			Version	RegisterReading Row	decimal			
			MeterConfiguration ID	RegisterReading Row	String			
			RegisterReading Message	RegisterReading Row	String			
			RegisterInformation	RegisterReading Row	String			
			PrevRegistryReadInfo	RegisterReading Row	String			
			PrevMeterreadID	RegisterReading Row	String			
			ReadOutsideLimit	RegisterReading Row	boolean			
			ItemInfo	C1FACompletionExtSysStructDetails	String			
			ItemInfoRow	ItemInfo	String			
u_item_type	activities.definitions.getActivitySchema	String	ItemType	ItemInfoRow	String			
			Status	ItemInfoRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_item_manufacturer	activities.definitions.getActivitySchema	enumeration	Manufacturer	ItemInfoRow	String	CCBOFSC_Manufacturer	OFSC_Manufacturer	CCB_Manufacturer
u_item_model	activities.definitions.getActivitySchema	enumeration	Model	ItemInfoRow	String	CCBOFSC_Model	OFSC_Model	CCB_Model
u_item_nbr	activities.definitions.getActivitySchema	String	BadgeNumber	ItemInfoRow	String			
			SerialNumber	ItemInfoRow	String			
u_item_status_Left	activities.definitions.getActivitySchema	enumeration	OnOffStatus	ItemInfoRow	String			
			DateReceived	ItemInfoRow	date			
			DateRetired	ItemInfoRow	date			
			LongDescription	ItemInfoRow	String			
			RetireReasonCode	ItemInfoRow	String			
			StockLocation	ItemInfoRow	String			
			InstallRemove MeterorItem	ItemInfoRow	String			
			ItemInfoRow	ItemInfo	Complex List Type			
u_new_item_type	activities.definitions.getActivitySchema	String	ItemType	ItemInfoRow	String			
			Status	ItemInfoRow	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_newitem_manufacturer	activities.definitions.getActivitySchema	enumeration	Manufacturer	ItemInfoRow	String			
u_newitem_model	activities.definitions.getActivitySchema	enumeration	Model	ItemInfoRow	String			
u_new_item_nbr	activities.definitions.getActivitySchema	String	BadgeNumber	ItemInfoRow	String			
			SerialNumber	ItemInfoRow	String			
u_new_item_status_left	activities.definitions.getActivitySchema	enumeration	OnOffStatus	ItemInfoRow	String			
			DateReceived	ItemInfoRow	date			
			DateRetired	ItemInfoRow	date			
			LongDescription	ItemInfoRow	String			
			RetireReasonCode	ItemInfoRow	String			
			StockLocation	ItemInfoRow	String			
			InstallRemoveMeterorItem	ItemInfoRow	String			
			completionInformation	C1FACompletionFieldWork	Complex Type			
timeOfBooking	activities.definitions.getActivitySchema	String	dispatchDateTime	completionInformation	dateTime			
			enrouteDateTime	completionInformation	dateTime			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
startTime	activities.definitions.getActivitySchema	String	onsiteDateTime	completionInformation	dateTime			
			ToDoMessage	completionInformation	String			
u_activity_notes	activities.definitions.getActivitySchema	String	comments	completionInformation	String			
			customerContactDetails	completionInformation	Complex Type			
			customerContactType	customerContactDetails	String			
			customerContactComments	customerContactDetails	String			
			remarkTypes	completionInformation	Complex Type			
			remarkTypesList	remarkTypes	Complex List Type			
			remarkType	remarkTypesList	String			
			utilityCompletionInformation	C1FACompletionFieldWork	Complex Type			
			servicePointCompletionDetails	utilityCompletionInformation	Complex Type			
			servicePointDataDetails	servicePointCompletionDetails	Complex Type			



Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_SP_instructions	activities.definitions.getActivitySchema	enumeration	serviceInstructions	servicePointCompletionDetails	String	CCBOFSC_ServiceInstructions	OFSC_ServiceInstructions	CCB_ServiceInstructions
u_SP_warnings	activities.definitions.getActivitySchema	enumeration	serviceWarnings	servicePointCompletionDetails	String	CCBOFSC_ServiceWarnings	OFSC_ServiceWarnings	CCB_ServiceWarnings
u_SP_instruction_details	activities.definitions.getActivitySchema	String	instructionDetails	servicePointCompletionDetails	String			
			existingDevice	utilityCompletionInformation	Complex Type			
			meterCompletionDetails	existingDevice	Complex Type			
			meterDataDetails	meterCompletionDetails	Complex Type			
u_meter1_mfg	activities.definitions.getActivitySchema	enumeration	deviceManufacturer	meterDataDetails	String	CCBOFSC_Manufacturer	OFSC_Manufacturer	CCB_Manufacturer
u_meter1_model	activities.definitions.getActivitySchema	enumeration	deviceModel	meterDataDetails	String	CCBOFSC_Model	OFSC_Model	CCB_Model
u_meter1_number	activities.definitions.getActivitySchema	String	badgeNumber	meterDataDetails	String			
u_meter_config_type1	activities.definitions.getActivitySchema	enumeration	meterConfigurationType	meterDataDetails	String	CCBOFSC_MeterConfigurationType	OFSC_MeterConfigurationType	CCB_MeterConfigurationType
u_meter1_location	activities.definitions.getActivitySchema	enumeration	meterLocation	meterDataDetails	String	CCBOFSC_MeterLocation	OFSC_MeterLocation	CCB_MeterLocation
			readingCompletionDetails	meterCompletionDetails	any Type			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			readingDetails	readingCompletionDetails	any Type			
			readingDetailsList	readingDetails	any Type			
u_existing_meter_read_seq	activities.definitions.getActivitySchema	Integer	readSequence	readingDetailsList	decimal			
u_existing_meter_uom	activities.definitions.getActivitySchema	String	unitOfMeasure	readingDetailsList	String			
u_existing_meter_dials	activities.definitions.getActivitySchema	Integer	numberOfDials	readingDetailsList	decimal			
u_existing_meter_numberOfDecimals	activities.definitions.getActivitySchema	Integer	numberOfDecimals	readingDetailsList	decimal			
u_existing_meter_upper_limit	activities.definitions.getActivitySchema	String	upperLimit	readingDetailsList	String			
u_existing_meter_lower_limit	activities.definitions.getActivitySchema	String	lowerLimit	readingDetailsList	String			
u_existing_meter_current_index	activities.definitions.getActivitySchema	String	reading	readingDetailsList	String			
u_existing_meter_TOU	activities.definitions.getActivitySchema	String	timeOfUse	readingDetailsList	String			
u_existing_meter_override_reading	activities.definitions.getActivitySchema	String	overrideReading	readingDetailsList	String			
			readingDetailsList	readingDetails	any Type			
u_existing_meter_read_seq2	activities.definitions.getActivitySchema	Integer	readSequence	readingDetailsList	decimal			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_existing_meter_uom2	activities.definitions.getActivitySchema	String	unitOfMeasure	readingDetailsList	String			
u_existing_meter_dials2	activities.definitions.getActivitySchema	Integer	numberOfDials	readingDetailsList	decimal			
u_existing_meter_numberOfDecimals2	activities.definitions.getActivitySchema	Integer	numberOfDecimals	readingDetailsList	decimal			
u_existing_meter_upper_limit2	activities.definitions.getActivitySchema	String	upperLimit	readingDetailsList	String			
u_existing_meter_lower_limit2	activities.definitions.getActivitySchema	String	lowerLimit	readingDetailsList	String			
u_existing_meter_current_index2	activities.definitions.getActivitySchema	String	reading	readingDetailsList	String			
u_existing_meter_TOU2	activities.definitions.getActivitySchema	String	timeOfUse	readingDetailsList	String			
u_existing_meter_override_reading2	activities.definitions.getActivitySchema	String	overrideReading	readingDetailsList	String			
			readingDetailsList	readingDetails	any Type			
u_existing_meter_read_sequence3	activities.definitions.getActivitySchema	Integer	readSequence	readingDetailsList	decimal			
u_existing_meter_uom3	activities.definitions.getActivitySchema	String	unitOfMeasure	readingDetailsList	String			
u_existing_meter_dials3	activities.definitions.getActivitySchema	Integer	numberOfDials	readingDetailsList	decimal			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_existing_meter_numberOfDecimals3	activities.definitions.getActivitySchema	Integer	numberOfDecimals	readingDetailsList	decimal			
u_existing_meter_upper_limit3	activities.definitions.getActivitySchema	String	upperLimit	readingDetailsList	String			
u_existing_meter_lower_limit3	activities.definitions.getActivitySchema	String	lowerLimit	readingDetailsList	String			
u_existing_meter_current_index3	activities.definitions.getActivitySchema	String	reading	readingDetailsList	String			
u_existing_meter_TOU3	activities.definitions.getActivitySchema	String	timeOfUse	readingDetailsList	String			
u_existing_meter_override_reading3	activities.definitions.getActivitySchema	String	overrideReading	readingDetailsList	String			
			readingDetailsList	readingDetails	any Type			
u_existing_meter_read_sequence4	activities.definitions.getActivitySchema	Integer	readSequence	readingDetailsList	decimal			
u_existing_meter_uom4	activities.definitions.getActivitySchema	String	unitOfMeasure	readingDetailsList	String			
u_existing_meter_dials4	activities.definitions.getActivitySchema	Integer	numberOfDials	readingDetailsList	decimal			
u_existing_meter_numberOfDecimals4	activities.definitions.getActivitySchema	Integer	numberOfDecimals	readingDetailsList	decimal			
u_existing_meter_upper_limit4	activities.definitions.getActivitySchema	String	upperLimit	readingDetailsList	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_existing_meter_lower_limit4	activities.definitions.getActivitySchema	String	lowerLimit	readingDetailsList	String			
u_existing_meter_current_index4	activities.definitions.getActivitySchema	String	reading	readingDetailsList	String			
u_existing_meter_TOU4	activities.definitions.getActivitySchema	String	timeOfUse	readingDetailsList	String			
u_existing_meter_override_reading4	activities.definitions.getActivitySchema	String	overrideReading	readingDetailsList	String			
			readingDetailsList	readingDetails	any Type			
u_existing_meter_read_seq5	activities.definitions.getActivitySchema	Integer	readSequence	readingDetailsList	decimal			
u_existing_meter_uom5	activities.definitions.getActivitySchema	String	unitOfMeasure	readingDetailsList	String			
u_existing_meter_dials5	activities.definitions.getActivitySchema	Integer	numberOfDials	readingDetailsList	decimal			
u_existing_meter_numberOfDecimals5	activities.definitions.getActivitySchema	Integer	numberOfDecimals	readingDetailsList	decimal			
u_existing_meter_upper_limit5	activities.definitions.getActivitySchema	String	upperLimit	readingDetailsList	String			
u_existing_meter_lower_limit5	activities.definitions.getActivitySchema	String	lowerLimit	readingDetailsList	String			
u_existing_meter_current_index5	activities.definitions.getActivitySchema	String	reading	readingDetailsList	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_existing_meter_TOU5	activities.definitions.getActivitySchema	String	timeOfUse	readingDetailsList	String			
u_existing_meter_current_index5	activities.definitions.getActivitySchema	String	overrideReading	readingDetailsList	String			
			itemCompletionDetails	existingDevice	Complex Type			
			itemDataDetails	itemCompletionDetails	Complex Type			
u_item_nbr	activities.definitions.getActivitySchema	String	badgeNumber	itemDataDetails	String			
u_item_manufacturer	activities.definitions.getActivitySchema	String	deviceManufacturer	itemDataDetails	String			
u_item_model	activities.definitions.getActivitySchema	String	deviceModel	itemDataDetails	String			
			newDevice	utilityCompletionInformation	Complex Type			
			meterCompletionDetails	newDevice	Complex Type			
			meterDataDetails	meterCompletionDetails	Complex Type			
u_newmeter_manufacturer	activities.definitions.getActivitySchema	enumeration	deviceManufacturer	meterDataDetails	String	CCBOFSC_Manufacturer	OFSC_Manufacturer	CCB_Manufacturer
u_newmeter_model	activities.definitions.getActivitySchema	enumeration	deviceModel	meterDataDetails	String	CCBOFSC_Model	OFSC_Model	CCB_Model

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_meter2_number	activities.definitions.getActivitySchema	String	badgeNumber	meterDataDetails	String			
u_new_meter_type	activities.definitions.getActivitySchema	enumeration	meterConfigurationType	meterDataDetails	String	CCBOFSC_MeterConfigurationType	OFSC_MeterConfigurationType	CCB_MeterConfigurationType
u_newmeter_location	activities.definitions.getActivitySchema	enumeration	meterLocation	meterDataDetails	String	CCBOFSC_MeterLocation	OFSC_MeterLocation	CCB_MeterLocation
			readingCompletionDetails	meterCompletionDetails	any Type			
			readingDetails	readingCompletionDetails	any Type			
			readingDetailsList	readingDetails	any Type			
u_meter1_read_seq	activities.definitions.getActivitySchema	Integer	readSequence	readingDetailsList	decimal			
u_meter1_uom	activities.definitions.getActivitySchema	enumeration	unitOfMeasure	readingDetailsList	String	CCBOFSC_UOM	OFSC_UOM	CCB_UOM
u_meter1_dials	activities.definitions.getActivitySchema	Integer	numberOfDials	readingDetailsList	decimal			
u_meter1_numberofDecimals	activities.definitions.getActivitySchema	Integer	numberOfDecimals	readingDetailsList	decimal			
u_meter1_upper_limit	activities.definitions.getActivitySchema	String	upperLimit	readingDetailsList	String			
u_meter1_lower_limit	activities.definitions.getActivitySchema	String	lowerLimit	readingDetailsList	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_meter1_TOU1	activities.definitions.getActivitySchema	enumeration	timeofUse	readingDetailsList	String	CCBOFSC_TOU	OFSC_TOU	CCB_TOU
u_meter1_current_index	activities.definitions.getActivitySchema	String	reading	readingDetailsList	String			
u_meter1_override_reading	activities.definitions.getActivitySchema	enumeration	overrideReading	readingDetailsList	String			
u_meter1_read_seq2	activities.definitions.getActivitySchema	Integer	readSequence	readingDetailsList	decimal			
u_meter1_uom2	activities.definitions.getActivitySchema	enumeration	unitOfMeasure	readingDetailsList	String	CCBOFSC_UOM	OFSC_UOM	CCB_UOM
u_meter1_dials2	activities.definitions.getActivitySchema	Integer	numberOfDials	readingDetailsList	decimal			
u_meter1_numberofDecimals2	activities.definitions.getActivitySchema	Integer	numberOfDecimals	readingDetailsList	decimal			
u_meter1_upper_limit2	activities.definitions.getActivitySchema	String	upperLimit	readingDetailsList	String			
u_meter1_lower_limit2	activities.definitions.getActivitySchema	String	lowerLimit	readingDetailsList	String			
u_meter1_TOU2	activities.definitions.getActivitySchema	enumeration	timeofUse	readingDetailsList	String	CCBOFSC_TOU	OFSC_TOU	CCB_TOU
u_meter1_current_index2	activities.definitions.getActivitySchema	String	reading	readingDetailsList	String			
u_meter1_override_reading2	activities.definitions.getActivitySchema	enumeration	overrideReading	readingDetailsList	String			



Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_meter1_read_seq3	activities.definitions.getActivitySchema	Integer	readSequence	readingDetailsList	decimal			
u_meter1_uom3	activities.definitions.getActivitySchema	enumeration	unitOfMeasure	readingDetailsList	String	CCBOFSC_UOM	OFSC_UOM	CCB_UOM
u_meter1_dials3	activities.definitions.getActivitySchema	Integer	numberOfDials	readingDetailsList	decimal			
u_meter1_numberofDecimals3	activities.definitions.getActivitySchema	Integer	numberOfDecimals	readingDetailsList	decimal			
u_meter1_upper_limit3	activities.definitions.getActivitySchema	String	upperLimit	readingDetailsList	String			
u_meter1_lower_limit3	activities.definitions.getActivitySchema	String	lowerLimit	readingDetailsList	String			
u_meter1_TOU3	activities.definitions.getActivitySchema	enumeration	timeofUse	readingDetailsList	String	CCBOFSC_TOU	OFSC_TOU	CCB_TOU
u_meter1_current_index3	activities.definitions.getActivitySchema	String	reading	readingDetailsList	String			
u_meter1_override_reading3	activities.definitions.getActivitySchema	enumeration	overrideReading	readingDetailsList	String			
u_meter1_read_seq4	activities.definitions.getActivitySchema	Integer	readSequence	readingDetailsList	decimal			
u_meter1_uom4	activities.definitions.getActivitySchema	enumeration	unitOfMeasure	readingDetailsList	String	CCBOFSC_UOM	OFSC_UOM	CCB_UOM
u_meter1_dials4	activities.definitions.getActivitySchema	Integer	numberOfDials	readingDetailsList	decimal			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_meter1_numberofDecimals4	activities.definitions.getActivitySchema	Integer	numberOfDecimals	readingDetailsList	decimal			
u_meter1_upper_limit4	activities.definitions.getActivitySchema	String	upperLimit	readingDetailsList	String			
u_meter1_lower_limit4	activities.definitions.getActivitySchema	String	lowerLimit	readingDetailsList	String			
u_meter1_TOU4	activities.definitions.getActivitySchema	enumeration	timeofUse	readingDetailsList	String	CCBOFSC_TOU	OFSC_TOU	CCB_TOU
u_meter1_current_index4	activities.definitions.getActivitySchema	String	reading	readingDetailsList	String			
u_meter1_override_reading4	activities.definitions.getActivitySchema	enumeration	overrideReading	readingDetailsList	String			
u_meter1_read_seq5	activities.definitions.getActivitySchema	Integer	readSequence	readingDetailsList	decimal			
u_meter1_uom5	activities.definitions.getActivitySchema	enumeration	unitOfMeasure	readingDetailsList	String	CCBOFSC_UOM	OFSC_UOM	CCB_UOM
u_meter1_dials5	activities.definitions.getActivitySchema	Integer	numberOfDials	readingDetailsList	decimal			
u_meter1_numberofDecimals5	activities.definitions.getActivitySchema	Integer	numberOfDecimals	readingDetailsList	decimal			
u_meter1_upper_limit5	activities.definitions.getActivitySchema	String	upperLimit	readingDetailsList	String			
u_meter1_lower_limit5	activities.definitions.getActivitySchema	String	lowerLimit	readingDetailsList	String			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
u_meter1_TOU5	activities.definitions.getActivitySchema	enumeration	timeofUse	readingDetailsList	String	CCBOFSC_TOU	OFSC_TOU	CCB_TOU
u_meter1_current_index5	activities.definitions.getActivitySchema	String	reading	readingDetailsList	String			
u_meter1_override_reading5	activities.definitions.getActivitySchema	enumeration	overrideReading	readingDetailsList	String			
			itemCompletionDetails	newDevice	Complex Type			
			itemDataDetails	itemCompletionDetails	Complex Type			
u_new_item_nbr	activities.definitions.getActivitySchema	String	badgeNumber	itemDataDetails	String			
u_newitem_manufacturer	activities.definitions.getActivitySchema	enumeration	deviceManufacturer	itemDataDetails	String	CCBOFSC_Manufacturer	OFSC_Manufacturer	CCB_Manufacturer
u_newitem_model	activities.definitions.getActivitySchema	enumeration	deviceModel	itemDataDetails	String	CCBOFSC_Model	OFSC_Model	CCB_Model

# Activity Creation

This section describes data mapping for the following:

- [Activity Creation Request Mapping](#)
- [Activity Creation Response Mapping](#)

## Activity Creation Request Mapping

Request Mapping for Activity Creation integration point are as shown in the table below:

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Interim Status Request			DVM Mapping		
Element Name	Parent Element	Type	Attribute Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
activities.definitions.getActivitySchema		Complex Type		C1AddFAandCustomerContact	Complex Type			
				C1AddFAandCustomerContact/ C1AddFAandCustomerContactService	Complex Type			
				C1AddFAandCustomerContactService/ C1AddFAandCustomerContactDetails	Complex Type			
u_service_pt_id	events.definitions.activityEvent/activityChanges	String	ServicePointID	C1AddFAandCustomerContactDetails	String			
activityType	events.definitions.activityEvent/activityChanges	String	ActivityType	C1AddFAandCustomerContactDetails	String	CCBOFSC_ActivityType	OFSC_ActivityType	CCB_FAType
timeOfBooking	events.definitions.activityEvent/activityChanges	String	ScheduleDateTimeStart	C1AddFAandCustomerContactDetails	dateTime	OFSCCB_TimeZone CCBOFSC_ConfigProps	TimeZone PropertyName	Offset Value
			DispatchGroup	C1AddFAandCustomerContactDetails	String	CCBOFSC_ConfigProps	PropertyName	Value

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Interim Status Request			DVM Mapping		
Element Name	Parent Element	Type	Attribute Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
activityId	events.definitions.activityEvent/activityChanges	String	ExternalID	C1AddFAandCustomerContactDetails	String			
u_fa_comments	events.definitions.activityEvent/activityChanges	String	DetailedDescription	C1AddFAandCustomerContactDetails	String			
			LongDescription	C1AddFAandCustomerContactDetails	String			
			AddCustomerContact	C1AddFAandCustomerContactDetails	boolean			
			ContactType	C1AddFAandCustomerContactDetails	String			
			ContactClass	C1AddFAandCustomerContactDetails	String			
			CustomerContactDescription	C1AddFAandCustomerContactDetails	String			
			ToDoRole	C1AddFAandCustomerContactDetails	String			

## Activity Creation Response Mapping

Response Mapping for Activity Creation integration point are as shown in the table below:

Oracle Utilities Customer Care and Billing Interim Status Request			Oracle Field Service Cloud Request Message			DVM Mapping		
Attribute Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
	C1AddFAandCustomerContact		updateActivitySchema					

Oracle Utilities Customer Care and Billing Interim Status Request			Oracle Field Service Cloud Request Message			DVM Mapping		
Attribute Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
	C1AddFAandCustomer Contact/ C1AddFAandCustomer ContactService							
	C1AddFAandCustomer ContactService/ C1AddFAandCustomer ContactDetails							
FieldActivityID	C1AddFAandCustomer ContactDetails	String	apptNumber	updateActivitySchema	String			
			u_xa_product	updateActivitySchema	String	CCBOFSC_ ConfigProps	PropertyName	Value

## Cancel Activity

This section describes data mapping for the following:

- [Cancel Activity Request Mapping](#)
- [Cancel Activity Response Mapping](#)

## Cancel Activity Request Mapping

Request mapping details for Cancel Activity integration point are as shown in the table below:

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
sendDetails	C1-FACancelOutMsg	Outermost Tag	bulkUpdate_POST		Outermost Tag			
			activities.definitions.custom ActionActivityBulk UpdateSchema					
			updateParameters					
			identifyActivityBy					
			ifInFinalStatusThen					
			activities					
fieldActivityId	sendDetails	String	apptNumber	activities	string			
externalId		String						
fieldActivityStatus		String						
cancelReason		String						
cancelReason Description		String						
cancellationDateTime		dateTime						
			status	activities	string			

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
			u_xa_cn	activities	string	CCBOFSC_ConfigProps.dvm	PropertyName	Value

## Cancel Activity Response Mapping

Response mapping details for Cancel Activity integration point are as shown in the table below:

Oracle Field Service Cloud bulkUpdate Response Message			Oracle Utilities Customer Care and Billing Response Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
bulkUpdate_POSTResponse		Outermost Tag	sendDetails	C1-FACancelOutMsg	Outermost Tag			
activities.definitions.customActionActivityBulkUpdateSchemaResponse	bulkUpdate_POSTResponse							
results	activities.definitions.customActionActivityBulkUpdateSchemaResponse							
activityKeys	results							
activityId	activityKeys	String	externalId	sendDetails	Field			
			fieldActivityId	sendDetails	Field			



Oracle Field Service Cloud bulkUpdate Response Message			Oracle Utilities Customer Care and Billing Response Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
			fieldActivityStatus	sendDetails	Field			
			cancelReason	sendDetails	Field			
			cancelReason Description	sendDetails	Field			
			cancellation DateTime	sendDetails	Field			

## Create/Update Activity

This section describes data mapping for the following:

- [Create/Update Activity Request Mapping](#)
- [Create/Update Activity Response Mapping](#)

## Create/Update Activity Request Mapping

Request mapping details for Create/Update Activity integration point are as shown in the table below:

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
sendDetails	C1-FASendOutMsg	Complex Type	bulkUpdate_POST		Outermost Tag			
			activities.definitions.customActionActivityBulkUpdateSchema	bulkUpdate_POST	Group			
			updateParameters	activities.definitions.customActionActivityBulkUpdateSchema				
			identifyActivityBy	updateParameters				
			ifInFinalStatusThen	updateParameters				
			activities	activities.definitions.customActionActivityBulkUpdateSchema	List			
			resourceId	activities	string	CCBOFSC_ConfigProps.dvm	PropertyName	Value
fieldActivityId	sendDetails	String	apptNumber	activities	string			
fieldActivityExtract	sendDetails	String						
fieldActivityId	fieldActivityExtract	String						
excludeFinancialInfo	fieldActivityExtract	boolean						

Oracle Utilities Customer Care and Billing Request Message						Oracle Field Service Cloud Request Message			DVM Mapping	
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column		
fieldActivityType	fieldActivityExtract	String	activityType	activities	string	CCBOFSC_ActivityType.dvm	CCB_FAType	OFSC_ActivityType		
isEligibleForDispatch	fieldActivityExtract	boolean								
fieldServiceClass	fieldActivityExtract									
fieldActivityPriority	fieldActivityExtract									
shouldDisplayAsAlert	fieldActivityExtract									
numberOfDaysAlertActive	fieldActivityExtract									
appointmentSetup	fieldActivityExtract									
businessObject	fieldActivityExtract									
externalServiceRequest	fieldActivityExtract									
fieldActivityLanguage	fieldActivityExtract									
fieldActivityDescr	fieldActivityExtract									
alertInformationText	fieldActivityExtract									
fieldActivityTypeCharacteristics	fieldActivityExtract	Complex List Type								
fieldActivityType	fieldActivityTypeCharacteristics	String								
characteristicType	fieldActivityTypeCharacteristics	String								
sequence	fieldActivityTypeCharacteristics	decimal								
characteristicValueFK2	fieldActivityTypeCharacteristics	String								
characteristicValueFK3	fieldActivityTypeCharacteristics	String								

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
characteristicValueFK4	fieldActivityType Characteristics	String						
characteristicValueFK5	fieldActivityType Characteristics	String						
characteristicValue ForeignKey1	fieldActivityType Characteristics	String						
adhocCharacteristic Value	fieldActivityType Characteristics	String						
characteristicValue	fieldActivityType Characteristics	String						
characteristicTypeFlg	fieldActivityType Characteristics	String						
characteristicValue Description	fieldActivityType Characteristics	String						
characteristicValue ForeignKeys	fieldActivityType Characteristics	String						
characteristicValue ForeignKeyInformation	fieldActivityType Characteristics	String						
isCompoundPrimary Key	fieldActivityType Characteristics	boolean						
characteristicValuePk	fieldActivityType Characteristics	String						
servicePointId	fieldActivityExtract	String	u_service_pt_id	activities		string		
createdBy	fieldActivityExtract	String						
scheduleDateTImeStart	fieldActivityExtract	dateTime	date	activities		string		
dispatchGroup	fieldActivityExtract	String						
fieldOrder	fieldActivityExtract	String						
creationDateTIme	fieldActivityExtract	dateTime						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
testSelectionId	fieldActivityExtract	String						
user	fieldActivityExtract	String						
instructions	fieldActivityExtract	String	u_site_instructions	activities	string			
longDescription	fieldActivityExtract	String	u_activity_comments	activities	string			
cancelReason	fieldActivityExtract	String						
appointmentScheduleId	fieldActivityExtract	String						
externalId	fieldActivityExtract	String						
intermediateStatus	fieldActivityExtract	String						
fieldActivityDataArea	fieldActivityExtract	String						
fieldworkRescheduleReason	fieldActivityExtract	String						
isFieldActivityTypeChanged	fieldActivityExtract	boolean						
chgAlgCalledT	fieldActivityExtract	boolean						
fieldActivityStatusDescription	fieldActivityExtract	String						
fieldActivityCancelReasonDescription	fieldActivityExtract	String						
fieldActivitySteps	fieldActivityExtract	Complex List Type						
fieldActivityId	fieldActivitySteps	String						
stepSequence	fieldActivitySteps	decimal						
faStepTypeAction	fieldActivitySteps	String						
spawnedFaId	fieldActivitySteps	String						
accountId	fieldActivitySteps	String						
customerContactId	fieldActivitySteps	String	customerPhone	activities	string			

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
stepUpdateEntity	fieldActivitySteps	String						
spItemHistoryId	fieldActivitySteps	String						
spMeterHistoryId	fieldActivitySteps	String						
servicePointId	fieldActivitySteps	String						
itemId	fieldActivitySteps	String						
meterReadId	fieldActivitySteps	String						
meterConfigMeterId	fieldActivitySteps	String						
meterId	fieldActivitySteps	String	u_meter1_serial	activities	string			
deviceTestId	fieldActivitySteps	String						
fieldActivityTypeT	fieldActivitySteps	String						
fAStatusBeforeT	fieldActivitySteps	String						
faStepTypeInformation	fieldActivitySteps	String						
stepIdLabel	fieldActivitySteps	String						
stepId	fieldActivitySteps	String						
faStepInformation	fieldActivitySteps	String						
fieldActivityCharacteristics	fieldActivityExtracts	Complex List Type						
fieldActivityId	fieldActivityCharacteristics	String						
characteristicType	fieldActivityCharacteristics	String						
sequence	fieldActivityCharacteristics	decimal						
characteristicValueFK5	fieldActivityCharacteristics	String						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
characteristicValueFK4	fieldActivity Characteristics	String						
characteristicValueFK3	fieldActivity Characteristics	String						
characteristicValueFK2	fieldActivity Characteristics	String						
characteristicValueForeignKey1	fieldActivity Characteristics	String						
adhocCharacteristicValue	fieldActivity Characteristics	String						
characteristicValue	fieldActivity Characteristics	String						
characteristicTypeFlg	fieldActivity Characteristics	String						
characteristicValueDescription	fieldActivity Characteristics	String						
characteristicValueForeignKeys	fieldActivity Characteristics	String						
characteristicValueForeignKeyInformation	fieldActivity Characteristics	String						
isCompoundPrimaryKey	fieldActivity Characteristics	boolean						
characteristicValuePk	fieldActivity Characteristics	String						
characteristicTypeDescription	fieldActivity Characteristics	String						
startDateTime	fieldActivityExtract	dateTime	timeSlot	activities	string	OFSCCCB_App_t_TimeSlots.dvm	CCB_TimeSlot	OFSC_Label
endDateTime	fieldActivityExtract	dateTime	timeSlot	activities	string			

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
maximumAppointments	fieldActivityExtract	decimal						
spType	fieldActivityExtract	String	u_service_point_type	activities	enumeration	CCBOFSC_ServicePointType.dvm	CCB_SPTType	OFSC_SPTType
serviceType	fieldActivityExtract	String						
trendClass	fieldActivityExtract	String						
servicePointSubType	fieldActivityExtract	String						
fieldActivityTypeProfile	fieldActivityExtract	String						
isMeterReadRoute Allowed	fieldActivityExtract	boolean						
identifyingGeographic Type	fieldActivityExtract	String						
multipleRouteUsage	fieldActivityExtract	String						
spTypeLanguage	fieldActivityExtract	String						
spTypeDescr	fieldActivityExtract	String						
spTypeCharacteristics	fieldActivityExtract	Complex List Type						
spType	spTypeCharacteristics	String						
characteristicType	spTypeCharacteristics	String						
characteristicValue	spTypeCharacteristics	String						
sequence	spTypeCharacteristics	decimal						
adhocCharacteristic Value	spTypeCharacteristics	String						
characteristicValueForeignKey1	spTypeCharacteristics	String						
characteristicValueFK2	spTypeCharacteristics	String						



Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
characteristicValueFK3	spTypeCharacteristics	String						
characteristicValueFK4	spTypeCharacteristics	String						
characteristicValueFK5	spTypeCharacteristics	String						
characteristicValueDescr	spTypeCharacteristics	String						
characteristicTypeFlg	spTypeCharacteristics	String						
characteristicValueDescription	spTypeCharacteristics	String						
characteristicValueForeignKeys	spTypeCharacteristics	String						
characteristicValueForeignKeyInformation	spTypeCharacteristics	String						
isCompoundPrimaryKey	spTypeCharacteristics	boolean						
characteristicValuePk	spTypeCharacteristics	String	u_premise_id	activities	string			
formattedCharacteristicValueDescr	spTypeCharacteristics	String						
premiseId	fieldActivityExtract	String						
servicePointStatus	fieldActivityExtract	String						
installationDate	fieldActivityExtract	date						
abolishedDate	fieldActivityExtract	date						
servicePointSourceStatus	fieldActivityExtract	String						
disconnectLocation	fieldActivityExtract	String						
meterReadCycle	fieldActivityExtract	String						
meterReadRoute	fieldActivityExtract	String						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
meterReadCycleRouteSequence	fieldActivityExtract	decimal						
meterLocation	fieldActivityExtract	String	u_meter1_location	activities	enumeration	CCB_MeterLocation	OFSC_MeterLocation	
meterLocationDetails	fieldActivityExtract	String						
facilityLevel1	fieldActivityExtract	String						
facilityLevel2	fieldActivityExtract	String						
facilityLevel3	fieldActivityExtract	String						
premiseDescrlong	fieldActivityExtract	String						
overridePremFieldInfo	fieldActivityExtract	String						
meterReadInstruction	fieldActivityExtract	String						
meterReadWarning	fieldActivityExtract	String						
isKey	fieldActivityExtract	boolean						
key	fieldActivityExtract	String						
isOKToEnter	fieldActivityExtract	boolean						
meterReadInstructionDetails	fieldActivityExtract	String						
spDataArea	fieldActivityExtract	String						
servicePointStatusDescription	fieldActivityExtract	String						
spSrcStatusDescr	fieldActivityExtract	String						
spDiscLocDescr	fieldActivityExtract	String						
spLocDescr	fieldActivityExtract	String						
facilityLevelName1	fieldActivityExtract	String						
facilityLevelName2	fieldActivityExtract	String						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
facilityLevelName3	fieldActivityExtract	String						
operationsArea	fieldActivityExtract	String						
spOperationsAreaDescr	fieldActivityExtract	String						
servicePointMulti	fieldActivityExtract	Complex List Type						
servicePointId	servicePointMulti	String						
effectiveDate	servicePointMulti	date						
servicePointMultiItem	servicePointMulti	Complex List Type						
servicePointId	servicePointMultiItem	String						
itemType	servicePointMultiItem	String						
effectiveDate	servicePointMultiItem	date						
itemCount	servicePointMultiItem	decimal						
itemDescr	servicePointMultiItem	String						
servicePointEquipments	fieldActivityExtract	Complex List Type						
servicePointId	servicePointEquipments	String						
equipmentId	servicePointEquipments	String						
installationDate	servicePointEquipments	date						
removalDate	servicePointEquipments	date						
equipmentCount	servicePointEquipments	decimal						
comment	servicePointEquipments	String						
badgeNumber	servicePointEquipments	String						
description	servicePointEquipments	String						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
<!-- <xsd:attributename="action" type="ouaf:listAction"/>-->		Field						
servicePointCharacteristics	fieldActivityExtracts	Complex List Type						
servicePointId	servicePointCharacteristics	String						
characteristicType	servicePointCharacteristics	String						
effectiveDate	servicePointCharacteristics	date						
characteristicValue	servicePointCharacteristics	String						
adhocCharacteristicValue	servicePointCharacteristics	String						
characteristicValueForeignKey1	servicePointCharacteristics	String						
characteristicValueFK2	servicePointCharacteristics	String						
characteristicValueFK3	servicePointCharacteristics	String						
characteristicValueFK4	servicePointCharacteristics	String						
characteristicValueFK5	servicePointCharacteristics	String						
sortSequence	servicePointCharacteristics	decimal						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
characteristicTypeFlg	servicePoint Characteristics	String						
characteristicValueDescription	servicePoint Characteristics	String						
characteristicValueForeignKeys	servicePoint Characteristics	String						
characteristicValueForeignKeyInformation	servicePoint Characteristics	String						
isCompoundPrimaryKey	servicePoint Characteristics	boolean						
characteristicValuePk	servicePoint Characteristics	String						
characteristicTypeDescription	servicePoint Characteristics	String						
servicePointGeographics	fieldActivityExtract	Complex List Type						
servicePointId	servicePoint Geographics	String						
geographicType	servicePoint Geographics	String						
geographicValue	servicePoint Geographics	String						
geographicValueFormat	servicePoint Geographics	String						
servicePointOperationAreas	fieldActivityExtract	Complex List Type						
servicePointId	servicePointOperation Areas	String						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
fieldServiceClass	servicePointOperation Areas	String						
operationsArea	servicePointOperation Areas	String						
description	servicePointOperation Areas	String						
premiseType	fieldActivityExtract	String	u_premise_type_combo	activities	enumeration	CCBOFSC_PremiseType	CCB_PremiseType	OFSC_PremiseType
cisDivision	fieldActivityExtract	String						
landLord	fieldActivityExtract	String						
trendArea	fieldActivityExtract	String						
address1	fieldActivityExtract	String	streetAddress	activities	string			
address2	fieldActivityExtract	String	streetAddress	activities	string			
address3	fieldActivityExtract	String	streetAddress	activities	string			
address4	fieldActivityExtract	String	streetAddress	activities	string			
city	fieldActivityExtract	String	city	activities	string			
state	fieldActivityExtract	String	stateProvince	activities	string			
isMailingAddress	fieldActivityExtract	boolean						
streetNumber1	fieldActivityExtract	String						
streetNumber2	fieldActivityExtract	String						
county	fieldActivityExtract	String						
postal	fieldActivityExtract	String	postalCode	activities	string			
houseType	fieldActivityExtract	String						
taxVendorGeographical Code	fieldActivityExtract	String						
isInCityLimit	fieldActivityExtract	boolean						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
country	fieldActivityExtract	String	country_code	activities	string	CCBOFSC_CountryCode.dvm	CCB_Country	OFSC_CountryCode
premiseDataArea	fieldActivityExtract	String						
timeZone	fieldActivityExtract	String	timeZone	activities	string	CCBOFSC_TimeZone.dvm	CCB_TimeZone	OFSC_TimeZone
lifeSupportSensitiveLoad	fieldActivityExtract	String	u_life_support	activities	enumeration	CCBOFSC_LifeSupport.dvm	CCB_LSSL	OFSC_LS
lifeSupportSensitiveLoadDescription	fieldActivityExtract	String						
parentPremiseId	fieldActivityExtract	String						
addressUppercase	fieldActivityExtract	String						
cityUppercase	fieldActivityExtract	String						
premiseTypeDescription	fieldActivityExtract	String						
mrWarnDescr	fieldActivityExtract	String						
mrInstrDescr	fieldActivityExtract	String						
lifeSupportSensitiveLoadDescr	fieldActivityExtract	String						
alternateAddress	fieldActivityExtract	Complex List Type						
premiseAlternateAddressId	alternateAddress	String						
premiseId	alternateAddress	String						
country	alternateAddress	String						
state	alternateAddress	String						
houseType	alternateAddress	String						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
streetNumber1	alternateAddress	String						
streetNumber2	alternateAddress	String						
isInCityLimit	alternateAddress	boolean						
postal	alternateAddress	String						
taxVendorGeographical Code	alternateAddress	String						
address1	alternateAddress	String						
addressUppercase	alternateAddress	String						
address2	alternateAddress	String						
address3	alternateAddress	String						
address4	alternateAddress	String						
city	alternateAddress	String						
cityUppercase	alternateAddress	String						
county	alternateAddress	String						
landlordDescription	fieldActivityExtract	String						
landlordEntityName	fieldActivityExtract	String						
personPhones	fieldActivityExtract	Complex List Type						
personId	personPhones	String						
sequence	personPhones	decimal						
internationalPrefix	personPhones	String						
phone	personPhones	String						
extension	personPhones	String						
phoneType	personPhones	String						



Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
phoneTypeFlg	personPhones	String						
personContactDetails	fieldActivityExtract	Complex List Type						
contactDetail	personContactDetails	String						
contactDetailValue	personContactDetails	String						
contactDetailValueExtension	personContactDetails	String						
personContactType	personContactDetails	String						
contactDetailStatus	personContactDetails	String						
dndEnd	personContactDetails	time						
contactDetailPrimary	personContactDetails	String						
dndStart	personContactDetails	time						
personId	personContactDetails	String						
contactDetailActiveInactive	personContactDetails	String						
contactNickname	personContactDetails	String						
personContactTypeDescriptor	personContactDetails	String						
allowDoNotDisturb	personContactDetails	String						
phoneFormat	personContactDetails	String						
primaryFlag	personContactDetails	boolean						
contactRouting	personContactDetails	String						
contactRoutingDescr	personContactDetails	String						
allowPersonContactStatus	personContactDetails	String						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
statusControlledByProcess	personContactDetails	String						
enableIfPersonHasAccount	personContactDetails	String						
personHasAccount	personContactDetails	String						
optInButtonLabel	personContactDetails	String						
initOptInScriptCode	personContactDetails	String						
premiseCharacteristics	fieldActivityExtract	Complex List Type						
premiseId	premiseCharacteristics	String						
characteristicType	premiseCharacteristics	String						
effectiveDate	premiseCharacteristics	date						
adhocCharacteristicValue	premiseCharacteristics	String						
characteristicValueForeignKey1	premiseCharacteristics	String						
characteristicValueFK2	premiseCharacteristics	String						
characteristicValueFK3	premiseCharacteristics	String						
characteristicValueFK4	premiseCharacteristics	String						
characteristicValueFK5	premiseCharacteristics	String						
characteristicTypeFlg	premiseCharacteristics	String						
characteristicValueDescription	premiseCharacteristics	String						
characteristicValueForeignKeys	premiseCharacteristics	String						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
characteristicValueForeignKeyInformation	premiseCharacteristics	String						
isCompoundPrimaryKey	premiseCharacteristics	boolean						
characteristicValuePk	premiseCharacteristics	String						
premiseGeographicTypes	fieldActivityExtracts	Complex List Type						
premiseId	premiseGeographicTypes	String						
geographicType	premiseGeographicTypes	String						
geographicValue	premiseGeographicTypes	String						
geographicValueFormat	premiseGeographicTypes	String						
meterId	fieldActivityExtract	String	u_meter1_serial	activities	string			
badgeNumber	fieldActivityExtract	String	u_meter1_number	activities	string			
meterType	fieldActivityExtract	String						
meterStatus	fieldActivityExtract	String						
manufacturer	fieldActivityExtract	String	u_meter1_mfg	activities	enumeration	CCBOFSC_Manufaturer.dvm	CCB_Manufaturer	OFSC_Manufaturer
model	fieldActivityExtract	String	u_meter1_model	activities	enumeration	CCBOFSC_Model.dvm	CCB_Model	OFSC_Model
serialNumber	fieldActivityExtract	String						
receivedDate	fieldActivityExtract	date						
retiredDate	fieldActivityExtract	date						
meterDescr	fieldActivityExtract	String						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
meterDataArea	fieldActivityExtract	String						
retireReason	fieldActivityExtract	String						
deviceType	fieldActivityExtract	String						
mtrStatusDescr	fieldActivityExtract	String						
mtrMfgDescr	fieldActivityExtract	String						
mtrModelDescr	fieldActivityExtract	String						
meterIds	fieldActivityExtract	Complex List Type						
meterId	meterIds	String						
meterIdType	meterIds	String						
meterIdNumber	meterIds	String						
meterCharacteristics	fieldActivityExtract	Complex List Type						
meterId	meterCharacteristics	String						
characteristicType	meterCharacteristics	String						
characteristicValue	meterCharacteristics	String						
effectiveDate	meterCharacteristics	date						
adhocCharacteristicValue	meterCharacteristics	String						
characteristicValueForeignKey1	meterCharacteristics	String						
characteristicValueFK2	meterCharacteristics	String						
characteristicValueFK3	meterCharacteristics	String						
characteristicValueFK4	meterCharacteristics	String						
characteristicValueFK5	meterCharacteristics	String						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
sortSequence	meterCharacteristics	decimal						
characteristicTypeFlg	meterCharacteristics	String						
characteristicValueDescription	meterCharacteristics	String						
characteristicValueForeignKeys	meterCharacteristics	String						
characteristicValueForeignKeyInformation	meterCharacteristics	String						
isCompoundPrimaryKey	meterCharacteristics	boolean						
characteristicValuePk	meterCharacteristics	String						
characteristicTypeDescription	meterCharacteristics	String						
meterEquipments	fieldActivityExtract	Complex List Type						
meterId	meterEquipments	String						
equipmentId	meterEquipments	String						
installationDate	meterEquipments	date						
removalDate	meterEquipments	date						
equipmentCount	meterEquipments	decimal						
comment	meterEquipments	String						
badgeNumber	meterEquipments	String						
description	meterEquipments	String						
meterConfigurationId	fieldActivityExtract	String						
meterConfigMeterId	fieldActivityExtract	String						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
effectiveDateTime	fieldActivityExtract	dateTime						
meterConfigurationType	fieldActivityExtract	String	u_meter_config_type1	activities	enumeration	CCBOFSC_MeterConfigurationType.dvm	CCB_MeterConfigurationType	OFSC_MeterConfigurationType
meterConfigDataArea	fieldActivityExtract	String						
meterInstallDateTime	fieldActivityExtract	String						
registers	fieldActivityExtract	Complex List Type						
registerId	registers	String						
meterId	registers	String						
effectiveDateTime	registers	dateTime						
seq	registers	decimal	u_existing_meter_read_seq	activities	Integer			
unitOfMeasure	registers	String	u_existing_meter_read_seq	activities	string			
timeOfUse	registers	String	u_existing_meter_uom	activities	string			
highLimit	registers	decimal	u_existing_meter_TOU	activities	string			
lowLimit	registers	decimal	u_existing_meter_upper_limit	activities	string			
numberOfDigitsRight	registers	decimal	u_existing_meter_lower_limit	activities	Integer			
			u_existing_meter_numberofDecimals	activities	Integer			
seq	registers	decimal	u_existing_meter_dials	activities	Integer			
unitOfMeasure	registers	String	u_existing_meter_read_seq2	activities	string			
timeOfUse	registers	String	u_existing_meter_uom2	activities	string			

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
highLimit	registers	decimal	u_existing_meter_TOU2	activities	string			
lowLimit	registers	decimal	u_existing_meter_upper_limit2	activities	string			
numberOfDigitsRight	registers	decimal	u_existing_meter_lower_limit2	activities	Integer			
			u_existing_meter_number_ofDecimals2	activities	Integer			
seq	registers	decimal	u_existing_meter_dials2	activities	Integer			
unitOfMeasure	registers	String	u_existing_meter_read_sequence3	activities	string			
timeOfUse	registers	String	u_existing_meter_uom3	activities	string			
highLimit	registers	decimal	u_existing_meter_TOU3	activities	string			
lowLimit	registers	decimal	u_existing_meter_upper_limit3	activities	string			
numberOfDigitsRight	registers	decimal	u_existing_meter_lower_limit3	activities	Integer			
			u_existing_meter_number_ofDecimals3	activities	Integer			
seq	registers	decimal	u_existing_meter_dials3	activities	Integer			
unitOfMeasure	registers	String	u_existing_meter_read_sequence4	activities	string			
timeOfUse	registers	String	u_existing_meter_uom4	activities	string			
highLimit	registers	decimal	u_existing_meter_TOU4	activities	string			
lowLimit	registers	decimal	u_existing_meter_upper_limit4	activities	string			
numberOfDigitsRight	registers	decimal	u_existing_meter_lower_limit4	activities	Integer			

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
			u_existing_meter_number ofDecimals4	activities	Integer			
seq	registers	decimal	u_existing_meter_dials4	activities	Integer			
unitOfMeasure	registers	String	u_existing_meter_read_se q5	activities	string			
timeOfUse	registers	String	u_existing_meter_uom5	activities	string			
highLimit	registers	decimal	u_existing_meter_TOU5	activities	string			
lowLimit	registers	decimal	u_existing_meter_upper_li mit5	activities	string			
numberOfDigitsRight	registers	decimal	5u_existing_meter_lower_l imit4	activities	Integer			
			u_existing_meter_number ofDecimals5	activities	Integer			
registerConstant	registers	decimal	u_existing_meter_dials5	activities	Integer			
consumptionType	registers	String						
howToUse	registers	String						
numberOfDigitsLeft	registers	decimal						
fullScale	registers	decimal						
readOutType	registers	string						
protocol	registers	string						
tolerance	registers	decimal						
channelId	registers	string						
intervalRegisterType	registers	string						
unitOfMeasure2	registers	string						
timeOfUse2	registers	string						



Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
protocolDescr	registers	string						
readOutTypeDescr	registers	string						
intvDescr	registers	string						
isInterval	registers	boolean						
regType	registers	string						
registerInformation	registers	string						
registryCharacteristics	registers	Complex List Type						
registerId	registryCharacteristics	string						
characteristicType	registryCharacteristics	string						
sequence	registryCharacteristics	decimal						
characteristicValue	registryCharacteristics	string						
adhocCharacteristicValue	registryCharacteristics	string						
characteristicValueForeignKey1	registryCharacteristics	string						
characteristicValueFK2	registryCharacteristics	string						
characteristicValueFK3	registryCharacteristics	string						
characteristicValueFK4	registryCharacteristics	string						
characteristicValueFK5	registryCharacteristics	string						
characteristicTypeDescription	registryCharacteristics	string						
characteristicTypeFlg	registryCharacteristics	string						
characteristicValueDescription	registryCharacteristics	string						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
characteristicValueForeignKeys	registryCharacteristics	string						
characteristicValueForeignKeyInformation	registryCharacteristics	string						
isCompoundPrimaryKey	registryCharacteristics	boolean						
characteristicValuePk	registryCharacteristics	string						
meterReadId	fieldActivityExtract	string						
readDateTime	fieldActivityExtract	dateTime						
canUseOnBill	fieldActivityExtract	boolean						
meterReadDataArea	fieldActivityExtract	string						
meterReadSource	fieldActivityExtract	string						
meterReaderId	fieldActivityExtract	string						
registerReading	fieldActivityExtract	Complex List Type						
registerReadingId	registerReading	string						
meterReadId	registerReading	string						
seq	registerReading	decimal						
registerId	registerReading	string						
readType	registerReading	string						
registerReading	registerReading	decimal						
lowLimit	registerReading	decimal						
highLimit	registerReading	decimal						
isHighLowReviewed	registerReading	boolean						
isTrended	registerReading	boolean						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
meterConfigurationIdT	registerReading	string						
registerReadingMessage	registerReading	string						
registerInformation	registerReading	string						
previousRegisterReadInformation	registerReading	string						
previousMeterReadId	registerReading	string						
isReadOutsideLimit	registerReading	boolean						
itemId	fieldActivityExtract	string	u_item_id	activities	String			
itemBadgeNumber	fieldActivityExtract	string	u_item_nbr	activities	String			
itemType	fieldActivityExtract	Field						
itemStatus	fieldActivityExtract	Field						
itemManufacturingCode	fieldActivityExtract	string	u_item_manufacturer	activities	enumeration	CCBOFSC_Manufacturer.dvm	CCB_Manufacturer	OFSC_Manufacturer
itemModelCode	fieldActivityExtract	string	u_item_model	activities	enumeration	CCBOFSC_Model.dvm	CCB_Model	OFSC_Model
itemSerialNumber	fieldActivityExtract	string						
itemReceiveDate	fieldActivityExtract	date						
itemRetireDate	fieldActivityExtract	date						
itemRetireReasonCode	fieldActivityExtract	string						
itemDescr	fieldActivityExtract	string						
itemTypDescr	fieldActivityExtract	string						
itemStatusDescr	fieldActivityExtract	string						
itemMfgDescr	fieldActivityExtract	string						
itemModelDescr	fieldActivityExtract	string						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
itemCharacteristics	fieldActivityExtract	Complex List Type						
itemId	itemCharacteristics	string						
characteristicType	itemCharacteristics	string						
effectiveDate	itemCharacteristics	date						
characteristicValue	itemCharacteristics	string						
adhocCharacteristicValue	itemCharacteristics	string						
characteristicValueForeignKey1	itemCharacteristics	string						
characteristicValueFK2	itemCharacteristics	string						
characteristicValueFK3	itemCharacteristics	string						
characteristicValueFK4	itemCharacteristics	string						
characteristicValueFK5	itemCharacteristics	string						
sortSequence	itemCharacteristics	decimal						
characteristicTypeFlg	itemCharacteristics	string						
characteristicValueDescription	itemCharacteristics	string						
characteristicValueForeignKeys	itemCharacteristics	string						
characteristicValueForeignKeyInformation	itemCharacteristics	string						
isCompoundPrimaryKey	itemCharacteristics	boolean						
characteristicValuePk	itemCharacteristics	string						
characteristicTypeDescription	itemCharacteristics	string						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
itemEquipments	fieldActivityExtract	Complex List Type						
itemId	itemEquipments	string						
equipmentId	itemEquipments	string						
installationDate	itemEquipments	date						
removalDate	itemEquipments	date						
equipmentCount	itemEquipments	decimal						
comment	itemEquipments	string						
badgeNumber	itemEquipments	string						
itemTypeDescr	itemEquipments	string						
saInformation	fieldActivityExtract	Complex List Type						
serviceAgreement	saInformation	string						
cisDivision	saInformation	string						
saType	saInformation	string						
accountId	saInformation	string						
status	saInformation	string						
startDate	saInformation	date						
endDate	saInformation	date						
customerRead	saInformation	string						
rateSchedule	saInformation	string						
servicePointId	saInformation	string						
saSPId	saInformation	string						
serviceAgreementId	saInformation	string						
startDateTime	saInformation	dateTime						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
startMeterRead	saInformation	string						
stopDateTime	saInformation	dateTime						
howToUseRead	saInformation	string						
stopMeterRead	saInformation	string						
usePercent	saInformation	decimal						
servicePointSubType	saInformation	string						
callOrigFMT	saInformation	string						
accountInfo	fieldActivityExtract	Complex List Type						
accountId	accountInfo	string	customerNumber	activities	string			
billCycle	accountInfo	string						
setUpDate	accountInfo	date						
currency	accountInfo	string						
accountManagementGroup	accountInfo	string						
alertInformation	accountInfo	string						
billAfter	accountInfo	date						
shouldProtectBillCycle	accountInfo	boolean						
cisDivision	accountInfo	string						
mailingPremise	accountInfo	string						
shouldProtectMailingPremise	accountInfo	boolean						
collectionClass	accountInfo	string						
lastCreditReviewDate	accountInfo	date						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
postponeCreditReviewUntil	accountInfo	date						
isInternalCreditReview	accountInfo	boolean						
customerClass	accountInfo	string						
billPrintIntercept	accountInfo	string						
doNotReviewDeposit	accountInfo	boolean						
budgetPlan	accountInfo	string						
shouldProtectDivision	accountInfo	boolean						
accessGroup	accountInfo	string						
accountDataArea	accountInfo	string						
canQuickAddT	accountInfo	boolean						
mainPersonId	accountInfo	string						
accountName	accountInfo	string	customerName	activities	string			
personOrBusiness	accountInfo	string						
personLifeSupportSensitiveLoadFlg	accountInfo	string						
personLifeSupportSensitiveLoadFlgDescr	accountInfo	string						
personLifeSupportSensitiveLoadDescr	accountInfo	string						
personPhones	accountInfo	Complex List Type						
personId	personPhones	string						
sequence	personPhones	decimal						
internationalPrefix	personPhones	string						
phone	personPhones	string						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
extension	personPhones	string						
phoneType	personPhones	string						
phoneTypeFlg	personPhones	string						
personContactDetails	accountInfo	Complex List Type						
contactDetail	personContactDetails	string						
contactDetailValue	personContactDetails	string						
contactDetailValueExtension	personContactDetails	string						
personContactType	personContactDetails	string						
contactDetailStatus	personContactDetails	string						
dndEnd	personContactDetails	time						
contactDetailPrimary	personContactDetails	string						
dndStart	personContactDetails	time						
personId	personContactDetails	string						
contactDetailActiveInactive	personContactDetails	string						
contactNickname	personContactDetails	string						
personContactTypeDescriptor	personContactDetails	string						
allowDoNotDisturb	personContactDetails	string						
phoneFormat	personContactDetails	string						
primaryFlag	personContactDetails	boolean						
contactRouting	personContactDetails	string						
contactRoutingDescr	personContactDetails	string						



Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
allowPersonContactStatus	personContactDetails	string						
statusControlledByProcess	personContactDetails	string						
enableIfPersonHasAccount	personContactDetails	string						
personHasAccount	personContactDetails	string						
optInButtonLabel	personContactDetails	string						
initOptInScriptCode	personContactDetails	string						
affectCreditRatingBy	accountInfo	decimal						
cashOnlyPoints	accountInfo	decimal						
currentAmount	accountInfo	ouaf:money	currentAmount	activities	string			
payOffAmount	accountInfo	ouaf:money	payOffAmount	activities	string			
disputedAmount	accountInfo	decimal						
arrearsAmountDisputed	accountInfo	decimal						
arrearsAmount0ToXDays	accountInfo	decimal						
arrearsAmountXTTo30Days	accountInfo	decimal	thirtyDaysAmount	activities	string			
arrearsAmount31to60Days	accountInfo	decimal						
arrearsAmount61toOlderDays	accountInfo	decimal	over60DaysAmt	activities	string			
billInformation	accountInfo	Complex List Type						
billId	billInformation	string						
billDate	billInformation	date						

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
paymentInfo	accountInfo	Complex List Type						
paymentId	paymentInfo	string						
paymentEventId	paymentInfo	string						
paymentDate	paymentInfo	date						
cancelReason	paymentInfo	string						
cancelReasonDescr	paymentInfo	string						
featureConfigurationOptions	fieldActivityExtract	Complex List Type						
optionType	featureConfigurationOptions	string						
sequence	featureConfigurationOptions	decimal						
value	featureConfigurationOptions	string						
miscInfo	sendDetails	Complex Type						
latitude	miscInfo	decimal	latitude	activities	double			
longitude	miscInfo	decimal	longitude	activities	double			
miscInfoCM	sendDetails	Group						
			u_xa_product	activities	string	CCBOFSC_ConfigProps.dvm	PropertyName	Value

# Create/Update Activity Response Mapping

The Response mapping details for Create/Update Activity integration point are as shown in the table below:

Oracle Field Service Cloud bulkUpdate Response Message			Oracle Utilities Customer Care and Billing Response Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
bulkUpdate_POSTResponse		Outermost Tag	responseDetails	C1-FASendOutMsg	Outermost Tag			
activities.definitions.customActionActivityBulkUpdateSchemaResponse	bulkUpdate_POSTResponse							
results	activities.definitions.customActionActivityBulkUpdateSchemaResponse							
activityKeys	results							
activityId	activityKeys	String	String	responseDetails	String			

## Device Verification

This section describes data mapping for the following:

- [Device Verification Request Mapping](#)

## Device Verification Request Mapping

The request mapping details for Device Verification integration point are as shown in the table below:

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Request Message			DVM Mapping		
Element Name	Parent Element	Type	Attribute Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
QueryParameters			MeterItemFlag	ValidateMeterItemService/ ValidateMeterItemHeader	String			
u_meter2_number	QueryParameters	String	BadgeNumber	ValidateMeterItemHeader	String			
u_service_pt_id	QueryParameters	String	ServicePointID	ValidateMeterItemHeader	String			
u_new_item_nbr	QueryParameters	String	BadgeNumber	ValidateMeterItemHeader	String			
u_service_pt_id	QueryParameters	String	ServicePointID	ValidateMeterItemHeader	String			

## Device Verification Response Mapping

The response mapping details for Device Verification integration point are as shown in the table below:

Oracle Utilities Customer Care and Billing Response Message			Oracle Field Service Cloud Response Message			DVM Mapping		
Element Name	Parent Element	Type	Attribute Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
			response-wrapper					

Oracle Utilities Customer Care and Billing Response Message			Oracle Field Service Cloud Response Message			DVM Mapping		
Element Name	Parent Element	Type	Attribute Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
MeterConfiguration Type	ValidateMeterItemResponse/ValidateMeterItemService/ValidateMeterItemDetails	String	u_meter1_type	response-wrapper	enumeration	CCBOFSC_MeterConfigurationType	CCB_MeterConfigurationType	OFSC_MeterConfigurationType
MeterConfiguration Type	ValidateMeterItemDetails	String	u_new_item_type	response-wrapper	String			
Registers		Complex Type						
RegistersRow	Registers	Complex List Type						
Seq	RegistersRow	Integer	u_meter1_read_seq	response-wrapper	Integer			
UnitofMeasure	RegistersRow	String	u_meter1_uom	response-wrapper	enumeration	CCBOFSC_UOM	CCB_UOM	OFSC_UOM
NumberofDigitsLeft + NumberofDigitsRight	RegistersRow		u_meter1_dials	response-wrapper	Integer			
LowLimit	RegistersRow	decimal	u_meter1_lower_limit	response-wrapper	String			
HighLimit	RegistersRow	decimal	u_meter1_upper_limit	response-wrapper	string			
TimeofUse	RegistersRow	String	u_meter1_TOU1	response-wrapper	enumeration	CCBOFSC_TOU	CCB_TOU	OFSC_TOU
NumberofDigitsRight	RegistersRow	Integer	u_meter1_numberofDecimals	response-wrapper	Integer			
Seq	RegistersRow	Integer	u_meter1_read_seq2	response-wrapper	Integer			
UnitofMeasure	RegistersRow	String	u_meter1_uom2	response-wrapper	enumeration	CCBOFSC_UOM	CCB_UOM	OFSC_UOM
NumberofDigitsLeft + NumberofDigitsRight	RegistersRow		u_meter1_dials2	response-wrapper	Integer			
LowLimit	RegistersRow	decimal	u_meter1_lower_limit2	response-wrapper	String			

Oracle Utilities Customer Care and Billing Response Message			Oracle Field Service Cloud Response Message			DVM Mapping		
Element Name	Parent Element	Type	Attribute Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
HighLimit	RegistersRow	decimal	u_meter1_upper_limit2	response-wrapper	String			
TimeofUse	RegistersRow	String	u_meter1_TOU2	response-wrapper	enumeration	CCBOFSC_TOU	CCB_TOU	OFSC_TOU
NumberofDigitsRight	RegistersRow	Integer	u_meter1_numberofDecimals2	response-wrapper	Integer			
Seq	RegistersRow	Integer	u_meter1_read_seq3	response-wrapper	Integer			
UnitofMeasure	RegistersRow	String	u_meter1_uom3	response-wrapper	enumeration	CCBOFSC_UOM	CCB_UOM	OFSC_UOM
NumberofDigitsLeft + NumberofDigitsRight	RegistersRow		u_meter1_dials3		Integer			
LowLimit	RegistersRow	decimal	u_meter1_lower_limit3		String			
HighLimit	RegistersRow	decimal	u_meter1_upper_limit3		String			
TimeofUse	RegistersRow	String	u_meter1_TOU3		enumeration	CCBOFSC_TOU	CCB_TOU	OFSC_TOU
NumberofDigitsRight	RegistersRow	Integer	u_meter1_numberofDecimals3		Integer			
Seq	RegistersRow	Integer	u_meter1_read_seq4		Integer			
UnitofMeasure	RegistersRow	String	u_meter1_uom4		enumeration	CCBOFSC_UOM	CCB_UOM	OFSC_UOM
NumberofDigitsLeft + NumberofDigitsRight	RegistersRow		u_meter1_dials4		Integer			
LowLimit	RegistersRow	decimal	u_meter1_lower_limit4		String			
HighLimit	RegistersRow	decimal	u_meter1_upper_limit4		string			
TimeofUse	RegistersRow	String	u_meter1_TOU4		enumeration	CCBOFSC_TOU	CCB_TOU	OFSC_TOU
NumberofDigitsRight	RegistersRow	Integer	u_meter1_numberofDecimals4		Integer			

Oracle Utilities Customer Care and Billing Response Message			Oracle Field Service Cloud Response Message			DVM Mapping		
Element Name	Parent Element	Type	Attribute Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
Seq	RegistersRow	Integer	u_meter1_read_seq5		Integer			
UnitofMeasure	RegistersRow	String	u_meter1_uom5		enumeration	CCBOFSC_UOM	CCB_UOM	OFSC_UOM
NumberofDigitsLeft + NumberofDigitsRight	RegistersRow		u_meter1_dials5		Integer			
LowLimit	RegistersRow	decimal	u_meter1_lower_limit5		String			
HighLimit	RegistersRow	decimal	u_meter1_upper_limit5		string			
TimeofUse	RegistersRow	String	u_meter1_TOU5		enumeration	CCBOFSC_TOU	CCB_TOU	OFSC_TOU
NumberofDigitsRight	RegistersRow	Integer	u_meter1_numberofDecimals5		Integer			
If ValidationStatus is equal to Y then hardcode with Verification Successful else map MessageText	RegistersRow		u_verify_status_flag		String			

# Get Appointment

This section describes data mapping for the following:

- [Get Appointment Request Mapping](#)
- [Get Appointment Response Mapping](#)

## Get Appointment Request Mapping

The request mapping details for Get Appointment integration point are as shown in the table below:

Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
sendDetails	C1-GETAPPTS	Complex Type	QueryParameters		Outermost Tag			
startDateTime	sendDetails	dateTime	dates	QueryParameters	String			
endDateTime	sendDetails	dateTime	dates	QueryParameters	String			
spType	sendDetails	String						
maximumAppointments	sendDetails	String						
timeZone	sendDetails	String						
fieldActivityId	sendDetails	String						
fieldActivityType	sendDetails	String	activityType	QueryParameters	String	CCBOFSC_ActivityType	CCB_FAType	OFSC_ActivityType
address1	sendDetails	String						
address2	sendDetails	String						
address3	sendDetails	String						
address4	sendDetails	String						
isMailingAddress	sendDetails	boolean						
city	sendDetails	String						
streetNumber1	sendDetails	String						



Oracle Utilities Customer Care and Billing Request Message			Oracle Field Service Cloud Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
streetNumber2	sendDetails	String						
county	sendDetails	String						
postal	sendDetails	String	postalCode	QueryParameters	String			
houseType	sendDetails	String						
taxVendorGeographicalCode	sendDetails	String						
isInCityLimit	sendDetails	boolean						
state	sendDetails	String						
country	sendDetails	String						
udfCriteria	sendDetails	Complex Type						
udfCriteriaList	udfCriteria	Complex List Type						
sequence	udfCriteriaList	decimal						
udfCriteriaValue	udfCriteriaList	String						

# Get Appointment Response Mapping

The response mapping details for Get Appointment integration point are as shown in the table below:

Oracle Field Service Cloud Activity Booking Options Response Message			Oracle Utilities Customer Care and Billing Appointment Request-Response Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
executeResponse		Complex Type	responseDetails	C1-GETAPPTS	Complex Type			
response-wrapper	executeResponse							
dates	response-wrapper	Complex List Type						
areas	dates	List Type						
timeSlots	areas	List Type	appointmentBookingsList	responseDetails	Complex List Type			
label	timeSlots	String	shiftId	appointmentBookingsList	String			
reason	timeSlots	String						
originalQuota	reason	double						
remainingQuota	reason	double						
date	dates	String	arrivalDateTime	appointmentBookingsList	dateTime	OFSCCCB_Appt_TimeSlots.dvm	OFSC_label PropertyName	CCB_TimeSlot Value
						CCBOFSC_ConfigProps.dvm		
date	dates	String	completionDateTime	appointmentBookingsList	dateTime	OFSCCCB_Appt_TimeSlots.dvm	OFSC_label PropertyName	CCB_TimeSlot Value
						CCBOFSC_ConfigProps.dvm		
			rank	appointmentBookingsList	String			

Oracle Field Service Cloud Activity Booking Options Response Message			Oracle Utilities Customer Care and Billing Appointment Request-Response Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
date	dates	String	appointmentWindow DateTime	appointmentBookingsList	dateTime	OFSCCCB_ Appt_TimeSlots. dvm  CCBOFSC_ ConfigProps.dvm	OFSC_label  PropertyName	CCB_TimeSlot  Value
date	dates	String	appointmentWindow Duration	appointmentBookingsList	decimal	OFSCCCB_Appt_ TimeSlots.dvm	OFSC_label	Duration_ InSeconds
			udfValues	appointmentBookingsList	Complex Type			
			udfValueList	udfValues	Complex List Type			
			sequence	udfCriteriaList	decimal			
			udfCriteriaValue	udfCriteriaList	String			
			messageText	appointmentBookingsList	String			
			messageCategory	appointmentBookingsList	String			
			messageNumber	appointmentBookingsList	decimal			
			messageParameters	appointmentBookingsList	Complex Type			
			parameters	messageParameters	Complex List Type			
			parameterType	parameters	String			
			parameterValue	parameters	String			

## Interim Status

This section describes data mapping for the following:

- [Interim Status Activity ID Mapping](#)
- [Interim Status Request Mapping](#)

### Interim Status Activity ID Mapping

The request mapping details for Interim Status integration point are as shown in the table below:

Oracle Field Service Cloud Request Message			Oracle Field Service Cloud Get Activity Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Utilities Customer Care and Billing Column	Oracle Field Service Cloud Column
events.definitions.activityEvent			TemplateParameters					
activityId	activityDetails	String	activityId		String			

### Interim Status Request Mapping

The request mapping details for Interim Status integration point are as shown in the table below:

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Interim Status Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
activities.definitions.getActivitySchema			C1FieldActivityMaintenance					
				C1FieldActivityMaintenanceService/C1FieldActivityMaintenance	Complex Type			

Oracle Field Service Cloud Request Message			Oracle Utilities Customer Care and Billing Interim Status Request Message			DVM Mapping		
Element Name	Parent Element	Type	Element Name	Parent Element	Type	DVM	Oracle Field Service Cloud Column	Oracle Utilities Customer Care and Billing Column
				C1FieldActivityMaintenanceService	Complex Type			
apptNumber	activities.definitions.getActivitySchema	String	FieldActivityID	C1FieldActivityMaintenanceHeader/C1FieldActivityMaintenanceService	String			
			C1FieldActivityMaintenanceDetails	C1FieldActivityMaintenanceService	Complex Type			
activityId	activities.definitions.getActivitySchema	String	ExternalID	C1FieldActivityMaintenanceDetails	String			
status	activities.definitions.getActivitySchema	String	IntermediateStatus	C1FieldActivityMaintenanceDetails	String	OFSCCB_InterimStatus	OFSC_InterimStatus	CCB_InterimStatus