

**Oracle Utilities Customer Cloud Service
Integration to Oracle E-Business Suite for
General Ledger and Accounts Payable**

Configuration Guide

Release 23C

F94136-01

March 2024

Oracle Utilities Customer Cloud Service Integration to Oracle E-Business Suite for General Ledger and
Accounts Payable Configuration Guide

Copyright © 2000, 2024 Oracle and/or its affiliates.

Contents

Preface	i
Audience	ii
Documentation and Resources	ii
Updates to Documentation.....	iii
Documentation Accessibility	iii
Conventions.....	iii
Acronyms.....	iii
Chapter 1	
Overview	1-1
Overview of the Integration	1-2
General Ledger Integration	1-3
Account Payable (Request)	1-4
Account Payable (Data).....	1-6
About Oracle Utilities Customer Cloud Service.....	1-7
About Oracle E-Business Suite for General Ledger and Accounts Payable.....	1-8
About Oracle Integration Cloud	1-9
Software Requirements	1-9
Chapter 2	
Solution Architecture	2-1
Solution Overview	2-2
Business Flows	2-2
General Ledger Extract Process OS (Oracle Utilities Customer Cloud Service Initiated).....	2-2
General Ledger Extract Process FTP (Oracle Utilities Customer Cloud Service Initiated).....	2-5
Account Payable Request Extract Process OS (Oracle Utilities Customer Cloud Service Initiated)	2-8
Account Payable Request Extract Process FTP (Oracle Utilities Customer Cloud Service Initiated)	2-11
Account Payable Data Payment Update Process (Oracle E-Business Suite for General Ledger and Accounts Payable Initiated)	2-14
Account Payable Data Payment Void Process (Oracle E-Business Suite for General Ledger and Accounts Payable Initiated).....	2-16
Chapter 3	
Configuring Oracle Utilities Customer Cloud Service	3-1
One-Time Configuration Setup.....	3-2
Configuring Admin Data.....	3-2
Algorithm	3-2
Characteristic Values.....	3-2
CIS Division.....	3-3
Feature Configuration	3-3
Scheduling the Batch Process	3-4
GL Extract For Oracle E-Business Suite for General Ledger and Accounts Payable Batch Process.....	3-4
Accounts Payable Extract for Oracle E-Business Suite for General Ledger and Accounts Payable Batch Process	

Managing Catalog Services	3-7
Chapter 4	
Configuring Oracle E-Business Suite.....	4-1
Oracle E-Business Suite Configuration for General Ledger.....	4-2
Configuration Overview for General Ledger	4-2
Running the Import Journal Request.....	4-4
Oracle E-Business Suite Configuration for Account Payable Request.....	4-4
Configuration Overview for AP	4-5
Oracle E-Business Suite Configuration for Account Payable Data.....	4-6
Chapter 5	
Importing, Configuring, and Testing Integration Connections	5-1
Importing the Oracle Integration Cloud Package from Oracle Cloud Marketplace.....	5-2
Verifying the Package Import.....	5-2
Configuring Connections in Oracle Integration Cloud	5-3
Configuring OU REST CCS OS for CCS-EBSFIN Connection.....	5-3
Configuring OU EBSFIN for CCS-EBSFIN Connection	5-4
Configuring OU REST CCS for CCS-EBSFIN Connection.....	5-4
Configuring OU FTP CCS for CCS-EBSFIN Connection.....	5-4
Setting up Certificates for Security.....	5-5
Chapter 6	
Configuring Lookups, Error Handling, and Email Notifications	6-1
Configuring Lookups	6-2
Editing Lookups.....	6-2
Payment Method.....	6-2
Organization Business Unit Properties	6-3
Configuration Properties	6-4
Error Handling.....	6-6
Error Handling Ways.....	6-6
Resubmitting the Error Instances in Oracle Integration Cloud	6-6
Email Notifications	6-7
Chapter 7	
Activating and Testing the Integration Flows.....	7-1
Prerequisites.....	7-2
Activating Integration Flows	7-2
Chapter 8	
Monitoring and Troubleshooting	8-1
Oracle Utilities Customer Cloud Service	8-2
Oracle Utilities Customer Care and Billing.....	8-2
Oracle Integration Cloud.....	8-2
Monitoring Integration Flows	8-2
Troubleshooting.....	8-3

Preface

Welcome to the Oracle Utilities Customer Cloud Service Integration to Oracle E-Business Suite for General Ledger and Accounts Payable Configuration Guide for release 23C.

The preface includes the following:

- [Audience](#)
- [Documentation and Resources](#)
- [Updates to Documentation](#)
- [Documentation Accessibility](#)
- [Conventions](#)
- [Acronyms](#)

Audience

This document is intended for anyone implementing the integration of the following products with Oracle Application Cloud - EBS Financial Cloud (General Ledger and Account Payable):

- Oracle Utilities Customer Cloud Service
- Oracle Utilities Customer Care and Billing
- Oracle E-Business Suite for General Ledger and Accounts Payable

Documentation and Resources

For more information regarding this integration, foundation technology and the edge applications, refer to the following documents:

Product Documentation

Resource	Location
Oracle Utilities Customer Cloud Service Integration to Oracle E-Business Suite for General Ledger and Accounts Payable documentation	https://docs.oracle.com/en/industries/utilities/index.html
Oracle Utilities Customer Cloud Service documentation	https://docs.oracle.com/en/industries/utilities/customer-cloud-service/
Oracle Utilities Customer Care and Billing documentation	https://docs.oracle.com/en/industries/energy-water/ccb/
Oracle E-Business Suite documentation	https://docs.oracle.com/cd/E51111_01/current/html/docset.html
Oracle OCI Object Storage REST API documentation	https://docs.oracle.com/en-us/iaas/api/#/en/objectstorage/20160918/

Additional Documentation

Resource	Location
Oracle Integration Cloud Service documentation	Refer to the OIC documentation at: https://docs.oracle.com/en/cloud/paas/integration-cloud/index.html
Oracle Support	Visit My Oracle Support at https://support.oracle.com regularly to stay informed about updates and patches. Access the support site for the Edge Application Certification Matrix for Oracle Utilities products (Doc ID 1454143.1).
Oracle Technology Network (OTN) Latest versions of documents	http://www.oracle.com/technetwork/index.html

Resource	Location
Oracle University for training opportunities	http://education.oracle.com/

Updates to Documentation

The complete Oracle Utilities Customer Cloud Service Integration to Oracle E-Business Suite for General Ledger and Accounts Payable documentation set is available from Oracle Help Center at <https://docs.oracle.com/en/industries/energy-water/index.html>.

Visit [My Oracle Support](#) for additional and updated information about the product.

Documentation Accessibility

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

Access to Oracle Support

Oracle customers have access to electronic support for the hearing impaired. Visit: <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs>

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Acronyms

The following terms are used in this document:

Term	Expanded Form
EBS	Oracle E-Business Suite
FIN	Financial

Term	Expanded Form
AP DATA	Account Payable Data
AP Request	Account Payable One-time Payment request from CCS
CCS	Oracle Utilities Customer Cloud Service
CCB	Oracle Utilities Customer Care and Billing
GL	General Ledger

Chapter 1

Overview

This chapter provides an overview about Oracle Utilities Customer Cloud Service Integration to Oracle E-Business Suite for General Ledger and Accounts Payable using Oracle Integration Cloud. It focuses on software requirements, Oracle Integration Cloud, and business standpoint of the integration. It focuses on the following:

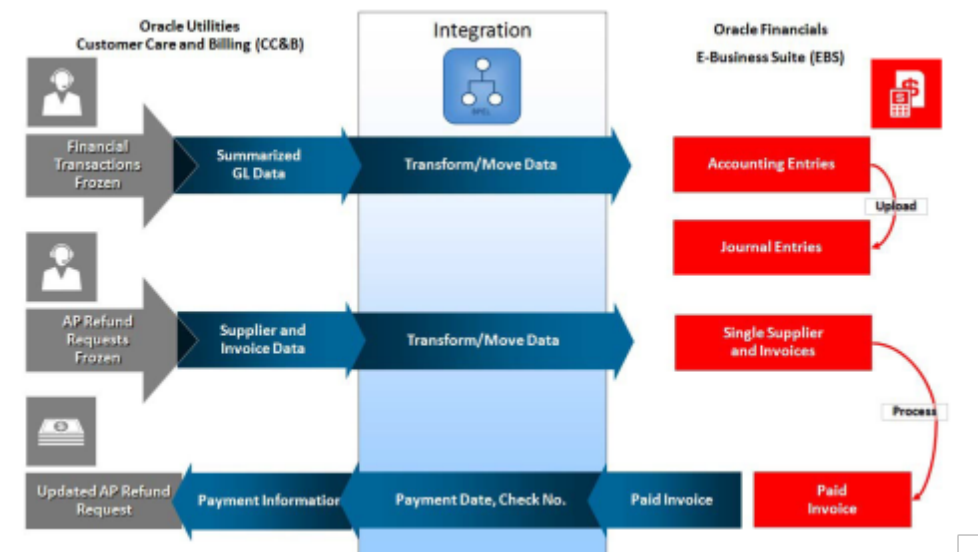
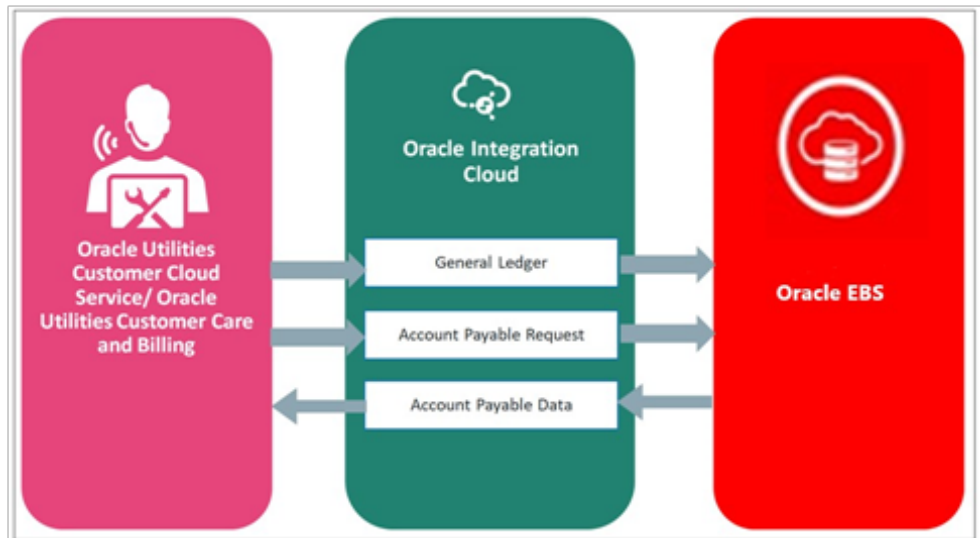
- [Overview of the Integration](#)
- [About Oracle Utilities Customer Cloud Service](#)
- [About Oracle E-Business Suite for General Ledger and Accounts Payable](#)
- [About Oracle Integration Cloud](#)
- [Software Requirements](#)

Overview of the Integration

Oracle Utilities Customer Cloud Service Integration to Oracle E-Business Suite for General Ledger and Accounts Payable helps to facilitate the transfer of refund and ledger information between the two applications.

This integration supports three key functionalities:

- Sends General Ledger information for bills, payments, adjustments, and cancellations from Oracle Utilities Customer Cloud Service to Oracle E-Business Suite for General Ledger and Accounts Payable for journal creation.
- Sends payable refund payment request from Oracle Utilities Customer Cloud Service to Oracle E-Business Suite for General Ledger and Accounts Payable for invoice creation.
- Once the payable request has been paid or void in Oracle E-Business Suite for General Ledger and Accounts Payable, the payment status and information are sent back to Oracle Utilities Customer Cloud Service.

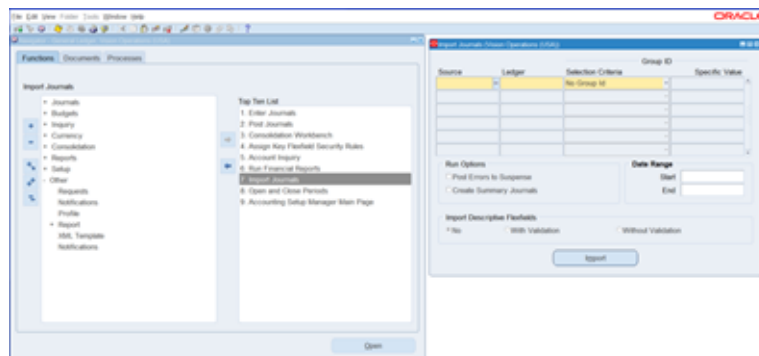


General Ledger Integration

The objective of General Ledger interface is to integrate the General Ledger transactions originating in Oracle Utilities Customer Cloud Service/Oracle Utilities Customer Care and Billing with Oracle E-Business Suite - General Ledger. As Oracle Utilities Customer Cloud Service/Oracle Utilities Customer Care and Billing users take actions within the application that necessitates sending the accounting entries to Oracle E-Business Suite, this interface extracts the General Ledger transaction data from Oracle Utilities Customer Cloud Service/Oracle Utilities Customer Care and Billing, translate it and move it to cloud as Journal voucher transactions in the General Ledger.

This integration includes:

- **Oracle Utilities Customer Cloud Service/Oracle Utilities Customer Care and Billing Initiated:** Batch process “GLASSIGN” is mandatory to run for this integration that helps to populate GL account of the financial transaction of General Ledger.
- Batch “GLS” is processed after assigning the General Ledger account that moves the appropriate General Ledger transactions to staging table in Oracle Utilities Customer Cloud Service/Oracle Utilities Customer Care and Billing.
- Batch process “C1-GLFCX” in Oracle Utilities Customer Care and Billing extracts all General Ledger transaction and load the zip file to object storage.
- Batch process “C1-GLFCX” in Oracle Utilities Customer Cloud Service extracts all General Ledger transactions and loads the zip file to file path location.
- Financial interface procedure(s) to pick up transaction information from the interface table and import the data into Financial General Ledger.
- The data imported into Oracle E-Business Suite will be posted by submitting the Posting Journal Program as per the business process.



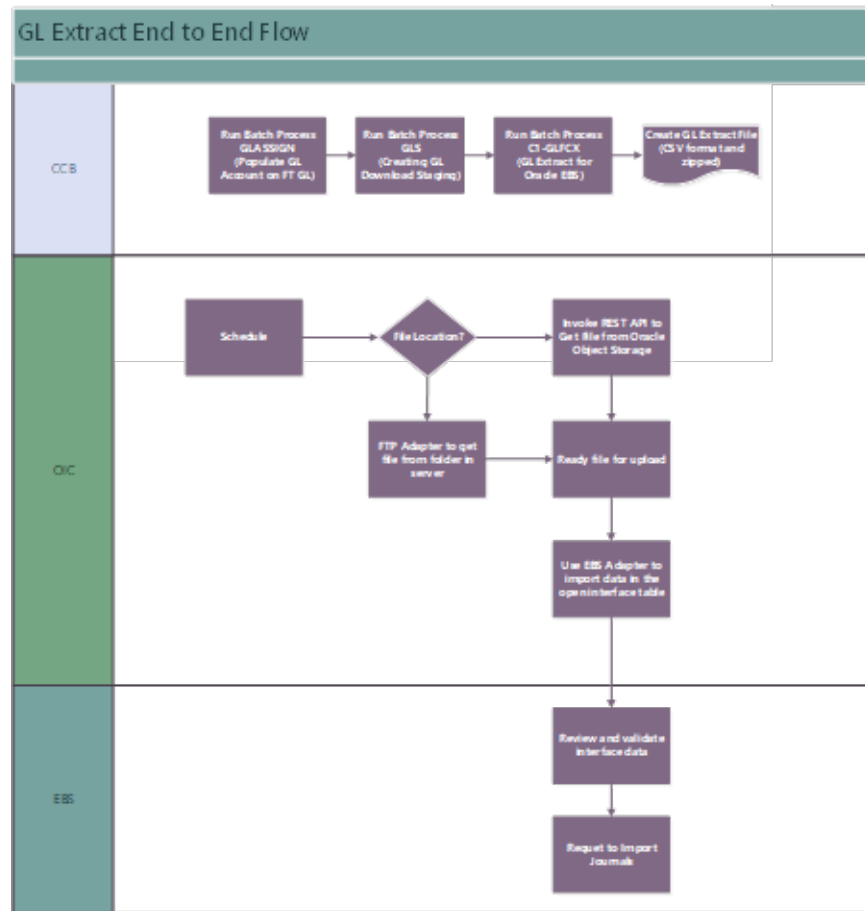
- Verification of data can be done in Oracle E-Business Suite before making the posting.
- All the transaction are based on the existing code combinations interfaced by Oracle E-Business Suite system. Any correction or changes in the transaction would be new transaction to adjust the values (if needed).

Benefits of General Ledger Integration

The benefits of General Ledger integration are:

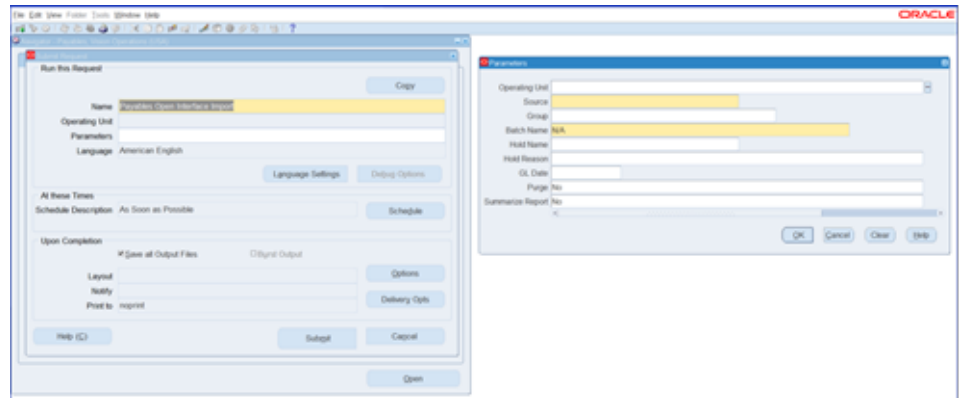
- Reporting Center for Oracle Utility to Oracle E-Business Suite for General Ledger and Accounts Payable.

- Central repository for accounting data transferred from all sub ledgers, such as accounts payable, accounts receivable, cash management, fixed assets, purchasing and projects.



Account Payable (Request)

- Oracle E-Business Suite for General Ledger and Accounts Payable receives requests from internal or external sources to disburse funds to payees that are not defined as suppliers. Payables records these requests as payment requests.
- Oracle Utilities Customer Cloud Service/Oracle Utilities Customer Care and Billing Payment requests are imported in the Payables Open interface tables: AP_INVOICES_INTERFACE and AP_INVOICE_LINES_INTERFACE.
- To import the payment request to production tables, run the Payables Open Interface Import request and enter the required parameters.

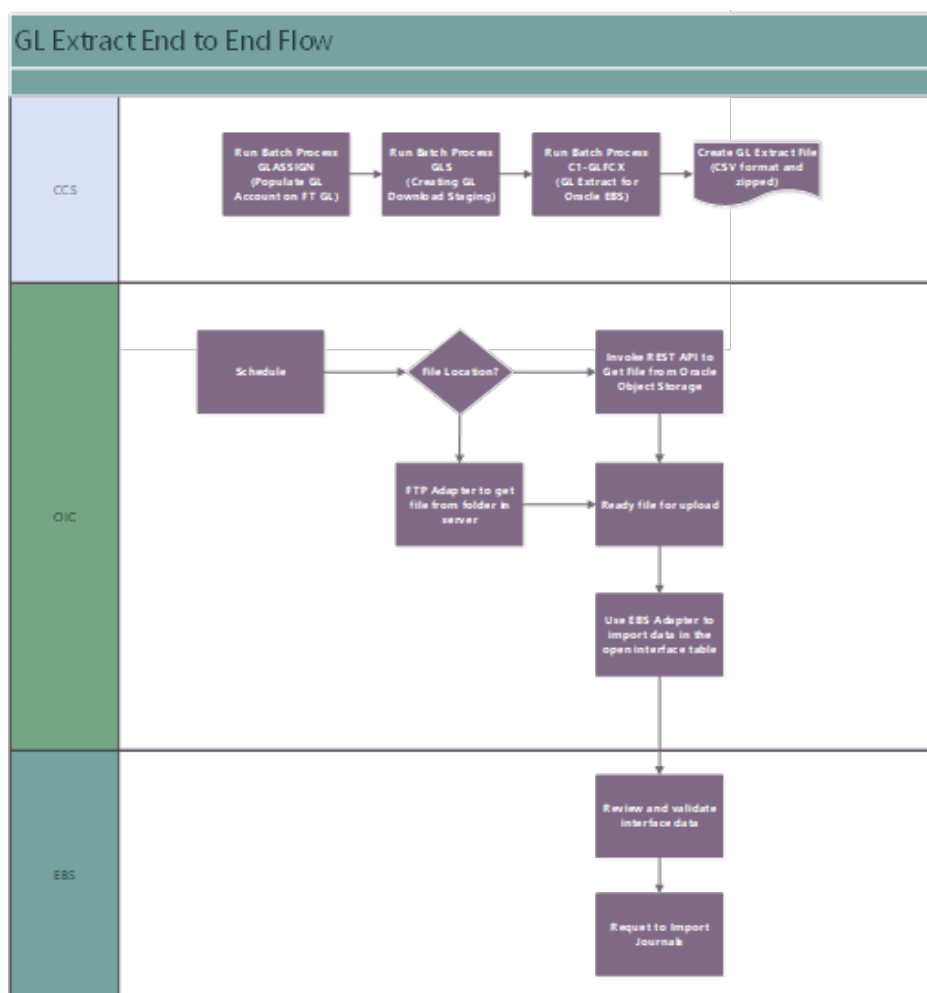


One Time Payments are:

- Typically, these payment requests originate from external systems.
- Refunds to customers from an external billing system which is integrated with Oracle through Accounting Hub or General Ledger, and not through Oracle Receivables.

This integration includes:

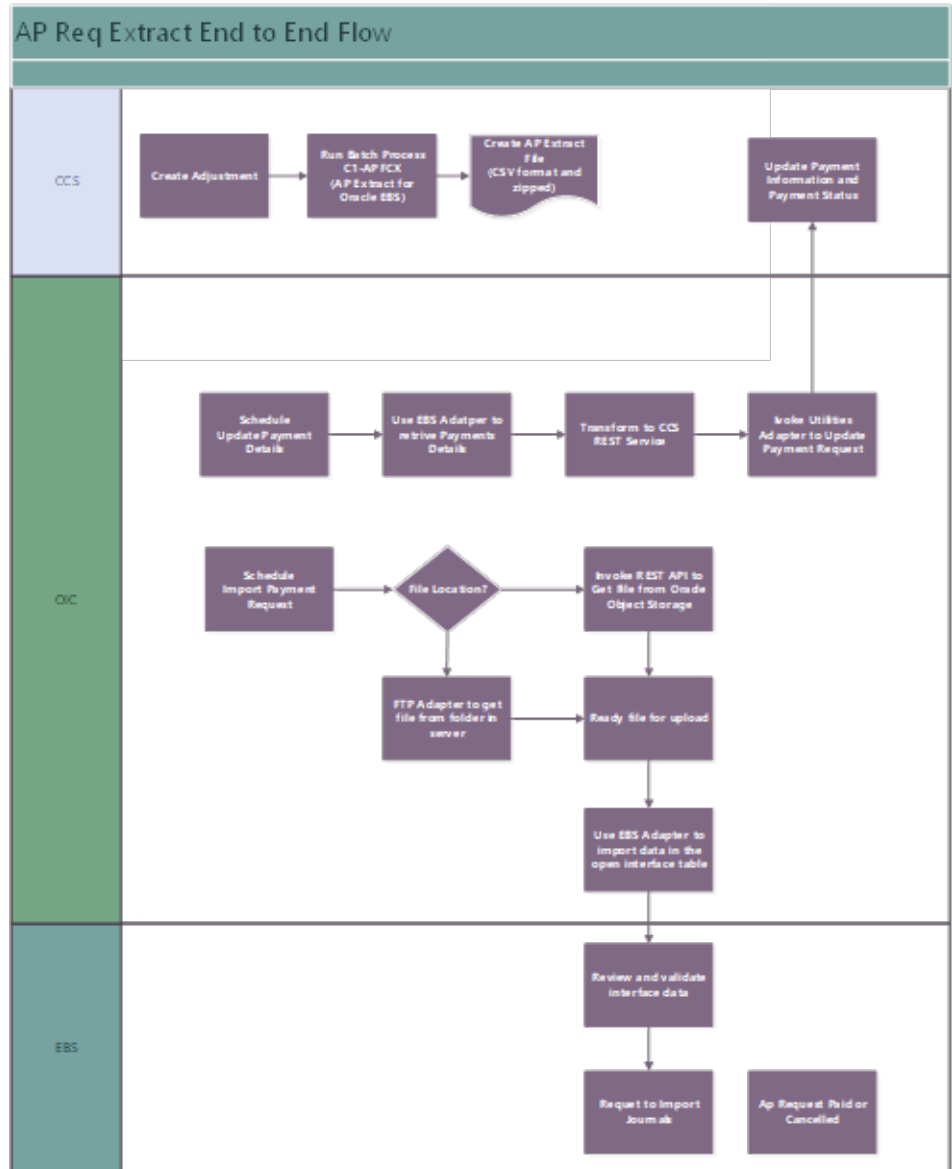
- Oracle Utilities Customer Cloud Service Initiated: For the integration to work, batch process “C1-APFCX” is required to run in Oracle Utilities Customer Cloud Service that extracts all appropriate Adjustment transaction requests for refund from Oracle Utilities Customer Cloud Service.
- The above batch process in Oracle Utilities Customer Cloud Service extracts the AP request in CSV format and loads the zip file to object storage.
- The “C1-APFCX” batch process in Oracle Utilities Customer Care and Billing extracts the AP request in CSV format and loads the zip file to File Path for on-premises.
- **EBS Flow:** Batch process “Load to Interface” to pick up the transaction data from the file stored either in Oracle Object Storage or in SFTP location, insert the information into an Oracle E-Business Suite interface tables and invoke invoice creation data into the Oracle E-Business Suite Payables application.
- The data imported into Oracle E-Business Suite Payables creates Invoice with header and line details.
- Verification of data is done in Oracle E-Business Suite before making the payment.



Account Payable (Data)

- For the refund request invoice created, the payment details are sent from Oracle E-Business Suite for General Ledger and Accounts Payable to Oracle Utilities Customer Cloud Service/Oracle Utilities Customer Care and Billing.
- Oracle Integration Cloud gets the details of paid invoice through custom REST API and transforms into Oracle Utilities Customer Cloud Service load.
- Updates payment information and payment status for the adjustment in Oracle Utilities Customer Cloud Service.
- Passes the payment or void information and payment status for the account payment request from Oracle E-Business Suite to Oracle Utilities Customer Cloud Service.
- For information about the configuration to be performed in Oracle Utilities Customer Cloud Service and Oracle E-Business Suite for General Ledger and Accounts Payable for the integration, refer to [Configuring Oracle Utilities Customer Cloud Service](#) and [Configuring Oracle E-Business Suite](#) respectively.

- Integration updates the following payment information for each Adjustment AP Request record using a business event:
 - A/P Request ID (Primary Key)
 - Payment Status
 - Payment Date
 - Payment Method and Number
 - Payment Amount and Currency



About Oracle Utilities Customer Cloud Service

Oracle Utilities Customer Cloud Service is a customer care, service order, metering, and billing solution for traditional scalar devices and billing processes. The solution is designed to cater for utilities of all sizes, supports one to many utility service types, and handles the complexities associated with a utility’s processes.

Oracle Utilities Customer Cloud Service includes:

- Customer information and customer lifecycle processing including:
 - Sales and marketing management
 - Customer information management for various types of customers, starting and stopping service, and supporting inbound and outbound customer care interactions.
 - Financial management including rating, billing, payment, and collections activities.
- Meter data management functionality, including:
 - Device and measurement data management, including validating, editing, and estimating incoming data for traditional scalar devices.
 - Usage management for calculating billable usage or billing determinants to support traditional scalar billing processes.
- Service order management for orchestrating service order activities for traditional scalar device.
- Operational device management functionality, including:
 - Asset management, including location management and tracking of individual devices throughout their lifecycle, capturing device configurations and settings, and managing configuration between devices and components.
 - Oracle Utilities Cloud Service Foundation: Tools used to orchestrate and automate infrastructure related processes and migrate data from legacy applications into the cloud service.
 - Oracle Utilities Analytics Visualization: A suite of analytics applications that provides access to real-time data for self-service exploration, discovery, visualization, and analysis. It includes rich pre-built analytical data models, metrics, and key performance indicators that allow you to derive strategic insights from your data.

About Oracle E-Business Suite for General Ledger and Accounts Payable

Oracle E-Business Suite for General Ledger and Accounts Payable is a resource-planning software which enforces industry best-practice controls on data input and process flows as tasks are completed within the system. Processes are separated into modules, and each module consists of a collection of forms where data is entered at each stage of the business process.

As part of the Enterprise Resource Planning functionality, Oracle E-Business Suite for General Ledger and Accounts Payable offers flexible ledger architecture, consistent financial and operational information, dynamic planning, budgeting and forecasting, and multi-dimensional profitability analysis.

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 integrations can be quickly developed and activated between both the applications that live in the cloud; and the applications still live on premises. 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

For information about the application supported versions, refer to the *Oracle Utilities Customer Cloud Service Integration to Oracle E-Business Suite for General Ledger and Accounts Payable with REST Integration Repository Release Notes* included in this release.

The documentation is available on Oracle Help Center at: <https://docs.oracle.com/en/industries/utilities/integrations-index.html>

Chapter 2

Solution Architecture

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

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

Solution Overview

The technical aspects involved in Oracle Utilities Customer Cloud Service Integration to Oracle E-Business Suite for General Ledger and Accounts Payable are:

- The integration layer is made up of integration processes deployed on Oracle Integration Cloud.
- The integration processes uses Oracle EBS Adapter to integrate with Oracle E-Business Suite (EBS) applications:
 - Some processes uses the open interface API, such as Journal Import and Payables Import.
 - Some processes uses custom APIs to create or update vendors and vendor sites also to extract Payment Request data.
- It uses REST APIs to communicate with Object Storage and Oracle Utilities Customer Cloud Service application.
- The FTP Adapter is used to perform all file operations in the FTP/SFTP server.
- The integration pattern used for the solution is:
 - Scheduled integration for all flows.

Refer to the [Business Flows](#) section for more information on each integration process.

Business Flows

This integration supports the following business processes:

- [General Ledger Extract Process OS \(Oracle Utilities Customer Cloud Service Initiated\)](#)
- [General Ledger Extract Process FTP \(Oracle Utilities Customer Cloud Service Initiated\)](#)
- [Account Payable Request Extract Process OS \(Oracle Utilities Customer Cloud Service Initiated\)](#)
- [Account Payable Request Extract Process FTP \(Oracle Utilities Customer Cloud Service Initiated\)](#)
- [Account Payable Data Payment Update Process \(Oracle E-Business Suite for General Ledger and Accounts Payable Initiated\)](#)
- [Account Payable Data Payment Void Process \(Oracle E-Business Suite for General Ledger and Accounts Payable Initiated\)](#)

General Ledger Extract Process OS (Oracle Utilities Customer Cloud Service Initiated)

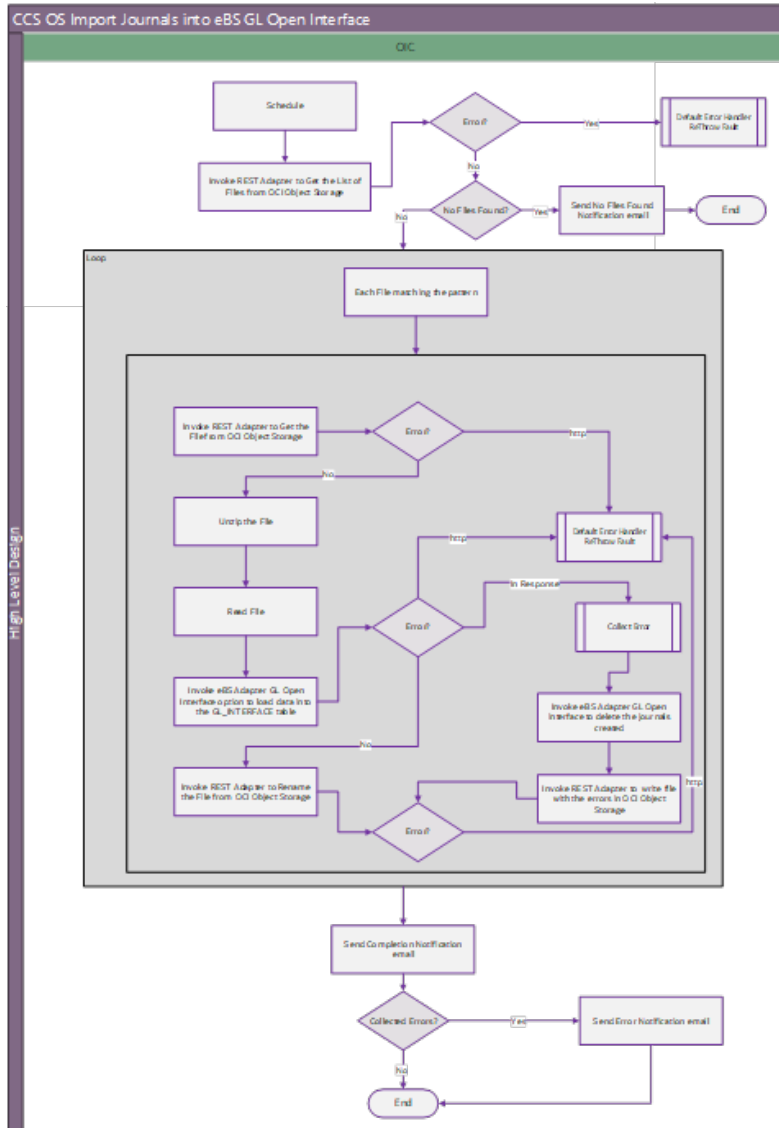
This integration process is used to transfer all approved General Ledger transaction from Oracle Utilities Customer Cloud Service to Oracle E-Business Suite for General Ledger and Accounts Payable for journal creation.

It is an asynchronous flow that is triggered by a schedule. Oracle Utilities Customer Cloud Service creates a GL Extract file which is picked up by the integration process and

uploaded to Oracle E-Business Suite. This is just a file pass through and no transformation will be done by the integration.

Make sure the GL related batch processes (GLASSIGN, GLS, C1-GLFCX) in Oracle Utilities Customer Cloud Service are run before this integration process is executed.

The following diagram shows a graphical representation of the General Ledger Extract integration process.



Business Processing

This asynchronous integration process is deployed on Oracle Integration Cloud and does the following activities:

1. If the extract file is in Object Storage, it invokes the Object Storage - List Objects REST API to get the list of files to be processed. Only files that start with the string entered in property name **gl.extract.filename.prefix** in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup are returned. Most of the time, this will only be one file.

2. If there is no file to process, a notification email is sent and the processing stops. If there is only one file to process, the following steps are performed. Else, the steps for each file to be processed are repeated.
 - a. Invokes the Object Storage: Gets Object REST API to get the actual file to process.
 - b. The file is unzipped.
 - c. The whole file is read.
 - d. Use the EBS Adapter Open Interface with operation Journal Import to load and import the GL data into EBS GL interface table.

Note: Bell and email notifications are enabled for any case in the Oracle E-Business Suite Cloud Adapter. This means when the load and import process are done, bell and email notification are sent out as long as these notifications are setup in the Oracle E-Business Suite for General Ledger and Accounts Payable.

In case of error:

- a. If specified in the response, while creating the journals all the successful journals are deleted from the GL interface table.
 - b. The error is collected.
 - c. A local file is created using the original file name and the prefix.fileerrored property in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup. This file is created in the directory specified by the gl.os.fileerrored.directory using the FTP Adapter. The file contains the failed journals and will be attached to the notification error email.
 - d. In case of an HTTP error, the process stops and a notification email is sent.
 - e. After the file is processed by the integration, it invokes the Object Storage - Rename Object REST API to rename the file just processed in Object Storage by adding a prefix to the filename. This prefix is obtained from the prefixtag.fileuploaded property name in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup. The file is moved to the directory defined in the gl.os.fileuploaded.directory property name in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup.
3. A completion email notification with details is sent to the users configured in the OUTL-BRT-CCS_EBSFIN_Email_Id lookup. The email.flag Property name in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup must be set to 'true' to receive an email notification when errors are encountered.
 4. An optional email notification with error details are sent to the users configured in the OUTL-BRT-CCS_EBSFIN_Email_Id lookup. The email.flag property name in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup must be set to 'true' to receive an email notification when errors are encountered.

Retry Option: Re-run from Oracle Integration Cloud. If there are any previous processing errors, edit the file to fix/remove the error file(s).

It is recommended to check the GL interface table for Oracle Utilities Customer Cloud Service records to avoid double journal processing.

Technical Details

The following table describes the integration processes and the respective Oracle Utilities Customer Cloud Service and Oracle E-Business Suite for General Ledger and Accounts Payable artifacts used in this integration process.

Artifacts	Value
Integration Process Name	OU CCS EBSFIN OS GL Extract Upl
Integration Package Name	outl.ba.ccs_ebsfin.1_23_3000
Object Storage REST APIs	<p>Object Storage Service API Endpoint https://{OSLocation_host_name}</p> <p>To get the list of files: Method: GET URI: /n/{namespaceName}/b/{bucketName}/o Query Parameters: prefix</p> <p>To get the file: Method: GET URI: /n/{namespaceName}/b/{bucketName}/o/{objectName}</p> <p>To rename the file: Method: POST URI: /n/{namespaceName}/b/{bucketName}/actions/renameObject</p>
EBS Adapter	<p>Journal Import</p> <p>Action: Open Interface Operation: Journal Import</p>

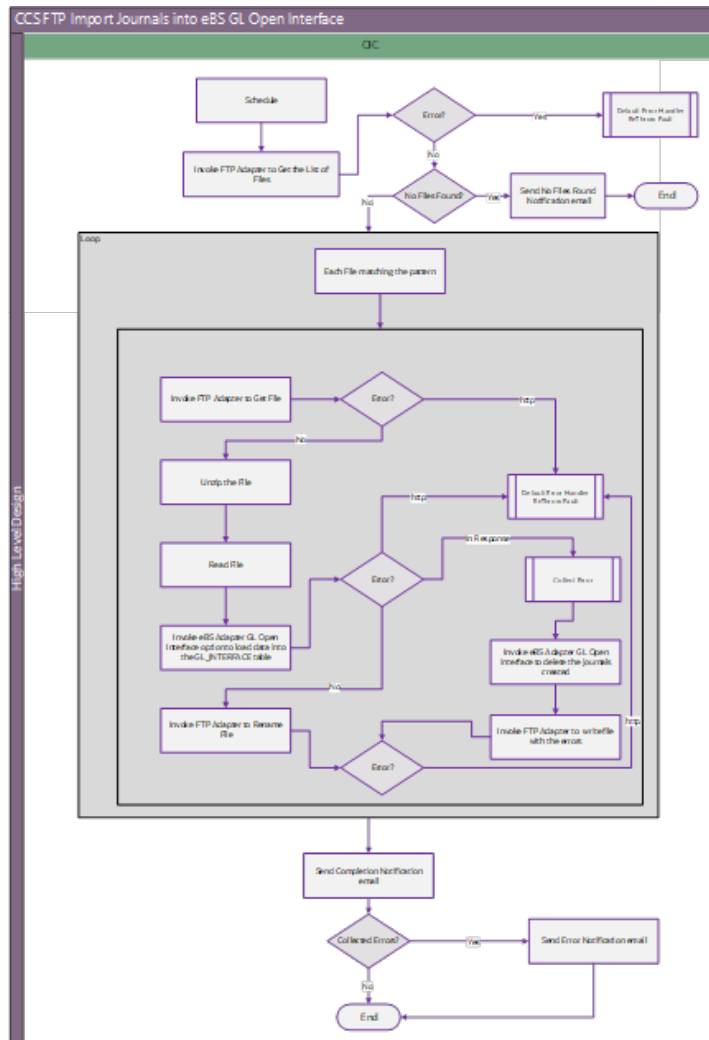
General Ledger Extract Process FTP (Oracle Utilities Customer Cloud Service Initiated)

This integration process is used to transfer all approved General Ledger transactions from Oracle Utilities Customer Cloud Service to Oracle E-Business Suite for General Ledger and Accounts Payable for journal creation.

It is an asynchronous flow triggered by a schedule. Oracle Utilities Customer Cloud Service creates a GL Extract file which is picked up by the integration process and uploaded to Oracle E-Business Suite for General Ledger and Accounts Payable. It is just a file pass through and no transformation will be done by the integration.

Make sure the GL related batch processes (GLASSIGN, GLS, C1-GLFCX) in Oracle Utilities Customer Cloud Service are run before this integration process is executed.

The following diagram shows a graphical representation of the General Ledger Extract integration process.



Business Processing

This asynchronous integration process is deployed on Oracle Integration Cloud and does the following activities:

1. If the extract file is in FTP, it invokes the FTP Adapter to get the list of files to be processed. Only files that start with the string entered in the `gl.extract.filename.prefix` property name in the `OUTL-BRT-CCS_EBSFIN_ConfigProps` lookup are returned. Most of the time, this will only be one file.
2. If there is no file to process, a notification email is sent and the processing stops. If there is only one file to process, the following steps are performed. Else, the steps for each file to be processed are repeated.
 - a. Invokes the FTP Adapter to download the file to stage directory. Stage action is used to get the actual file to process.
 - b. The file is unzipped.
 - c. The whole file is read.

- d. Use the EBS Adapter Open Interface with operation Journal Import to load and import the GL data into EBS GL interface table.

In case of error:

- a. If specified in the response while creating the journals all the successful journals are deleted from the GL interface table.
 - b. The error is collected.
 - c. A local file is created using the original file name and the prefix.fileerrored property in OUTL-BRT-CCS_EBSFIN_ConfigProps lookup. This file is created in the directory specified by the gl.ftp.fileerrored.directory using the FTP adapter. The file contains the failed journals and will be attached to the notification error email.
 - d. In case of an HTTP error, the process stops and a notification email is sent.
 - e. After the file is processed by the integration, it invokes the FTP Adapter to rename the file adding a prefix to the filename. This prefix is obtained from the prefixtag.fileuploaded property name in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup. The file is moved to the directory defined in the gl.ftp.fileuploaded.directory property name in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup using the FTP Adapter.
3. A completion email notification with details is sent to the users configured in the OUTL-BRT-CCS_EBSFIN_Email_Id lookup. The email.flag property name in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup must be set to 'true' to receive an email notification when errors are encountered.
 4. An optional email notification with error details are sent to the users configured in the OUTL-BRT-CCS_EBSFIN_Email_Id lookup. The email.flag property name in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup must be set to 'true' to receive an email notification when errors are encountered.

Retry Option: Re-run from Oracle Integration Cloud. If there are any previous processing errors, edit the file to fix/remove the error file(s).

It is recommended to check the GL interface table for Oracle Utilities Customer Cloud Service records to avoid double journal processing.

Technical Details

The following table describes the integration process and the respective Oracle Utilities Customer Cloud Service and Oracle E-Business Suite for General Ledger and Accounts Payable artifacts used in this integration process.

Artifacts	Value
Integration Process Name	OU CCS EBSFIN FTP GL Extract UpI
Integration Package Name	outl.ba.ccs_ebsfin.1_23_3000
Oracle E-Business Suite Cloud Adapter	Journal Import Action: Open Interface Operation: Journal Import

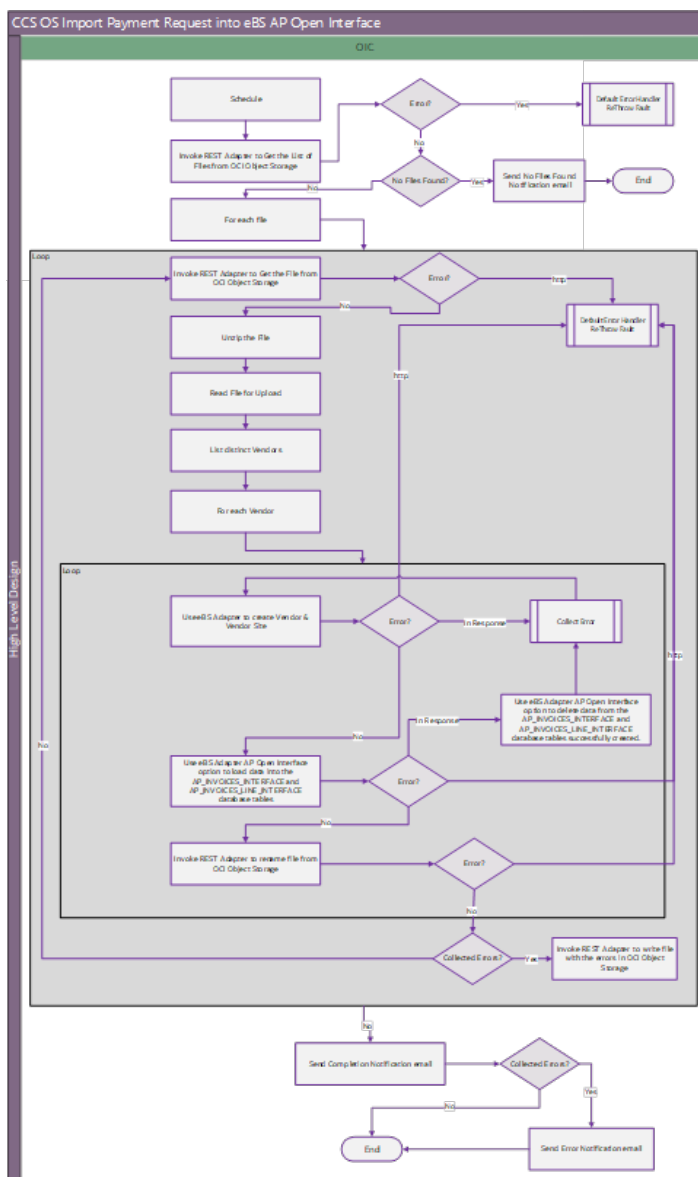
Account Payable Request Extract Process OS (Oracle Utilities Customer Cloud Service Initiated)

This integration process is used to transfer payable refund payment request from Oracle Utilities Customer Cloud Service to Oracle E-Business Suite for General Ledger and Accounts Payable for one-time payment creation.

It is an asynchronous flow that is triggered by a schedule. Oracle Utilities Customer Cloud Service creates an AP Request Extract file which is picked up by the integration process and uploaded to Oracle E-Business Suite for General Ledger and Accounts Payable. This is just a file pass through and no transformation will be done by the integration.

Note: Make sure the C1-APFCX batch process in Oracle Utilities Customer Cloud Service have been run before this integration process is run.

The following diagram shows a graphical representation of the AP Request Extract integration process.



Business Processing

This asynchronous integration process is deployed on Oracle Integration Cloud and does the following activities:

1. If the extract file is in Object Storage, it invokes the Object Storage - List Objects REST API to get the list of files to be processed. Only files that start with the string entered in the **apreq.extract.filename.prefix** property name in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup file are returned. Most of the time, this will only be one file.
2. If there is no file to process, a notification email is sent and the processing stops. If there is only one file to process, it performs the following steps. Else, the steps for each file to be processed are repeated.
 - a. Invokes the Object Storage: Gets Object REST API to get the actual file to process. In case of failure the processing stops, and a notification email is sent.
 - b. The file is unzipped.
 - c. The file is completely loaded.
 - d. The distinct customers (AP vendors) are stored in a list.

For each vendor, the following task are executed:

- Using the EBS Adapter to invoke a custom API, the vendor is either created (if it does not exist) along with the site or it is updated if it exists.
- In case of an error specified in the response while creating or updating the vendor/site, the error is collected and the next vendor is processed. If there is an HTTP error, the process stops, and a notification email is sent.
- If there is no error, then using the EBS Adapter, the invoice headers are created.
- In case of error:
 - a. If specified in the response while creating the journals, all successful journals are deleted using the EBS Adapter.
 - b. The error is collected.
 - c. A local file is created using the original file name and the `prefix.fileerrored` property in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup. This file is created in the directory specified by the `gl.ftp.fileerrored.directory` using the FTP adapter. The file contains the failed journals and will be attached to the notification error email.
 - d. In case of an HTTP error, the process stops and a notification email is sent.
- If there is no error, then using the EBS Adapter, the invoice lines are created.
- In case of error:
 - a. If specified in the response while creating the journals, all successful journals are deleted using the EBS Adapter.
 - b. The error is collected.
 - c. A local file is created using the original file name and the `prefix.fileerrored` property in OUTL-BRT-CCS_EBSFIN_ConfigProps

lookup. The local file then is created in the directory specified by `ap.os.fileerrored.directory` using the Object Storage PutObject REST API. The file contains the failed invoice lines and will be attached to the notification error email.

- d. In case of an HTTP error, the process stops and a notification email is sent.
 - e. After the file is successfully processed by the integration, it invokes the Object Storage RenameObject REST API to rename the file adding a prefix to the filename. This prefix is obtained from the `prefixtag.fileuploaded` property name in the `OUTL-BRT-CCS_EBSFIN_ConfigProps` lookup. The file is moved to the directory defined in the `ap.os.prefixtag.fileuploaded` property name in the `OUTL-BRT-CCS_EBSFIN_ConfigProps` lookup.
3. A completion email notification with details is sent to the users configured in the `OUTL-BRT-CCS_EBSFIN_Email_Id` lookup. The `email.flag` property name in the `OUTL-BRT-CCS_EBSFIN_ConfigProps` lookup must be set to 'true' to receive email notification when errors are encountered.
 4. An optional email notification with error details is sent to the users configured in the `OUTL-BRT-CCS_EBSFIN_Email_Id` lookup. The `email.flag` property name in the `OUTL-BRT-CCS_EBSFIN_ConfigProps` lookup must be set to 'true' to receive email notification when errors are encountered.

Retry Option: Re-run from Oracle Integration Cloud. If there are any previous processing errors, edit the file to fix/remove the error file(s).

It is recommended to check the invoice interface tables for Oracle Utilities Customer Cloud Service records to avoid errors when retrying.

Technical Details

The following table describes the integration process and the respective Oracle Utilities Customer Cloud Service and Oracle E-Business Suite for General Ledger and Accounts Payable artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Oracle Utilities CCS EBSFIN OS AP Req Extr Upl
Integration Package Name	outl.ba.ccs_ebsfin.1_23_3000

Artifacts	Value
Object Storage REST APIs	<p>Object Storage Service API Endpoint https://{OSLocation_host_name}</p> <p>To get list of files: Method: GET URI: /n/{namespaceName}/b/{bucketName}/o Query Parameters: prefix</p> <p>To get file: Method: GET URI: /n/{namespaceName}/b/{bucketName}/o/{objectName}</p> <p>To rename file: Method: POST URI: /n/{namespaceName}/b/{bucketName}/actions/renameObject</p>
Oracle E-Business Suite Cloud Adapter	<p>Bulk Import Data</p> <p>Action: Import Bulk Data into Oracle Oracle E-Business Suite Cloud Operation: Import Payables Payment Requests</p>

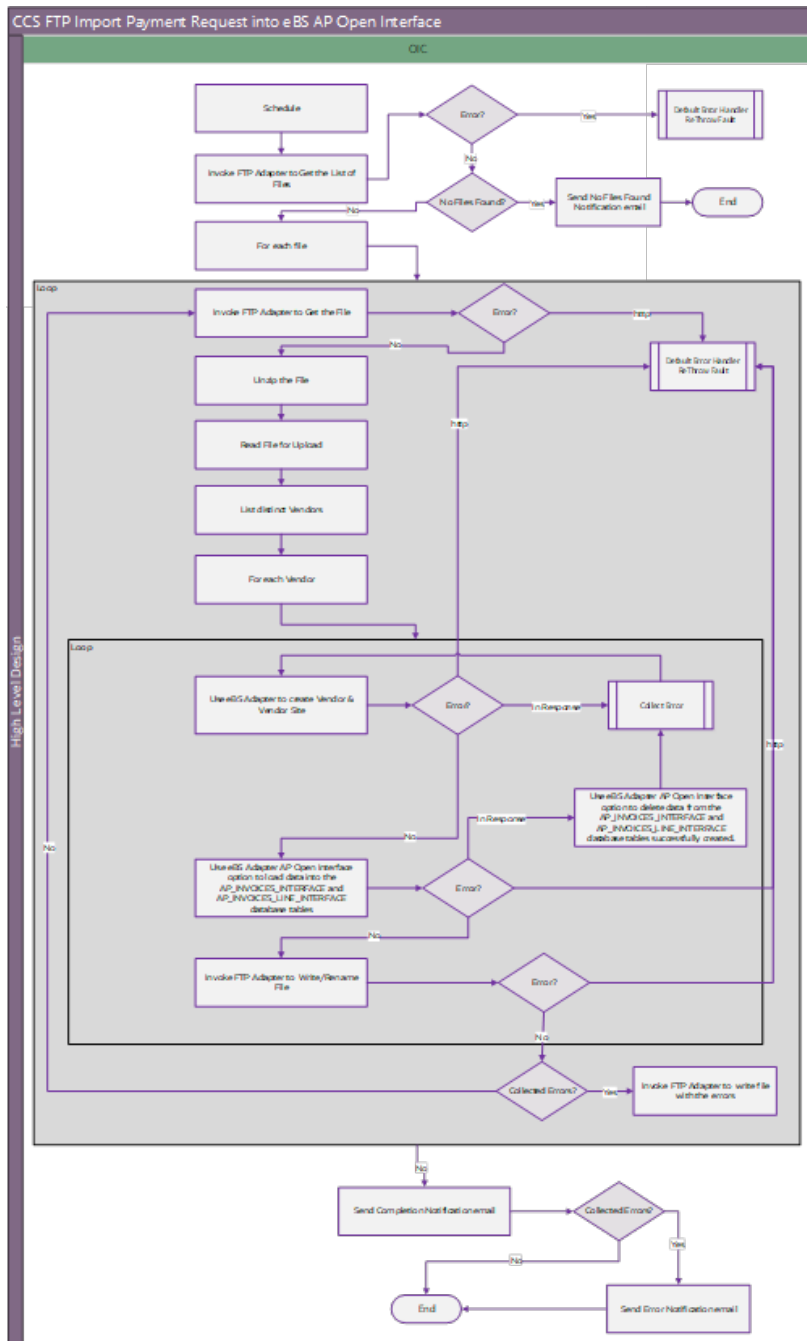
Account Payable Request Extract Process FTP (Oracle Utilities Customer Cloud Service Initiated)

This integration process is used to transfer payable refund payment request from Oracle Utilities Customer Cloud Service to Oracle E-Business Suite for General Ledger and Accounts Payable for one-time payment creation.

It is an asynchronous flow that is triggered by a schedule. Oracle Utilities Customer Cloud Service creates an AP Request Extract file which is picked up by the integration process and uploaded to Oracle E-Business Suite for General Ledger and Accounts Payable. This is just a file pass through, and no transformation will be done by the integration.

Note: Make sure the C1-APFCX batch process in Oracle Customer Care and Billing have been run before this integration process is executed.

The following diagram shows a graphical representation of the AP Request Extract FTP integration process.



Business Processing

This asynchronous integration process is deployed on Oracle Integration Cloud and does the following activities:

1. If the extract file is in FTP server, it invokes the FTP adapter to return the list of files to be processed. Only files that start with the string entered in the `apreq.extract.filename.prefix` property name in the `OUTL-BRT-CCS_EBSFIN_ConfigProps` lookup file are returned. Most of the time this will only be one file.

2. If there is no file to process, a notification email is sent and the processing stops. If there is only one file to process, it performs the following steps. Else, the steps for each file to be processed are repeated.
 - a. Invokes the FTP Adapter: Download Operation to get the actual file to process.
 - b. The file is unzipped.
 - c. The file is completely loaded.
 - d. The distinct customers (AP vendors) are stored in a list.

For each vendor, the following task are executed:

- Using the EBS Adapter to invoke a custom API, the vendor is either created (if it does not exist) along with the site or it is updated if it exists.
- In case of an error specified in the response while creating or updating the vendor/site, the error is collected and the next vendor is processed. If there is an HTTP error, the process stops, and a notification email is sent.
- If there is no error, then using the EBS Adapter, the invoice headers are created.
- In case of error:
 - a. If specified in the response while creating the journals, all successful journals are deleted using the ABS Adapter.
 - b. The error is collected.
 - c. A local file is created using the original file name and the `prefix.fileerrored` property in the `OUTL-BRT-CCS_EBSFIN_ConfigProps` lookup. This file is created in the directory specified by the `gl.ftp.fileerrored.directory` using the FTP adapter. The file contains the failed journals and will be attached to the notification error email.
 - d. In case of an HTTP error, the process stops and a notification email is sent.
- If there is no error, then using the EBS Adapter, the invoice lines are created.
- In case of error:
 - a. If specified in the response while creating the journals, all successful journals are deleted using the EBS Adapter.
 - b. The error is collected.
 - c. A local file is created using the original file name and the `prefix.fileerrored` property in `OUTL-BRT-CCS_EBSFIN_ConfigProps` lookup. The local file then is created in the directory specified by `ap.os.fileerrored.directory` using the Object Storage PutObject REST API. The file contains the failed invoice lines and will be attached to the notification error email.
 - d. In case of an HTTP error, the process stops and a notification email is sent.
- e. After the file is successfully processed by the integration, it invokes the FTP Adapter to rename the file adding a prefix to the filename. This prefix is obtained from the `prefixtag.fileuploaded` property name in the `OUTL-BRT-`

CCS_EBSFIN_ConfigProps lookup. The file is moved to the directory defined in the ap.ftp.prefixtag.fileuploaded property name in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup.

3. A completion email notification with details is sent to the users configured in the OUTL-BRT-CCS_EBSFIN_Email_Id lookup. Property name email.flag in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup must be set to 'true' to receive email notification when errors are encountered.
4. An optional email notification with error details is sent to the users configured in the OUTL-BRT-CCS_EBSFIN_Email_Id lookup. The email.flag property name in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup must be set to 'true' to receive email notification when errors are encountered.

Retry Option: Re-run from Oracle Integration Cloud. If there are any previous processing errors, edit the file to fix/remove the error file(s).

It is recommended to check the invoice interface tables for Oracle Utilities Customer Cloud Service records to avoid errors when retrying.

Technical Details

The following table describes the integration process and the respective Oracle Utilities Customer Cloud Service and Oracle E-Business Suite for General Ledger and Accounts Payable artifacts used in this integration process.

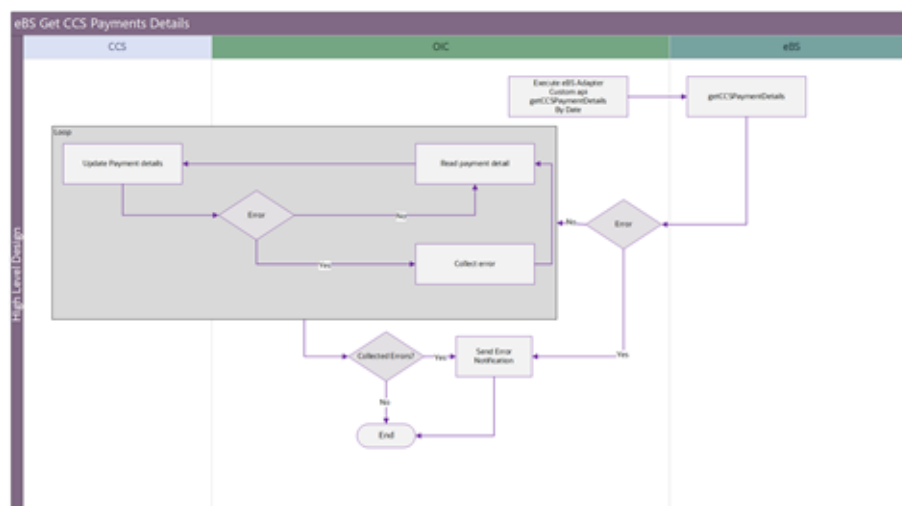
Artifacts	Value
Integration Process Name	OU CCS EBSFIN FTP AP Req Extr Upl
Integration Package Name	outl.ba.ccs_ebsfin.1_23_3000
EBS Adapter	Payables Import
	Action: Open Interface
	Operation: Payables Import

Account Payable Data Payment Update Process (Oracle E-Business Suite for General Ledger and Accounts Payable Initiated)

This integration process is used to send AP refund request payment information from Oracle E-Business Suite for General Ledger and Accounts Payable to Oracle Utilities Customer Cloud Service.

The payment information for system-generated checks to customers is generated and processed in Oracle E-Business Suite for General Ledger and Accounts Payable and then sent to Oracle Utilities Customer Cloud Service. Only payment information that corresponds to the AP refund requests originally generated in Oracle Utilities Customer Cloud Service are sent back. The integration process updates the original AP Request in Oracle Utilities Customer Cloud Service with the details of the payment including the payment status, check number, and date.

The following diagram shows a graphical representation of the AP Data Payment Update integration process.



Business Processing

This asynchronous integration process is deployed on Oracle Integration Cloud and performs the following activities:

1. The scheduled integration by default will query the invoices and payments for the previous day. The integration process will only accept payments and invoices with source equals to the one defined in the Oracle E-Business Suite for General Ledger and Accounts Payable common lookup type INT_CCS_EBS_MORG_SETUPS with code INT_INVOICE_SOURCE. This criteria is used to identify payments and invoices made to Oracle Utilities Customer Cloud Service specific payables.

Note: When sending the AP Request from Oracle Utilities Customer Cloud Service, the payment method of the Payables is translated in the integration layer using the OUTL-BRT-CCS_EBSFIN_Payment_Method lookup.

2. The payment information retrieved from Oracle E-Business Suite for General Ledger and Accounts Payable using the adapter to call the custom API returns all the Oracle Utilities Customer Cloud Service payment details needed.
3. Transform the Payment information payload from the Oracle E-Business Suite for General Ledger and Accounts Payable format to the Oracle Utilities Customer Cloud Service format.
4. Using the adapter, invoke the Oracle Utilities Customer Cloud Service REST API - AP Check Request to pass the payment information to Oracle Utilities Customer Cloud Service.
5. Error Handling for this process.

Any errors encountered are collected for later use in the error notification.

Retry Option: Re-run from Oracle Integration Cloud.

6. A completion email notification with details is sent to the users configured in the OUTL-BRT-CCS_EBSFIN_Email_Id lookup. The email.flag property name in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup must be set to 'true' to receive email notification when errors are encountered.

Technical Details

The following table describes the integration process and the respective Oracle Utilities Customer Cloud Service and Oracle E-Business Suite for General Ledger and Accounts Payable artifacts used in this integration process.

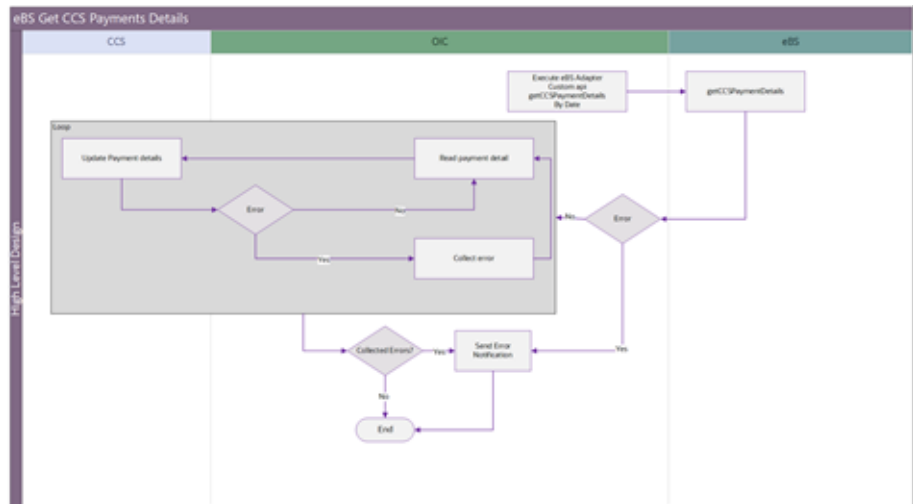
Artifacts	Value
Integration Process Name	OU EBSFIN CCS AP Payment Info Update
Integration Package Name	outl.ba.ccs_ebsfin.1_23_3000
CCS REST IWS	<p>C1-APCheckRequest</p> <p>Allows an external system to update the check-related information on an existing A/P Check Request record after the check has been cut. If the A/P Check Request is being canceled, this service also cancels the related adjustment.</p> <p>Computed URL: https://{host}:{port}/{tenant}/{domain}/rest/apis/customer/financials/apCheckRequest Method: PUT URI: /{apRequestId}</p>
Oracle E-Business Suite Custom API	<p>Get Payment/Invoice details getCCSPaymentDetails</p>

Account Payable Data Payment Void Process (Oracle E-Business Suite for General Ledger and Accounts Payable Initiated)

This integration process is used to update Oracle Utilities Customer Cloud Service AP refund request payment status to canceled status when a payment is voided in Oracle E-Business Suite for General Ledger and Accounts Payable.

Only voided payments and cancelled invoices with no payments that corresponds to the AP refund requests originally generated in Oracle Utilities Customer Cloud Service are sent back. The integration process updates the original AP Request in Oracle Utilities Customer Cloud Service with the canceled status.

The following diagram shows a graphical representation of the AP Data Payment Void integration process.



Business Processing

This asynchronous integration process is deployed on Oracle Integration Cloud and does the following activities:

1. The scheduled integration by default will query the cancelled invoices and payments voided for the previous day. The integration process will only accept payments and invoices with source equals to the one defined in the Oracle E-Business Suite for General Ledger and Accounts Payable common lookup type INT_CCS_EBS_MORG_SETUPS with code INT_INVOICE_SOURCE. This criteria is used to identify payments and invoices made to Oracle Utilities Customer Cloud Service specific payables.
2. The payment information retrieved from the Oracle E-Business Suite for General Ledger and Accounts Payable using the adapter to call the custom API returns all the Oracle Utilities Customer Cloud Service payment details needed.
3. Transform the payment information payload from the Oracle E-Business Suite for General Ledger and Accounts Payable format to the Oracle Utilities Customer Cloud Service format.
4. Using the adapter, invoke the adapter the Oracle Utilities Customer Cloud Service REST API - AP Check Request to pass the payment information to Oracle Utilities Customer Cloud Service.
5. Error Handling for this process.

Any errors encountered are collected for later use in the error notification.

Retry Option: Re-run from Oracle integration Cloud.

6. An optional email notification with error details are sent to the users configured in the OUTL-BRT-CCS_EBSFIN_Email_Id lookup. The email.flag property name in the OUTL-BRT-CCS_EBSFIN_ConfigProps lookup must be set to 'true' to receive email notification when errors are encountered.
7. A completion email notification with details is sent to the users configured in the OUTL-BRT-CCS_EBSFIN_Email_Id lookup. The email.flag property name in the

OUTL-BRT-CCS_EBSFIN_ConfigProps lookup must be set to 'true' to receive email notification when errors are encountered.

Technical Details

The following table describes the integration process and the respective Oracle Utilities Customer Cloud Service and Oracle E-Business Suite for General Ledger and Accounts Payable artifacts used in this integration process.

Artifacts	Value
Integration Process Name	OU EBSFIN CCS AP Payment Info Update
Integration Package Name	outl.ba.ccs_ebsfin.1_23_3000
CCS REST IWS	<p>C1-APCheckRequest</p> <p>Allows an external system to update the check-related information on an existing A/P Check Request record after the check has been cut. If the A/P Check Request is being canceled, this service also cancels the related adjustment.</p> <p>Computed URL: https://{host}:{port}/{tenant}/{domain}/rest/apis/customer/financials/apCheckRequest Method: PUT URI: /{apRequestId}</p>
Oracle E-Business Suite Custom API	<p>Get Payment/Invoice details getCCSPaymentDetails</p>

Chapter 3

Configuring Oracle Utilities Customer Cloud Service

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

- [One-Time Configuration Setup](#)
- [Configuring Admin Data](#)
- [Scheduling the Batch Process](#)
- [Managing Catalog Services](#)

One-Time Configuration Setup

Certain one-time configuration settings must be coordinated manually to ensure proper flow of data between the two applications.

General Ledger Configuration

Oracle E-Business Suite for General Ledger and Accounts Payable is the source of truth for all General Ledger information. Oracle Utilities Customer Cloud Service/Oracle Customer Care and Billing is considered to be the sub-ledger. It is assumed that the General Ledger has already been configured to accommodate your business needs.

Distribution Codes

Oracle Utilities Customer Cloud Service uses distribution codes to map sub-ledger transactions to the General Ledger accounts. As part of the Oracle Utilities Customer Cloud Service set up, it is assumed that the distribution codes are properly mapped to the Oracle E-Business Suite for General Ledger and Accounts Payable chart of accounts.

Configuring Admin Data

To configure the Oracle Utilities Customer Cloud Service setup for the integration:

1. Login to Oracle Utilities Customer Cloud Service.
2. Define the Journal Categories in algorithm C1EXGLFCREC to be used for the GL Extract. Refer to the [Algorithm](#) section for details.
3. Define the Characteristic Values to be used for GL and AP Extracts. Refer to the [Characteristic Values](#) section for details.
4. Define the Characteristics in CIS Division to be used for GL and AP Extracts. Refer to the [CIS Division](#) section for details.
5. Update Financial Transaction Options. Refer to the [Feature Configuration](#) section for details.

Algorithm

Define the Journal Categories in Algorithm **C1EXGLFCREC**. The parameter values for the different journal categories must be a valid value in **Manage Journal Categories Setup Task** page in Oracle E-Business Suite for General Ledger and Accounts Payable.

Characteristic Values

To define the Characteristic Values for the following Characteristic Types:

- **For General Ledger Characteristic Type:** Define the Ledger ID for the journal entries data to be used for the GL Extract integration. The Ledger ID provided must be a valid value in **Manage Primary Ledgers** page in Oracle E-Business Suite for General Ledger and Accounts Payable.

Characteristic Type: **GLEDGER**

Characteristic Value: Valid Ledger ID in Oracle E-Business Suite for General Ledger and Accounts Payable

- **For Journal Source Characteristic Type:** Define the Journal Entry Source Name to be used for the GL Extract integration. The Journal Entry Source provided must be a valid value in the **Manage Journal Sources Setup Task** page in Oracle E-Business Suite for General Ledger and Accounts Payable.

Characteristic Type: **C1-JNLSC**

Characteristic Value: Valid Journal Entry Source Name in Oracle E-Business Suite for General Ledger and Accounts Payable

- **For Business Unit Characteristic Type:** Define the Business Unit to be used for the AP Extract integration. The Business Unit provided must be a valid value in Oracle E-Business Suite for General Ledger and Accounts Payable.

Characteristic Type: **EBSORGID**

Characteristic Value: Valid Business Unit in Oracle E-Business Suite for General Ledger and Accounts Payable

CIS Division

Create a new CIS Division or use an existing CIS Division for the business. Define the following characteristics needed for this integration:

- General Ledger Characteristic Type, Characteristic Value: Valid Journal Entry Source Name in Oracle E-Business Suite for General Ledger and Accounts Payable
- Journal Source Characteristic Type, Characteristic Value: Valid Journal Entry Source Name in Oracle E-Business Suite for General Ledger and Accounts Payable
- Business Unit Characteristic Type, Characteristic Value: Valid Business Unit in Oracle E-Business Suite for General Ledger and Accounts Payable

Feature Configuration

Create a new feature configuration for Feature Type Financial Transaction Options. If one already exists, update the existing feature by adding the option type mentioned below.

To create a new feature configuration:

1. Navigate to the **Feature Configuration** page from the **Admin** menu or from the **Search** menu.
2. Enter a unique **feature name** and **description**.
Example: **Name** = FINCONF, **Description** = Financial Transaction Options
3. Set the **Feature Type** field to **Financial Transaction Options**.
4. In the **Options Collection** field, add:
 - Option Type = Adjustment Cancel Reason For A/P Request Cancellation
 - Sequence = 1
 - Value = Valid Adjustment Cancel Reason Code

Note: When sending an adjustment cancellation to Oracle Utilities Customer Cloud Service and the adjustment cancel reason is not provided, it will get the default from this option.

Scheduling the Batch Process

Run the following Oracle Utilities Customer Cloud Service batch processes to create the extracts:

- [GL Extract For Oracle E-Business Suite for General Ledger and Accounts Payable Batch Process](#)
- [Accounts Payable Extract for Oracle E-Business Suite for General Ledger and Accounts Payable Batch Process](#)

GL Extract For Oracle E-Business Suite for General Ledger and Accounts Payable Batch Process

- Schedule the GLASSIGN and GLS batch processes to run at an appropriate time of day. These processes get sub ledger information in Oracle Utilities Customer Cloud Service and all information that has not been posted to the General Ledger, making them ready for extract.
- After both GLASSIGN and GLS processes have run successfully, schedule the C1-GLFCX batch process to create the GL extract file. Some of the batch parameters are already defaulted. Make sure these parameters are defined.

- **fileName:** Name of the GL extract file.

Note: The extract file name defined here should be defined in the `gl.extract.filename.prefix` property name of the `CCSEBSFIN_ConfigProps` lookup in Oracle Integration Cloud.

Example file name: `GLEXTRACTFILE_{BC}_{BN}.csv`. Only the `GLEXTRACTFILE` part is defined in `gl.extract.filename.prefix` property name in Oracle Integration Cloud. The system variables `{BC}` - Batch Code and `{BN}` - Batch Number are not needed.

- **filePath:** Give the path name to the object storage where the file will be stored.

Example path: `file-storage://OS-APP/Int-Export`

Refer to the Object Storage Setup Guide 19B at https://docs.oracle.com/cd/F20155_01/index.htm.

Note: When these processes are scheduled to run automatically at a preset time, make sure to have coordinated this timing with the timing of other actions done by Oracle E-Business Suite for General Ledger and Accounts Payable and the integration product. Alternatively, use the standard user interface within Oracle Utilities Customer Cloud Service to run these batch processes manually.

Accounts Payable Extract for Oracle E-Business Suite for General Ledger and Accounts Payable Batch Process

- Schedule the C1-APFCX batch processes to create the AP extract file. Some of the batch parameters are already defaulted. Make sure these parameters are defined:

- **source:** Indicates the source of the accounts payable request. This value must be a valid value in Payables Lookup, Type= Source in Oracle E-Business Suite for General Ledger and Accounts Payable. Each external system should be defined as a source in Oracle E-Business Suite for General Ledger and Accounts Payable.

Example: CCS

- **paymentMethod:** The value should be an Oracle E-Business Suite for General Ledger and Accounts Payable valid payment method.
- **fileName:** Name of the AP extract file.

Note: The extract file name defined here should be defined in the property name `apreq.extract.filename.prefix` of the `CCSEBSFIN_ConfigProps` in Oracle Integration Cloud.

Example filename: `APEXTRACTFILE_{BC}_{BN}.csv`. Only the `APEXTRACTFILE` part is defined in `apreq.extract.filename.prefix` property name in Oracle Integration Cloud. The system variables `{BC}` - Batch Code and `{BN}` - Batch Number are not needed.

- **filePath:** Give the path name to the object storage where the file will be stored.

Example path: `file-storage://OS-APP/Int-Export`

Refer to the Object Storage Setup Guide 19B at https://docs.oracle.com/cd/F20155_01/index.htm.

Note: When these processes are scheduled to run automatically at a preset time, make sure to have coordinated this timing with the timing of other actions done by Oracle E-Business Suite for General Ledger and Accounts Payable and the integration product. Alternatively, use the standard user interface within Oracle Utilities Customer Cloud Service to run these batch processes manually.

Run the following Oracle Utilities Customer Care and Billing batch processes to create the extracts:

- [GL Extract For Oracle E-Business Suite for General Ledger and Accounts Payable Batch Process](#)
- [Accounts Payable Extract for Oracle E-Business Suite for General Ledger and Accounts Payable Batch Process](#)

GL Extract For Oracle E-Business Suite for General Ledger and Accounts Payable Batch Process

- Schedule the GLASSIGN and GLS batch processes to run at an appropriate time of day. These processes get sub ledger information in Oracle Utilities Customer Care and Billing and all information that has not been posted to the General Ledger, making them ready for extract.

- After both GLASSIGN and GLS processes have run successfully, schedule the C1-GLFCX batch process to create the GL extract file. Some of the batch parameters are already defaulted. Make sure these parameters are defined.
 - **fileName:** Name of the GL extract file

Note: The extract file name defined here should be defined in the property name `gl.extract.filename.prefix` of the `CCSEBSFIN_ConfigProps` in Oracle Integration Cloud.

Example file name: `GLEXTRACTFILE_{RDT}.csv`. Only the `GLEXTRACTFILE` part is defined in `gl.extract.filename.prefix` property name in OIC. The system variables `{RDT}` - appends the date time to file name is not needed.
 - **filePath:** Give the path name to the file storage where the file will be stored.

Example Path: `file-storage://file-APP/GLSFileDirectory`

When these processes are scheduled to run automatically at a preset time, make sure to have coordinated this timing with the timing of other actions done by Oracle E-Business Suite for General Ledger and Accounts Payable and the integration product. Alternatively, use the standard user interface within Oracle Utilities Customer Cloud Service to run these batch processes manually.

Accounts Payable Extract for Oracle E-Business Suite for General Ledger and Accounts Payable Batch Process

- Schedule the C1-APFCX batch processes to create the AP extract file. Some of the batch parameters are already defaulted. Make sure these parameters are defined:
 - **source:** Indicates the source of the accounts payable request. This value must be a valid value in Payables Lookup, Type= Source in Oracle E-Business Suite for General Ledger and Accounts Payable. Each external system should be defined as a source in Oracle E-Business Suite for General Ledger and Accounts Payable.

Example: CCS
 - **paymentMethod:** The value should be an Oracle E-Business Suite for General Ledger and Accounts Payable valid payment method.
 - **fileName:** Name of the AP extract file

Note: The extract file name defined here should be defined in the property name `apreq.extract.filename.prefix` of the `CCSEBSFIN_ConfigProps` in Oracle Integration Cloud.

Example filename: `APEXTRACTFILE_{RDT}.csv`. Only the `APEXTRACTFILE` part is defined in `apreq.extract.filename.prefix` property name in Oracle Integration Cloud. The system variables `{RDT}` is not needed.
 - **filePath:** Give the path name to the file storage where the file will be stored.

Example path: `file-storage://file-APP/APFileDirectory`

When these processes are scheduled to run automatically at a preset time, make sure to have coordinated this timing with the timing of other actions done by Oracle E-Business Suite for General Ledger and Accounts Payable and the integration product.

Alternatively, use the standard user interface within Oracle Utilities Customer Cloud Service to run these batch processes manually.

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 Cloud Service:

1. Login to Oracle Utilities Customer Cloud Service.
2. Navigate to the **Web Service Catalog** page either from the **Admin** menu or the **Search** menu.
3. Select **REST Web Service Class**.
4. Add the REST inbound web services mentioned below to the catalog.

Service Type	Service Name	Device Verification
Inbound Web Service	C1-APCheckRequest	AP Check Request

For more information about configuration, refer to the Oracle Utilities Customer Cloud Service documentation. The documentation is available on Oracle Help Center at: <https://docs.oracle.com/en/industries/energy-water/customer-cloud-service/index.html>

Chapter 4

Configuring Oracle E-Business Suite

This chapter describes the configurations required to integrate Oracle E-Business Suite and Oracle Utilities Customer Cloud Service:

- [Oracle E-Business Suite Configuration for General Ledger](#)
- [Oracle E-Business Suite Configuration for Account Payable Request](#)
- [Oracle E-Business Suite Configuration for Account Payable Data](#)

Please note that Oracle E-Business Suite for General Ledger and Account Payable is referred to as Oracle E-Business Suite in this chapter.

Oracle E-Business Suite Configuration for General Ledger

This section focuses on the configuration requirements for Journal Integration between Oracle E-Business Suite and Oracle Utilities Customer Cloud Service. The General Accounting module under the Finance umbrella in Oracle E-Business Suite can handle journals, period close, and general accounting. The process starts with Oracle Utilities Customer Cloud Service running the batch to collect all journals on financial transactions. Oracle Integration Cloud processes to get the General Ledger extract file created in Oracle Utilities Customer Cloud Service and load the file into Oracle E-Business Suite.

Oracle Utilities Customer Cloud Service generates a data file based on the Journal Import Template in a comma-separated value (CSV) format. Oracle Utilities Customer Care and Billing on-premises places the generated file on the server and Oracle Utilities Customer Cloud Service to Object Storage. Oracle Integration Cloud flow picks file from Object Storage or FTP server.

This section includes the following:

- [Configuration Overview for General Ledger](#)
- [Running the Import Journal Request](#)

Configuration Overview for General Ledger

In addition to the setup to run General Ledger in Oracle E-Business Suite, to import journals with a specific source, create a reference source in Oracle E-Business Suite.

Journal import creates journal entries from accounting data imported from Oracle and non-Oracle feeder systems. It supports multiple charts of accounts, as well as foreign currency, intercompany, statistical, budget, and encumbrance journals. It creates journal entries from data in the `GL_INTERFACE` table.

Defining Journal Sources

Journal sources identify the origin of the journal entries. General Ledger supplies a number of predefined journal sources. In addition, define one journal source for Oracle Utilities Customer Care and Billing, non-Oracle feeder systems to help track imported journal entries.

If journal approval is enabled in the system for set of books, set up journals with a specific journal source approved by higher management levels before the journal can be posted. This will follow the usual setup defined in Oracle E-Business Suite.

To create a new journal source:

1. Login to the system.
2. Navigate to the **Journal Sources** window.
3. Enter a unique **Name** and **Description** for the journal entry source. The source name cannot be deleted after saving the work.
4. Choose whether to **Import Journal References** from the feeder systems to maintain a mapping of summarized transactions. This information is stored in the `GL_IMPORT_REFERENCES` table.
5. Check whether to **Freeze Journals** for this journal entry source.

If the checkbox is selected, journals from this source cannot be changed in the **Enter Journals** window. If it is not selected, changes can be made to journals from this source.

6. Check whether to **Require Journal Approval** for this journal source.
7. If journal approval is enabled for the set of books and a journal is entered whose journal source requires journal approval, the batch must be approved before it can be posted.
8. (Average Balance Processing only) From the list, select an **Effective Date Rule** for the journal source.

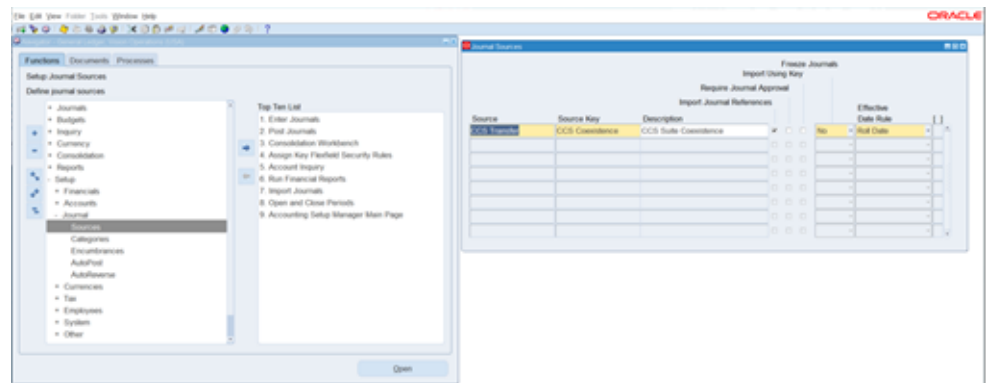
Note that the **Effective Date Rule** field does not appear unless the average balance processing is enabled for at least one set of books.

- **Fail:** Journal Import rejects transactions when the effective date is not a valid business day. Posting does not take place.
- **Leave Alone:** Journal import accepts all transactions regardless of the effective date.
- **Roll Date:** Journal import accepts the transaction, but roll the effective date back to the nearest valid business day within the same period. If there is no prior valid business day within the same period, the effective date is rolled forward.

9. Save the work.

To manage a journal source:

1. Login to the Oracle E-Business Suite environment.
2. Using your GL responsibility, navigate to **Journal > Sources**.



3. Add the following details:

Name: CCS Transfer

Source Key: CCS Coexistence

Description: CCS Suite Coexistence

Other details on the task needs to be configured based on the business. (Approval is not needed as they are already approved in Oracle Utilities Customer Cloud Service.)

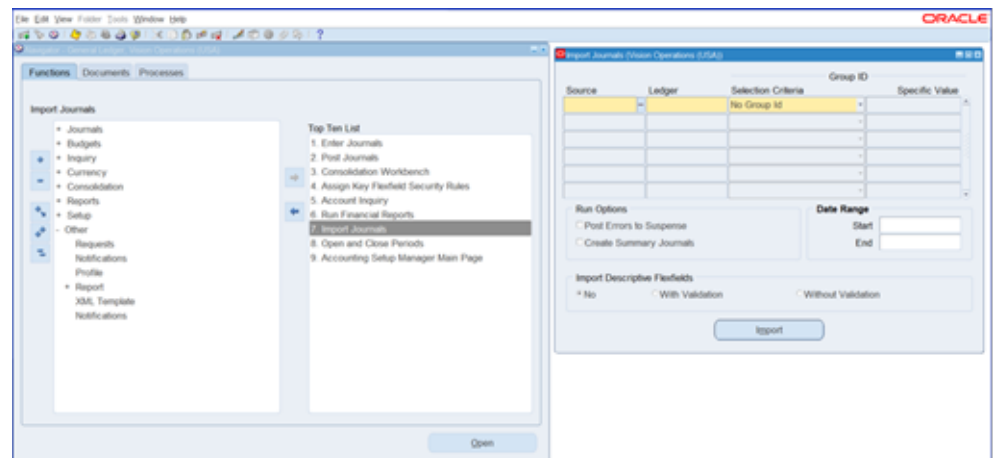
4. Click **Save and Close**.

Running the Import Journal Request

Once the GL Extract file is processed, the records are created in the interface table. For the records to transfer to journal, Oracle E-Business Suite needs to run the Import Journal Request.

Run it as per the business requirement:

1. Login to the system.
2. Using your GL responsibility, navigate to Import Journals.
3. From the **Top Ten List**, select **Import Journals**.
4. Enter the **Source** created in **Define Journal Source**.
5. Enter the **Ledger**.
6. Enter the **Selection Criteria**.
7. Select proper **Run Options**, **Date Range**, and **Import Descriptive Flexfields**.
8. Click **Import**.



Oracle E-Business Suite Configuration for Account Payable Request

This section focuses on the import of the Payment request that come as a part of refund that needs to be made for Oracle Utilities Customer Cloud Service. Oracle E-Business Suite provides functionality for importing all the payment line into the Accounts payable module. One Time Payment (OTP) is a method of entering vouchers and payments for a supplier that you do not need to add to the Address Book system.

Oracle Utilities Customer Cloud Service generates a data file based on the Payment request template in a comma-separated value (CSV) format. Oracle Utilities Customer Care and Billing on-premises places the generated file on the server and Oracle Utilities Customer Cloud Service to Object Storage. The Oracle Integration Cloud flow picks file from Object Storage or FTP server.

Configuration Overview for AP

In addition to the setups to run Accounts Payable request in Oracle E-Business Suite, for importing request with a specific source, we need to create a reference source in Oracle E-Business Suite.

Payables Lookup Type

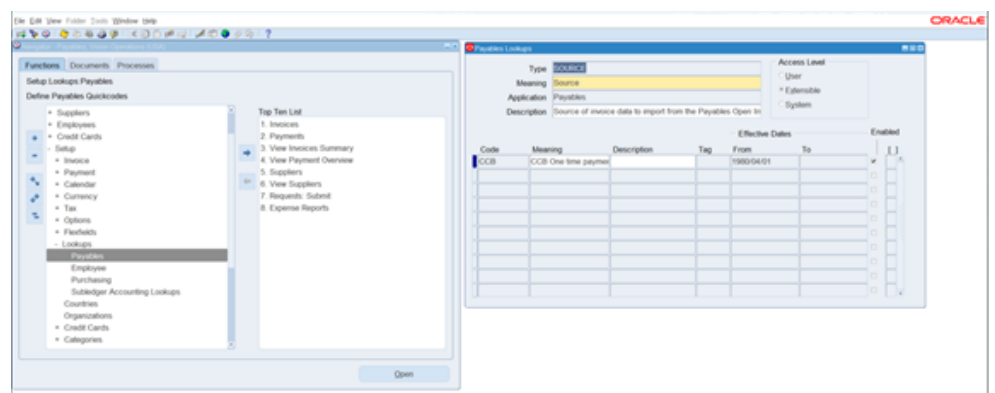
To identify payment request from the Source system, create the source in Oracle E-Business Suite. This value is passed in CSV. A lookup is a way to provide validation (using list of values) for a user input field in a user interface. A typical example could be a field on UI form say Gender which might only allow values like 'Male' or 'Female'. The application would not allow any other value apart from the ones listed in the drop down list attached to the form field.

The different lookup types based on this classification are:

- **Common Lookups:** These are migrated from the Legacy Systems as is (they belonged to the Common Lookups Category in other Oracle E-Business Suite systems) and are provided to ensure backward compatibility is maintained. They are defined in the Common Lookup View.
- **Standard Lookups:** Standard lookups are the simplest form of lookup types consisting only of codes and their translated meaning. They are defined in the Standard Lookup View.
- **Set-Enabled Lookups:** Set enabled lookup types store lookup codes that are enabled for reference data sharing. At runtime, a set-enabled lookup code is visible because the value of the determinant identifies a reference data set in which the lookup code is present.

To create a payable lookup type:

1. Using your Payables responsibility, navigate to **Lookups > Payables**.
2. In the **Lookup Type** field, enter “Source” and click **Search**.
3. Click **Add** and enter the values for Oracle Utilities Customer Care and Billing/Oracle Utilities Customer Cloud Service.



4. Click **Save and Close**.

Oracle E-Business Suite Configuration for Account Payable Data

The Oracle E-Business Suite Financials for General Ledger and Accounts Payable Payables Open Interface Import (APXIIMPT) process must be run to read the data from the AP Invoice Interface tables and create invoices corresponding to the Oracle Utilities Customer Cloud Service AP Requests. This process can be run manually or scheduled to run at a pre-determined time.

The configuration needed for AP Request and AP Payment integrations includes:

- **Payables Open Interface Import (APXIIMPT):** Schedule this process to create AP Invoices for the Oracle Utilities Customer Care and Billing information inserted into Oracle E-Business Suite Financials for General Ledger and Accounts Payable interface tables by the integration product software. When you configure Oracle E-Business Suite Financials for General Ledger and Accounts Payable to run this process automatically at a preset time, ensure you have matched this timing with the timing of other actions done by Oracle Utilities Customer Care and Billing and the integration product.

Alternatively, you can use the Standard Request Submission (SRS) within Oracle E-Business Suite Financials for General Ledger and Accounts Payable to run the Payables Open Interface Import (APXIIMPT) process manually.

- **Payment Terms Code:** Create a new payment terms code for processing the payments for Oracle Utilities Customer Care and Billing customers. These codes are used to define defaults such as when payments must be made based on the invoice date, which status must be paid, any applicable discounts, rebates, and other pertinent payment information.
- **Invoice Source:** Create an Invoice Source so that all the invoices that come from Oracle Utilities Customer Care and Billing are identified with this source in Oracle E-Business Suite Financials for General Ledger and Accounts Payable system.

Refer to the Oracle E-Business Suite Financials for General Ledger and Accounts Payable User documentation for specific guidelines on configuring these settings.

Chapter 5

Importing, Configuring, and Testing Integration Connections

This chapter explains in details 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](#)
- [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 (.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
2. Click **Applications**.
3. Search for “Oracle Utilities Customer Cloud Service”.
4. Browse through the list of applications and select the pre-built integration package to import.
5. Click **GetApp**.
6. Review and accept “Oracle Standard Terms and Restrictions”.
7. Click **Next**. MyOracle Support portal opens.
8. Download the integration package from MyOracle Support.
9. When prompted, select the server where the pre-built integration file should be uploaded.

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

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

Important! This note is applicable only for existing customers. Make sure to take a backup of the existing package and lookups, and perform the cleanup before proceeding with the new package import. The cleanup includes deactivating the existing flows in this package and deleting the package, connections, lookups and libraries used in the integration.

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.
 - OU CCS EBSFIN OS GL Extract Upl
 - OU CCS EBSFIN FTP GL Extract Upl

- OU CCS EBSFIN OS AP Req Extr Upl
 - OU CCS EBSFIN FTP AP Req Extr Upl
 - OU EBSFIN CCS AP Payment Info Update
2. Verify if the following connections are in place:
 - OU REST CCS for CCS-EBSFIN
 - OU EBSFIN for CCS-EBSFIN
 - OU REST CCS OS for CCS-EBSFIN
 - OU FTP CCS for CCS-EBSFIN
 3. Make sure that the following lookups are imported successfully:
 - OUTL-BRT-CCS_EBSFIN_Email_ID
 - OUTL-BRT-CCS_EBSFIN_ConfigProps
 - OUTL-BRT-CCS_EBSFIN_PaymentMethod
 - OUTL-BRT-CCS_EBSFIN_OrgBu_ID

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 following connections:

- [Configuring OU REST CCS OS for CCS-EBSFIN Connection](#)
- [Configuring OU EBSFIN for CCS-EBSFIN Connection](#)
- [Configuring OU REST CCS for CCS-EBSFIN Connection](#)
- [Configuring OU FTP CCS for CCS-EBSFIN Connection](#)

Configuring OU REST CCS OS for CCS-EBSFIN Connection

This connection is used to communicate with Oracle Cloud Object Storage using the REST adapter.

To configure the Oracle OU REST CCS OS for CCS-EBSFIN connection:

1. In the **Connection Properties** section, enter the object storage API endpoint use by Oracle Utilities Customer Cloud Service in the **Connection URL**.

For information about API endpoints, refer to the Oracle Cloud Infrastructure Documentation for Object Storage Service API at <https://docs.cloud.oracle.com/en-us/iaas/api/#/en/objectstorage/20160918/>.

2. In the **Security** section:
 - a. Select the **OCI Signature Version 1** security policy.
 - b. Provide the following Object Storage information:
 - Tenancy OCID
 - User OCID

- Upload the private key
- Fingerprint (obtained from object storage after register the public key for the appropriate user)

For more information, refer to the *Object Storage Setup Guide 19B* at https://docs.oracle.com/cd/F20155_01/index.htm.

3. On the **Connection** page, enter the user name and password. Click **Test**.
4. After the connection is tested successfully, click **Save**.

Configuring OU EBSFIN for CCS-EBSFIN Connection

This connection is used to communicate with Oracle E-Business Suite applications using the Oracle E-Business Suite Adapter.

To configure the OU EBSFIN for CCS-EBSFIN connection:

1. Enter the Oracle E-Business Suite URL.
The Oracle E-Business Suite Services Catalog WSDL URL follows this format:
`https://{EBS host}:{port}`
2. In the **Security Policy** section, , select **Basic Authentication**.
3. Enter the **Username** and **Password** to connect to Oracle E-Business Suite.
4. Configure the connectivity agent by selecting an agent group capable to communicate with the Oracle E-Business Suite.
5. Click **Test**.
6. After the connection is tested successfully, click **Save**.

Configuring OU REST CCS for CCS-EBSFIN Connection

This connection is used to communicate with Oracle Utilities Customer Cloud Service using the Oracle Utilities adapter.

To configure the OracleOU REST CCS for CCS-EBSFIN connection:

1. Enter the Oracle Utilities Customer Cloud Service **REST web catalog** in the **catalogURL** section.
The REST Catalog URL follows this format:
`https://{host}:{port}/{tenant}/{domain}/{appName}/rest/openapi/iws/catalog`
2. In the **Security policy** section, select **Basic Authentication**.
3. Enter **Username** and **Password** to connect to Oracle Utilities Customer Cloud Service.
4. Click **Test** at the upper-right corner.
5. After the connection is tested successfully, click **Save**.

Configuring OU FTP CCS for CCS-EBSFIN Connection

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

To configure the OU FTP CCS for CCS-EBSFIN connection:

1. Enter the Oracle Utilities Customer Care and Billing host address in the **FTP Server Host Address** section.
2. In the **FTP Server Port** section, enter the port.
Example: 22
3. In the **SFTP Connection** section, select **true**.
4. In the **Security** section, select **FTP Public Key Authentication**. Enter the user name and provide the private key to connect to Oracle Utilities Customer Cloud Service.
5. Use the agent to connect to the on-premises server, if required.
6. Click **Test** on the upper-right corner.
7. After the connection is tested successfully, click **Save**.

Setting up Certificates for Security

Important! Skip this section if there are valid CA certificates for the integration.

If there no valid certificates for this integration, download the Oracle E-Business Suite for General Ledger and Accounts Payable/Oracle Utilities Customer Cloud Service certificates and upload them to Oracle Integration Cloud to handshake with Oracle E-Business Suite for General Ledger and Accounts Payable/Oracle Utilities Customer Cloud Service.

To download the Oracle E-Business Suite for General Ledger and Accounts Payable/Oracle Utilities Customer Cloud Service certificate:

1. Login to Oracle Utilities Customer Cloud Service/Oracle E-Business Suite for General Ledger and Accounts Payable.
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, sending email notifications, and customizations in this integration. It includes the following sections:

- [Configuring Lookups](#)
- [Payment Method](#)
- [Organization Business Unit Properties](#)
- [Configuration Properties](#)
- [Error Handling](#)
- [Email Notifications](#)

Configuring Lookups

The following table lists the lookups that are part of this integration.

The lookups are only used for Account Payable Data Sync (Oracle E-Business Suite for General Ledger and Accounts Payable initiated).

DVM Name	Description
OUTL-BRT-CCS_EBSFIN_OrgBu_ID	Map EBS Organization Codes for Business Organization used in CCS
OUTL-BRT-CCS_EBSFIN_PaymentMethod	Map Payment Method between Oracle Customer Cloud and Oracle E-Business Suite

The following lookups are part of all three integration flows:

DVM Name	Description
OUTL-BRT-CCS_EBSFIN_ConfigProps	Shared by all flows in this integration. Maps the PropertyName column to the respective Value column. Do not change the values in the PropertyName column.
OUTL-BRT-CCS_EBSFIN_Email_Id.dvm	Shared by all flows in this integration. Maps from and to recipient values to the mentioned email IDs. User can configure multiple emails by using comma to separate the email IDs.

Editing Lookups

To edit a lookup:

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

Payment Method

The OUTL-BRT-CCS_EBSFIN_Payment_Method lookup includes the translation values for payment methods between Oracle Utilities Customer Cloud Service and Oracle E-Business Suite for General Ledger and Accounts Payable.

AP Extract Integration Flows

Property Name	Sample Value	Description
EBS		Payment Method code value configured in EBS for the Organization/Business Unit used to create the payment for the CCS AP Request.
CCS		Payment Method code value configured in CCS for the Organization/Business Unit used to create the AP Request Extract.

Organization Business Unit Properties

The OUTL-BRT-CCS_EBSFIN_OrgBu_ID lookup contains the properties used to set up properly the context in Oracle E-Business Suite for General Ledger and Accounts Payable to create/update the vendor and vendor site for onetime payment.

There has to be one record/line per Business Unit used in the Oracle Utilities Customer Cloud Service Divisions.

AP Extract Integration Flows

Property Name	Sample Value	Description
OrgId		EBS Organization ID where the invoices, vendor, and vendor site will be created. Ask your EBS sysadmin for this value. Example: 204
Responsibility		Responsibility key. Ask your EBS sysadmin for this value. Example: PAYABLES_OPERATIONS
RespApplication		Application short name. Ask your EBS sysadmin for this value. Example: SQLAP
SecurityGroup		Security group key. Ask your EBS sysadmin for this value. Example: STANDARD
NLSLanguage		NLS Language. Ask your EBS sysadmin for this value. Example: AMERICAN

Property Name	Sample Value	Description
Language		Language. Ask your EBS sysadmin for this value. Example: US
BusinessUnit		Business Unit name configured in CCS and EBS. Example: Vision Operations

Configuration Properties

The OUTL-BRT-CCS_EBSFIN_ConfigProps contains the properties that can be defaulted in the integration. It also contains a flag to enable email notifications.

GL and AP Extract Integration Flows

Property Name	Sample Value	Description
os.namespace		The Object Storage namespace serves as a container for all your buckets and objects. Define the namespace where the buckets and objects the GL extract file resides. This is used when calling the Object Storage APIs. Shared property for all flows in this integration.
os.gl.bucketname		Bucket Name to where the objects or files are stored. Define the bucket name where the GL Extract file is stored. This is used when calling the Object Storage APIs.
gl.extract.filename.prefix		GL Extract file name prefix This should have the same value as the batch parameter filename in Batch Process C1-GLFCX.
os.apreq.bucketname		Bucket Name to where the objects or files are stored. Define the bucket name where the AP Req Extract file is stored. This is used when calling the Object Storage APIs.

Property Name	Sample Value	Description
apreq.extract.filename.prefix		The AP Req Extract file name prefix. This should have the same value as the batch parameter filename in Batch Process C1-APFCX.
prefixtag.fileuploaded	Uploaded	The text to append to the Ap Req Extract filename to mark the file as processed or uploaded in Object Storage or FTP. Shared property for all flows in this integration.
apreq.input.directory		Folder path in which AP Request file is generated for CCB on-prem scenario from which OIC picks and process file to EBS.
gl.ftp.input.directory		Folder path in which GL Extract file is generated for CCB on-prem scenario, OIC picks and process file to EBS from this location
ftp.download.directory		Stage directory in OIC to process the files downloaded from CCB server folder
prefixtag.fileerrored		The text to append to the Ap Req Extract filename having the processing errors.
invoice.line.description		Default invoice line description when there is no value sent from CCS in the Ap Req Extract.
ap.ftp.fileuploaded.directory		FTP directory where the uploaded Ap Req Extract file will be move after being successfully processed.
gl.ftp.fileuploaded.directory		FTP directory where the uploaded GL Extract file will be move after being successfully processed.
ap.os.fileuploaded.directory		Object Storage directory where the uploaded Ap Req Extract file will be move after being successfully processed.
gl.os.fileuploaded.directory		Object Storage directory where the uploaded GL Extract file will be move after being successfully processed.
ap.ftp.fileerrored.directory		FTP directory where the errored Ap Req Extract file will be created.
gl.ftp.fileerrored.directory		FTP directory where the errored GL Extract file will be created.
ap.os.fileerrored.directory		Object Storage directory where the errored Ap Req Extract file will be created.
gl.os.fileerrored.directory		Object Storage directory where the errored GL Extract file will be created.

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 due to the limitation of Oracle Integration Cloud.

- [Asynchronous Flow Error Handling](#)

Asynchronous Flow Error Handling

Technical Fault

This fault occurs when there is a data mismatch 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 E-Business Suite are asynchronous flows, and the resubmit option is available only for asynchronous flows.

To resubmit the error instances in Oracle E-Business Suite:

1. Login to Oracle E-Business Suite.
2. Navigate **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 **OUTL-BRT-CCS_EBSFIN_Email_Id** lookup.
 - 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.

Chapter 7

Activating and Testing the Integration Flows

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

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

Prerequisites

The prerequisites are:

- All lookups and DVMs are setup in the Oracle Integration Cloud.
- Oracle Utilities Customer Cloud Service mandatory setup required for AP Payment request is configured with the Oracle E-Business Suite for General Ledger and Accounts Payable values.
- Scheduler process is set to schedule records for source which runs files from Oracle Utilities Customer Cloud Service.
- Oracle Utilities Customer Care and Billing mandatory setup to be done for file path and directory of the path should be available in the server.

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.

Chapter 8

Monitoring and Troubleshooting

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

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

Oracle Utilities Customer Cloud Service

For more information about errors and notifications, see the Oracle Utilities Customer Cloud Service documentation.

Oracle Utilities Customer Care and Billing

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.