Oracle Utilities Work and Asset Cloud Service Integration to Oracle Fusion Procurement Cloud

Configuration Guide

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Preface

Welcome to the Oracle Utilities Work and Asset Cloud Service Integration to Oracle Fusion Procurement Cloud Configuration Guide.

The preface includes the following:

- Audience
- Documentation and Resources
- Documentation Accessibility
- Conventions
- Acronyms

Audience

This document is intended for anyone implementing the integration between Oracle Utilities Work and Asset Cloud Service and Oracle Fusion Procurement Cloud for Vendor/Vendor Location, Purchase Requisition, Purchase Order and Receipt Synchronization.

Documentation and Resources

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

Product Documentation

Topic	Description
Oracle Utilities Work and Asset Cloud Service Integration to Oracle Fusion Procurement Cloud documentation	Refer to the Oracle Utilities applications documentation page: http://docs.oracle.com/cd/E72219_01/documentation.html
Oracle Utilities Work and Asset Cloud Service documentation	
Oracle Fusion Procurement Cloud documentation	https://docs.oracle.com/en/cloud/saas/procurement/21c/index.html

Additional Documentation

Resource	Location
Oracle Support	Visit My Oracle Support at https://support.oracle.com regularly to stay informed about updates and patches. Refer to the *Certification Matrix for Oracle Utilities Products (Doc ID 1454143.1)* on My Oracle Support to determine if support for newer versions of the listed products is included. For more information, refer to the Oracle Utilities Integrations page at http://my.oracle.com/site/tugbu/productsindustry/productinfo/utilities/integration/index.htm
Oracle Technology Network (OTN) Latest versions of documents	http://www.oracle.com/technetwork/index.html
Oracle University for training opportunities	http://education.oracle.com/

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.
italic	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
BICC	Oracle Business Intelligence Cloud Connector
BIP	Oracle Business Intelligence Publisher
ERP	Enterprise Resource Planning
FPRC	Oracle Fusion Procurement Cloud
OIC	Oracle Integration Cloud
Oracle UCM	Oracle's Universal Content Management or Oracle Webcenter Content Server
PO	Purchase Order
PR	Purchase Requisition
WACS	Oracle Utilities Work and Asset Cloud Service

Chapter 1

Introduction

This chapter provides an overview of Oracle Utilities Work and Asset Cloud Service integration with Oracle Fusion Procurement Cloud using Oracle Integration Cloud. It also provides information about software requirements, participating applications and supported business processes by this integration.

The chapter contains the following:

- Overview of the Integration
- About Oracle Fusion Procurement Cloud
- About Oracle ERP Financial Cloud
- About Oracle Utilities Work and Asset Cloud Service
- About Oracle Integration Cloud
- Software Requirements
- Prerequisites
- Supported Business Processes

Overview of the Integration

Oracle Utilities Work and Asset Cloud Service Integration to Oracle Fusion Procurement Cloud helps to facilitate a hybrid model for the Procurement module. Different business functions that are part of the integration initiate either in Oracle Utilities Work and Asset Cloud Service or Oracle Fusion Procurement Cloud, completing the Procure to Pay end-to-end cycle.

About Oracle Fusion Procurement Cloud

Oracle Fusion Procurement Cloud modernizes procurement by standardizing, streamlining and automating the source-to-settle process through automation and social collaboration, while controlling costs and achieving higher margins.

Oracle Purchasing Cloud

A key component of Oracle Fusion Procurement Cloud, Oracle Purchasing Cloud enables business to streamline and automate the procure-to-pay process while enforcing negotiated pricing and terms and ensuring policy compliance.

- It allows users to automate purchasing transactions and provides buying professionals insight into exceptions, status, and actions required. Users streamline routine tasks, such as creating purchase orders from approved requisitions without intervention, increasing productivity while enforcing compliance at every step. Users can utilize electronic communications with the suppliers to improve the timeliness and accuracy of purchase orders and changes.

- It provides the change management capabilities to help adapt to dynamic business needs. It allows changes to be initiated from requesters and suppliers reducing off-line communication and the chance of miscommunication. Users can leverage tolerances and workflow approvals to make sure about proper review of changes. Users can also differentiate between internal administrative changes versus revisions that should be communicated to a supplier to help eliminate supplier confusion or duplicate orders. Cloud allows to review a comprehensive document history with full visibility of what changes were made, when changes occurred, and who made the changes.

- The key business benefits are:

  - Streamline procurement processes

  - Enforce procurement policies

  - Create purchase orders from requisition without manual intervention

  - Automatically leverage negotiated pricing and terms from supplier agreements

  - Efficiently manage document revisions with visual notifications and full change history

- The key features are:

  - Buyer work area

  - Robust change management

- Center-driven procurement
- Comprehensive lifecycle visibility
- Support for centralized, decentralized and hybrid procurement organizations
- Foreign currencies
- Multiple languages
- Global agreements
- Streamlined order processing
- Control approvals by amount, business unit, account segment, item, category and location

Oracle Supplier Portal Cloud

Oracle Supplier Portal Cloud is the next generation application to enable smarter supplier interactions. It is a cloud based self-service solution that brings a holistic approach to supplier management by removing communication barriers between buyer and suppliers. Suppliers gain access to a secure, integrated supplier work area that provides full visibility to transactions, offers closed loop collaboration, and enables electronic invoicing. The supplier work area provides a summary of activity and transactions that require attention. Suppliers can access agreements, purchase orders, advance shipment notifications, invoices, and negotiations allowing suppliers to respond to your business needs.

Oracle Fusion Supplier Portal makes it easy to expand self-service to almost any supplier by providing an intuitive, browser-based solution. It also increases the variety of self-service transactions by providing a solution that is integrated across the entire source-to-settle lifecycle.

- The key business benefits are:
  - Improve communications with suppliers
  - Deliver best in class supplier collaboration
  - Easy supplier setup and support
  - Reduce errors and inquiries
  - Faster issue resolution
- The key features are:
  - Web based supplier self-service
  - Supplier profile self-management
  - Consolidated supplier work area
  - Supplier agreement collaboration
  - Supplier change order management
  - Electronic invoice presentment
  - Embedded learning
  - Information driven user experience

About Oracle ERP Financial Cloud

Oracle ERP Financial Cloud is a cloud-based, end-to-end business management solution designed for mid-sized to enterprise-level customers. It offers a suite of applications including material planning, financial accounting, analytics, and self-service reporting.

Oracle's accounting features include a Business Intelligence module to identify trends from enterprise data. Billing departments have access to a payables and assets dashboard where they can reconcile statements, track supplier invoices and payments, account for fixed assets, and manage multiple bank accounts. Expenses can be entered via mobile devices and are updated in real-time. Invoice imaging is integrated, so supplier invoices and other documents are scanned and posted automatically.

Oracle ERP Financial Cloud uses "Rapid Implementation" technology that enables quick data migration from a currently used system to cut down on implementation time and costs. Users can also integrate Oracle ERP Financial Cloud with their current solution and leverage the Oracle technologies to unite all business processes into a single view.

About Oracle Utilities Work and Asset Cloud Service

Oracle Utilities Work and Asset Cloud Service maintains information about assets and various features and functions around managing those assets. The solution provides a means of recording asset acquisition, maintenance, procurement, installation and removal.

Oracle Utilities Work and Asset Cloud Service provides functionality to manage the receipt, installation, maintenance, tracking and removal of assets. The application also manages approval processing, tracks purchasing transactions, manages inventory and resources, and tracks costs, accounting and financial transactions.

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

The integration requires the following applications:

- Oracle Utilities Work and Asset Cloud Service

- Oracle Integration Cloud

- Oracle Fusion Procurement Cloud

- Oracle Financial Cloud

For the application versions, refer to the *Oracle Utilities Work and Asset Cloud Service Integration to Oracle Fusion Procurement Cloud Release Notes* included in this release.

Prerequisites

All participating applications must be installed, set up, and working properly. It is also required to do all the mandatory setup described in the *Oracle Fusion Procurement Cloud Configurations for Oracle Utilities Work and Asset Cloud Service Integration to Oracle Fusion Procurement Cloud Setup Guide* to run this integration.

Supported Business Processes

This integration supports the following key functionalities:

- Supplier and Supplier Site information created and updated in Oracle Fusion Procurement Cloud is sent to Oracle Utilities Work and Asset Cloud Service. This process creates Work and Asset Vendor and Vendor Location.

- Blanket Purchasing Agreements and Contract Purchase Agreements with the Vendor from within Oracle Fusion Procurement Cloud are sent to Oracle Utilities Work and Asset Cloud Service. This process creates Work and Asset Blanket Contracts that can be referenced when creating Purchase Requests in Oracle Utilities Work and Asset Cloud Service.

- Purchase Request created in Oracle Utilities Work and Asset Cloud Service is synchronized with Oracle Fusion Procurement Cloud to further process the request into a Purchase Order.

- Purchase Order created for the Purchase Request within Oracle Fusion Procurement Cloud is sent to Oracle Utilities Work and Asset Cloud Service using a business event and Oracle Integration Cloud.

- Receipt for Purchase Order created in Oracle Utilities Work and Asset Cloud Service for materials received within Oracle Utilities Work and Asset Cloud Service) is sent to Oracle Fusion Procurement Cloud.

- Returns created in Oracle Utilities Work and Asset Cloud Service as a part of any purchase order received is sent to Oracle Fusion Procurement Cloud to match the purchase order with the received vs returned in the system.

- Accounts Payable related integration synchronize invoice and invoice payment information from Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud Service. Oracle Financial Cloud is the master for invoice and invoice payment in this integration hybrid model.

The following diagrams provide a high-level representation of the integration.
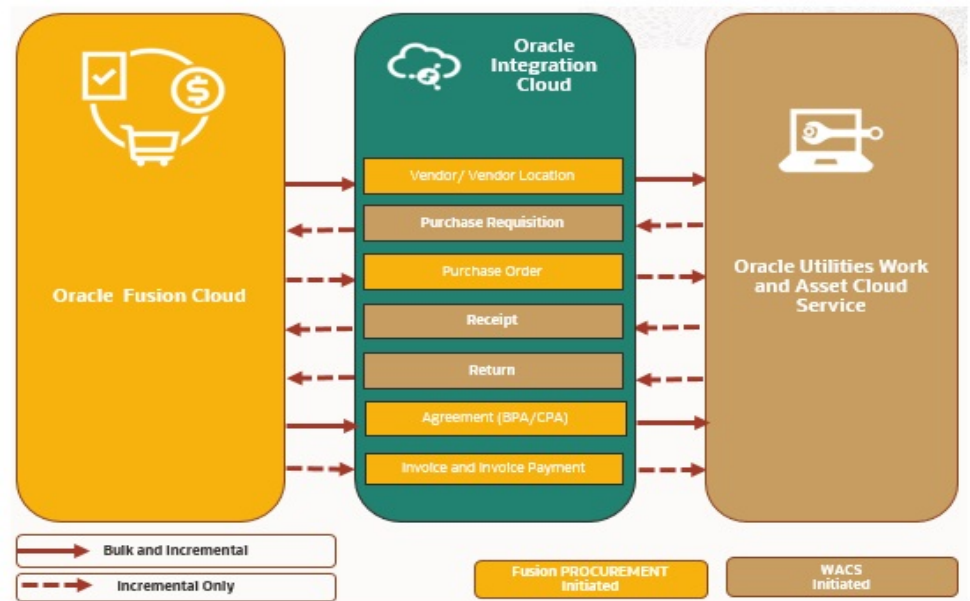
Business Processes

This section describes the business processes included in this integration:

- Vendor/ Vendor Location Process

- Blanket Contract Process

- Purchase Requisition Integration

- Purchase Order Process

- Receipt Process

- Return Process

- Account Payable - Invoice Process

- Account Payable - Invoice Payment Process

Vendor/ Vendor Location Process

The Vendor/Vendor Location process synchronizes Supplier and Supplier Site information maintained in Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud Service.

The following diagram shows the end-to-end synchronization process:
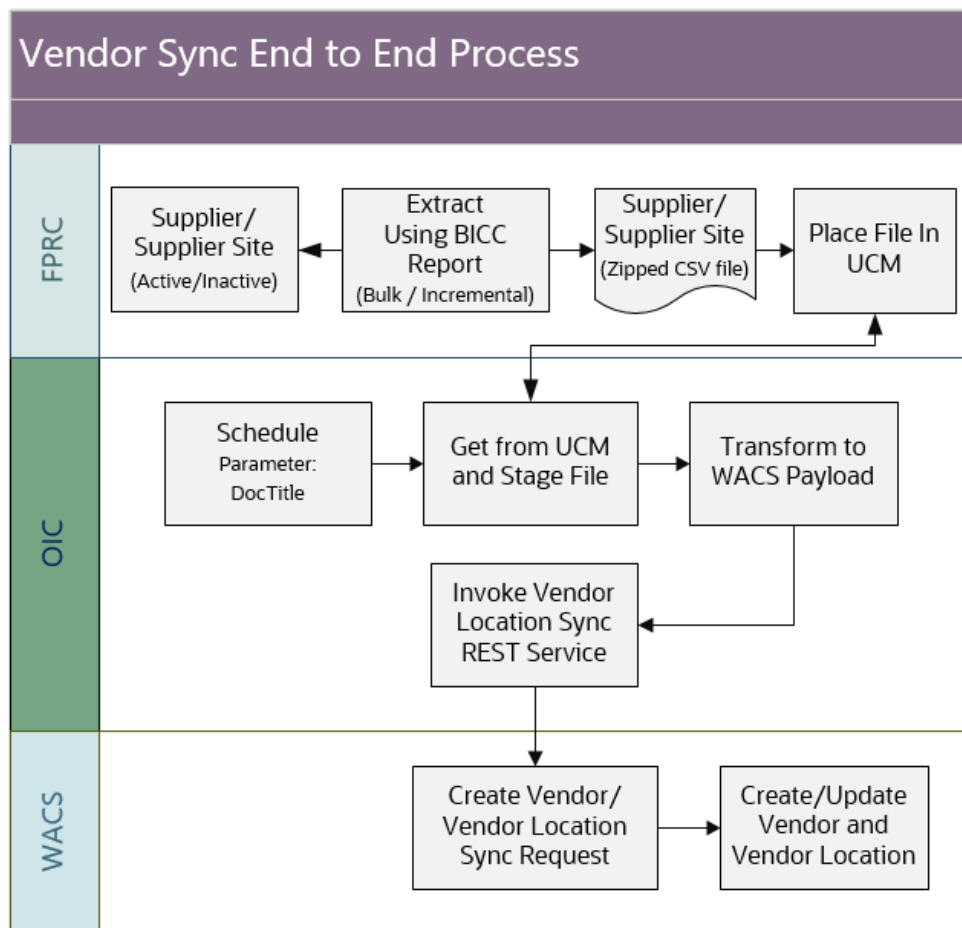
Maintenance of Supplier and Supplier Site

Oracle Fusion Procurement Cloud is the master for Supplier and Supplier Site information.

Supplier and Supplier Site Data Extract

Oracle Fusion Procurement Cloud uses Business Intelligence Cloud Connector (BICC) to extract the supplier and supplier site data for the integration.

Oracle Business Intelligence Cloud Connector extracts the supplier and supplier site business intelligence data from the Fusion Applications Cloud data source, generates a report and store it into an Oracle Storage Service or UCM server. The extract file generated is in csv and zip format.

The integration follows two modes of extraction:

- **Bulk Sync**

    Filters control the selection of the Supplier/Supplier Site in the Procurement module. The business may choose to import all records from Oracle Fusion Procurement Cloud or based on an organization (Operating Units).

    For bulk sync, it will only extract active suppliers. This is usually the initial sync done at the beginning of implementation.

The FILTER used for Bulk Sync extract are:

- Supplier Status = "Active"

- Supplier should be enabled for either Purchasing or Pay or could be both.

- Organization/Legal Entity site assignment

- **Incremental Sync**

  Incremental sync gets the new or modified data since the last extract datetime. It will extract both active and inactive suppliers.

  The FILTERS used for Incremental Sync extract are:

  - Filter criteria for incremental is similar to bulk except for Supplier Status that now includes both "Active" and "Inactive" suppliers.

  Note: Additional columns are added to the extract in case a customized value is used for this integration. Mapping value and Oracle Integration Cloud will need to change to allow the additional value to synchronize with Oracle Utilities Work and Asset Cloud Service.

Vendor and Vendor Location Synchronization

Oracle Integration Cloud gets the extract file from an Oracle Storage Service or UCM server and transforms the data and invoke the Vendor Location Synchronization REST service to create or update the vendor and vendor location information in Oracle Utilities Work and Asset Cloud Service.

Running the Vendor and Vendor Location Sync integration process is a prerequisite before using all the integration flows for Procurement. The vendor details passed into Oracle Utilities Work and Asset Cloud Service are used to raise a purchase request within Oracle Utilities Work and Asset Cloud Service, and the Purchase Order received from Oracle Fusion Procurement Cloud will also create a Purchase Order for the vendor mentioned.

Inactive Vendor and Vendor Location

If the Inactive Date on Supplier or Supplier Site is populated in Oracle Fusion Procurement Cloud, the integration passes an Inactive status to Oracle Utilities Work and Asset Cloud Service. Even if a future inactive date is provided, the vendor and vendor location will be inactive on the date of extraction. This is because BICC incremental extract is not triggered on the date of inactivation but on the date of the update, when the inactive date is populated.

Limitations

- Do not support future inactive date functionality since the BICC extract report does not support future dated incremental reporting of inactive date.

Blanket Contract Process

Blanket Contracts define the purchasing agreement between the customer and the vendors.

Oracle Fusion Procurement Cloud supports Blanket Purchasing Agreements (BPA) and Contract Purchase Agreements (CPA).

- Blanket Purchase Agreements contain the pre-determined pricing and purchasing terms for materials, miscellaneous items, and services listed on Purchase Requisitions and Purchase Orders. These agreements are used when

the details of the goods and services planned to buy from a supplier in a period of time is known but specific delivery details are unknown.

- Contract Purchase Agreements contain specific terms and conditions without indicating the goods and services to be purchased.

The Blanket Contract Process synchronizes Blanket Purchasing Agreements and Contract Purchase Agreements that are approved, revised, suspended or finally closed in Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud. These agreements are synchronized as Blanket Contracts in Oracle Utilities Work and Asset Cloud.

The following diagram shows the end-to-end synchronization process:
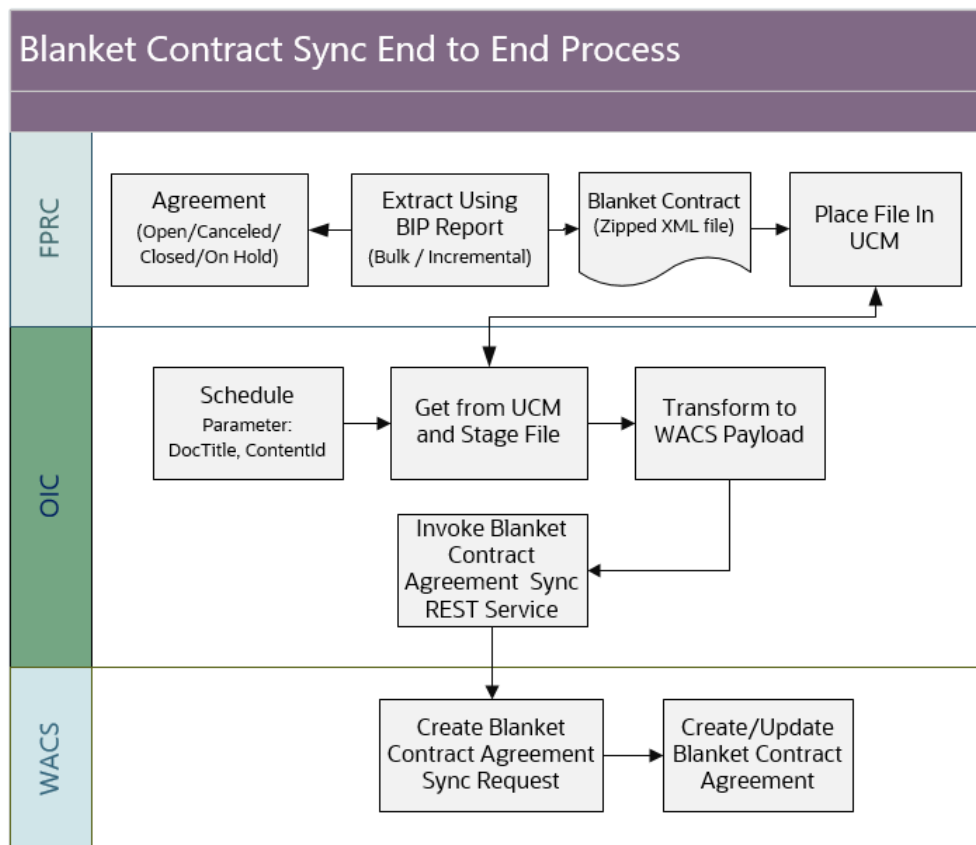
Maintenance of Blanket Purchasing Agreement or Contract Purchase Agreement

Oracle Fusion Procurement Cloud is the master for Blanket Purchasing Agreements and Contract Purchase Agreements information.

Once a Blanket Purchasing Agreement or Contract Purchase Agreement is created and approved in Oracle Fusion Procurement Cloud by a buyer, the status changes to "Open".

Blanket Purchasing Agreement or Contract Purchase Agreement Update

Any revision to the agreement in Oracle Fusion Procurement Cloud goes as an update to the existing Blanket Contract in Oracle Utilities Work and Asset Cloud Service.

Blanket and Contract Purchasing Agreement Data Extract

Oracle Fusion Procurement Cloud uses Business Intelligence Report to extract the purchase agreements data for the integration.

Oracle Business Intelligence report extracts the agreement data from a Fusion Applications Cloud data source, generates a report and store it into an Oracle Storage Service or UCM server. The extract file generated is in xml and zip format.

The integration follows two modes of extraction:

- **Bulk Sync**

  Filters control the selection of the purchasing agreements in the Procurement module. The business may choose to import all records from Oracle Fusion Procurement Cloud or based on an organization (Business Unit).

  For bulk sync, it will only extract purchasing agreements in 'Open' status. This is usually the initial sync done at the beginning of implementation.

  The FILTERS used for Bulk Sync extract are:

  - Blanket Contract Status = "Open"

  - Organization/Business Unit

- **Incremental Sync**

  Incremental sync gets the new or modified data since the last extract datetime.

  The FILTERS used for Incremental Sync extract are:

  - Filter criteria for incremental is similar to bulk except for blanket contract Status that now includes "Open", "On Hold", "Cancelled" and "Finally Closed" statuses.

Blanket Contract Synchronization

Oracle Integration Cloud gets the extract file from an Oracle Storage Service or UCM server and transforms the data and invoke the Blanket Contract Synchronization REST service to create or update the blanket contract information in Oracle Utilities Work and Asset Cloud Service.

Additional points for this integration process:

- Purchase order lines with different blanket agreement can be clubbed in one Purchase order

- In case the END date of the agreement is missing, end date is picked from the Oracle Integration Cloud configuration. Similarly, limit amount if left blank it is picked from the Oracle Integration Cloud configuration.

- PI ratio is calculated using Unit of Measure on blanket to the Unit of Issue on the Item definition.

Purchase Requisition Integration

The Purchase Requisition process synchronizes approved purchase requisitions in Oracle Utilities Work and Asset Cloud Service to Oracle Fusion Procurement Cloud.

The diagram shows the end-to-end synchronization process:
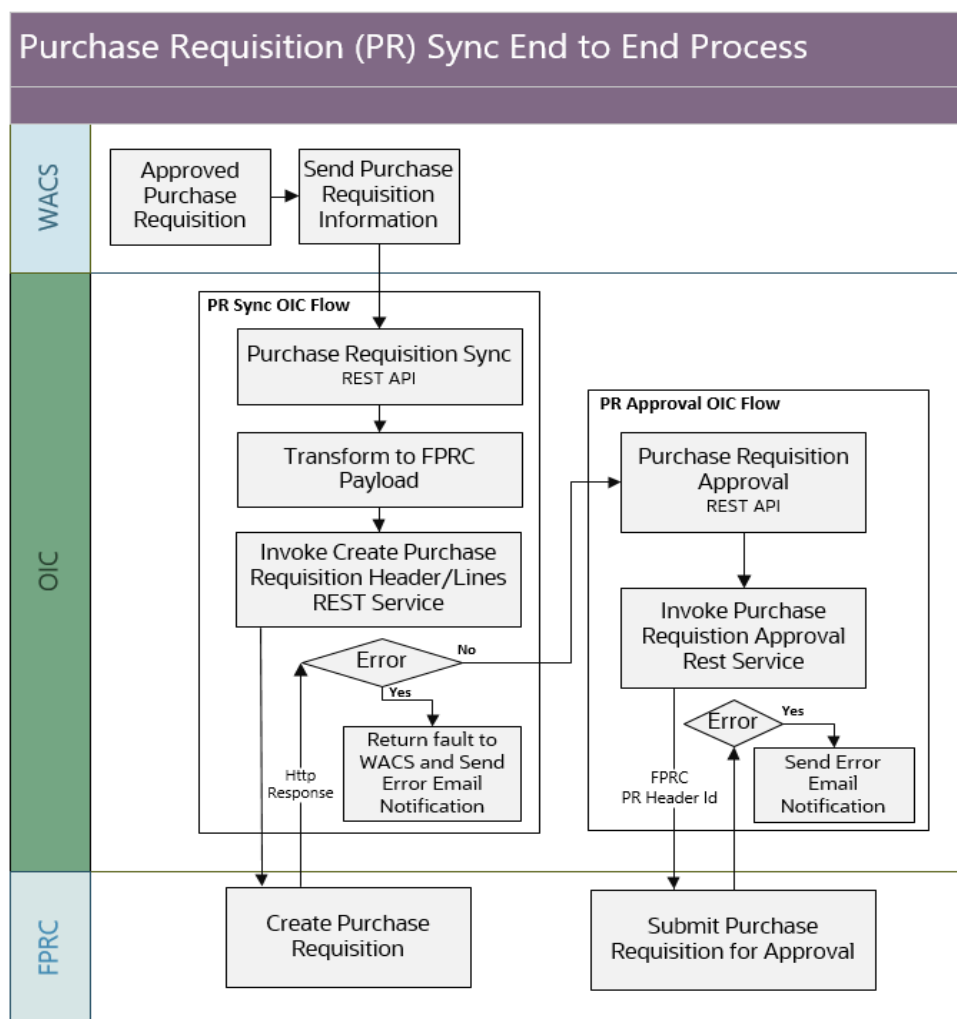
Creation of Purchase Requisition

Purchase requisitions are created in Oracle Utilities Work and Asset Cloud Service and this application is always the owner of the requisition portal.

Purchase Requisition Synchronization

Only approved purchase requisitions are synchronized from Oracle Utilities Work and Asset Cloud Service to Oracle Fusion Procurement Cloud.

Oracle Integration Cloud receives the purchase requisition information from Oracle Utilities Work and Asset Cloud Service, transforms the data and invoke the Create Purchase Requisition REST service to create the requisition in Oracle Fusion Procurement Cloud. Then, another Oracle Integration Cloud process is called to invoke the Submit Purchase Requisition for Approval REST service to submit the purchase requisition created for approval in Oracle Fusion Procurement Cloud.

The purchase requisition created in Oracle Fusion Procurement Cloud has "Externally Managed Flag" = true to indicate the requisition is coming from an external system.

Based on the purchase requisition's category/buyer, it will be available on the **Process Requisition** page of the buyer.

Purchase Requisition Update

Once the purchase requisition is sent to the external system, no updates to the purchase requisition is allowed in Oracle Utilities Work and Asset Cloud Service.

Blanket Contract Reference

When the referenced blanket contract is:

- A Contract Purchase Agreement (Initiating Blanket Category is "CPA"), the Blanket Contract Header External ID is passed back to Oracle Fusion Procurement Cloud.

- A Blanket Purchase Agreement (Initiating Blanket Category is "BPA"), the Blanket Contract Header and Line External IDs are passed back to Oracle Fusion Procurement Cloud only if the PR Line is linked to a Blanket Contract Line External ID.

Limitations

- Only Expense Type Purchase Requisition is created in Oracle Fusion Procurement Cloud.

- Cancellation of Purchase Requisition is not supported by the integration. This is manually done in both applications.

- Update to Purchase Requisition is not supported by the integration.

Purchase Order Process

Purchase Order Integration is the next step to the procurement process. As purchase requests are received from Oracle Utilities Work and Asset Cloud Service in the above flow, these requests are converted to purchase orders in Oracle Fusion Procurement Cloud to make a seamless integration between Oracle ERP Procurement and Oracle Utilities Work and Asset Cloud Service.

The Purchase Order process synchronizes purchase orders that are approved, updated, canceled or finally closed in Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud.

The diagram shows the end-to-end synchronization process:

Purchase Order (PO) Sync End to End Process
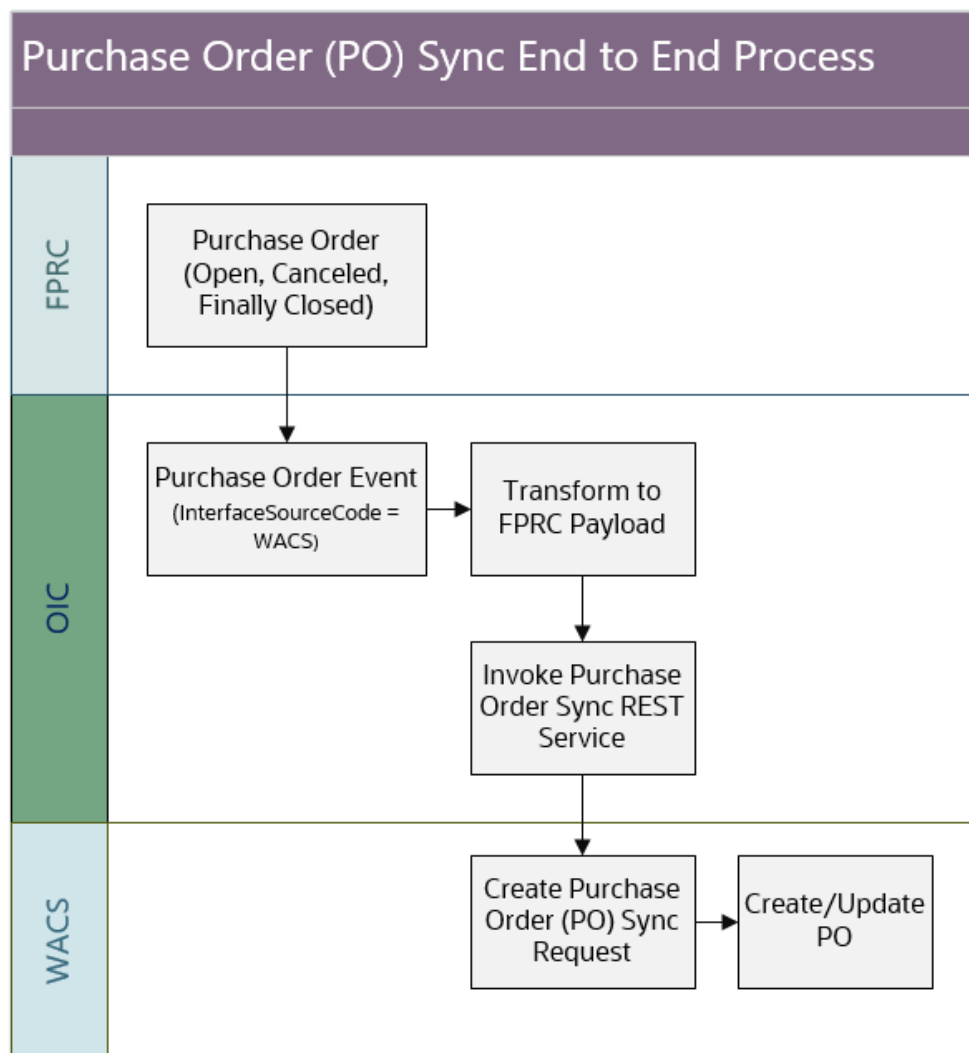
Creation of Purchase Order

Oracle Fusion Procurement Cloud is the master for Purchase Order information.

Once a Purchase Order is created and approved in Oracle Fusion Procurement Cloud by a buyer, the status changes to "Open".

Purchase Order Synchronization

Once a Purchase Order is in "Open" status in Oracle Fusion Procurement Cloud, it triggers a business event that sends out the approved purchase order to the integration.

Oracle Integration Cloud receives the purchase order information from Oracle Fusion Procurement Cloud, transforms the data and invoke the Purchase Order Synchronization REST service to create or update the purchase order information in Oracle Utilities Work and Asset Cloud Service.

Only purchase orders based on an approved Oracle Utilities Work and Asset Cloud Service purchase requisitions are synchronized over to Oracle Utilities Work and Asset Cloud Service. This means the purchase order's Interface Source Code field must have the value 'WACS'.

Purchase Order Update

Any change order/revision of purchase order goes as an update to the existing purchase order in Oracle Utilities Work and Asset Cloud Service.

When the purchase order is "Canceled" or "Finally Closed" in Oracle Fusion Procurement Cloud, it also triggers an event to the integration and sends an update to the existing purchase order in Oracle Utilities Work and Asset Cloud Service.

Limitations

- Users cannot combine different purchase requisitions to one Purchase Order in Oracle Fusion Procurement Cloud. However, multiple Purchase Orders can be created from one Purchase Requisition.

- Taxes on the purchase order are not synchronized from Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud Service.

Receipt Process

The Receipt Process synchronizes all completed receipts created in Oracle Utilities Work and Asset Cloud Service to Oracle Fusion Procurement Cloud as Purchase Order Receipts.

The following diagram shows the end-to-end synchronization process:
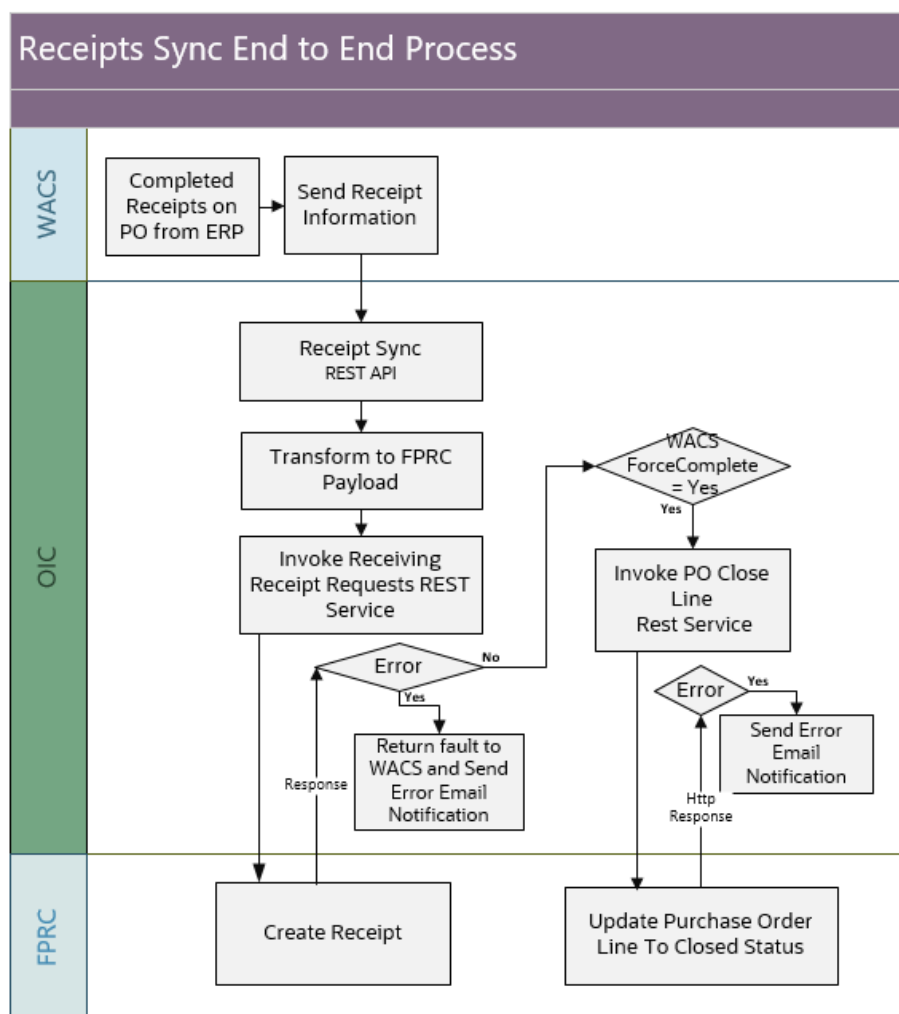
Creation of Receipts

Receipts are created in Oracle Utilities Work and Asset Cloud Service since the inventory module is owned by Oracle Utilities Work and Asset Cloud Service. To close the purchase order and further create the invoice and invoice payment, the receipt information needs to be synchronized to Oracle Fusion Procurement Cloud.

In Oracle Utilities Work and Asset Cloud Service, the receipt function is disabled to receive quantity more than ordered for a Purchase Order. Due to tolerance setup on receiving parameters as per business practice in Oracle Fusion Procurement Cloud, the quantity received cannot exceed the Purchase Order quantity on Oracle Utilities Work and Asset Cloud Service.

Receipt Synchronization

Only completed receipts are synchronized from Oracle Utilities Work and Asset Cloud Service to Oracle Fusion Procurement Cloud.

Oracle Integration Cloud receives the receipt information from Oracle Utilities Work and Asset Cloud Service, transforms the data and invoke the Receiving Receipt Request REST service to create the receipt in Oracle Fusion Procurement Cloud.

If Oracle Utilities Work and Asset Cloud Service pass Force Complete field = "Yes", then the corresponding Purchase Order Line will be Closed.

In the current phase of integration, only 3-way match is supported. Hence all Purchase Orders require receipt in Oracle Utilities Work and Asset Cloud Service.

Errors encountered in the integration needs to be fix in Oracle Fusion Procurement Cloud. All the error in the staging interface table needs to be reviewed and manually resolved in the Oracle Fusion Procurement Cloud as Oracle Utilities Work and Asset Cloud Service has already completed the receipt processing.

The implementation user/consultant needs to fetch the error records and correct records manually to reprocess them in Oracle Fusion Procurement Cloud.

Receipt Update

Once the receipt is sent to the external system, no updates to the receipt is allowed in Oracle Utilities Work and Asset Cloud Service.

Limitations

- Only Expense Type Receipt is created in Oracle Fusion Procurement Cloud.

- Update to Receipt is not supported by the integration.

- When all quantities for a Purchase Order Line have been received, the ERP external system will close the Purchase Order Line. If the "Force Complete" flag was also included in the receipt, the ERP external system will error as it tries to close the Purchase Order for receiving all quantities and again for the "Force Complete" flag. The "Force Complete" flag is sent when the checkbox option is selected in the **Work and Asset Cloud Service Accept** dialog box.

Return Process

The Return Process synchronizes all completed returns on receipt created in Oracle Utilities Work and Asset Cloud Service to Oracle Fusion Procurement Cloud to create return for inventory within Oracle Fusion Procurement Cloud.

Returning received lines is the process of moving the material received in the warehouse back to the supplier, customer, or receiver. There should be a valid receipt to process the returns.

The following diagram shows the end-to-end synchronization process:
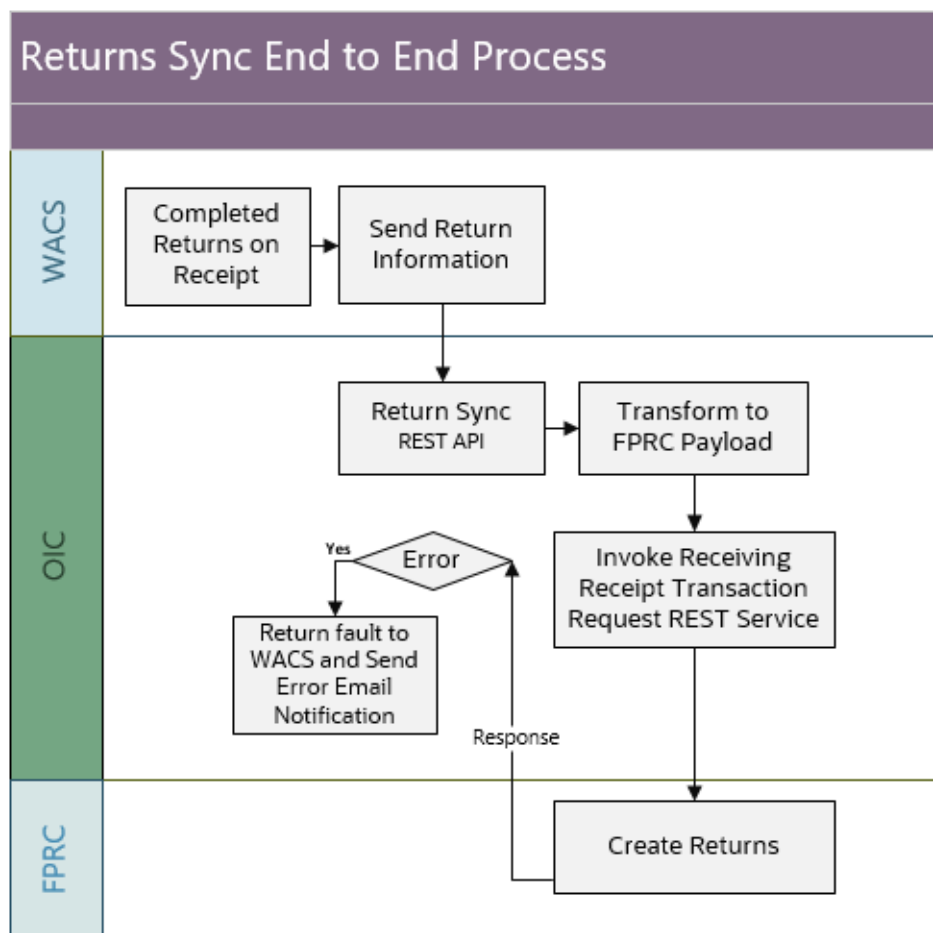
Creation of Returns for Receipts

Returns are created in Oracle Utilities Work and Asset Cloud Service since the inventory module is owned by Oracle Utilities Work and Asset Cloud Service.

Returns Synchronization

Only completed returns are synchronized from Oracle Utilities Work and Asset Cloud Service to Oracle Fusion Procurement Cloud.

Oracle Integration Cloud receives the returns information from Oracle Utilities Work and Asset Cloud Service, gets the Parent Transaction Id of the receipt to return from in Oracle Fusion Procurement Cloud, transforms the data and invokes the Receiving Receipt Transaction Request REST service to process the returns in Oracle Fusion Procurement Cloud.

Returns Update

Once the return is sent to the external system, no updates to the return is allowed in Oracle Utilities Work and Asset Cloud Service.

Limitations

- Update to Returns is not supported by the integration.

Account Payable - Invoice Process

For all the purchase orders synchronized to Oracle Utilities Work and Asset Cloud Service, receipts are synchronized back to Oracle Fusion Procurement Cloud to close the purchase order for invoicing.

Once the purchase order is closed for invoicing and the invoice is created and validated within Oracle Financial Cloud, these invoices are synchronized to Oracle Utilities Work and Asset Cloud Service.

The following diagram shows the end-to-end synchronization process:
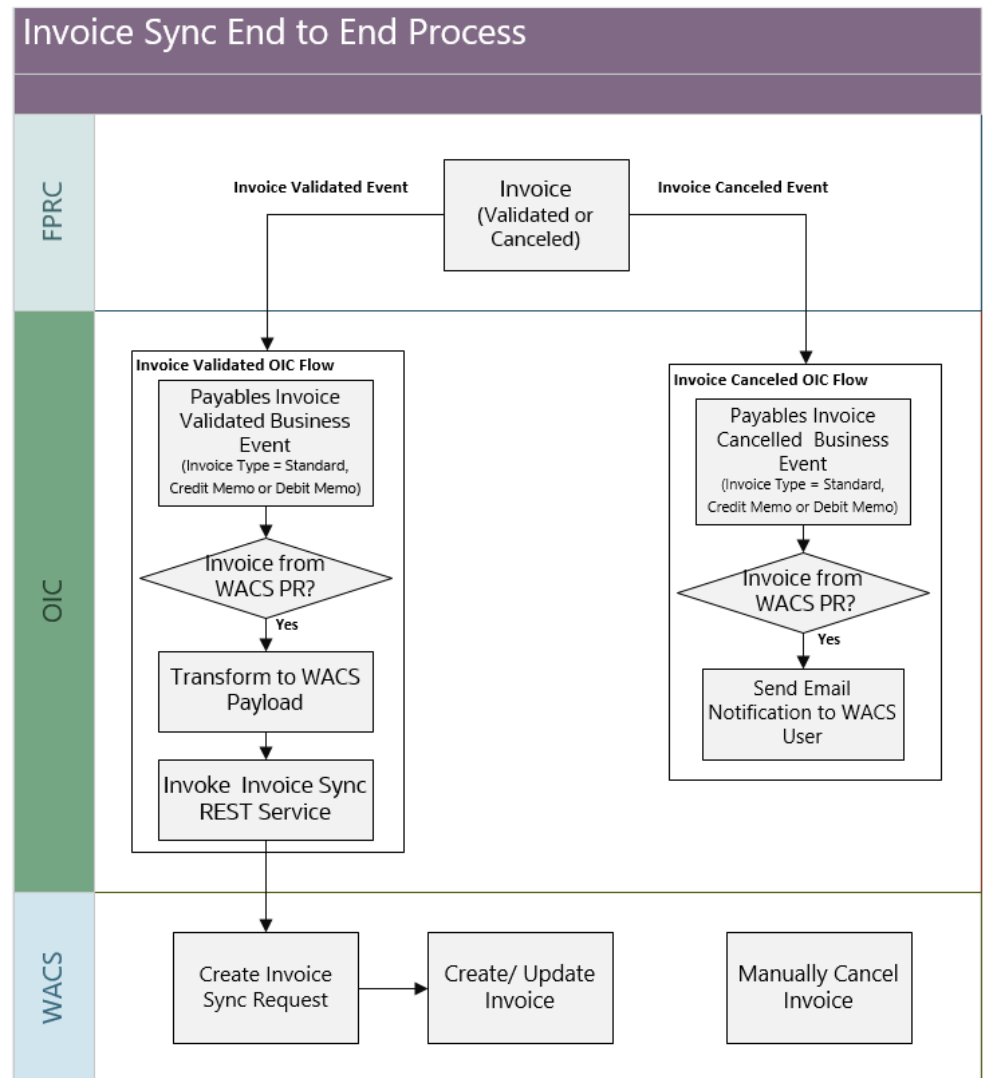
Creation of Invoice

Oracle Fusion Procurement Cloud is the master for the procurement module and is the owner of the Invoice information.

Invoice Validated Synchronization

Once an Invoice is validated in Oracle Fusion Procurement Cloud by a buyer, the invoice status changes to "Validated" and triggers a business event that sends out the validated invoice to the integration.

For more information on when Oracle Payments Cloud business events - Invoice Validated is initiated, refer to the *Oracle Financials Cloud - Implementing Payables Invoice to Pay* documentation at https://docs.oracle.com/en/cloud/saas/financials/21d/faipp/index.html.

Only invoices from a purchase order based on an Oracle Utilities Work and Asset Cloud Service purchase requisitions are synchronized over to Oracle Utilities Work and Asset Cloud Service.

Invoices are filtered based on a descriptive flexfield used to differentiate invoice created for Oracle Utilities Work and Asset Cloud Service. Invoice Distribution DFF is created to store value that is used as a filter when subscribing invoice out of the business event.

Invoice Update

Only a limited number of fields can be updated from Invoice in Oracle Fusion Procurement Cloud. Any update that is validated triggers a business event that sends out the updated invoice to the integration.

Integration sends the whole invoice information to Oracle Utilities Work and Asset Cloud Service and this can cause an error in Oracle Utilities Work and Asset Cloud Service since Oracle Utilities Work and Asset Cloud Service only allow invoice header information updates and new invoice lines added to an invoice. It does not allow updates to existing invoice lines.

Invoice Canceled

- When a validated invoice is canceled in Oracle Fusion Procurement Cloud, the invoice status changes to "Canceled" and triggers a business event that sends out the canceled invoice to the integration.

  For more information on when Oracle Payments Cloud business events - Invoice Canceled is initiated, refer to the ERP documentation.

  The Integration sends an email out to a Oracle Utilities Work and Asset Cloud Service User to reverse the invoice created in "Posted" status in Oracle Utilities Work and Asset Cloud Service. This is a manual step that a user has to do in Oracle Utilities Work and Asset Cloud Service.

- When an invoice is created and canceled, without validation, in Oracle Fusion Procurement Cloud, it triggers both the Invoice Validated and Invoice Canceled business events and send out the canceled invoice information to the integration.

  The integration will disregard the message received in the Invoice Validated OIC Process and not send the canceled invoice information to Oracle Utilities Work and Asset Cloud Service. But, it will still process the message received in the Invoice Canceled OIC Process and sends an email out to a Oracle Utilities Work and Asset Cloud Service User to reverse the invoice created in Oracle Utilities Work and Asset Cloud Service. In this case, the Oracle Utilities Work and Asset Cloud Service user should just ignore this email.

Invoice Lines

Oracle Fusion Procurement Cloud can pass the following invoice lines: Item, Freight, Miscellaneous and Taxes.

- When passing an Item invoice line, it should always reference a Purchase Order (PO) Number/PO Line Number combination or else it will error in Oracle Utilities Work and Asset Cloud Service.

- When passing Freight or Miscellaneous invoice lines, reference to a Purchase Order Line can be optional.

- When passing the Tax invoice lines, integration is passing the detailed transaction tax lines to Oracle Utilities Work and Asset Cloud Service. The tax line can reference a PO Number/PO Line Number combination.

Limitation

Invoice Cancellation in Oracle Utilities Work and Asset Cloud Service should be done manually.

Account Payable - Invoice Payment Process

When an invoice payment is created or voided in Oracle Financial Cloud, the invoice payment details are synchronized to Oracle Utilities Work and Asset Cloud Service.

The following diagram shows the end-to-end synchronization process:
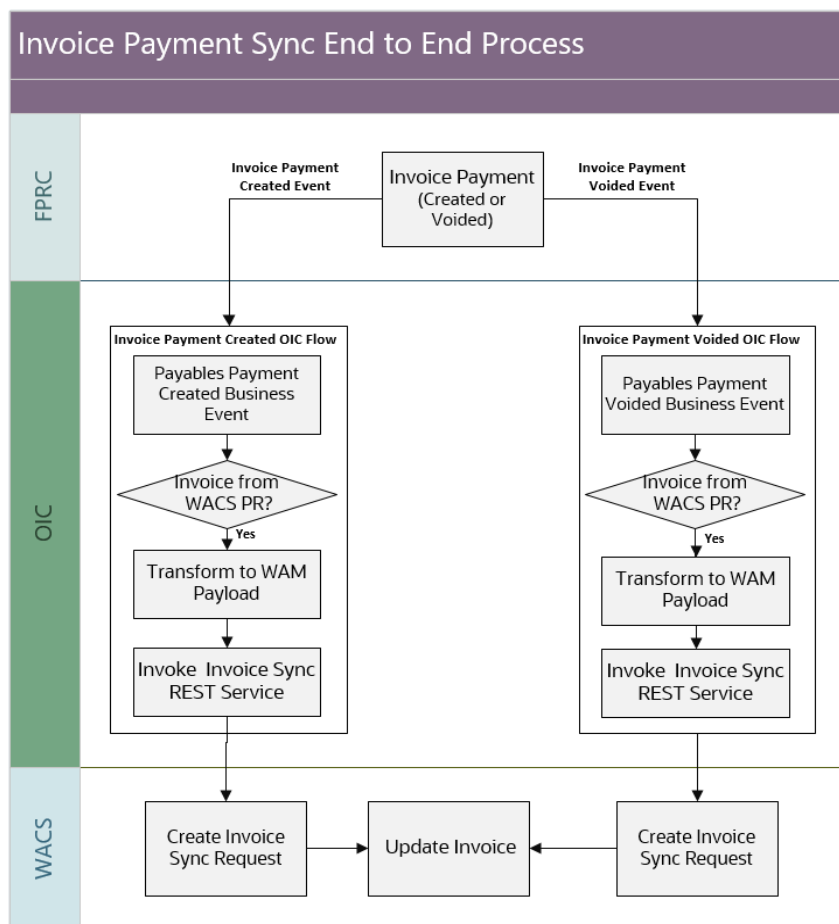
Invoice Payment/Voided Synchronization

Once an Invoice payment is created or voided in Oracle Fusion Procurement Cloud, this triggers the payables payment created or payables payment voided business event that sends out the invoice payment or voided information to the integration.

For more information on when Oracle Payments Cloud business events - Payables Payment Created or Payables Payment Voided are initiated, refer to the **Enable the Payments Business Events Profile Option** section in the *Oracle Financials Cloud - Implementing Payables Invoice to Pay* documentation at https://docs.oracle.com/en/cloud/saas/financials/21d/faipp/index.html.

Only invoice payments or voided related to an invoice base on an Oracle Utilities Work and Asset Cloud Service purchase requisitions are synchronized over to Oracle Utilities Work and Asset Cloud Service.

Invoice Payment Details

Once an invoice payment is created, whether full payment or partial payment, the payment date, payment number, payment type and payment amount are synchronized to Oracle Utilities Work and Asset Cloud Service. In Oracle Utilities Work and Asset Cloud Service, this stores the payment information as part of the invoice header.

When partial payments are synchronized to Oracle Utilities Work and Asset Cloud Service, Oracle Utilities Work and Asset Cloud Service only stores the latest payment information. To see the complete history of the payments, navigate to the purchase order in Oracle Fusion Procurement Cloud.

Invoice Discounts

When a discount is applied during an invoice payment, the discount amount is passed to Oracle Utilities Work and Asset Cloud Service as part of the Invoice Payment Process. Aside from updating the invoice header with the payment information, this will also create a new discount invoice line with the discount amount in Oracle Utilities Work and Asset Cloud Service.

Voided Invoice Payment

When an invoice payment is voided, the payment amount and discount amount, if any, are reversed.

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 the integration between Oracle Fusion Procurement Cloud and Oracle Utilities Work and Asset Cloud Service are:

- The integration layer consists of integration processes deployed on Oracle Integration Cloud.

- The integration processes interact with other applications using the following adapters:

  - Oracle ERP Cloud Adapter to subscribe to business events raised by various modules in Oracle ERP Cloud. This integration subscribes to the Purchase Order and Invoice Events.

    It also invokes the Business (REST) Resource for procurement service application to create, update or query the purchase requisition and receive the receipt request and returns.

  - SOAP Adapter to interact with Oracle UCM Generic Web Service to search, get and rename files in Oracle UCM.

  - Oracle Utilities Adapter interacts with the WACS REST APIs.

- The integration pattern used for the solution is:

  - One-way asynchronous for all flows.

- Email notification is optional in most cases. Configure the property name email.flag in the OUTL-BRT-WACS_FPRC_ConfigProps lookup to 'true' to receive email notification when errors are encountered. By default, this is set to 'true'.

- The recipient(s) of the email notification is configured in the OUTL-BRT-WACS_FPRC_Email_ID lookup.

Refer to the Business Flows section for more information about each integration process.

Business Flows

The integration scope supports the following business processes:

- Vendor and Vendor Location Synchronization Process (Oracle Fusion Procurement Cloud Initiated)

- Blanket Contract Synchronization Process (Oracle Fusion Procurement Cloud Initiated)

- Purchase Requisition Synchronization Process (Oracle Utilities Work and Asset Cloud Service Initiated)

- Purchase Requisition Approval Process (Oracle Utilities Work and Asset Cloud Service)

- Purchase Order Synchronization Process (Oracle Fusion Procurement Cloud Initiated)

- Receipts Synchronization Process (Oracle Utilities Work and Asset Cloud Service initiated)

- Returns Synchronization Process (Oracle Utilities Work and Asset Cloud Service initiated)
- Invoice Validated Synchronization Process (Oracle Fusion Procurement Cloud initiated)
- Invoice Cancelled Synchronization Process (Oracle Fusion Procurement Cloud initiated)
- Invoice Payment Synchronization Process (Oracle Fusion Procurement Cloud initiated)
- Invoice Payment Voided Synchronization Process (Oracle Fusion Procurement Cloud initiated)

Vendor and Vendor Location Synchronization Process (Oracle Fusion Procurement Cloud Initiated)

This integration process synchronizes the supplier and supplier site information from Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud Service as vendor and vendor location information for both Bulk and Incremental sync.

The Vendor Location Bulk or Incremental BICC report should be run first to create the vendor and vendor location sync extract file in UCM. The file is needed before running this integration process.

- Bulk synchronization is done as a first step to synchronize all the active vendor and vendor locations.

- Any updates to the vendor or vendor location, including changing the status from active to inactive and vice versa, are extracted by the Vendor Location Incremental Sync BICC report periodically.

Note: Define the integration schedule for this process and make sure it coordinates with the BICC report generation in Oracle Fusion Procurement Cloud.

The following diagram shows a graphical representation of the Vendor/Vendor Location Synchronization integration process.
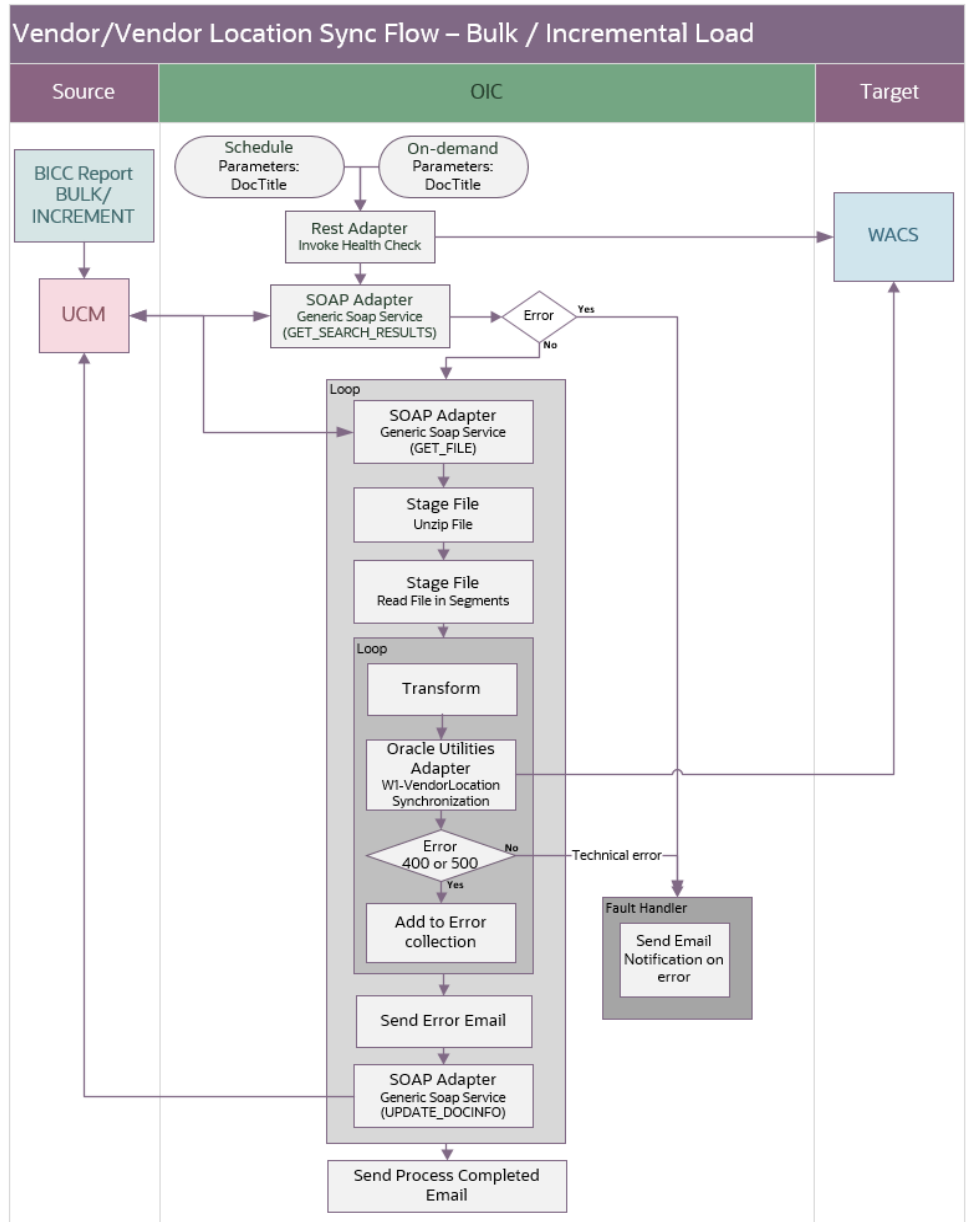
Processing Details

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

1. This process is triggered by a schedule and has one schedule parameter.

Parameter	Description	Initial Value
docTitle	This is the document title of the file in UCM.	file*
	Once the file is processed without any errors, the file is prefixed with "PROCESSED" and the next unprocessed file with the same docTitle pattern is used.	
	If multiple files with the same docTitle needs to be processed, the partial names for the docTitle (example: file*) should be used.	

2. Invoke F1-HealthCheckRest Rest WACS API to check if the Oracle Utilities Work and Asset Cloud Service environment is up and accessible.

3. Invoke the UCM Generic SOAP service to search the file(s) in Oracle UCM given the input docTitle pattern picking the earliest file first.

4. The search result rows for the matched input file parameter are returned in the response as an attribute named "SearchResults"in the list element "ResultSet". Iterate over the "ResultSet" element to find the "SearchResults" attribute.

    Each "Row" element under the ResultSet has the file information for the matched vendor location file. Iterate over each "Row" field to process each vendor location file.

5. For each Vendor Location file, invoke the UCM Generic SOAP service to get the file from UCM as a MTOM attachment in the response.

6. Use Stage File operation "Unzip file" to unzip the file. The file is unzipped in a temporary directory named with string "TempCSVFile concatenated with docId".

7. Use Stage File operation "ReadFileinSegments" to read the file in segments of 200 records. After the 200 records are processed, the next segment of the record is read.

8. For each Vendor Location record in the segment, do the following:

    •   Transform vendor location information from Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud Service format.

        The field mapping details for Vendor Location Integration are available in the *Oracle Utilities Work and Asset Cloud Service Integration to Oracle Fusion Procurement Cloud Data Mapping Guide* included in this release.

    •   Invoke the Oracle Utilities Work and Asset Cloud Service Vendor Location Sync REST API to pass the vendor information to Oracle Utilities Work and Asset Cloud Service.

    •   Refer to the **Error Handling** section for information on error scenarios and retry options.

9. When all Vendor Location records in the file are processed, invoke the UCM Generic SOAP service to rename the file.

    •   If no record is in error, prefix the filename with 'PROCESSED-'.

    •   Else, prefix the filename with 'ERROR-'.

10. The next unprocessed Vendor Location file is picked up from UCM and the processing continues.

11. After all files are processed, a process completed email notification is sent.

> **Note**: All email notification are optional. By default, this is enabled to 'true' in the Configuration Properties file.

Technical Details

The following table describes the integration processes and the respective artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Oracle Utilities FPRC WACS Vendor Locations Sync
Integration Package Name	outl.ba.wacs_fprc.1_0_0
WACS REST API (Utilities Cloud Adapter)	Web Service Name: W1-VendorLocationSynchronization Computed URL: https://host:port/ouaf/rest/apis/asset/purchasing/vendorLocationSynchronization Method: POST URI: / Target Connection Name: Oracle Utilities REST WACS for WACS-FPRC
UCM Generic SOAP Service (SOAP Adapter)	https://{UCM_host_name}:{UCM_port}/idcws/GenericSoapPort?WSDL To search for files, use: IdcService="GET_SEARCH_RESULTS" To get a file, use: IdcService="GET_FILE" To rename a file, use: IdcService="UPDATE_DOCINFO" Connection Name: Oracle Utilities SOAP UCM Gen Svc for WACS-FPRC

Blanket Contract Synchronization Process (Oracle Fusion Procurement Cloud Initiated)

This integration process synchronizes the purchase agreement information from Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud Service as blanket contract information for both Bulk sync and Incremental sync.

Two types of purchase agreements are synced from Oracle Fusion Procurement Cloud: Blanket Purchase Agreements and Contract Purchase Agreements.

The Blanket Contract Bulk or Incremental BIP report should be run first to create the Blanket Contract sync extract file in a UCM. The file is need before running this integration process.

- Bulk synchronization is done as a first step to synchronize all the purchase agreements whose status is "Open".

- Any updates to the purchase agreements, including changing the status at the header and line level, are extracted by the Blanket Contract Incremental BIP report periodically.

Note: Define the integration schedule for this process and make sure it coordinates with the BIP report generation in Oracle Fusion Procurement Cloud.

The following diagram shows a graphical representation of the Blanket Contract Synchronization integration process.
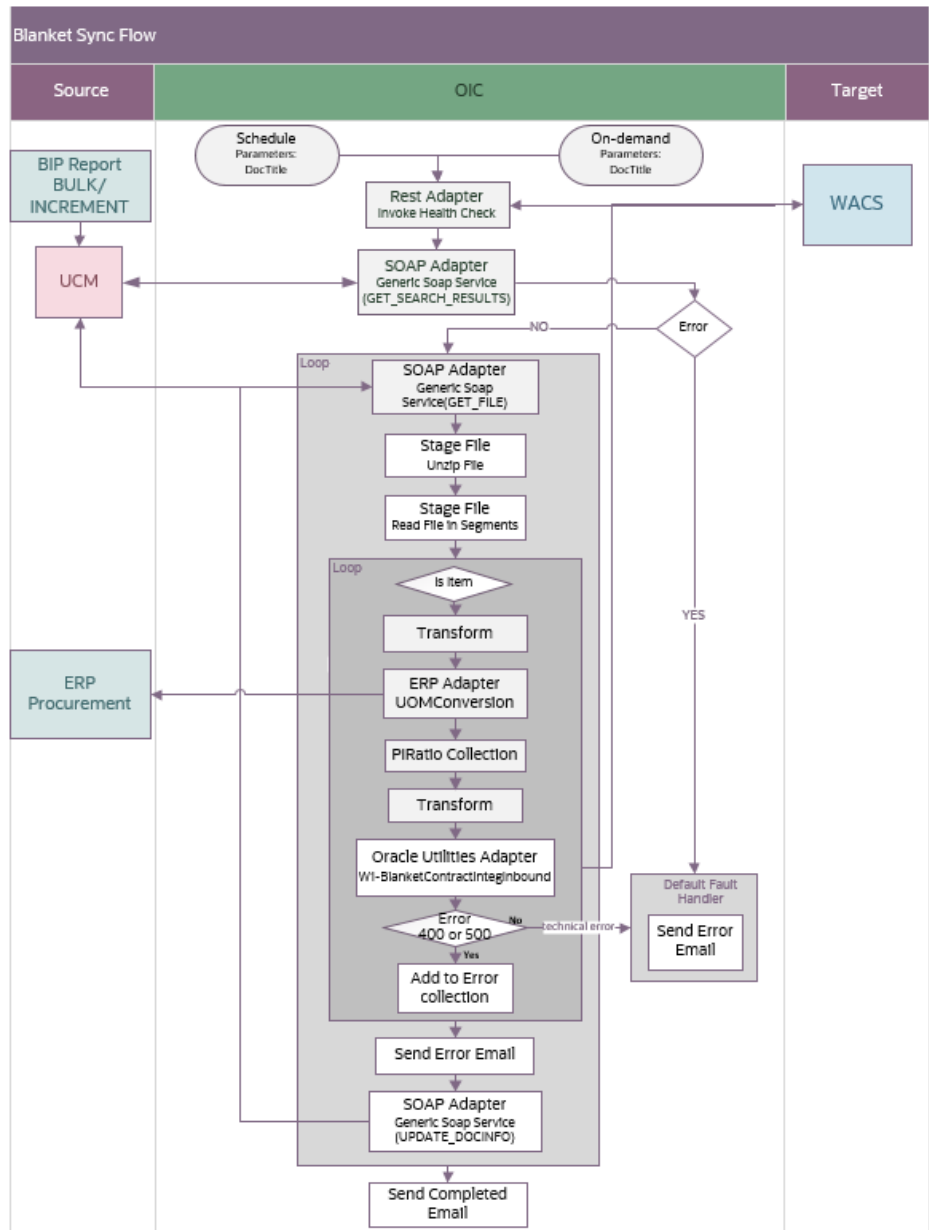
Processing Details

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

1. This process is triggered by a schedule and has two schedule parameters.

Parameter	Description	Initial Value
docTitle	This is the document title of the file in UCM. Once the file is processed without any errors, the file is prefixed with "PROCESSED" and the next unprocessed file with the same docTitle pattern is obtained from UCM. If multiple files with the same docTitle needs to be processed, the partial names for the docTitle (example: file*) should be used.	file*
ContentId	This is the ID of the document. Example: UCMFA3035197 The default value of this parameter is null. If a value is provided, the OIC process uses this parameter to query the file. This parameter is useful when only a single file with the given ID needs to be processed.	null

Note:

- DocTitle and ContentId parameters can be used together or individually to search for the required files.
- If no values are provided to the parameters, the values provided in the previous run is taken.
- If no values are provided on the first run, the default values are taken.
- The process requires at least one parameter to have a value. If both values are "null", an error is displayed.

2. Invoke F1-HealthCheckRest WACS Rest API to check if the Oracle Utilities Work and Asset Cloud Service environment is up and accessible.

3. Invoke the UCM Generic SOAP service to search the file(s) in Oracle UCM given the input docTitle pattern picking the earliest files first.

4. The search result rows for the matched input file parameter are returned in the response as an attribute named "SearchResults" in the list element "ResultSet". Iterate over the "ResultSet" elements to find the "SearchResults" attribute.

   Each "Row" element under the ResultSet has all file information for the matched blanket contract file. Iterate over each "Row" field to process each blanket contract file.

5. For each Blanket Contract file, invoke the UCM Generic SOAP service to get the file from UCM as a MTOM attachment in the response.

6. Use Stage File operation "Unzip file" to unzip the file. The file is unzipped in a temporary directory named with string "TempUnzippedFiles concatenated with docId".

7. Use Stage File operation "ReadFileinSegments" to read the file in segments of 200 records. After all the 200 records are processed, the next segment of the records is read.

8. For each Blanket Contract record in the segment, do the following:

    Determine PIRatio

    - If Blanket Contract lines exists in the Blanket Contract record, iterate over each of the Blanket Contract line. For each line, check:

        - If the line is a Stock Item and the Blanket Contract UOM is the same as the Stock Item Unit of Issue then assign "1" as the PIRatio for that line. Add it to the UOMConversionCollection.

        - If the line is a Stock Item and the Blanket Contract UOM is different from the Stock Item Unit of Issue, invoke UnitOfMeasureConversions REST API from FPRC to get the UOM Conversion for Blanket Contract UOM to Stock Item Unit of Issue. This will be the PIRatio for that line. Add it to the UOM Conversion Collection.

        - If the line is not a Stock Item, PIRatio is passed empty.

            Note: In Stock Item, if the Unit of Issue is blank, it used the Primary UOM value as the Unit of Issue.

    - Use Stage File Operations to convert the UOM Conversion Collection into XML format with record for PIRatio for each Blanket Contract Stock Item line.

    - Transform the payload from the XML extract file to the Oracle Utilities Work and Asset Cloud Service payload passing the PIRatio for the matched Item from the XML transformed UOM Conversion collection.

        The field mapping details for Blanket Contract Integration are available in the Oracle Utilities Work and Asset Cloud Service Integration to Oracle Fusion Procurement Cloud Data Mapping Guide included in this release.

    - Invoke the Oracle Utilities Work and Asset Cloud Service Blanket Contract Sync REST API to pass the Blanket contract information to Oracle Utilities Work and Asset Cloud Service.

        Refer to the Error Handling section in Chapter 6: Configuring Lookups, Error Handling, and Email Notifications for information on error scenarios and retry options.

9. When all Blanket Contract records in the file are processed, invoke the UCM Generic SOAP service to rename the file.

    - If no record is in error, prefix the filename with 'PROCESSED-'.

    - Else, prefix the filename with 'ERROR-'.

10. The next unprocessed blanket contract file is picked up from UCM and the processing continues.

11. After all files are processed, a process completed email notification is sent.

    Note: All email notification are optional. By default, this is enabled to 'true' in the Configuration Properties file.

Technical Details

The following table describes the integration processes and the respective artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Oracle Utilities FPRC WACS Vendor Locations Sync
Integration Package Name	outl.ba.wacs_fprc.1_0_0
WACS REST API (Utilities Cloud Adapter)	Web Service Name: W1- BlanketContractSynchronization Computed URL: https://host:port/ouaf/rest/apis/asset/purchasing/blanketContractSynchronization Method: POST URI: / Target Connection Name: Oracle Utilities REST WACS for WACS-FPRC
UCM Generic SOAP Service (SOAP Adapter)	https://{UCM_host_name}:{UCM_port}/idcws/GenericSoapPort?WSDL To search for files, use: IdcService="GET_SEARCH_RESULTS" To get a file, use: IdcService="GET_FILE" To rename a file, use: IdcService="UPDATE_DOCINFO" Connection Name: Oracle Utilities SOAP UCM Gen Svc for WACS-FPRC
FSCM REST API (ERP Cloud Adapter)	Web Service Name: Unit of Measure Conversion Service Application: fscmRestApp Business Resource: UnitOfMeasureConversions Operation: "create" Connection Name: Oracle Utilities ERP Cloud for WACS-FPRC

Purchase Requisition Synchronization Process (Oracle Utilities Work and Asset Cloud Service Initiated)

This integration process creates an approved purchase requisition (PR) in Oracle Fusion Procurement Cloud for approved purchase requisition sent from Oracle Utilities Work and Asset Cloud Service.

The following diagram shows a graphical representation of the Purchase Requisition Synchronization integration process.
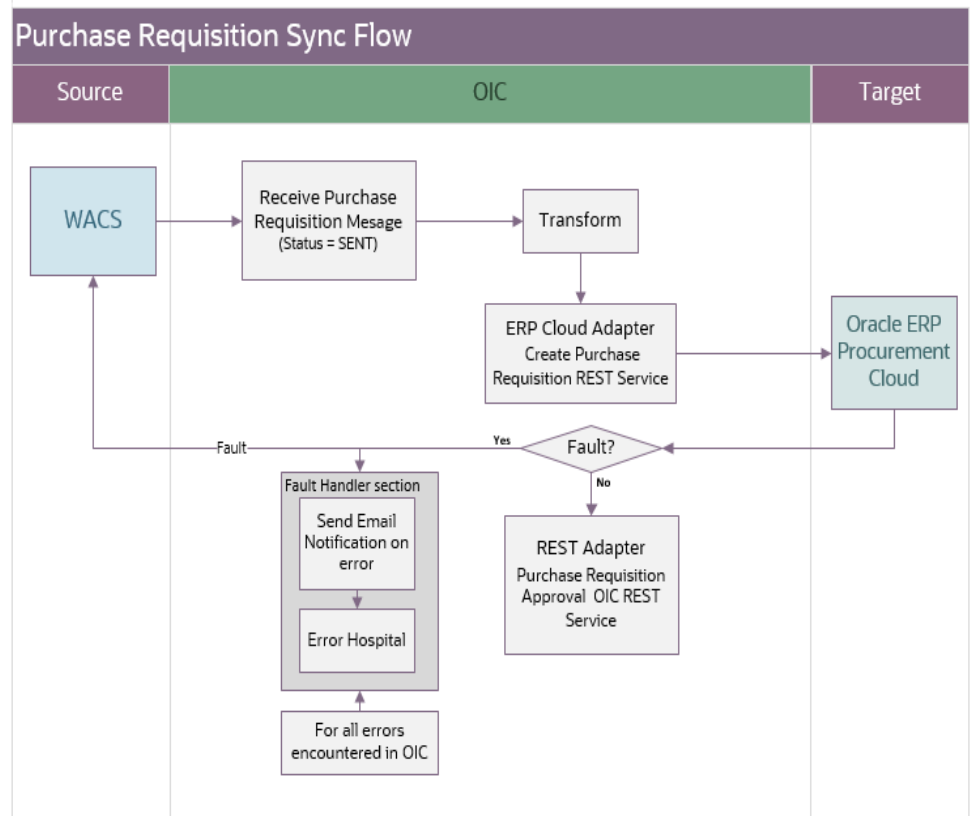
Processing Details

This integration process deployed on Oracle Integration Cloud is exposed as a REST endpoint. It does the following activities:

1. This process is triggered when Oracle Utilities Work and Asset Cloud Service invokes the REST endpoint to send an approved purchase requisition to Oracle Fusion Procurement Cloud.

2. Transforms the Purchase Requisition information received from Oracle Utilities Work and Asset Cloud Service into the Oracle Fusion Procurement Cloud format.

3. Invokes the Create Purchase Requisition REST endpoint using ERP Cloud Adapter.

4. If the REST service returns:

   • Status 200 (OK), invokes Purchase Requisition Approve OIC REST endpoint.

   • Error Status, such as 400 or 500, throws a fault back to Oracle Utilities Work and Asset Cloud Service and send an email notification with the error details to the users configured in the OUTL-BRT-WACS_FPRC_Email_ID lookup.

To retry, resend the purchase requisition from Oracle Utilities Work and Asset Cloud Service by rerunning the F1-SYNRQ batch.

Refer to Chapter 3: Configuring Oracle Utilities Work and Asset Cloud Service for Oracle Utilities Work and Asset Cloud Service related information.

Refer to Chapter 6: Configuring Lookups, Error Handling, and Email Notifications for error handling information on error scenarios and retry options.

Technical Details

The following table describes the integration processes and the respective Oracle Utilities Work and Asset Cloud Service and Oracle Utilities Work and Asset Management artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Oracle Utilities WACS FPRC Purchase Requisition Sync
Integration Package Name	outl.ba.wacs_fprc.1_0_0
Utilities Cloud Adapter	Rest Trigger
	Business Object: Purchase Request Outbound
	Connection Name: Oracle Utilities REST WACS for WACS-FPRC
FSCM REST API (ERP Cloud Adapter)	Web Service Name: Create Purchase Requisition
	Service Application: fscmRestApp
	Business Resource: Purchase Requisition
	Operation: "create"
	Child resources: DFF and lines
	Connection Name: Oracle Utilities ERP Cloud for WACS-FPRC

Purchase Requisition Approval Process (Oracle Utilities Work and Asset Cloud Service)

This integration process approves the created purchase requisition (PR) in Oracle Fusion Procurement Cloud.

The diagram shows a graphical representation of the Purchase Requisition Approval integration process.
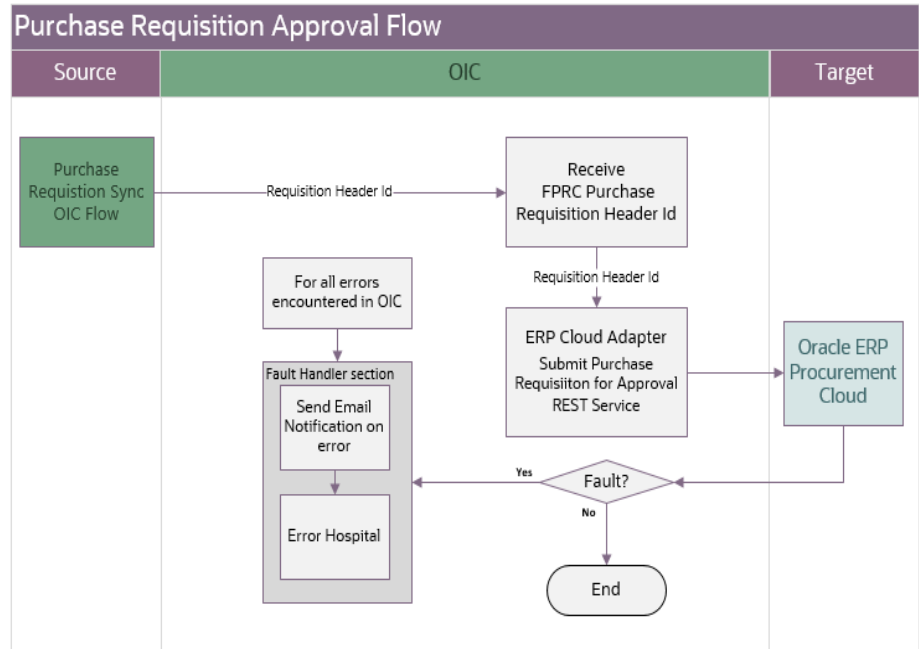
Processing Details

This integration process deployed on Oracle Integration Cloud is exposed as a REST endpoint. It does the following activities:

1. This process is triggered when the Purchase Requisition Sync Oracle Integration Cloud integration process invokes the REST service to approve the purchase requisition created in Oracle Fusion Procurement Cloud.

2. Passes the Oracle Fusion Procurement Cloud Purchase Requisition header ID to the REST service mentioned below.

3. Invokes Submit Purchase Requisition for Approval REST endpoint using ERP Cloud Adapter.

4. If the REST service returns:

   • Status 200 (OK), end the process.

   • Error Status, such as 400 or 500, send an email notification with the error details to the users configured in the OUTL-BRT-WACS_FPRC_Email_ID lookup.

To retry, run the Purchase Requisition Approval Process in Oracle Integration Cloud passing the Oracle Fusion Procurement Cloud Requisition Header ID.

Refer to Chapter 6: Configuring Lookups, Error Handling, and Email Notifications for error handling information on error scenarios and retry options.

Technical Details

The following table describes the integration processes and the respective Oracle Utilities Work and Asset Cloud Service and Oracle Utilities Work and Asset Management artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Oracle Utilities WACS FPRC Pur Requisition Approve
Integration Package Name	outl.ba.wacs_fprc.1_0_0
REST Adapter	Rest Trigger
	Connection Name: Oracle Utilities REST for WACS-FPRC
FSCM REST API (ERP Cloud Adapter)	Web Service Name: Submit Purchase Requisition for Approval
	Browse by: Business (REST) Resources Service Application: fscmRestApp Business Resource: Purchase Requisition Operation: "SubmitRequisition" Connection Name: Oracle Utilities ERP Cloud for WACS-FPRC

Purchase Order Synchronization Process (Oracle Fusion Procurement Cloud Initiated)

This integration process synchronizes the purchase order that is approved, changed, canceled and finally closed from Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud Service. Only purchase orders related to a Oracle Utilities Work and Asset Cloud Service Purchase Requisition will be sent over to Oracle Utilities Work and Asset Cloud Service.

The following diagram shows a graphical representation of the Purchase Order Synchronization integration process.
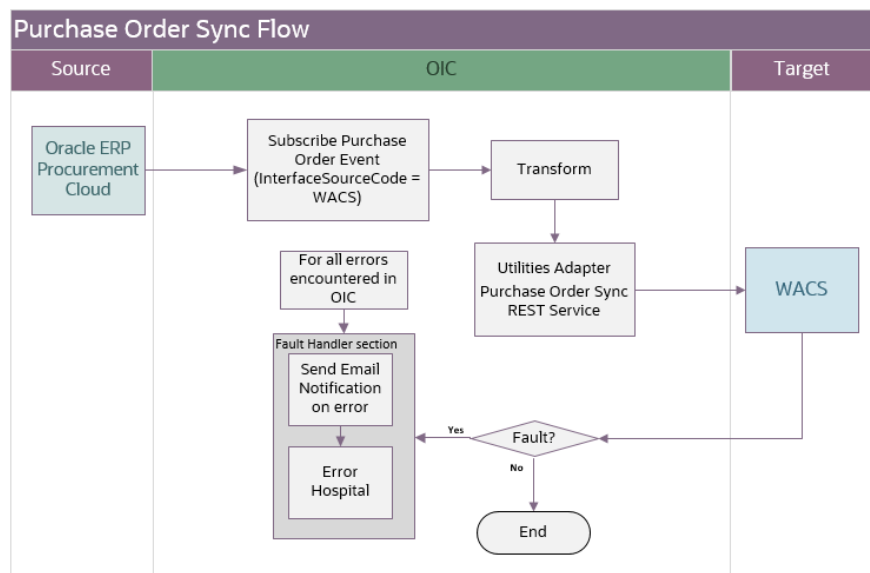
Processing Details

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

1. Subscribes to Purchase Order Event. Oracle Fusion Procurement Cloud publishes an event with a purchase order payload when a purchase order is approved, changed, canceled or finally closed in the application. The integration process only accepts purchase order whose Interface Source Code = 'WACS'.

   Note: The filtering criteria for Interface Source Code is hardcoded to 'WACS'. This value is passed to Oracle Fusion Procurement Cloud during Purchase Requisition Sync to indicate the purchase requisition came from Oracle Utilities Work and Asset Cloud Service. If a Purchase Order is associated with an Oracle Fusion Procurement Cloud Contract Purchase Agreements, this relationship will not be visible on the synchronized Purchase Order within Oracle Utilities Work and Asset Cloud Service. There is no element on the Purchase Order to indicate it was created against a Contract Purchase Agreement.

2. Transforms the Purchase Order payload from Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud Service format.

3. Invokes the Oracle Utilities Work and Asset Cloud Service REST endpoint for Purchase Order Sync to pass the Purchase Order information to Oracle Utilities Work and Asset Cloud Service.

4. Error Handling for this process.

   If any error occurs in the integration process, an optional email notification is sent with error details to the users configured in the OUTL-BRT-WACS_FPRC_Email_ID lookup.

   Retry Option: Re-run from Oracle Integration Cloud

   Note: When the Purchase Order Sync Request record is successfully created in Oracle Utilities Work and Asset Cloud Service, it means the integration process ended successfully. Running the Oracle Utilities Work and Asset Cloud Service batch process W1-SIOPE processes the sync request records and create/update the purchase order records or it might encounter a business validation error. If an error occurs, the Sync Request Record transitions to error and a To Do is created in Oracle Utilities Work and Asset Cloud Service.

   Most of the time, this will be a data issue. Manually fix the issue in Oracle Utilities Work and Asset Cloud Service and run the Oracle Utilities Work and Asset Cloud Service batch process W1-SIOER to process the sync request records in error. If the fix is in Oracle Fusion Procurement Cloud or in the integration DVM, the Purchase Order has to be updated from Oracle Fusion Procurement Cloud to trigger a Purchase Order event.

   Refer to Chapter 6: Configuring Lookups, Error Handling, and Email Notifications for error handling information on error scenarios and retry options.

Technical Details

The following table describes the integration process and the respective Oracle Fusion Procurement Cloud and Oracle Utilities Work and Asset Management artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Oracle Utilities FPRC WACS Purchase Order Sync
Integration Package Name	outl.ba.wacs_fprc.1_0_0
ERP Cloud Adapter	Subscription Event: Purchase Order Event Filtering Criteria: InterfaceSourceCode=WACS Connection Name: Oracle Utilities ERP Cloud for WACS-FPRC
WACS REST IWS (Utilities Cloud Adapter)	Web Service Name: W1-PurchaseOrderSynchronization Computed URL: https://{host}:{port}/{tenant}/{domain}/wac/rest/apis/asset/purchasing/purchaseOrderSynchronization Method: POST URI: /sync Connection Name: Oracle Utilities REST WACS for WACS-FPRC

Receipts Synchronization Process (Oracle Utilities Work and Asset Cloud Service initiated)

This integration process is used to synchronize receipts created in Oracle Utilities Work and Asset Cloud Service to Oracle Fusion Procurement Cloud.

The following diagram shows a graphical representation of the Receipts Synchronization integration process.
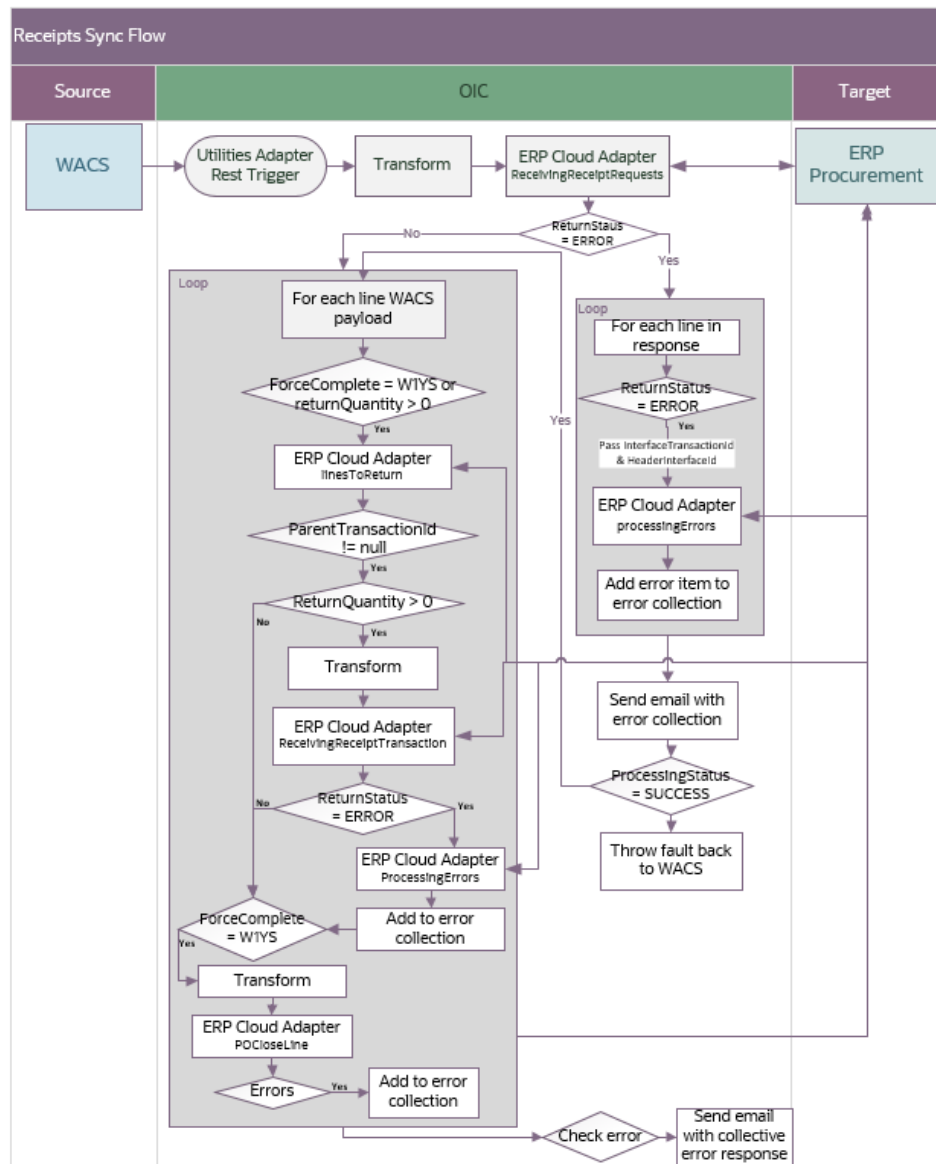
Processing Details

This is an application driven orchestration process deployed on Oracle Integration Cloud. The Oracle Integration Cloud flow is exposed as a REST service for Oracle Utilities Work and Asset Cloud Service to invoke when sending the completed receipts. This is a synchronous flow which returns a response. But, the response is not used by Oracle Utilities Work and Asset Cloud Service in any way.

The process handles the following:

1. Oracle Utilities Adapter is used as a Rest trigger to receive the Receipts message from Oracle Utilities Work and Asset Cloud Service.

2. The payload from Oracle Utilities Work and Asset Cloud Service is transformed into the FPRC ReceivingReceiptRequests Rest API payload format.

Note: Refer to the *Oracle Utilities Work and Asset Cloud Service Integration to Oracle Fusion Procurement Cloud Data Mapping Guide* for more information about mapping between fields for Receipts.

3. FPRC ReceivingReceiptRequests Rest API is invoked through Oracle ERP Cloud Adapter.

4. If the **ReturnStatus** element in the response is "ERROR" and **ProcessingStatusCode** element is 'ERROR', iterate through Oracle Utilities Work and Asset Cloud Service response 'lines'. Execute the following steps for each line.

   a. Get the HeaderInterfaceId and InterfaceTransactionId of the last error line in the "lines" list.

   b. Invoke FPRC ProcessingErrors Rest API through Oracle ERP Cloud Adapter.

   c. "HeaderInterfaceId" and "InterfaceTransactionId" are passed as parameters, by mapping to Template Parameter 0 and 1 respectively.

   d. The response contains error information. Concatenate the information under "InterfaceErrorId", "InterfaceHeaderId", "InterfaceLineId", "BatchId", "ErrorMessage", "ErrorMessageName", "ErrorType", "ColumnName", "TableName" elements into an Error collection.

   e. Send an email with the error information.

   f. Invoke a fault Return action with error code as 400. The outbound message sent by Oracle Utilities Work and Asset Cloud Service is rolled back and can be resent from Oracle Utilities Work and Asset Cloud Service.

5. If the **ReturnStatus** element in the response is not "ERROR" or if the **ProcessingStatusCode** element is 'ERROR', iterate through Oracle Utilities Work and Asset Cloud Service response 'lines'.

   Execute the following steps for each line.

   a. If ReturnStatus is ERROR and ProcessingStatus is not ERROR, it would mean that the partial receipt was created. As as a first step, collect the error on the errored lines. Execute steps b through f.

   b. Iterate through Lines from Oracle Utilities Work and Asset Cloud Service Receipt payload.

   c. Get the HeaderInterfaceId and InterfaceTransactionId of last errored line in the "lines" list.

   d. Invoke FPRC ProcessingErrors Rest API through Oracle ERP Cloud Adapter.

   e. "HeaderInterfaceId" and "InterfaceTransactionId" are passed as parameters, by mapping to Template Parameter 0 and 1 respectively.

   f. The response contains error information. Concatenate the information under "InterfaceErrorId", "InterfaceHeaderId", "InterfaceLineId", "BatchId", "ErrorMessage", "ErrorMessageName", "ErrorType", "ColumnName", "TableName" into an Error collection.

   g. Iterate through each of the Oracle Utilities Work and Asset Cloud Service Receipt 'lines'. If returnQuantity is greater than 0 or forceComplete = 'W1YS' on any of the 'lines', perform the steps h through j.

h. **To create ParentTransactionId of the Receipt**:

    a. Invoke FPRC LinesToReturn Rest API through Oracle ERP Cloud Adapter to get the parentTransactionId to perform the return.

    b. Pass the Organization Code, Source Document Code, PO Line Id, PO Header ID and Receipt Number as Query parameters to 'findLines' in LinesToReturn Rest API.

    c. If the returnQuantity from Oracle Utilities Work and Asset Cloud Service line is > 0 and parentTransactionId from LinesToReturn API response is not null then proceed to next step (i) to return the quantity. Else, if forceComplete is W1YS, proceed to step (j) to close the PO line.

i. **To Return Quantity:**

    a. Transform the payload from Oracle Utilities Work and Asset Cloud Service to FPRC ReceivingReceiptTransactionRequests Rest API payload format.

    Note: Refer to the *Oracle Utilities Work and Asset Cloud Service Integration to Oracle Fusion Procurement Cloud Data Mapping Guide* for more information about mapping between fields for Returns.

    b. Invoke ReceivingReceiptTransactionRequests Rest API through Oracle ERP Cloud Adapter.

    c. If the "ReturnStatus" in the response from ReceivingReceiptTransactionRequests Rest API is 'ERROR', invoke the corresponding "processingError" Rest API through Oracle ERP Cloud Adapter, passing the interfaceTransactionId from the response.

    d. The response of "processingError" Rest API call contains error information. Concatenate the information under "InterfaceErrorId", "InterfaceHeaderId", "InterfaceLineId", "BatchId", "ErrorMessage", "ErrorMessageName", "ErrorType", "ColumnName", "TableName" elements into an Error collection.

    e. If **forceComplete** is W1YS on any "lines", get the POHeaderId and POLineId from the Oracle Utilities Work and Asset Cloud Service Receipt header payload. Proceed to step (j) to close the PO line.

j. **To close the Purchase Order Line**:

    a. Invoke FPRC Close PO Line Rest API through Oracle ERP Cloud Adapter.

    b. POHeaderId and POLineId are passed as Template Parameter 0 and 1 with closeAction: closeForReceiving and action: close.

    Note: Refer to the Error Handling section in Chapter 6: Configuring Lookups, Error Handling, and Email Notifications for information on error scenarios and retry options for the Receipts Sync flow.

Technical Details

The following table describes the integration process and the respective artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Oracle Utilities WACS FPRC Receipts Sync
Integration Package Name	outl.ba.wacs_fprc.1_0_0
Utilities Cloud Adapter	Rest Trigger Business Object: Receipt Outbound Connection Name: Oracle Utilities REST WACS for WACS-FPRC
FSCM REST API ERP Cloud Adapter	Web Service Names: **Create Receipts** • Service Application: fscmRestApp • Business Resource: ReceivingReceiptRequests • Operation: create • Child resources: DFF and lines • Descriptive and Extensible: WACS **Receipts Processing Error** • Service Application: fscmRestApp • Business Resource: ReceivingReceiptRequests • Business Object: ReceivingReceiptRequests:processingErrors • Operation: getAll **LinesToReturn** • Service Application: fscmRestApp • Business Resource: LinesToReturn • Business Object: LinesToReturn • Operation: getAll **Create Returns** • Service Application: fscmRestApp • Business Resource: ReceivingReceiptTransactionRequests • Business Object: ReceivingReceiptTransactionRequests • Operation: create • Child resources: DFF and lines • Descriptive and Extensible: WACS • Connection Name: Oracle Utilities ERP Cloud for WACS- FPRC

Returns Synchronization Process (Oracle Utilities Work and Asset Cloud Service initiated)

This integration process is used to synchronize the Returns created in Oracle Utilities Work and Asset Cloud Service to Oracle Fusion Procurement Cloud.

The following diagram shows a graphical representation of the Returns Synchronization integration process.
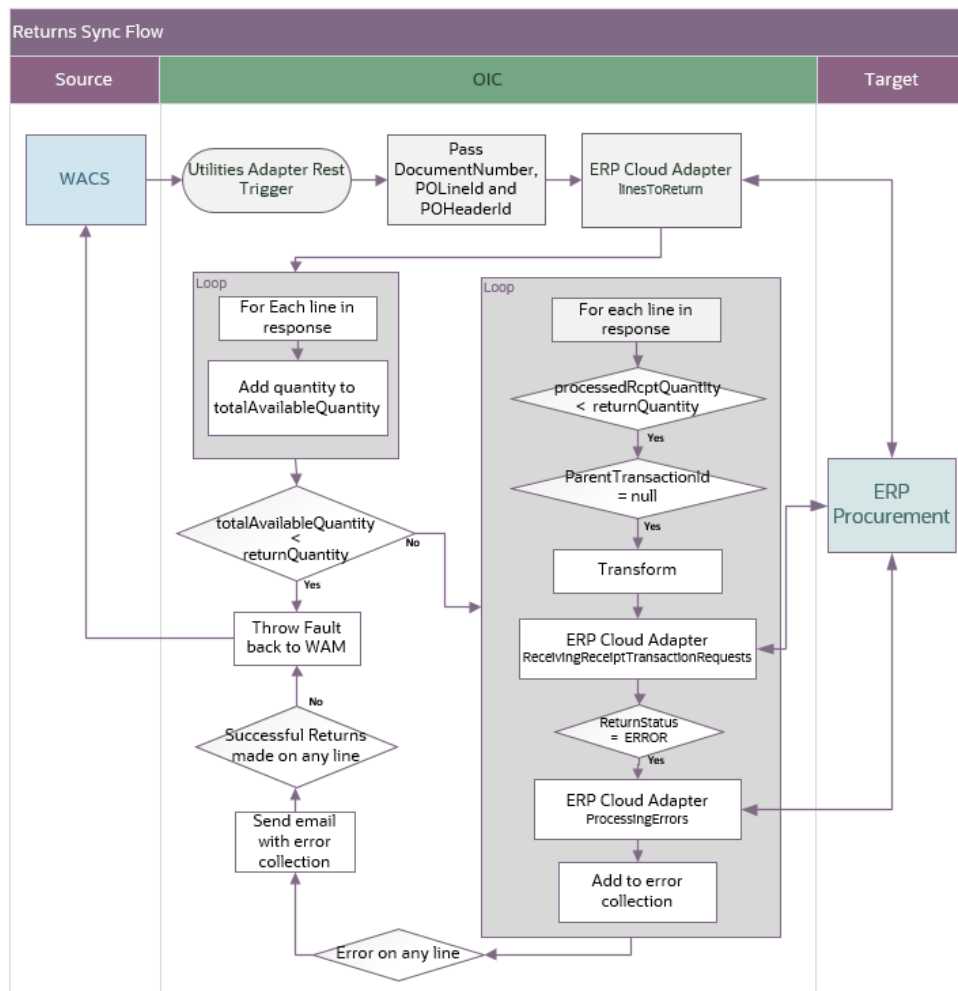
Processing Details

This is an application driven orchestration process deployed on Oracle Integration Cloud. The Oracle Integration Cloud flow is exposed as a REST service for Oracle Utilities Work and Asset Cloud Service to invoke when sending the completed returns. This is a synchronous flow which returns a response. But, the response is not used by Oracle Utilities Work and Asset Cloud Service in any way.

The process is executed as follows:

1. The trigger is a Rest Trigger using Oracle Utilities Adapter to receive the Returns message from Oracle Utilities Work and Asset Cloud Service.

2. Invoke FPRC LinesToReturn Rest API through Oracle ERP Cloud Adapter, passing the Organization Code, Source Document Code, PO Line ID, PO Header ID and Document Number as query parameters to 'findLines'.

3. The response contains all receipt transactions matching the query parameters.

4. Iterate over all the receipt transaction items to add the quantity to the totalAvailableQuantity.

5. If the totalAvailableQuantity is less than the quantity required to return, a fault return is invoked to return a fault to Oracle Utilities Work and Asset Cloud Service with a 400 status and the outbound message is rolled back.

6. If the totalAvailableQuantity is greater than or equal to the return quantity, iterate over each of the receipt transaction items.

7. For each receipt transaction item, transform the payload to FPRC ReceivingReceiptTransactionRequests Rest API format.

8. Invoke ReceivingReceiptTransactionRequests Rest API through Oracle ERP Cloud Adapter.

9. The quantity is returned from each receipt transaction until the processed quantity is greater than or equal to the return quantity specified in the Oracle Utilities Work and Asset Cloud Service payload.

10. If the "Return Status" in the response of any of the return transactions is 'ERROR', the corresponding processingErrors of ReceivingReceiptTransactionRequests Rest API is invoked through Oracle ERP Cloud Adapter to get the processing errors.

    Note: Refer to the *Oracle Utilities Work and Asset Cloud Service Integration to Oracle Fusion Procurement Cloud Data Mapping Guide* for more information about mapping between fields for Returns.

11. The errors that are returned as response are concatenated in the error collection.

12. If the return of all the required receipt transaction fails, Fault Return is invoked to return the fault to Oracle Utilities Work and Asset Cloud Service and outbound message is rolled back in Oracle Utilities Work and Asset Cloud Service.

13. If any of the return transactions of the receipts was successful, Oracle Utilities Work and Asset Cloud Service POLineExternalId is returned in the response to Oracle Utilities Work and Asset Cloud Service.

Refer to Chapter 6: Configuring Lookups, Error Handling, and Email Notifications for error handling information on error scenarios and retry options.

Technical Details

The following table describes the integration process and the respective artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Oracle Utilities WACS FPRC Receipts Sync
Integration Package Name	outl.ba.wacs_fprc.1_0_0
Utilities Cloud Adapter	Rest Trigger Business Object: Returns Outbound Connection Name: Oracle Utilities REST WACS for WACS-FPRC

Artifacts	Value
ERP Cloud Adapter	WebService Names:
	LinesToReturn
	• Service Application: fscmRestApp
	• Business Resource: LinesToReturn
	• Business Object: LinesToReturn
	• Operation: getAll
	Create Returns
	• Service Application: fscmRestApp
	• Business Resource: ReceivingReceiptTransactionRequests
	• Business Object: ReceivingReceiptTransactionRequests
	• Operation: create
	• Child resources: DFF and lines
	• Descriptive and Extensible: WACS
	• Connection Name: Oracle Utilities ERP Cloud for WACS-FPRC

Invoice Validated Synchronization Process (Oracle Fusion Procurement Cloud initiated)

This integration process synchronizes the invoices that are in validated status from Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud Service.

When the invoice is created in Oracle Utilities Work and Asset Cloud Service, it is in POSTED status. It means only the invoice header fields can be updated and new invoice lines can be added to the invoice. Existing invoice lines cannot be updated.

When an invoice is revalidated in Oracle Fusion Procurement Cloud, this might error in Oracle Utilities Work and Asset Cloud Service if the invoice already exists in Oracle Utilities Work and Asset Cloud Service.

The following diagram shows a graphical representation of the Invoice Validated Synchronization integration process.
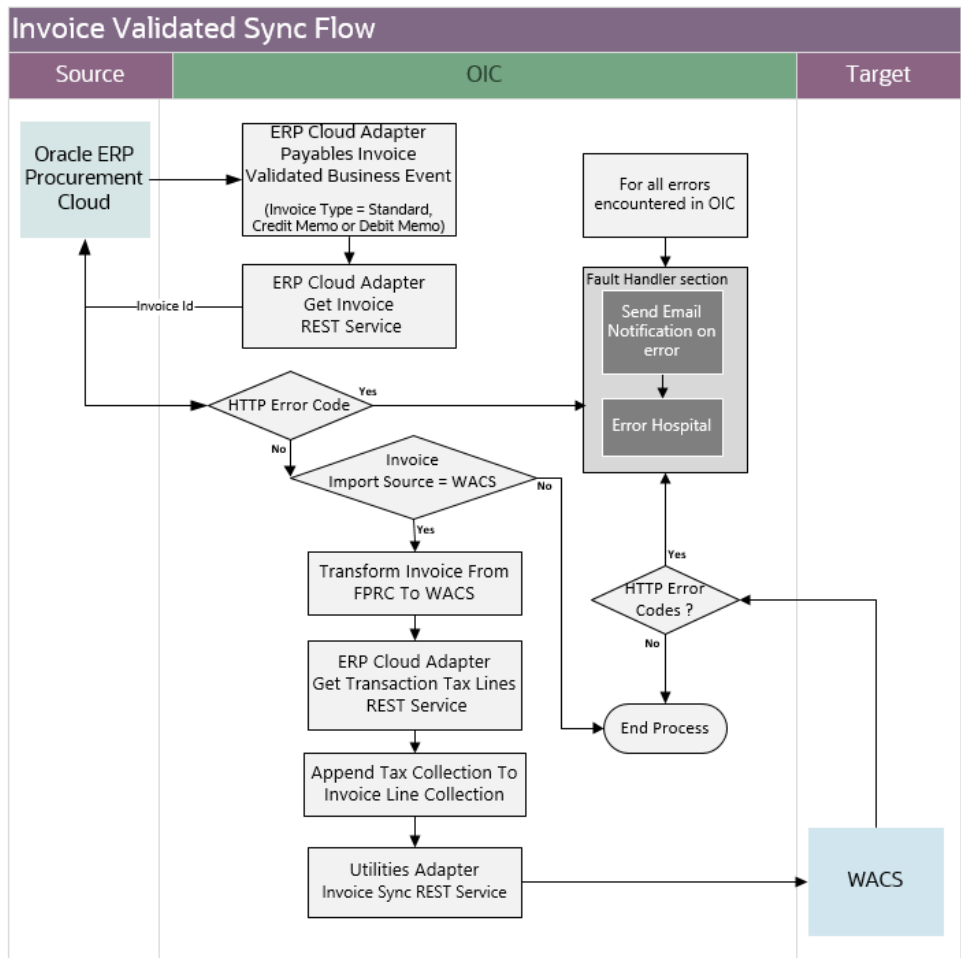
Processing Details

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

1. Subscribes to the Payables Invoice Validated Event. Oracle Fusion Procurement Cloud publishes an event with a subset of invoice information in the payload when an invoice is validated in the application.

2. Only standard, credit memo and debit memo invoices created from a related Oracle Utilities Work and Asset Cloud Service Purchase Requisition will be processed by the integration. This means the Purchase Order is based on a requisition coming from Oracle Utilities Work and Asset Cloud Service.

    Note: Interface Source Code with value 'WACS' is passed to Oracle Fusion Procurement Cloud during Purchase Requisition Sync to indicate the purchase requisition came from Oracle Utilities Work and Asset Cloud Service. This name value pair is passed on to PO then to Invoice.

3. Do an enrichment call by invoking the Get an Invoice REST API to get the other invoice information not provided by the business event message.

4. Check if the invoice to be synchronized is related to a Oracle Utilities Work and Asset Cloud Service Purchase Requisition.

   • If yes, proceed to the next step.

   • Else, stop the process. The invoice is not synchronized with Oracle Utilities Work and Asset Cloud Service.

5. Transforms the Invoice payload from Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud Service format.

   • In this transformation, it is only passing the item, freight and miscellaneous invoice lines.

   • The summarize invoice tax lines are not passed to Oracle Utilities Work and Asset Cloud Service.

6. Integration invokes the Get Transaction Tax Lines REST API to get the detailed tax lines for the given invoice number from Oracle Fusion Procurement Cloud. These tax details are going to be sent to Oracle Utilities Work and Asset Cloud Service.

7. Append the invoice detail tax collection to the main invoice lines collection to be sent to Oracle Utilities Work and Asset Cloud Service.

8. Invokes the Oracle Utilities Work and Asset Cloud Service REST endpoint for Invoice Sync to pass the Invoice information to Oracle Utilities Work and Asset Cloud Service.

9. Error Handling for this process.

   If an error occurs in the integration process, an optional email notification is sent (with error details) to the users configured in the OUTL-BRT-WACS_FPRC_Email_ID lookup.

   Retry Option: Re-run from Oracle Integration Cloud

   Note: When the Invoice Sync Request record is successfully created in Oracle Utilities Work and Asset Cloud Service, it means that the integration process ended successfully. Running the Oracle Utilities Work and Asset Cloud Service batch process W1-SIOPE processes the sync request records and creates/updates the invoice records, or it might encounter a business validation error. If an error occurs, the Sync Request Record transitions to error and a To Do is created in Oracle Utilities Work and Asset Cloud Service.

   Most of the time, this will be a data issue. Fix the issue in Oracle Utilities Work and Asset Cloud Service manually and run the Oracle Utilities Work and Asset Cloud Service batch process W1-SIOER to process the sync request records in error. If the issue needs to be fixed in Oracle Fusion Procurement Cloud or in the integration DVM, the Invoice can be revalidated from Oracle Fusion Procurement Cloud to trigger an Invoice Event.

   Refer to Chapter 6: Configuring Lookups, Error Handling, and Email Notifications for error handling information on error scenarios and retry options.

Technical Details

The following table describes the integration process and the respective artifacts used in this integration process.

| Artifacts	Value
Integration Process Name	Oracle Utilities FPRC WACS Invoice Validated Sync
Integration Package Name	outl.ba.wacs_fprc.1_0_0
ERP Cloud Adapter	Subscription Event: Payables Invoice Validated Event Web Service Name: Get Invoice Service Application: fscmRestApp Business Resource: Invoices Operation: get Child resources: DFF and lines Descriptive and Extensible: WACS Connection Name: Oracle Utilities ERP Cloud for WACS-FPRC
WACS REST IWS (Utilities Cloud Adapter)	Web Service Name: W1-InvoiceSynchronization Computed URL: https://{host}:{port}/{tenant}/{domain}/wac/rest/apis/asset/purchasing/invoiceSynchronization Method: POST URI: /sync Connection Name: Oracle Utilities REST WACS for WACS-FPRC

Invoice Cancelled Synchronization Process (Oracle Fusion Procurement Cloud initiated)

This process synchronizes the invoices that are in cancelled status from Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud Service.

The following diagram shows a graphical representation of the Invoice Cancelled Synchronization integration process.
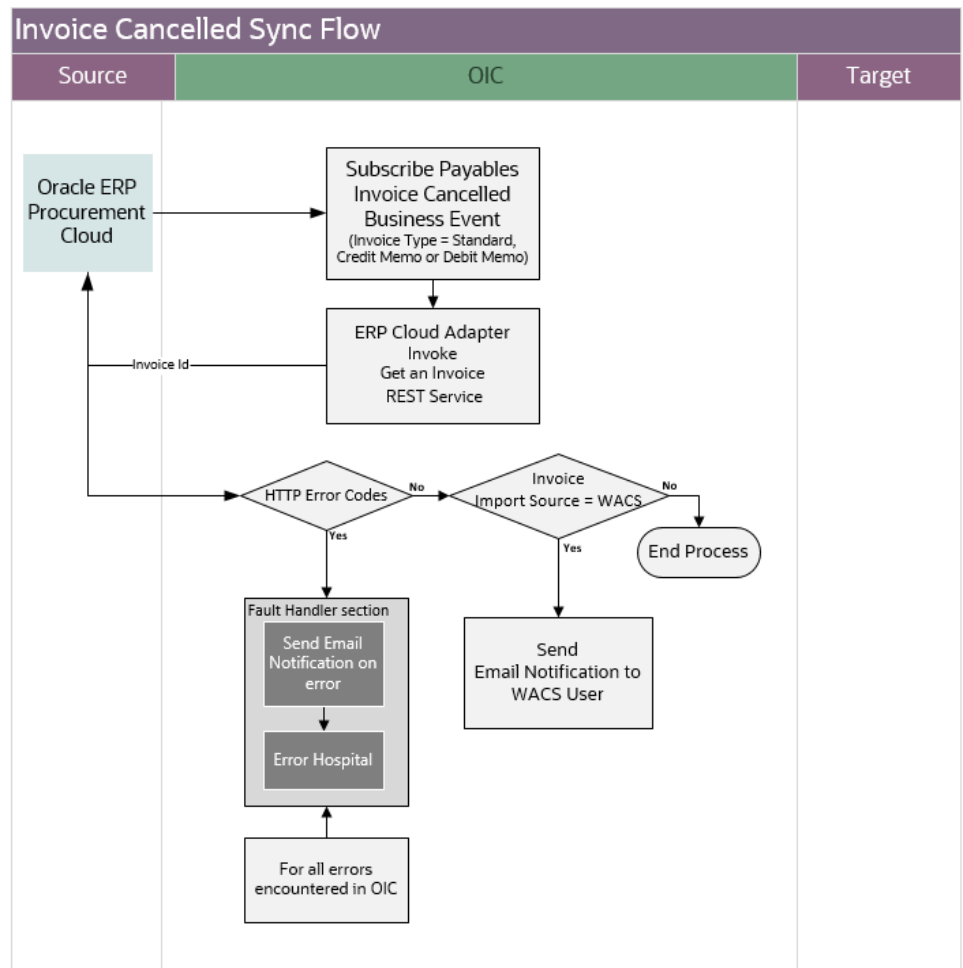
Processing Details

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

1. Subscribes to the Payables Invoice Cancelled Event. Oracle Fusion Procurement Cloud publishes an event with a subset of invoice information in the payload when an invoice is cancelled in the application.

2. Only cancelled standard, credit memo and debit memo invoices from a related Oracle Utilities Work and Asset Cloud Service Purchase Requisition will be processed by the integration. This means the Purchase Order is based on a requisition coming from Oracle Utilities Work and Asset Cloud Service.

   Note: Interface Source Code with value 'WACS' is passed to Oracle Fusion Procurement Cloud during Purchase Requisition Sync to indicate the purchase requisition came from Oracle Utilities Work and Asset Cloud Service. This name value pair is passed on to PO then to Invoice.

3. Do an enrichment call by invoking the Get an Invoice REST API to get the other invoice information not provided by the business event message.

4. Check if the invoice to be synchronized is related to a Oracle Utilities Work and Asset Cloud Service Purchase Requisition.

   • If yes, proceed to the next step.

   • Else, stop the process.

5. An email notification is sent to the WACS user(s) configured in the OUTL-BRT-WACS_FPRC_Email_ID lookup to inform them to manually reverse in Oracle Utilities Work and Asset Cloud Service the canceled invoice from Oracle Fusion Procurement Cloud.

6. Error Handling for this process.

   If an error occurs in the integration process, an optional email notification is sent (with error details) to the user(s) configured in the OUTL-BRT-WACS_FPRC_Email_ID lookup.

   Retry Option: Re-run from Oracle Integration Cloud

   Refer to Chapter 6: Configuring Lookups, Error Handling, and Email Notifications for error handling information on error scenarios and retry options.

Technical Details

The following table describes the integration process and the respective Oracle Fusion Procurement Cloud and Oracle Utilities Work and Asset Management artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Oracle Utilities FPRC WACS Invoice Cancelled Sync
Integration Package Name	outl.ba.wacs_fprc.1_0_0
Utilities Cloud Adapter	Subscription Event: Payables Invoice Cancelled Event Web Service Name: Get Invoice Service Application: fscmRestApp Business Resource: Invoices Operation: get Child resources: DFF and lines Descriptive and Extensible: WACS Connection Name: Oracle Utilities ERP Cloud for WACS-FPRC

Invoice Payment Synchronization Process (Oracle Fusion Procurement Cloud initiated)

This process synchronizes the invoice payments created from Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud Service.

The following diagram shows a graphical representation of the Invoice Payment Synchronization integration process.
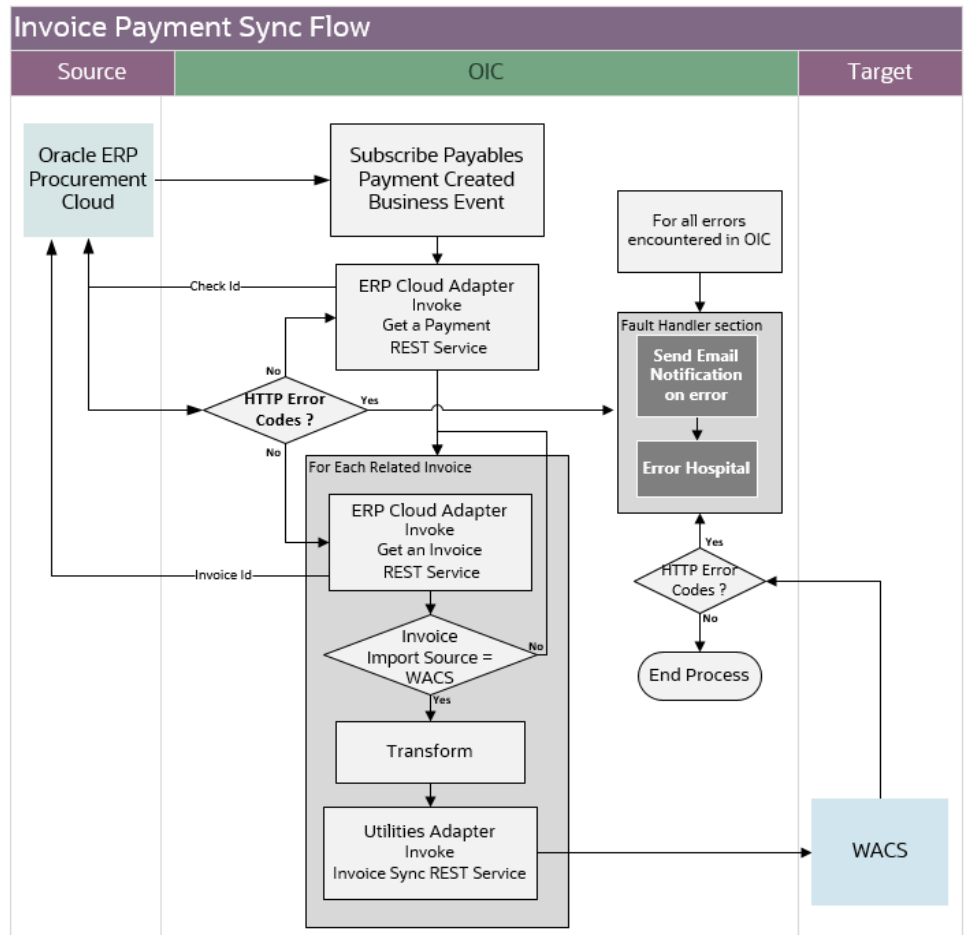
Processing Details

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

1. Subscribes to Payables Payment Created Event. Oracle Fusion Procurement Cloud publishes an event with the payment information payload when a payment is created for an invoice or related invoices in the application.

2. Do an enrichment call by invoking the Get a Payment REST API to get the other payment information not provided by the business event message.

3. For each invoice related to the payment, do the following:

    • Invoking the Get an Invoice REST API to get the invoice information.

    • Check if the invoice is related to a Oracle Utilities Work and Asset Cloud Service Purchase Requisition.

        • If yes, proceed to the next step.

        • Else, go to the next related invoice, if any.

    Note: Only payments created for an invoices related to Oracle Utilities Work and Asset Cloud Service Purchase Requisition will be processed

by the integration. This means the Purchase Order is based on a requisition coming from Oracle Utilities Work and Asset Cloud Service. The Interface Source Code with value 'WACS' is passed to Oracle Fusion Procurement Cloud during Purchase Requisition Sync to indicate the purchase requisition came from Oracle Utilities Work and Asset Cloud Service. This name value pair is passed on to PO then to Invoice.

- Transforms the invoice payment information from Oracle Fusion Procurement Cloud to the Oracle Utilities Work and Asset Cloud Service format.

- Invoke the Oracle Utilities Work and Asset Cloud Service REST endpoint for Invoice Sync to pass the invoice payment information to Oracle Utilities Work and Asset Cloud Service.

4. Error Handling for this process.

   If an error occurs in the integration process, an optional email notification is sent (with error details) to the user(s) configured in the OUTL-BRT-WACS_FPRC_Email_ID lookup.

   Retry Option: Re-run from Oracle Integration Cloud

   Note: When the Purchase Order Sync Request record is successfully created in Oracle Utilities Work and Asset Cloud Service, it means that the integration process ended successfully. Running the Oracle Utilities Work and Asset Cloud Service batch process W1-SIOPE processes the sync request records and create/update the item records or it might encounter a business validation error. If an error occurs, the Sync Request Record transitions to error and a To Do is created in Oracle Utilities Work and Asset Cloud Service.

   Most of the time, this will be a data issue. Fix the issue in Oracle Utilities Work and Asset Cloud Service manually and run the Oracle Utilities Work and Asset Cloud Service batch process W1-SIOER to process the sync request records in error. If the issue needs to be fixed in Oracle Fusion Procurement Cloud or in the integration DVM, the Invoice can be revalidated from Oracle Fusion Procurement Cloud to trigger an Invoice Event.

   Refer to Chapter 6: Configuring Lookups, Error Handling, and Email Notifications for error handling information on error scenarios and retry options.

Technical Details

The following table describes the integration process and the respective Oracle Fusion Procurement Cloud and Oracle Utilities Work and Asset Management artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Oracle Utilities FPRC WACS Purchase Order Sync
Integration Package Name	outl.ba.wacs_fprc.1_0_0

Artifacts	Value
ERP Cloud Adapter	Subscription Event: Purchase Order Event Filtering Criteria: Browse By: Business (REST) Resources
WACS REST IWS	Subscription Event: Payables Payment Created Event Web Service Names: **Get Payable Payment Related to Invoice** Service Application: fscmRestApp Business Resource: Payables Payment Operation: get Child Resources: Related Invoices and Supplier Site **Get Invoice** Service Application: fscmRestApp Business Resource: Invoices Operation: get Child Resources: DFF and lines Descriptive and Extensible: WACS Connection Name: Oracle Utilities ERP Cloud for WACS-FPRC
WACS REST IWS (Using Utilities Cloud Adapter)	Web Service Name: W1-InvoiceSynchronization Computed URL: https://{host}:{port}/{tenant}/{domain}/wac/rest/apis/asset/purchasing/invoiceSynchronization Method: POST URI: /sync Connection Name: Oracle Utilities REST WACS for WACS-FPRC

Invoice Payment Voided Synchronization Process (Oracle Fusion Procurement Cloud initiated)

This process synchronizes voided invoice payments from Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud Service.

The following diagram shows a graphical representation of the Invoice Payment Synchronization integration process.
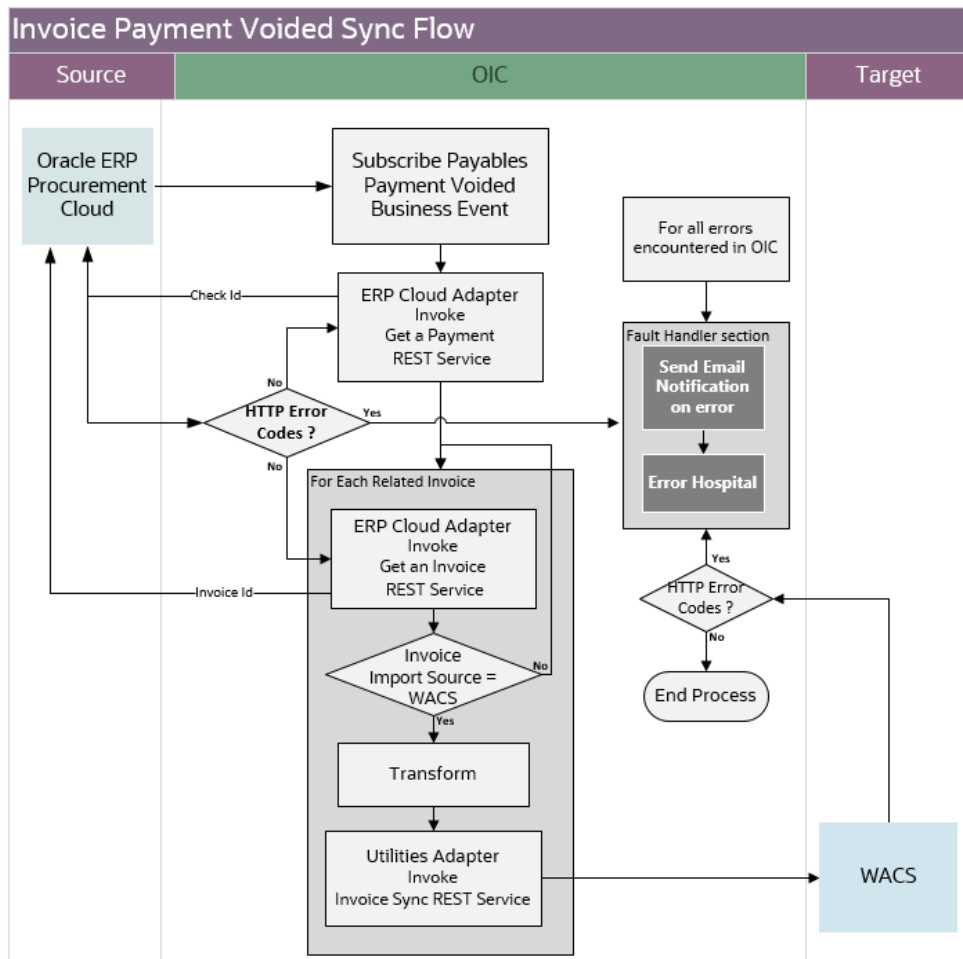
Processing Details

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

1. Subscribes to Payables Payment Voided Event. Oracle Fusion Procurement Cloud publishes an event with a subset of the voided payment information payload when a payment is created for an invoice or related invoices in the application.

2. Do an enrichment call by invoking the Get a Payment REST API to get the other payment information not provided by the business event message.

3. For each invoice related to the payment, do the following:

    • Invoking the Get an Invoice REST API to get the invoice information.

    • Check if the invoice is related to a Oracle Utilities Work and Asset Cloud Service Purchase Requisition.

- • If yes, proceed to the next step.

- • Else, go to the next related invoice, if any.

  Note: Only voided payments created for invoices related to Oracle Utilities Work and Asset Cloud Service Purchase Requisition will be processed by the integration. This means the Purchase Order is based on a requisition coming from Oracle Utilities Work and Asset Cloud Service. The interface source code with value 'WACS' is passed to Oracle Fusion Procurement Cloud during Purchase Requisition Sync to indicate the purchase requisition came from Oracle Utilities Work and Asset Cloud Service. This name value pair is passed on to Purchase Order and then to Invoice.

- • Transforms the voided invoice payment information from Oracle Fusion Procurement Cloud to the Oracle Utilities Work and Asset Cloud Service format.

- • Invoke the Oracle Utilities Work and Asset Cloud Service REST endpoint for Invoice Sync to pass the invoice payment information to Oracle Utilities Work and Asset Cloud Service.

4. Error Handling for this process is taken care.

   If an error occurs in the integration process, an optional email notification is sent (with error details) to the user(s) configured in the OUTL-BRT-WACS_FPRC_Email_ID lookup.

   Retry Option: Re-run from Oracle Integration Cloud

   Note: When the Invoice Sync Request record is successfully created in Oracle Utilities Work and Asset Cloud Service, it means that the integration process ended successfully. Running the Oracle Utilities Work and Asset Cloud Service batch process W1-SIOPE processes the sync request records and creates/updates the invoice records, or it might encounter a business validation error. If an error occurs, the Sync Request Record transitions to error and a To Do is created in Oracle Utilities Work and Asset Cloud Service.

   Most of the time, this will be a data issue. Fix the issue in Oracle Utilities Work and Asset Cloud Service manually and run the Oracle Utilities Work and Asset Cloud Service batch process W1-SIOER to process the sync request records in error. If the issue needs to be fixed in Oracle Fusion Procurement Cloud or in the integration DVM, the Invoice can be revalidated from Oracle Fusion Procurement Cloud to trigger an Invoice Event.

Technical Details

The following table describes the integration process and the respective Oracle Fusion Procurement Cloud and Oracle Utilities Work and Asset Management artifacts used in this integration process.

Artifacts	Value
Integration Process Name	Oracle Utilities FPRC WACS Purchase Order Sync
Integration Package Name	outl.ba.wacs_fprc.1_0_0

Artifacts	Value
ERP Cloud Adapter	Subscription Event: Payables Payment Voided
	Web Service Names:
	Get Payable Payment Related to Invoice Service Application: fscmRestApp Business Resource: Payables Payment Operation: get Child Resources: Related Invoices and Supplier Site
	Get Invoice Service Application: fscmRestApp Business Resource: Invoices Operation: get Child Resources: DFF and lines Descriptive and Extensible: WACS
	Connection Name: Oracle Utilities ERP Cloud for WACS-FPRC
WACS REST IWS (Utilities Cloud Adapter)	Web Service Name:
	W1-InvoiceSynchronization
	Computed URL: https://{host}:{port}/{tenant}/ {domain}/wac/rest/apis/asset/purchasing/ invoiceSynchronization Method: POST URI: /sync
	Connection Name: Oracle Utilities REST WACS for WACS-FPRC

Chapter 3

Configuring Oracle Utilities Work and Asset Cloud Service

This chapter provides details about the configuration settings needed in Oracle Utilities Work and Asset Cloud Service for this integration. It includes the following sections:

- One-Time Configuration Setup
- Configuring Admin Data
- Scheduling the Batch Process
- Managing Web Service Catalog

One-Time Configuration Setup

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

Configuring Admin Data

This section describes the admin data setup in Oracle Utilities Work and Asset Cloud Service related to the integration. The **Admin** menus can be configured to be grouped alphabetically or by functional groups. The descriptions that follow will include both groupings.

- Message Senders
- External System
- Inbound Web Service (IWS)
- Master Configuration
- Business Object
- ERP Integration
- Buyer
- Stock Item

Message Senders

Create a new or update an existing real-time message sender for each Oracle Utilities Work and Asset Management Outbound Message.

To create a message sender:

1. In the **Admin** menu navigate to **[M or Integration] > Message Sender** > **Add**.

2. Enter a unique message sender and its description.

3. Populate the following values:

   - **Message Sender** - Sender name in Oracle Utilities Work and Asset Management
   - **Description** - Sender's description
   - **Invocation Type** - Real-time
   - **Message Class** - RTJSONSNDR (Sender for real-time HTTP / JSON messages)
   - **Active** - Select the check box
   - **MSG Encoding** - UTF-8 message encoding

4. Select the **Context** tab and set values for the following context types:

   - **HTTP Header** - application/json
   - **HTTP Login User** - User ID to access OIC
   - **HTTP Login Password** - Password to access OIC

- **HTTP Method (POST/GET)** - POST

- **HTTP Timeout** - 300

- **HTTP Transport Method** - SendReceive

- **HTTP URL 1** - Set the URL to the OIC REST service endpoint. If the URL value is too long, use the additional HTTP URL types to set the complete URL.

External System

Create a new or update an existing external system to support the Enterprise Resource Planning Cloud.

To create an external system:

1. In the **Admin** menu navigate to **[M or Integration] > External System** > **Add**.

2. Enter a unique **External System** and its **Description**.

3. Associate the outbound message types created to the external system. For each outbound message type, set the following:

   - **Outbound Message Type**

     - **Purchase Request** - Use the W1-PREQIMSG (Purchase Request Outbound) outbound message type

     - **Receipt** - Use the W1-RCPTOUTMS (Receipt Outbound) outbound message type

     - **Return Line** - Use the W1-RTNOUTMS (Return Line Outbound) outbound message type

   - **Processing Method** - Real-time

   - **Message Sender** - Set the corresponding message sender for the outbound message

   - **Date/Time Format** - XSD

   - **JSON Conversion Method** - Base JSON conversion

Inbound Web Service (IWS)

The following REST inbound web services are delivered for this integration:

- W1-PurchaseOrderSynchronization

- W1-VendorLocationSynchronization

- W1-InvoiceSynchronization

- W1-BlanketContractSynchronization

The full URI component for the REST inbound web service is configurable.

The Oracle Utilities Work and Asset Cloud Service documentation provides instructions about the one-time setup. Refer to the Documentation and Resources section in Preface for information about documentation resources.

Master Configuration

This section describes the master configuration details for the integration. The following Master Configurations can be found from the **Admin menu [M or General] > Master Configuration**.

- Seeder Sync Request Master Configuration
- Master Data Synchronization Master Configuration
- ERP Integration Master Configuration
- Purchasing Master Configuration
- Inventory Master Configuration
- Financial Master Configuration

Seeder Sync Request Master Configuration

The Seeder Sync master configuration identifies the ongoing sync request business object and key reference view for the maintenance object specified in the synchronization request.

This is used by the Vendor Location and Purchase Order sync integration.

To create a Seeder Sync Request master configuration:

1. Create a row for the Oracle Enterprise Resource Planning External System and Cost Center Maintenance Object (MO): W1- COSTCTR for Cost Center Sync Integration.

   Define the Ongoing Sync Request Business Object that will process the integration record and the Ongoing Sync Key Reference View and Identifier Type to find existing integration records.

2. Create a row for the Oracle Enterprise Resource Planning External System and Employee Maintenance Object (MO): W1-EMP for Employee Sync Integration.

   Define the Ongoing Sync Request Business Object that will process the integration record and the Ongoing Sync Key Reference View and Identifier Type to find existing integration records.

3. Create a row for the Oracle Enterprise Resource Planning External System and Resource Type Maintenance Object (MO): W1- RESRCTYPE for Stock Item Sync Integration.

   Define the Ongoing Sync Request Business Object that will process the integration record and the Ongoing Sync Key Reference View and Identifier Type to find existing integration records.

4. Create a row for the Oracle Enterprise Resource Planning External System and Vendor Location Maintenance Object (MO): W1-VENDORLOC for Vendor Location Sync Integration.

   Define the Ongoing Sync Request Business Object that will process the integration record and the Ongoing Sync Key Reference View and Identifier Type to find existing integration records.

The table below shows a sample reference Business Object, Ongoing Sync Key Reference View and Identifier Type for each Maintenance Object.

Maintenance Object	Business Object	Ongoing Sync Key Reference View	Identifier Type
W1-COSTCTR (Cost Center)	**W1-OngoingSyncRequest CostCtr** (Cost Center Ongoing Sync Request)	**W1_ON_COST_CEN TER_VW** (Ongoing Sync Key Cost Center View)	**W1EI**
W1-EMP (Employee)	**W1-OngoingSync RequestEmployee** (Employee Ongoing Sync Request)	**W1_ON_EMPLO YEE_VW** (Ongoing Sync Key Employee View)	**W1EI**
W1-RESRCTYPE (Resource Type)	**W1-OngoingSyncRequest StockItem** (StockItem Ongoing Sync Request)	**W1_ON_STOCK_ITE M_VW** (Ongoing Sync Key Stock Item View)	**W1EI**
W1-VENDORLOC (Vendor Location)	**W1-OngoingSyncRequest VendorLoc** (Vendor Location Ongoing Sync Request)	**W1_ON_VENDOR_ LOC_VW** (Ongoing Sync Key Vendor Location View)	**W1EI**

Master Data Synchronization Master Configuration

This Master Configuration is used to update External IDs with IDs used within Oracle Utilities Work and Asset Cloud Service.

To create a Master Data Synchronization master configuration:

1. Create a row for the Cost Center FK Ref and Oracle Enterprise Resource Planning External System that references the Cost Center Ongoing Key Reference View. This Cost Center row is also used by the Cost Center integration.

2. Create a row for the Employee FK Ref and Oracle Enterprise Resource Planning External System that references the Employee Ongoing Sync Key Reference View.

3. Create a row for the Stock Item (Resource Type) FK Ref and Oracle Enterprise Resource Planning External System that references the Stock Item Ongoing Sync Key Reference View.

The table below shows a sample reference for FK Reference, Ongoing Sync Key Reference View, External System and Identifier Type.

FK Reference	Ongoing Sync Key Reference View	External System	Identifier Type
W1-CSCTR (Cost Center)	**W1_ON_COST_CENTE R_VW** (Ongoing Sync Key Cost Center View)	ERP External System created in Step 2	**W1EI**
W1-EMP (Employee)	**W1_ON_EMPLOY EE_VW** (Ongoing Sync Key Employee View)	ERP External System created in Step 2	**W1EI**

FK Reference	Ongoing Sync Key Reference View	External System	Identifier Type
W1-RESTY (Stock Item)	**W1_ON_STOCK_ITEM _VW** (Ongoing Sync Key Stock Item View)	ERP External System created in Step 2	**W1EI**

ERP Integration Master Configuration

This is used by the Chart of Accounts, Vendor Location, Purchase Requisition, Purchase Order, Invoice and Payment, and Receipt and Return Synchronization integrations.

To create an ERP Integration master configuration:

1. In the **Main** section, set the following:

   • **Master Configuration**: Use the same Oracle Enterprise Resource Planning External System created in step 2 in the Master Data Synchronization Master Configuration section.

   • **Default Resource Type**: This is the generic resource type used in non-material Blanket Contract Lines.

2. In the **Financial Configuration** section, set the following:

   • **Taxes Cost Center and Taxes Expense Code**: These are required in financial transactions when the Pay Tax to Vendor parameter on the Vendor Location is set to "No".

   • **Account Segments**: 10 segments must be populated. At least one must be the Cost Center segment and another the Expense Code segment defined. The "Include in Cost Center" flag defines the segments that make up the Cost Center string. The Delimiter will define the separation character sent in the REST Web Service request.

   The following table shows a sample reference.

Sequence	Element Name	Account Segment Type	Include in Cost Center
1	cmAccountSegments/company		No
2	cmAccountSegments/lob		No
3	cmAccountSegments/costCenter		Yes
4	cmAccountSegments/expenseCode	Expense Code	No
5	cmAccountSegments/product		No
6	cmAccountSegments/intercompany		No
7	cmAccountSegments/segment7		No
8	cmAccountSegments/segment8		No
9	cmAccountSegments/segment9		No
10	cmAccountSegments/segment10		No

3. In the **Key Reference Mapping** section, create a row for the following Maintenance Objects:

- Purchase Order Header
- Purchase Order Line
- Invoice Header
- Invoice Line
    - Blanket Contract Header
    - Blanket Contract Line

The following table shows a sample reference Maintenance Object, Ongoing Sync Key Reference View and Identifier Type for each Maintenance Object.

Maintenance Object	Ongoing Sync Key Reference View	Identifier Type
W1-POHDR (Purchase Order Header)	**W1_ON_PURCHASE_ORDER_VW** (Integration Key Purchase Order View)	**W1EI**
W1-POLINE (Purchase Order Line)	**W1_ON_PURCHASE_ORDER_LINE_VW** (Integration Key Purchase Order Line)	**W1-EXTID**
W1-INVCHDR (Invoice Header)	**W1_ON_INVOICE_VW** (Integration Key Invoice View)	**W1EI**
W1-INVCLINE (Invoice Line)	**W1_ON_INVOICE_LINE_VW** (Integration Key Invoice Line View)	**W1-EXTID**
W1-BCHEADER (Blanket Contract Header)	**W1_ON_BLANKET_CONTRACT_VW** (Integration Key Blanket Contract View)	**W1EI**
W1-BCLINE (Blanket Contract Line)	**W1_ON_BLANKET_CONTRACT_LINE_VW** (Integration Key Blanket Contract Line View)	**W1-EXTID**

Purchasing Master Configuration

The parameters set in this Master Configuration are used in the Receiving and Invoice process.

1. To allow users to receive purchase orders created for services, set the **Require Receipt for Services** parameter to **Yes**.

2. In the **Invoicing Parameters** section:

    a. Set the values for Discount Cost Allocation, Freight Cost Allocation and Extra Cost Allocation and Taxes Cost Allocation.

        a. Set the values to **Line** to prorate the financial transactions across all normal and credit memo invoice line items. In addition, the cost center from the line item incurs the cost instead of the default cost centers indicated this master configuration.

      b.   Set the values to **General** so that the financial transaction is written against the header and the default cost centers from this master configuration are used.

    b.   Set the cost center and expense codes for the Discount, Freight, Extra Cost, Taxes and Invoice Write-Off.

Inventory Master Configuration

In the **Receiving Parameters** section, set the following:

- **Add Tax to Cost of Inventory**: This indicates whether taxes are to be included as part of the cost of inventory.

- **Receive More Than Ordered Allowed** parameter to No.

Financial Master Configuration

The parameters set in this Master Configuration are used in the Receiving and Invoice process.

In the **Financial Transaction Parameters** section, set the cost center and expense code for Received Awaiting Invoice and Payables.

Set the distribution codes in the **Distribution Codes** section.

Business Object

SOA-based ERP integrations required positive/negative acknowledgment messages to be returned to the ERP system. These are not needed for the Oracle Application Cloud - Fusion Procurement integrations.

Vendor Location Ongoing Sync Request BO (W1-OngoingSyncRequestVendorLoc)

Make the following lifecycle algorithms inactive:

- Synchronized (SYNCHRONIZED) Status - Create Positive Acknowledgment for ERP (W1-CPOSAERP)

- Negative Acknowledgment Sent (NEG-ACK-SENT) Status - Create Negative Acknowledgment (W1-CRENEGACK)

To make the algorithms inactive, add an option within the **Status** with an **Inactive Algorithm Option Type** and the name of the algorithm within the **Value** field.

Purchase Order Inbound Integration BO (W1-PurchaseOrderIntegInbound)

Make the following lifecycle algorithms inactive:

- Complete (COMPLETE) Status - Send Positive Acknowledgment (W1-SNDPOSACK)

- Complete with Error (COMPLETE-ER) Status - Send Positive Acknowledgment (W1- SNDPOSACK)

- Error (ERROR) Status - Send Negative Acknowledgment (W1-
  SNDNEGACK)

To make the algorithm inactive, add an option within the **Status** with an **Inactive Algorithm Option Type** and the name of the algorithm within the **Value** field.

Invoice Inbound Integration BO (W1- InvoiceIntegInbound)

Make the following lifecycle algorithms inactive:

- Complete (COMPLETE) Status - Send Positive Acknowledgment (W1-
  SNDPOSACK)

- Complete with Error (COMPLETE-ER) Status - Send Positive
  Acknowledgment (W1- SNDPOSACK)

- Error (ERROR) Status - Send Negative Acknowledgment (W1-
  SNDNEGACK)

To inactivate the algorithm, add an option within the **Status** with an **Inactive Algorithm Option Type** and the name of the algorithm within the **Value** field.

Blanket Contract Inbound Integration (W1-BlanketContractIntegInbound)

Make the following lifecycle algorithms inactive:

- Complete (COMPLETE) Status - Send Positive Acknowledgment (W1-
  SNDPOSACK)

- Complete with Error (COMPLETE-ER) Status - Send Positive
  Acknowledgment (W1- SNDPOSACK)

- Error (ERROR) Status - Send Negative Acknowledgment (W1-
  SNDNEGACK)

To inactivate the algorithm, add an option within the **Status** with an **Inactive Algorithm Option Type** and the name of the algorithm within the **Value** field.

Outbound Integration BO (W1-OutboundIntegration)

Make the following lifecycle algorithms inactive:

- Awaiting Acknowledgment (AWAIT_ACKNLG) Status - Check for Response
  Timeout (W1-CHKRESP)

To inactivate the algorithm, add an option within the **Status** with an **Inactive Algorithm Option Type** and the name of the algorithm within the **Value** field.

W1-InvoiceHeaderIntegration BO (W1-InvoiceLineIntegration)

The application service used in the business object is W1-INTEGINVCHDRBOAS. Users authorized to create a reversal invoice must have the Create Reversal (W1CI) access mode added to their user group.

To inactivate the algorithm, add an option within the **Status** with an **Inactive Algorithm Option Type** and the name of the algorithm within the **Value** field.

ERP Integration

For integration flows, the ERP Integration Admin records define the owning system of the Maintenance Object between ERP and Oracle Utilities Work and Asset Management. Add records if they do not exist. The ERP admin records can be found from the **Admin menu > [E or Integration] > ERP Integration**.

- Purchase Order Header MO
    - Owning System: Enterprise Resource Planning
    - WAM Business Object: W1-POHeaderIntegration
- Purchase Order Line MO
    - Owning System: Enterprise Resource Planning
    - WAM Business Object: W1-POLineIntegration
- Receipt Header MO
    - Owning System: Work and Asset Management
- Receipt Line MO
    - Owning System: Work and Asset Management
- Accept Line MO
    - Owning System: Work and Asset Management
- Return Line MO
    - Owning System: Work and Asset Management
- Invoice Header MO
    - Owning System: Enterprise Resource Planning
    - WAM Business Object: W1-InvoiceHeaderIntegration
- Invoice Line MO
    - Owning System: Enterprise Resource Planning
    - WAM Business Object: W1-InvoiceLineIntegration
- Blanket Contract Header MO
    - Owning System: Enterprise Resource Planning
    - WAM Business Object: W1-BCHeaderIntegration
- Blanket Contract Line MO
    - Owning System: Enterprise Resource Planning
    - WAM Business Object: W1-BCLineIntegration

Buyer

ERP Buyers are referenced on the Purchase Order Inbound as external Employee IDs. These external IDs indicate that the Employee records were synchronized through the Oracle Human Capital Management/Oracle Utilities Work and Asset Management integration. From the Employee External ID, the Purchase Order Synchronization flow will derive the system User ID of the Employee and find the Buyer Code associated with that User ID, if it exists.

Stock Item

To allow In Receipt returns for the Stock Item, set the Stock Item's **Accept On Receipt** parameter to **No**.

Scheduling the Batch Process

The batch process is used to run the sync request. It is a generic batch process that is used for different sync processes. It has a couple of parameters that can be used to control which sync request business objects to process.

Batch Processes for Ongoing and Inbound Integration Sync Requests

Batch Code	Description
W1-SIOPE	The batch process to transition ongoing sync request out of the PENDING state. It is a generic batch process that is used for different sync processes. It has a couple of parameters that can be used to control which sync request business objects to process. To process the inbound sync requests specific to Purchase Orders or Invoices and Payments only, set the Restrict By Business Object parameter to either W1-PurchaseOrderIntegInbound or W1-InvoiceIntegInbound.
W1-SIOER	The batch process to transition ongoing sync request out of the ERROR state.

Batch Processes for Ongoing Sync Requests

Batch Code	Description
F1-SYNRQ	Sync Request Monitor Process: The batch process to run the sync request. It is a generic batch process that is used for different sync processes. It has a couple of parameters that can be used to control which sync request business objects to process. Set the Override Nbr Records To Commit to 1. To process sync requests specific to Purchase Requisitions, Receipts or Returns only, set the Restrict By Business Object parameter to either W1-PurchaseReqIntegOutbound, W1-ReceiptOutboundSyncRequest or W1-ReturnLineOutboundSyncReq.

For more information about the sync request process, the business objects, maintenance objects, and other components used for this process, refer to the **Data Synchronization** section in the *Oracle Utilities Application Framework User Guide*.

Managing Web Service Catalog

The web service catalog is used by Oracle Integration Cloud to communicate with the respective application. It is used to identify the services that should be retrieved by the Oracle Utilities Adapter. It is configured in Catalog URL in the Oracle Integration Cloud connection.

To configure the catalog in Oracle Utilities Work and Asset Cloud Service:

1. Login to Oracle Utilities Work and Asset Cloud Service.

2. Navigate to the **Web Service Catalog** page either from the **Admin** > [**W** or **Integration**] menu or from 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	Description
Inbound Web Service	W1-PurchaseOrderSynchronization	Purchase Order Synchronization
Inbound Web Service	W1-VendorLocationSynchronization	Vendor Location Synchronization
Inbound Web Service	W1-InvoiceSynchronization	Invoice Synchronization
Inbound Web Service	W1-BlanketContractSynchronization	Blanket Contract Synchronization

5. For outbound messages, add the External System that was set up previously.

For more information about configuration, refer to the Oracle Utilities Work and Asset Cloud Service documentation.

Chapter 4

Configuring Oracle Fusion Procurement Cloud

For Oracle Fusion Procurement Cloud configuration details, refer to the *Oracle Fusion Procurement Cloud Configurations for Oracle Utilities Work and Asset Cloud Service Integration to Oracle Fusion Procurement Cloud Setup Guide* at:

https://docs.oracle.com/cd/F48370_01/index.htm

Chapter 5

Importing, Configuring, and Testing Integration Connections

This chapter provides the configuration settings required for the integration, including:

- 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.

2. Click **Applications**.

3. Search for "Oracle Utilities Work and Asset 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**. My Oracle Support portal opens.

8. Download the integration package from My Oracle 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 if the following integrations are imported successfully.

    • Oracle Utilities FPRC WACS Vendor Locations Sync

    • Oracle Utilities WACS FPRC Pur Requisition Sync

    • Oracle Utilities WACS FPRC Pur Requisition Approve

- Oracle Utilities FPRC WACS Purchase Order Sync
- Oracle Utilities WACS FPRC Receipts Sync
- Oracle Utilities WACS FPRC Returns Sync
- Oracle Utilities FPRC WACS Invoice Validated Sync
- Oracle Utilities FPRC WACS Invoice Cancelled Sync
- Oracle Utilities FPRC WACS Invoice Payment Sync
- Oracle Utilities FPRC WACS Invoice Payment Voided Sync

2. Verify if the following connections are in place.

- Oracle Utilities SOAP UCM Gen Svc for WACS-FPRC
- Oracle Utilities REST WACS for WACS-FPRC
- Oracle Utilities REST for WACS-FPRC
- Oracle Utilities ERP Cloud for WACS-FPRC

3. Make sure that the following lookups are imported successfully.

- OUTL-BRT-WACS_FPRC_Email_ID
- OUTL-BRT-WACS_FPRC_PaymentTerm
- OUTL-BRT-WACS_FPRC_UOM
- OUTL-BRT-WACS_WFPRC_ItemTypeCode
- OUTL-BRT-WACS_FPRC_ConfigProps
- OUTL-BRT-WACS_FPRC_POStatus
- OUTL-BRT-WACS_FPRC_POLineStatus
- OUTL-BRT-WACS_FPRC_DeliverToLocation
- OUTL-BRT-WACS_FPRC_Country
- OUTL-BRT-WACS_FPRC_CurrencyCode
- OUTL-BRT-WACS_FPRC_State
- OUTL-BRT-WACS_FPRC_FOB
- OUTL-BRT-WACS_FPRC_PaymentType
- OUTL-BRT-WACS_FPRC_InvoiceLineType
- OUTL-BRT-WACS_FPRC_BCCategory
- OUTL-BRT-WACS_FPRC_BCStatus

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 Oracle Utilities SOAP UCM Gen Svc for WACS-FPRC Connection
- Configuring Oracle Utilities REST WACS for WACS-FPRC Connection

- Configuring Oracle Utilities REST for WACS-FPRC Connection
- Configuring Oracle Utilities ERP Cloud for WACS-FPRC Connection

Configuring Oracle Utilities SOAP UCM Gen Svc for WACS-FPRC Connection

This connection is used to communicate with Oracle Universal Content Management using the SOAP adapter.

To configure the Oracle Utilities SOAP UCM Gen Svc for WACS-FPRC connection:

1. Specify the WSDL URL.

   The Oracle UCM Web Service follows this format: https://{ERP Cloud host}/idcws/GenericSoapPort?WSDL

2. From the **Security Policy** drop-down list, select **Basic Authentication**.

3. Provide **Username** and **Password** to connect to Oracle UCM.

4. Click **Test** at the upper-right corner.

5. After the connection is tested successfully, click **Save**.

Configuring Oracle Utilities REST WACS for WACS-FPRC Connection

This connection is used to communicate with Oracle Utilities Work and Asset Cloud Service using the Oracle Utilities Adapter.

To configure the Oracle Utilities REST WACS for WACS-FPRC connection:

1. Specify the Oracle Utilities Work and Asset 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** drop-down list, select **Basic Authentication**.

3. Provide **Username** and **Password** to connect to Oracle Utilities Work and Asset Cloud Service.

4. Click **Test** at the upper-right corner.

5. After the connection is tested successfully, click **Save**.

Configuring Oracle Utilities REST for WACS-FPRC Connection

This connection is used as a REST trigger.

To configure the REST for WACS-FPRC connection:

1. In the **Security Policy** section, select **OAuth2.0** or **Basic Authentication**.

2. Click **Test**.

3. After the connection is tested successfully, click **Save**.

Configuring Oracle Utilities ERP Cloud for WACS-FPRC Connection

This connection is used to communicate with Oracle ERP Fusion Cloud application using the Oracle ERP Cloud Adapter.

To configure the Oracle ERP Financial Cloud for WACS-FPRC connection:

1. Enter the ERP Cloud Host URL.

   Example: https://ERP_domain_name.fa.DC.oraclecloud.com

   > **Note**: The Oracle ERP Cloud host name can easily be derived from the Oracle ERP Cloud login URL.

2. In the **Security Policy** section, select **Username Password Token**.

3. Enter the **Username** and **Password** to connect to Oracle ERP Financial Cloud.

4. Click **Test**.

5. 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 Utilities Work and Asset Cloud Service certificates and upload them to Oracle Integration Cloud to handshake with Oracle Utilities Work and Asset Cloud Service.

To download the Oracle Utilities Work and Asset Cloud Service certificate:

1. Login to Oracle Utilities Work and Asset Cloud Service.

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 describes the lookup configuration, error handling for faults encountered and email notifications in this integration. It includes the following sections:

- Configuring Lookups
- Configuration Properties
- Error Handling
- Email Notifications

Configuring Lookups

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

DVM Name	Description
OUTL-BRT-WACS_FPRC_ConfigProps	Maps PropertyName column to the respective Value column. Do not change the value in the PropertyName column.
OUTL-BRT-WACS_FPRC_Country	Maps Country values between Oracle Fusion Procurement Cloud and Oracle Utilities Work and Asset Cloud Service Get WACS values from Admin > [C or General] > Country > Search Get FPRC values from Manage > Geography Lookup
OUTL-BRT-WACS_FPRC_CurrencyCode	Maps Currency code between Oracle Fusion Procurement Cloud and Oracle Utilities Work and Asset Cloud Service Get WACS values from Admin > [C or General] > Currency Get FPRC values from Define Currency and Currency Rate > Manage Currency
OUTL-BRT-WACS_FPRC_DeliverToLocation	Maps between Oracle Fusion Procurement Cloud Deliver To Location Code and Oracle Utilities Work and Asset Cloud Service Ship To Location Code. In Oracle Utilities Work and Asset Cloud Service, Ship To Location is a storeroom. Get WACS values from Admin > [S or Inventory] > Storeroom > Search Get FPRC values from Procurement > Manage Location
OUTL-BRT-WACS_FPRC_Email_ID	Maps from and to recipient values to the mentioned email IDs. Configure multiple emails using a comma to separate the email IDs.
OUTL-BRT-WACS_FPRC_FOB	Maps FOB values between Oracle Fusion Procurement Cloud and Oracle Utilities Work and Asset Cloud Service Get WACS values from Admin > [F or Purchasing] > Free On Board > Search Get FPRC values from Manage > Freight Terms Lookup

DVM Name	Description
OUTL-BRT-WACS_FPRC_InvoiceLineType	Maps Invoice Line Type Code between Oracle Fusion Procurement Cloud and Oracle Utilities Work and Asset Cloud.
	Get WACS values from Admin > L or Database > Lookup > Search > Search for INVOICE_ITEM_TYPE_FLG
	Get FPRC values from Manage > Setup and Maintenance > Manage Invoice Option
OUTL-BRT-WACS_FPRC_ItemTypeCode	Maps between Oracle Fusion Procurement Cloud Item Type Code and Oracle Utilities Work and Asset Cloud Service Item Type Code.
	Get WACS values from Admin > L or Database > Lookup > Search > Search for ITEM_TYPE_FLG
	Get FPRC values from Define > Purchase Order Line Type
OUTL-BRT-WACS_FPRC_PaymentTerm	Maps Payment Term values between Oracle Fusion Procurement Cloud to Oracle Utilities Work and Asset Cloud Service.
	Get WACS values from Admin > P or Purchasing > Payment Terms > Search
	Get FPRC values from Financials > Manage Payment Terms
OUTL-BRT-WACS_FPRC_PaymentType	Maps between Oracle Fusion Procurement Cloud Payment Type and Oracle Utilities Work and Asset Cloud Service Check Type Code.
	Get WACS values from Admin > L or Database > Lookup > Search > Search for CHECK_TYPE_FLG (Customizable)
	Get FPRC values from Financial > Define Payment method
OUTL-BRT-WACS_FPRC_POLineStatus	Maps Oracle Fusion Procurement Cloud Document Status Code to Oracle Utilities Work and Asset Cloud Service PO Status Code.
	Sample values: FPRC -OPEN, CANCELED, FINALLY CLOSED WACS - ISSUED, CANCELED, CLOSED

DVM Name	Description
OUTL-BRT-WACS_FPRC_POStatus	Maps Oracle Fusion Procurement Cloud Document Status Code to Oracle Utilities Work and Asset Cloud Service PO Status Code.
	Sample values: FPRC - OPEN, CANCELED, FINALLY CLOSED WACS - ISSUED, CLOSED
OUTL-BRT-WACS_FPRC_State	Maps state values between Oracle Fusion Procurement Cloud and Oracle Utilities Work and Asset Cloud Service
	Get WACS values from Admin > [C or General] > Country > Search for a Country > State tab
	Get FPRC values from Manage > Geography Lookup
OUTL-BRT-WACS_FPRC_UOM	Maps between Oracle Utilities Work and Asset Cloud Service UOM Code and Oracle Fusion Procurement Cloud UOM Name.
	Get WACS values from Admin > U or Inventory > Unit Of Measure -Resource > Search
	Get FPRC values from Manage > Unit of Measure
OUTL-BRT-WACS_FPRC_BCStatus	Maps between Oracle Fusion Procurement Cloud Blanket Contract status to Oracle Utilities Work and Asset Cloud Service Blanket Contract status
	Sample values:
	FPRC_Status: OPEN, CANCELED,WITHDRAWN, ON HOLD, FINALLY CLOSED
	WACS Status: ACTIVE,CLOSED,SUSPENDED

DVM Name	Description
OUTL-BRT-WACS_FPRC_BC_Category	Maps between Oracle Fusion Procurement Cloud Blanket Contract Category to Oracle Utilities Work and Asset Cloud Service Blanket Contract Category.
	Note: This integration supports Blanket Purchase Agreement and Contract Purchase Agreement. Blanket Purchase Agreement must be configured as "BPA" in WACS, BLANKET_CATEGORY_FLG custom Lookup Contract Purchase Agreement must be configured as "CPA" in WACS, BLANKET_CATEGORY_FLG custom Lookup.
	Get WACS values from Admin > [L or Database] > Lookup > Search for the lookup BLANKET_CATEGORY_FLG.
	This lookup is a custom lookup with values defined by implementation. There is no system processing, but the values and descriptions will be used to indicate if the Blanket Contract is a Blanket Purchase Agreement (or Blanket Contract) or Contract Purchase Agreement.

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**.

Configuration Properties

The OUTL-BRT-WACS_FPRC_ConfigProps lookup contains the properties that can be configured and defaulted in the integration.

Property Name	Sample Value	Description
email.flag	true	If this value is set to true, email notification will be sent out.
		Valid values: true/false. Default to true.
wacs.externalsystem	ERP	External system defined in Oracle Utilities Work and Asset Cloud Service for Oracle Fusion Procurement Cloud application

Property Name	Sample Value	Description
maxerrorcount.per. emailnotification	100	This value controls the number of errors to be sent out in an error email notification. When the error count (number of records that errored) reaches this value, an error email notification is sent out. The error count is then reset and processing of records continues. An email notification is sent for every iteration of error count reaching this value.
fprc.pr.externally managed.flag	true	Default to true. If true, the requisition is externally managed and cannot be seen in the Purchase Requisitions work area. The requisition information can be seen in the Purchase Orders work area.
fprc.businessunit.id	300000046987	Business Unit ID as defined in Oracle Fusion Procurement Cloud.
fprc.pr.preparer.id	300000047340498	The preparer ID identifies the person who created the requisition. This should be the Employee ID of the signed in user to the ERP application. The preparer and the signed-in user must be the same to create a requisition in ERP.
fprc.destination. organization.code	001	This is used in Purchase Requisition (PR) and Receipt. For PR, this identifies the inventory organization where the supplier should deliver the goods. For Receipt, this is the receiving organization.
fprc.default.deliverto location.code	WACS_Seattle	Default Oracle Fusion Procurement Cloud deliver to location. This value is used if Oracle Utilities Work and Asset Cloud Service does not pass a value.
fprc.destinationtype. code	EXPENSE	Destination Type Code as defined in Oracle Fusion Procurement Cloud. Currently only EXPENSE is supported for this integration in Receipts and Purchase Requisition. Customer cannot change this value.
wacs.autopay.value	W1NA	Autopay value of "Not Authorized" is passed to Oracle Utilities Work and Asset Cloud Service as part of all vendor locations in Vendor/Vendor Location Sync.
fprc.source.doccode	PO	Source Document Code of "PO" is passed in Receipts and Returns API call to Oracle Fusion Procurement Cloud. Only value of "PO" is supported for this integration. This value should not be changed.

Property Name	Sample Value	Description
fprc.receipt.transation type	RECEIVE	Transaction Type of "RECEIVE" is passed in Receipts API call to Oracle Fusion Procurement Cloud. Only value of "RECEIVE" is supported for this integration. This value should not be changed.
fprc.receipt.autotransact code	DELIVER	Auto Transact Code of "DELIVER" is passed in Receipts API call to FPRC. Only value of "DELIVER" is supported for this integration. This value should not be changed.
fprc.soldtolegal entityidode	300000046973970	ID that uniquely identifies the sold-to legal entity in Oracle Fusion Procurement Cloud. This is passed as part of Receipts and Returns API call to Oracle Fusion Procurement Cloud.
fprc.source.code	VENDOR	Receipt Source Code of "VENDOR" is passed in Receipts and Returns PI call to Oracle Fusion Procurement Cloud. Only value of "VENDOR" is supported for this integration. This value should not be changed.
fprc.default.uom	Hr	When Oracle Utilities Work and Asset Management passes a PR line with a craft, it does not pass a unit of purchase so the default value of Hr will be obtain here.
default.daystoadd. tocurrentdate	10	Defines the Oracle Utilities Work and Asset Cloud Service offset.
fprc.emp.id	300000067078609	The employee ID of the default employee defined in Oracle Fusion Procurement Cloud that is passed in Receipts and Returns API call to Oracle Fusion Procurement Cloud. This value is passed only if the employeeExternalId field in the Oracle Utilities Work and Asset Cloud Service Outbound message for Receipts is empty.
fprc.returns.transaction type	RETURN TO VENDOR	Returns transaction type of RETURN TO VENDOR is passed in Returns API. Only this value is supported for this integration and should not be changed.
fprc.returns.debitmemo. flg	true	This flag passed in Returns API indicates if a debit memo is automatically created on Returns. A debit memo is automatically created only if a standard invoice is present.
fprc.interface.source code	WACS	Interface Source code passed in Create Requisition, Receipts and Returns API

Property Name	Sample Value	Description
fprc.cpa.negotiated	false	This flag passed in PR API if a CPA Blanket Contract is attached to the PR. The flag indicates if the CPA is negotiated and if PO should be created automatically on successful creation of PR.
fprc.bpa.negotiated	true	This flag passed in PR API if a BPA Blanket Contract is attached to the PR. The flag indicates if the BPA is negotiated and if PO should be created automatically on successful creation of PR.
wacs.default.bc.limit.amount	10000	This is the default Blanket Contract agreement amount passed to WACS, if the agreement amount coming from FPRC for a given Blanket Contract is empty.
wacs.default.bc.end.date	01-01-2030	This is the default Blanket Contract end date passed to WACS, if the end date coming from FPRC for a given Blanket Contract is empty.
fprc.taxlines.api.collectionlimit	25	This parameter restricts the number of taxlines returned inside the taxline collection.

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, all integration flows are asynchronous. This section describes error handling for asynchronous flows.

- Asynchronous/Synchronous Flow Error Handling
- Summary of Integration Error Handling

Asynchronous/Synchronous Flow Error Handling

Technical Fault
This fault occurs when there is a data mismatch or any Xpath related error.

Remote Fault
This fault occurs when the target system is down or not accessible.

Business Fault

These faults are application-specific faults that occur when there is a problem with the information being processed in the target application due to invalid data or business error validations.

Vendor/Vendor Location Sync and Blanket Contracts Sync: For processing records in a file

When Oracle Utilities Work and Asset Cloud Service returns HTTP status codes 400 or 500, these are considered business faults by the integration. When these errors occur, the flow will not stop but continue to process the next record and the errors will be stored in a temporary error collection. Optional emails are sent when error count reaches the value specified for maxerrorcount.per.email.notification, email with error details is sent.

When the file completes processing, an optional email is sent with the list of remaining errors to the respective user.

Summary of Integration Error Handling

Integration Process: Vendor/VendorLocation Synchronization

Type of error	Action	Notification Type	Retry
Technical or Remote Fault Example: UCM is not accessible	Process Stop	Email	Resubmit Error Instance From OIC
Business Fault (WACS returns Status Not 400 or 500)	Process Stop	Email	Resubmit Error Instance From OIC
Business Fault (WACS returns Status 400 or 500)	Continue Process	Collect errors and send errors in Email	Data Fix in Integration: 1. Rename the file in UCM by removing the "ERROR" prefix in the name. 2. Reprocess the Job file. Data Fix in WACS: 1. Rename the file in UCM by removing the "ERROR" prefix in the name. 2. Reprocess the Job file.
Business Fault Invalid docTitle Name	Process Stop	Email	Retry passing the correct file name
Rename of File Failed	Process Stop	Email	Rename file manually in UCM or retry the OIC flow again for the same docTitle

Type of error	Action	Notification Type	Retry
File is not a zipped file	Process Stop	Email	Retry passing the correct docTitle name

Integration Process: Blanket Contract Synchronization

Type of error	Action	Notification Type	Retry
Technical or Remote Fault Example: UCM is not accessible	Process Stop	Email	Resubmit Error Instance From OIC
Business Fault (WACS returns Status Not 400 or 500)	Process Stop	Email	Resubmit Error Instance From OIC
Business Fault (WACS returns Status 400 or 500)	Continue Process	Collect errors and send errors in Email	Data Fix in Integration: 1. Rename the file in UCM by removing the "ERROR" prefix in the name. 2. Reprocess the Job file. Data Fix in WACS: 1. Rename the file in UCM by removing the "ERROR" prefix in the name. 2. Reprocess the Job file.
Business Fault Invalid docTitle Name	Process Stop	Email	Retry passing the correct file name
Rename of File Failed	Process Stop	Email	Rename file manually in UCM or retry the OIC flow again for the same docTitle
File is not a zipped file	Process Stop	Email	Regenerate the zip file in FPRC and run the OIC process to pick up the zip file
Business Fault DocTitle and ContentId parameters are null	Process Stop	Email	Retry passing a valid value for a parameter

Type of error	Action	Notification Type	Retry
Business Fault UOMConversion API returns ReturnStatus as "ERROR"	Collect Error	Email	Update the Blanket contract values in FPRC, re generate the file and run the OIC process again to process the regenerated file.
Technical Fault UOMConversion API throws fault	Collect Error	Email	Rename the file manually in UCM and rerun the OIC flow again to pick up the renamed file.

Integration Process: Purchase Requisition Synchronization

Type of error	Action	Notification Type	Retry
Technical Fault	Process Stop	Email	Resubmit Error Instance From OIC
Remote Fault or Business Fault (Invoke FPRC PR Create REST API)	Process Stop	Email	Resubmit From WACS
Remote Fault (Invoke OIC PR Approval REST API)	Process Stop	Email	Invoke OIC PR Approval REST API passing FPRC PR Header ID. The PR in FPRC has been created so only submit it for approval.

Integration Process: Purchase Requisition Approval Process

Type of error	Action	Notification Type	Retry
Technical Fault	Process Stop	Email	Resubmit Error Instance From OIC
Remote Fault or Business Fault (Invoke FPRC Submit PR for Approval REST API)	Process Stop	Email	Invoke OIC PR Approval REST API passing FPRC PR Header ID. The PR in FPRC has been created so only submit it for approval.

Integration Process: Purchase Order Synchronization

Type of error	Action	Notification Type	Retry
Technical Fault	Process Stop	Email	Resubmit Error Instance From OIC

Type of error	Action	Notification Type	Retry
Remote Fault or Business Fault (Invoke WACS REST API)	Process Stop	Email	Resubmit Error Instance From OIC

Integration Process: Receipt Synchronization

Type of error	Action	Notification Type	Retry
Technical or Remote Fault in CreateReceiptsiptsIn FPRC scope in OIC	Process Stop	Email	Resubmit Error Instance From OIC or resend outbound message from WACS
Technical or Remote Fault in FPRC_ProcessingErrors scope in OIC	Collect Error	Email	Query FPRC Interface tables for Receipts to check the error records
Technical or Remote Fault in Receipt_Processing Error scope in OIC	Collect Error	Email	Query FRPC Interface tables for Receipts to check the error records
Technical or Remote Fault in FPRC_LinesTo Return scope in OIC	Collect Error	Email	Manually Return the quantity from FPRC
Technical or Remote Fault in ReturnReceipts scope in OIC	Collect Error	Email	Manually Return the quantity from FPRC
Technical or Remote Fault in ReceivingReceipt TrxmProcessing Errors scope in OIC	Collect Error	Email	Query FPRC Interface tables for Returns to check the error records
Technical or Remote Fault in Rename_Close POLine scope in OIC	Collect Error	Email	Manually close the PO line from FPRC

Type of error	Action	Notification Type	Retry
Business Error in Receipts API (Processing error in any receipt line indicated by ReturnStatus = "Error")	Continue Process Receipt is created with partial lines	Collect errors and send errors in Email	Fix the error lines in the Interface Tables for FPRC and upload the fixed receipt lines to the main Receipt.
Business Error in Receipts(Processing error in ALL the receipt lines indicated by ReturnStatus = "Error" and ProcessingStatus = "ERROR")	Return fault 400 status is sent back to WACS	Collect errors and send errors in Email	Resend the Receipt outbound message from WACS
Business Fault in Close PO Line API	Process Stop	Email	If the PO line is not closed in FPRC, close it manually in FPRC.
BusinessError in Returns API ("ReturnStatus'=ERROR' on Receipt LineToReturn)	Collect Error	Email	Fix the error lines in Interface tables for Returns in FPRC and upload the fixed Returns to the main Returns table.

Integration Process: Returns Synchronization

Type of error	Action	Notification Type	Retry
Technical or Remote Fault in InvokeLinesTo Return scope in OIC	Process Stop	Email	Resubmit error instance from OIC or resend outbound message from WACS
Technical or Remote Fault in ProcessReturns scope in OIC	Process Stop	Email	Resubmit error instance from OIC or resend outbound message from WACS
Technical or Remote Fault in InvokeReturn scope in OIC	Collect Error	Email	Query FRPC interface tables for Receipts to check the error records
Technical or Remote Fault in ProcessErrors scope in OIC	Collect Error	Email	Manually return the quantity from FPRC

Type of error	Action	Notification Type	Retry
Business Error (Processing error on Returns API on any Receipt LinesToReturn indicated by ReturnStatus = "ERROR" in response)	Continue process of Return on other Receipt LinesTo Return	Collect errors and send errors in Email	Fix the error lines in Interface Tables for Returns in FPRC and upload the fixed receipt lines to the main Returns table
Business Fault (Processing error on Returns API on ALL Receipt LinesToReturn indicated by ReturnStatus = "ERROR" in response)	Return fault 400 status is sent back to WACS	Collect errors and send errors in Email	Resend the Returns outbound message from WACS

Integration Process: Invoice Validated Synchronization

Type of error	Action	Notification Type	Retry
Technical Fault	Process Stop	Email	Resubmit Error Instance From OIC
Remote Fault or Business Fault (Any API Invocation)	Process Stop	Email	Resubmit Error Instance From OIC

Integration Process: Invoice Cancelled Synchronization

Type of error	Action	Notification Type	Retry
All Errors Encountered	Process Stop	Email	Resubmit Error Instance From OIC

Integration Process: Invoice Payment Synchronization

Type of error	Action	Notification Type	Retry
Technical Fault	Process Stop	Email	Resubmit Error Instance From OIC
Remote Fault or Business Fault (Any API Invocation)	Process Stop	Email	Resubmit Error Instance From OIC

Integration Process: Invoice Payment Voided Synchronization

Type of error	Action	Notification Type	Retry
Technical Fault	Process Stop	Email	Resubmit Error Instance From OIC
Remote Fault or Business Fault (Any API Invocation)	Process Stop	Email	Resubmit Error Instance From OIC

Resubmitting the Error Instances in Oracle Integration Cloud

In this integration, all processes are asynchronous flows so the resubmit option is available in Oracle Integration Cloud if the process ends in a fault.

To resubmit the error instances in Oracle Integration Cloud:

1. Login to Oracle Integration Cloud.

2. Navigate **Integrations** > **Monitoring** > **Errors**.

3. Select the integration to resubmit.

4. Click the **Resubmit** icon.

Reprocess Vendor/Vendor Location File

To reprocess the Vendor/Vendor Location file:

1. Login to Oracle Integration Cloud.

2. Navigate to **Integrations** > **Integrations**.

   • For Vendor Sync: Navigate to **Oracle Utilities FPRC WACS Vendor Location Sync** integration and click **Run**.

3. Click **Submit Now** to display the Schedule Parameters.

4. Enter the **DocTitle** of the file.

   Note: Enter the complete DocTitle of the file to process single file or enter the DocTitle with wildcard (such as file*) to process multiple files.

5. Click **Submit**.

Reprocess Blanket Contract File

To reprocess the Blanket Contract file:

1. Login to Oracle Integration Cloud.

2. Navigate to **Integrations** > **Integrations**.

3. Navigate to **Oracle Utilities FPRC WACS Blanket Contract Sync** integration and click **Run.**

4. Click **Submit Now** to display the Schedule Parameters.

5. Enter the **DocTitle** or **ContentId** of the file.

> **Note**: Enter the complete DocTitle of the file to process single file or enter the DocTitle with wildcard (such as file*) to process multiple files.

6. Click **Submit**.

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-WACS_FPRC_Email_ID** look up.

   a. In the **from** field, enter the email ID to receive an email from.

   b. In the **to** field, enter the email ID to send the email to.

   c. In the **Email_Id** field, provide the comma separated email IDs.

   > **Note**: In the **OUTL-BRT-WACS_FPRC_Email_ID** lookup, do not edit the values provided under the **Recipient** column.

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:

- Make sure that all lookups/DVMs are setup in Oracle Integration Cloud.

- Mandatory configurations are created in Procurement Cloud and Oracle Utilities Work and Asset Cloud Service.

- Vendor integration is prerequisite for Purchase Requisition, Purchase Order and Receipts.

- Check the roles and responsibilities for the implementation user performing the setups prior to configuration.

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 Work and Asset Cloud Service
- Oracle Integration Cloud

Oracle Utilities Work and Asset Cloud Service

For more information about errors and notifications, refer to the Oracle Utilities Work and Asset Cloud Service 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, refresh the metadata and activate the integration.