

**Oracle® Retail Financial Integration for Oracle
Retail Merchandise Operations Management and
Oracle E-Business Suite Financials**

Implementation Guide

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Preface

The Oracle Retail Financial Integration represents the initial release of the direct integration solution between Oracle Retail Merchandising Suite and enterprise financial systems. Because the concept of retail financial integration continues to be strategic to Oracle Retail, this integration is designed to better match other Oracle Retail provided integration patterns and so has the benefit of being easier to implement and support. The Oracle Retail Financial Integration is aligned with our overall integration strategy.

This version of the Oracle Retail Financial Integration targets integration between Oracle Retail merchandising systems and Oracle E-Business Suite. Integration best practices have been applied to this integration so that it can be easily implemented and supported by our retail customers.

The Oracle Retail Financial Integration is supported by Oracle for customers who have purchased the Oracle Retail Integration Bus product. As with most packaged integration, the base package provides the most common integration content to satisfy end-to-end scenarios, but customers will tend to make some integration and mapping changes to meet their specific needs. This release includes technical and design documentation to assist customer specific deployments.

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Related Documents

For more information, see the following documents in the Oracle Retail Financial Integration for Oracle Retail Merchandise Operations Management and Oracle E-Business Suite Financials Release 14.0 documentation set:

- *Oracle Retail Financial Integration Release Notes*
- *Oracle Retail Financial Integration Installation Guide*
- Oracle Retail Merchandising System documentation set
- Oracle Retail Integration Bus documentation set
- Oracle Retail Service Backbone documentation set
- Oracle Retail Invoice Matching documentation set

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-
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 - Functional and technical description of the problem (include business impact)
 - Detailed step-by-step instructions to re-create
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Review Patch Documentation

When you install the application for the first time, you install either a base release (for example, 14.0) or a later patch release (for example, 14.0.1). If you are installing the base release or additional patch releases, read the documentation for all releases that have occurred since the base release before you begin installation. Documentation for patch releases can contain critical information related to the base release, as well as information about code changes since the base release.

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This process will prevent delays in making critical corrections available to customers. For the customer, it means that before you begin installation, you must verify that you have the most recent version of the Oracle Retail documentation set. Oracle Retail documentation is available on the Oracle Technology Network at the following URL:

<http://www.oracle.com/technetwork/documentation/oracle-retail-100266.html>

An updated version of the applicable Oracle Retail document is indicated by Oracle part number, as well as print date (month and year). An updated version uses the same part number, with a higher-numbered suffix. For example, part number E123456-02 is an updated version of a document with part number E123456-01.

If a more recent version of a document is available, that version supersedes all previous versions.

Oracle Retail Documentation on the Oracle Technology Network

Documentation is packaged with each Oracle Retail product release. Oracle Retail product documentation is also available on the following Web site:

<http://www.oracle.com/technetwork/documentation/oracle-retail-100266.html>

(Data Model documents are not available through Oracle Technology Network. These documents are packaged with released code, or you can obtain them through My Oracle Support.)

Documentation should be available on this Web site within a month after a product release.

Conventions

Navigate: This is a navigate statement. It tells you how to get to the start of the procedure and ends with a screen shot of the starting point and the statement “the Window Name window opens.”

This is a code sample

It is used to display examples of code

Understanding the Oracle Retail Financial Integration for Oracle Retail Merchandise Operations Management and Oracle E-Business Suite Financials

This chapter provides an overview of the Oracle Retail Financial Integration (ORFI) for Oracle Retail Merchandise Operations Management (MOM) and Oracle E-Business Suite (EBS) Financials and discusses:

- Key benefits
- Participating applications
- Retail Sales Financial business process flow
- Retail Inventory Financial business process flow
- Retail Procure to Pay business process flow
- Solution assumptions and constraints

Overview

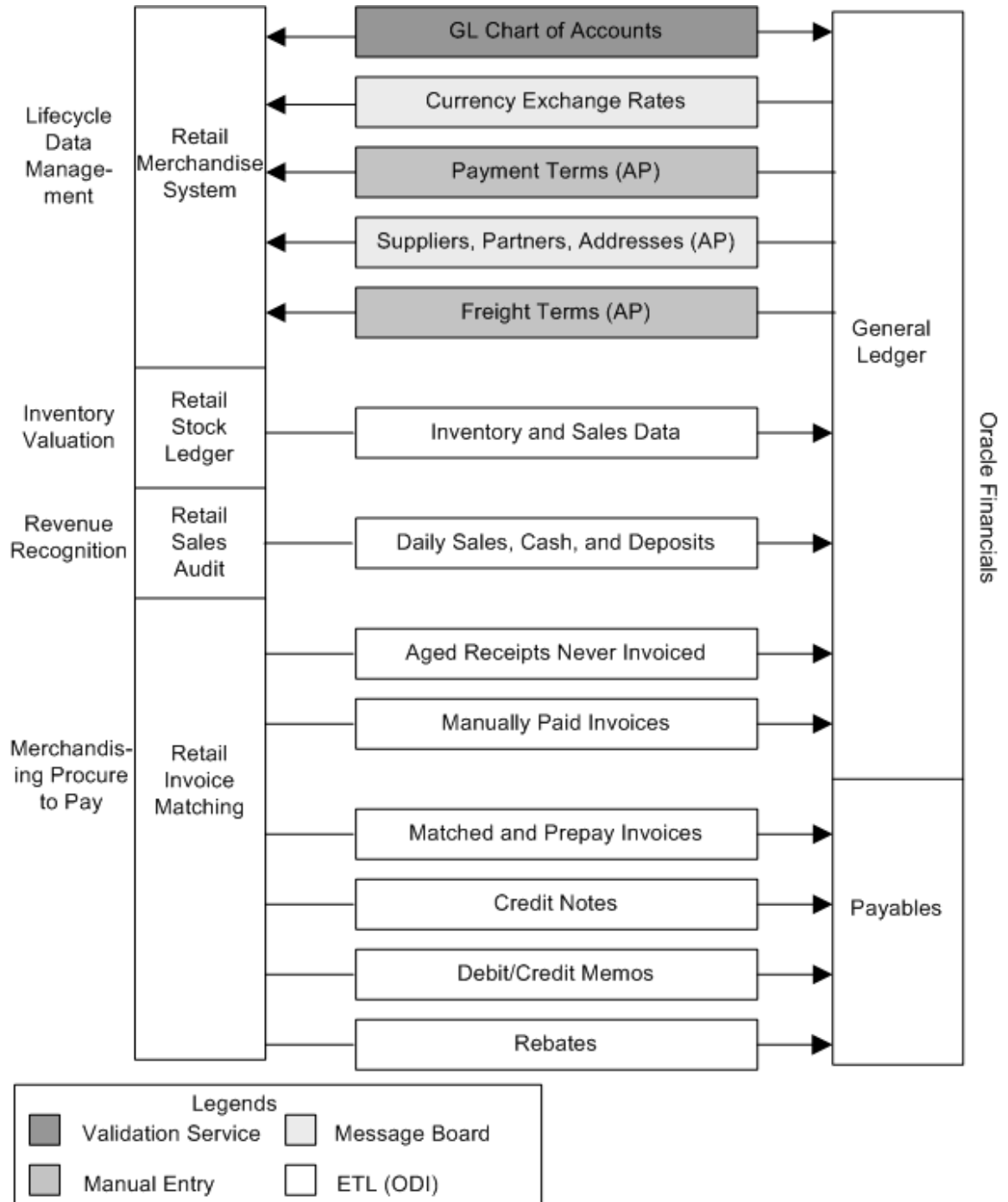
The Retail Financial Integration (RFI) for E-Business Financials provides integration to a robust enterprise financial system to complement the Oracle Retail Merchandising system in a retail customer environment.

Retail Financial Integration (RFI) includes the following four processes:

- Life Cycle Data Management - This process provides data synchronization for the initial load prior to implementation and incremental data creation and maintenance after implementation. This process synchronizes supplier and currency exchange rates from the E-Business applications to the Oracle Retail Merchandising System (RMS). Oracle Payables is the source of Currency Exchange Rates, suppliers, payment terms, and freight terms. Because the Exchange Rate Types, freight and payment terms are static in nature and their volume is very low, they are synchronized between the two systems manually. This process enables users of the Oracle Retail Merchandise suite to carry out functions with data that is shared with the E-Business applications while creating and updating this data.
- Inventory Valuation (Retail stock ledger) - This process enables the posting of accounting entries generated from transactions that change the value of sellable products at a retailer's inventory locations (stores and warehouses) to the appropriate ledgers from Oracle Retail Merchandising – stock ledger to Oracle General Ledger (GL). This process records the financial impact of changes in the sellable inventory in store and warehouse locations. Valuation of sellable inventory in the stores and warehouses is based on the processing of transactions for movement, pricing, costing, and sale of the inventory. This valuation is captured and processed in Oracle Retail stock ledger. These transactions include sales, shipments from warehouse to store, store receipts, store transfers, returns to vendors, price changes, stock counts, and shrinkage due to theft or damage.

- Retail Revenue Recognition - This process enables the posting of accounting entries generated from sales and returns transactions from the retailer's stores for revenue and cash reconciliation to the appropriate ledgers. In this process, the data flows from Oracle Retail Sales Audit (ReSA) to Oracle General Ledger (GL). This process records the financial impact of sale/return, cash reconciliation, and void transactions from stores. The Revenue Recognition process begins when store transactions (sales and returns) are processed by ReSA. For each store transaction, ReSA generates the appropriate accounting entries to be posted to the Oracle GL. Each accounting entry has a valid account code segment combination based on the transaction type, business unit, and location (store or warehouse).
- Retail Merchandising Procure to Pay - This process begins with the Oracle Retail Invoice Matching (ReIM) application. Invoices from suppliers for retail merchandise are matched to the original purchase order (PO) for the merchandise and the receipt of the merchandise by the retailer. A proper match of invoice, PO, and receipt trigger the payment authorization of the supplier's invoice. Invoices may be authorized for payment prior to receipt of goods for which prepayment is required. When the authorization for payment is generated, the appropriate accounting distribution is also generated to support the payment authorization. The Retail Merchandise Procure to Pay integration automates the processing of invoice payments, adjustments, and write-offs from ReIM to Oracle Payables and GL. Other accounting transactions are generated from ReIM to write off aged receipts that were never invoiced and to post accounting distribution for manually paid or prepaid invoices after receipt.

This diagram illustrates the Oracle Retail to Oracle Financials process flow:



Oracle Retail to E-Business Financials RFI process flow

RFI does not synchronize chart of accounts from Oracle GL to Oracle Retail but only validates chart of accounts available in Oracle Retail against Oracle GL. Chart of accounts are combinations of account code segments. Because transaction types are defined and assigned combinations of code segments for proper handling of the financial impacts in Oracle Retail, the code combinations are validated by a service provided by the Oracle GL. This ensures that the accounting entries generated by the transactions are valid when they are posted to Oracle GL.

Key Benefits

The following are the key benefits of RFI:

- This integration is not a point-to-point integration between the E-Business Suite and Oracle Retail applications. This RFI implementation is independent of the version of integrated applications. A Retail Financial Integration (RFI) layer serves as an intermediate thin layer of application between E-Business and Oracle Retail. This integration remains synchronized with the new releases of the edge applications.
- Audited transaction data is exported to the E-Business Financial applications days before the traditional audit process permits. The Financials applications can use this timely data in a proactive manner, which results in increased productivity and operational efficiencies.
- Total cost of ownership for Oracle and its customers is reduced.

Participating Applications Overview

This section provides an overview of the applications participating in the RFI:

- Oracle Retail Merchandising System
- Oracle Retail Sales Audit
- Oracle Retail Invoice Matching
- Oracle Payables
- Oracle General Ledger

Oracle Retail Merchandising System

Oracle Retail Merchandising (RMS) is an integrated solution for global retailing. This solution enables retailers to better manage, control, and perform crucial day-to-day merchandising activities. From new product introduction to inventory management, RMS provides retailers with a complete end-to-end solution and is the most comprehensive and integrated solution for global retailing. For more information, see the Oracle Retail Merchandising System User Guide.

Oracle Retail Sales Audit

Oracle Retail Sales Audit (ReSA) provides retailers with a flexible tool that evaluates and ensures accuracy and completeness of point of sale (POS) data. Real time access to this audited sales data ensures integrity of information throughout the retail enterprise. With a highly configurable sales audit application, the retailer can maintain existing business practices while providing for future options as the operations grow and change.

ReSA enables retailers to receive POS transaction data, cleanse it, and export the data to the Oracle Merchandising system and the Oracle Retail Data Warehouse. By providing corporate control and visibility to sales audit information, ReSA enables retailers to make better decisions to improve merchandise operations and transform the economics of their business. For more information, see the latest Oracle Retail Sales Audit User Guide.

Oracle Retail Invoice Matching

Oracle Retail Invoice Matching (ReIM) is a market-leading solution for retailers who need an automated application to better manage reconciliation and payment of purchase orders. This advanced solution enables account payables teams to resolve discrepancies on invoices quickly before payments are made. A highly automated, multidimensional matching engine minimizes time spent on manual reviews. Automated routing provides an effective method to ensure that accurate information is delivered to the right internal teams for resolution and compliance controls. For more information, see the latest Oracle Retail Invoice Matching User Guide.

Oracle Payables

Oracle Payables provides automated invoice and payment processing to ensure timely and accurate payment for goods and services. Best-practice business processes match purchase orders, receipts, and invoices and provide online approvals to identify exceptions and increase control over disbursements.

Oracle Payables delivers built-in controls to help an enterprise meet regulatory requirements, enforce compliance, reduce risk, and implement due-diligence best practices reducing cycle times and errors. Other features include a flexible, user-defined system setup, extensive vendor maintenance, digital signatures, financials sanction validation, and powerful inquiry and analytical capabilities. For more information, see the Oracle Payables User's Guide, version 12.1.3.

Oracle General Ledger

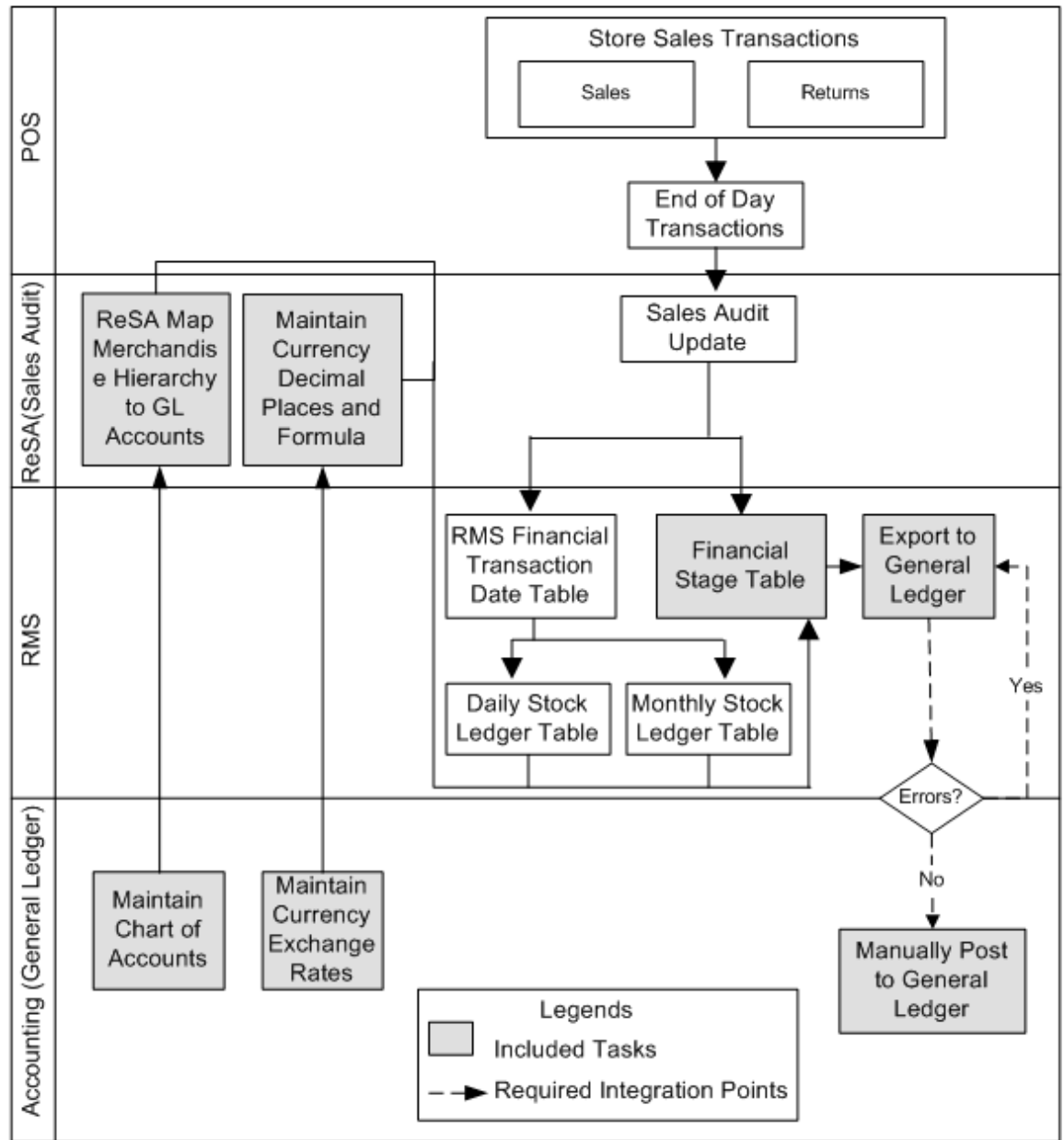
Oracle General Ledger (GL) offers a fully automated close and consolidation solution for legal and management reporting, including support for Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS). Transactions are automatically processed and validated according to the best-practice business processes and control settings. In addition, an enterprise can proactively control expenditures by automatically checking spending requests against budget. With real time reporting and information access, an enterprise can achieve complete visibility into financial results. For more information, see the Oracle General Ledger User's Guide, version 12.1.3.

Retail Sales Financial Business Process Flow

The Retail Sales Financial business process consists of the post channel sales, cash, and deposits from ReSA to Oracle GL integration flow.

This diagram illustrates the Retail Sales Financial business process flow:

Retail Sales Financial Management (Sales Audit)



Retail Sales Financial business process flow

ReSA sends summarized sales audit information to Oracle GL for the Sales Journal. The sales audit information includes channel sales, cash, and deposits. The ReSA Export processes select and format corrected and pre audited data from the ReSA database so that it can be sent to E-Business Financials.

ReSA includes programs to automatically extract the required totals data and to format it to generic data files from a financial staging table for import into Oracle GL. Sales audit data from ReSA is also posted directly to the RMS stock ledger and can be integrated into Oracle GL through the stock ledger to the financial staging table and the accounting entry table. Before data is imported into Oracle GL, a batch process writes balanced records to the financial staging table using the appropriate General Ledger account combinations (maintained in Cross Reference tables in ReSA) and the Currency Exchange Rates.

For journal entries, an Oracle Data Integrator (ODI) process is used to load the accounting entries into the GL_Interface table. A concurrent request, Journal Import, is then run to move the journal entries into the GL transaction tables.

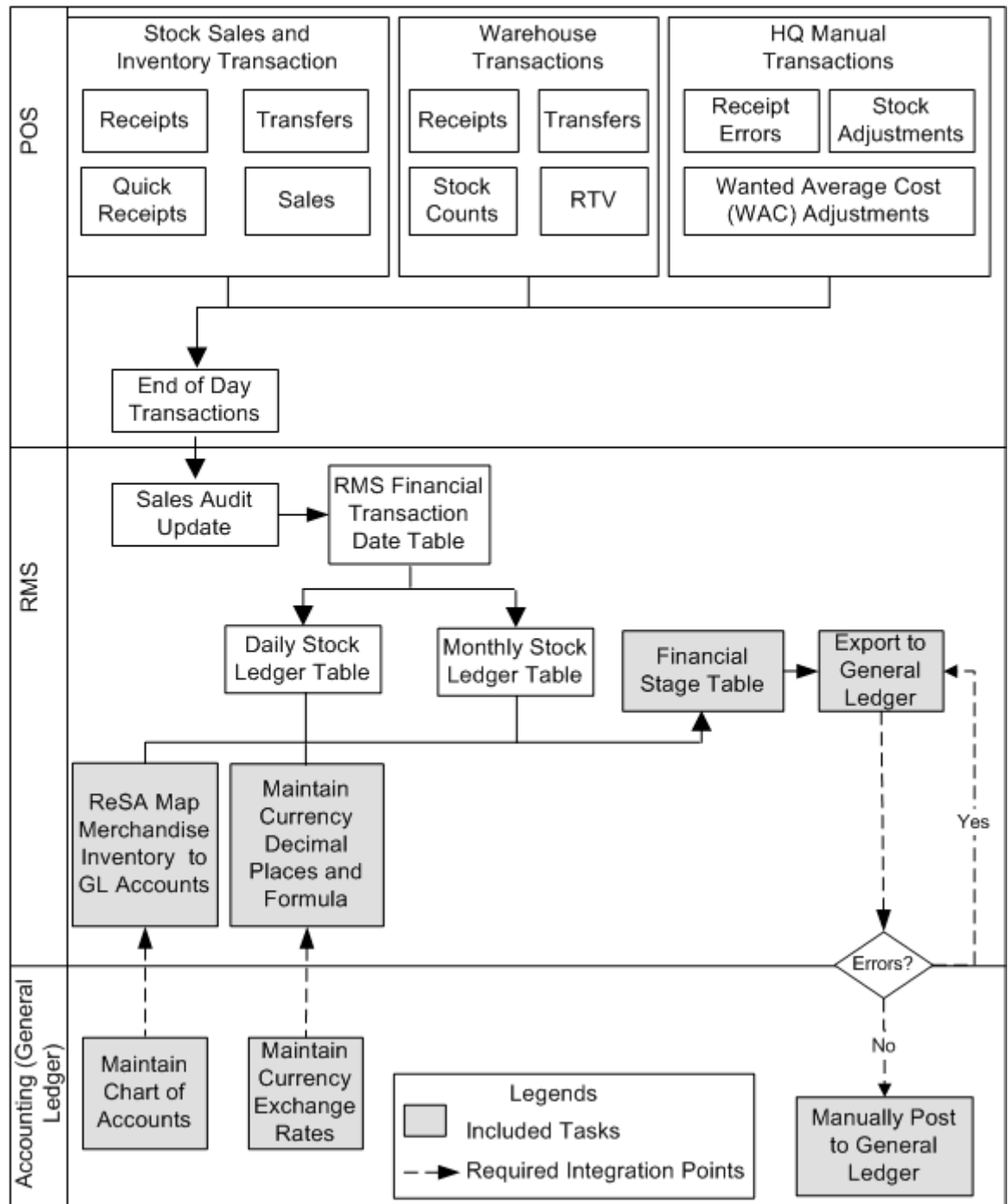
Retail Inventory Financial Business Process Flow

The Retail Inventory Financial business process consists of the following integration flows:

- Post stock ledger from RMS to Oracle GL
- Post write-offs (aged receipts, not invoiced to ledger) from RMS to Oracle GL

This diagram illustrates the Retail Inventory Financial business process flow:

Retail Inventory Financial Management (Stock Ledger)



Oracle Retail Inventory Financials business process flow

The stock ledger in RMS records financial results of the merchandising processes that occur in the Retail system, such as buying, selling, price changes, transfers, and so on. All of these transactions are recorded in the RMS stock ledger and rolled up to the subclass or location level for days, weeks, and months. Daily and period-based financial information is scheduled to be loaded into the E-Business Suite Financials. RMS sends three levels of stock ledger information to Oracle GL:

- Monthly – no access to detailed reference information
- Daily by subclass, class, or department – no access to detailed reference information.
- Daily by transaction

The stock ledger transactions to be loaded into E-Business Suite Financials are placed on the financial staging table through the use of table triggers or batch, by means of the appropriate General Ledger account combinations (maintained in the RMS cross-reference table in Oracle Retail) and the currency exchange rates.

For journal entries, an ODI process is used to load the accounting entries into the GL_Interface table. Then a concurrent request, Journal Import, is run to move the journal entries into the GL transaction tables.

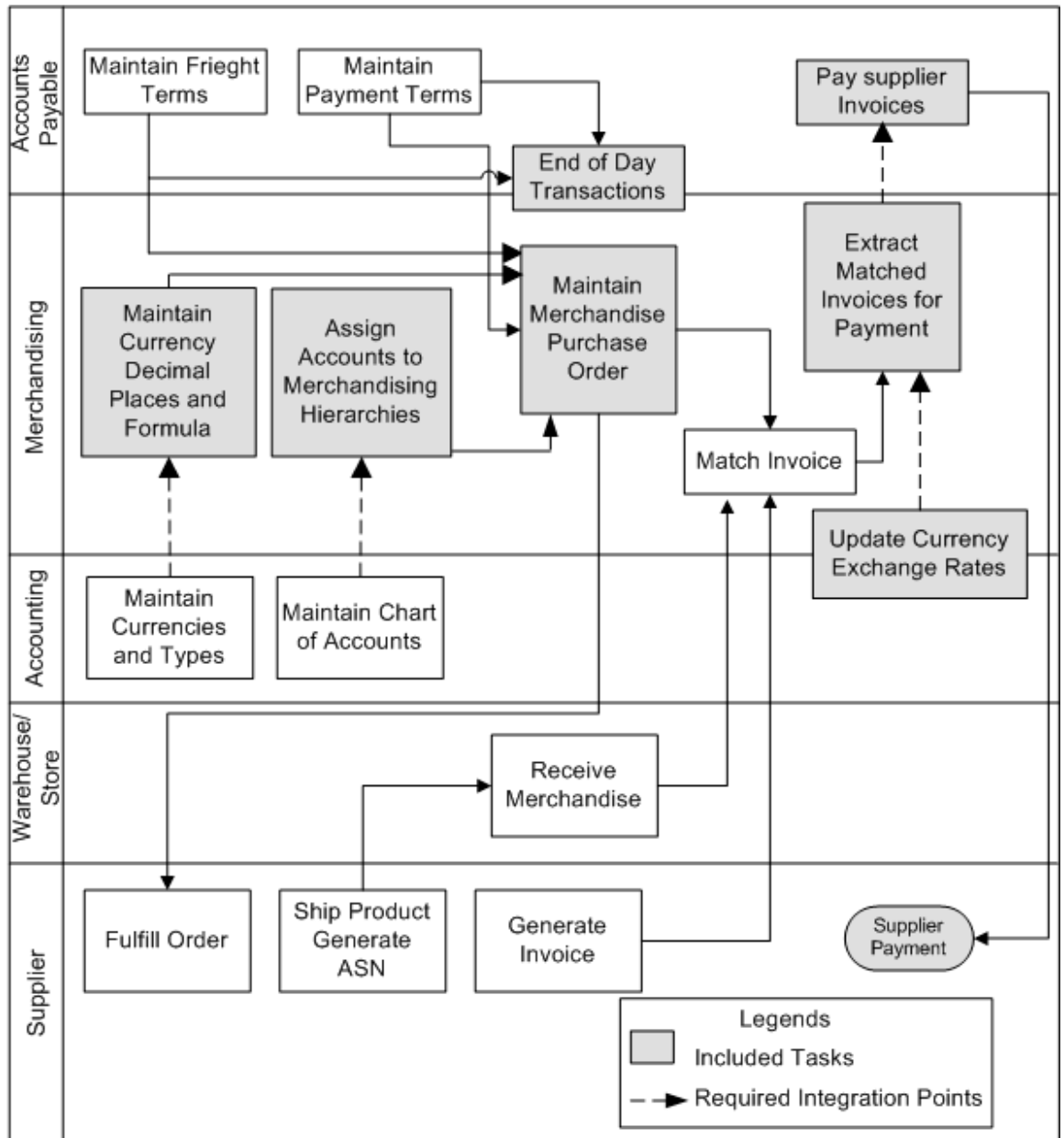
Retail Merchandise Procure to Pay Business Process Flow

The Retail Merchandise Procure to Pay business process consists of the following integration flows:

- Post matched prepaid invoices from ReIM to Oracle GL
- Post manually matched paid Invoices from ReIM to Oracle GL
- Post receipt write-offs from ReIM to Oracle GL
- Post matched invoices for payment from ReIM to Oracle Payables
- Post credit notes (matched or unmatched) for payment adjustment from ReIM to Oracle Payables
- Post debit or credit memos for payment adjustment from ReIM to Oracle Payables
- Post rebates for payment adjustment from ReIM to Oracle Payables
- Post unmatched invoices for prepayment from ReIM to Oracle Payables

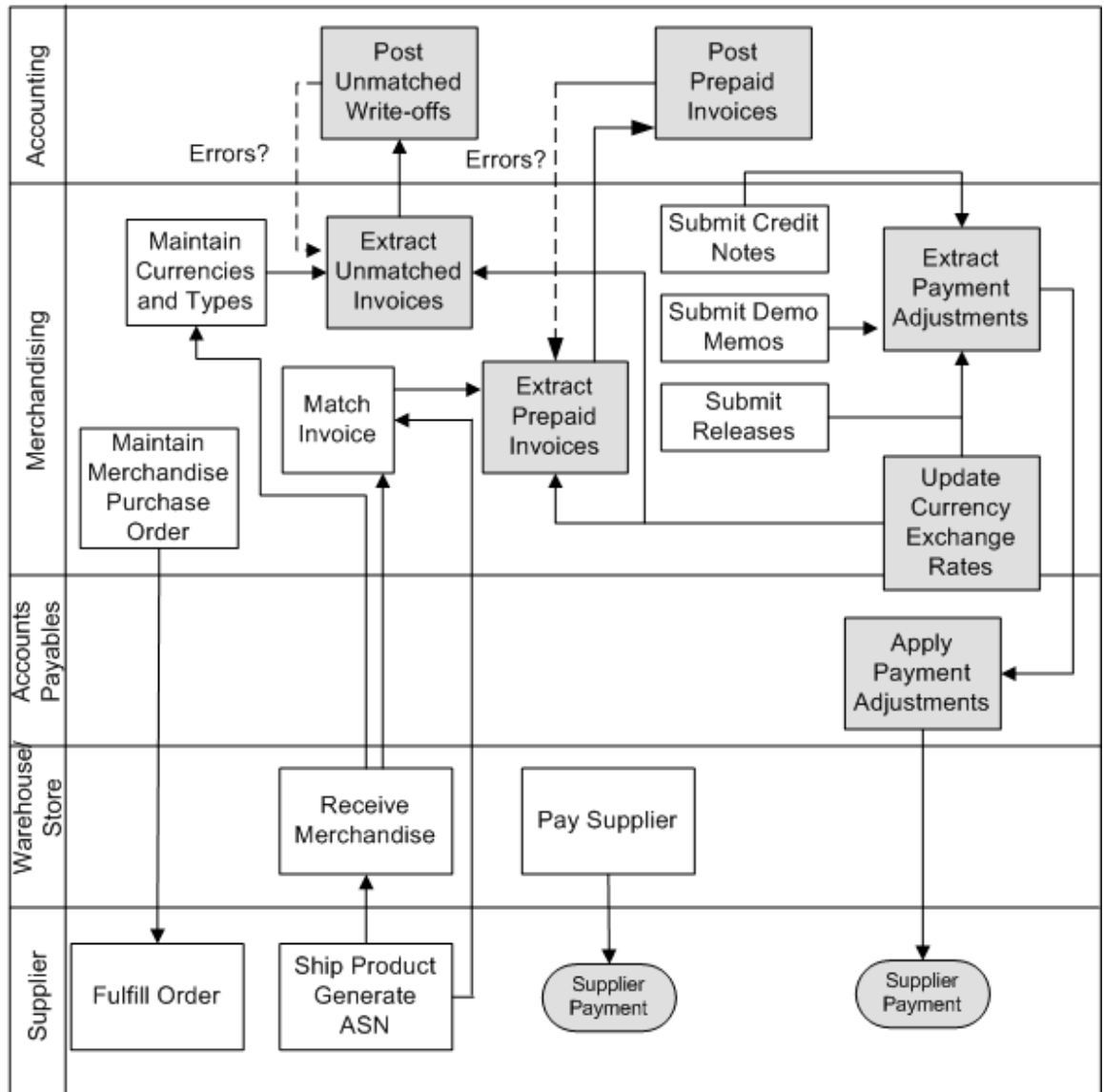
This diagram illustrates the Retail Merchandise Procure to Pay business process flow:

Retail Merchandise Procure to Pay



Retail Merchandise Procure to Pay business process flow (1 of 2)

Retail Merchandise Procure to Pay



Retail Merchandise Procure to Pay business process flow diagram (2 of 2)

The Retail Merchandise Procure to Pay business process flow enables posting of matched invoices, matched credit notes, debit and credit memos, rebates, and unmatched invoices for prepayment from ReIM to Oracle Payables. The payables invoices are placed in the AP Interface tables. Then a concurrent request, Payables Open Invoice Import, is run to move the payables invoice into the payables transaction tables.

Solution Assumptions and Constraints

The following are the assumptions made for the RFI solution:

- The E-Business Suite applications are implemented prior to the implementation of the RFI.
- Oracle Retail manually creates and stores the valid charts of accounts in the appropriate GL Cross Reference tables (ReSA, RMS, and ReIM).
- The Retail stock ledger supports multiple currencies. All transaction-level information is stored in the local currency of the store or warehouse where the transaction occurred.
- During the initial load for currency, historical and current rates are passed to Retail.
- Oracle Retail sends the accounting date and the transaction date with its transactions. These dates should not be changed or manipulated in E-Business Suite Financials.
- Accounting entry errors that are found from accounting entries are handled manually on both the Oracle Retail and E-Business side.
- Use or sales tax accounting information is passed as part of the accounting entries between Oracle Retail and E-Business Financials.
- Value-added tax (VAT) is calculated in Oracle Retail. VAT calculation is passed as a part of the accounting entry.
- Oracle Retail stock ledger determines the valuation of inventory for merchandise being directly procured. This information is passed to E-Business Financials as the accounting entries.
- RMS, through the Retail stock ledger, provides E-Business Financials with the value of ending inventory at cost using the method that the retailer indicates (cost method or retail method of accounting) by means of an adjusting entry.
- Accounting entries need to be manually posted to general ledger.
- Both E-Business Suite Financials and Oracle Retail support multiple organizations in one application instance.
- Before running the interfaces for data migration , XREF/DVM values in RFI_XREF_DVM table is validated against the transaction data set that needs to be posted from Oracle Retail to Oracle EBS.

The following is a constraint that occurs for the RFI solution:

- Customers switching from one financial application to another are not compatible with this RFI.

Note: Additional assumptions and constraints exist for each of the process integration flows. They are covered in the respective chapters.

Reviewing Life Cycle Management for Reference Data

This chapter discusses the following process integrations:

- Currency exchange rate integration
- Supplier information integration

Currency Exchange Rate Integration

This section provides an overview of the process integration for initial loading and incremental synchronization of currency exchange rates between Oracle General Ledger (GL) and the Oracle Retail Merchandising System (RMS) and discusses:

- Currency exchange rate integration details
- Data requirements
- Extensions

Overview

The currency exchange rate is the reference information used in the translation of monetary values from one currency to another. The exchange rate expresses the value of one currency in terms of another. The process integration for currency exchange rates enables you to use Oracle Financials as an accounting engine and Oracle Retail for sales audit and stock ledger transactions.

The process integration for currency exchange rates supports the following integration flows:

- Load initial currency exchange rate from Oracle GL to RMS: Enables the loading of all historical, current and future effective dated currency exchange rates from Oracle GL to RMS for a new instance (logical or physical) of RMS.
- Incremental creation and updates of currency exchange rates from Oracle GL to RMS: Enables the synchronization of incremental creation and updates of the historical, current and future effective dated currency exchange rates from Oracle GL to RMS.

This integration is not a point-to-point integration between Oracle GL and RMS. A RFI layer serves as an intermediate thin layer of application between Oracle GL and RMS. As part of the currency exchange rates integration, Oracle GL sends the currency exchange rates to the RFI layer and the RFI layer delivers the information to RMS. The RFI layer performs message filtering, message transformation, and message routing. E-Business Suite triggers the integration by invoking the Business Event Subscriber Java class CurrencyRateBES with corresponding Business Event parameters. If the program fails, then an error displays in the standard EBS notifications.

Pre-requisites

Pre-requisites exist for the process integration for currency exchange rate. The following DVM's are available in the RFI_XREF_DVM table:

- CURR_CODE_DVM
- CURR_CONV_TYPE_CODE_DVM

Currency codes and currency exchange rate types are manually maintained in both the Systems and mapped using DVM.

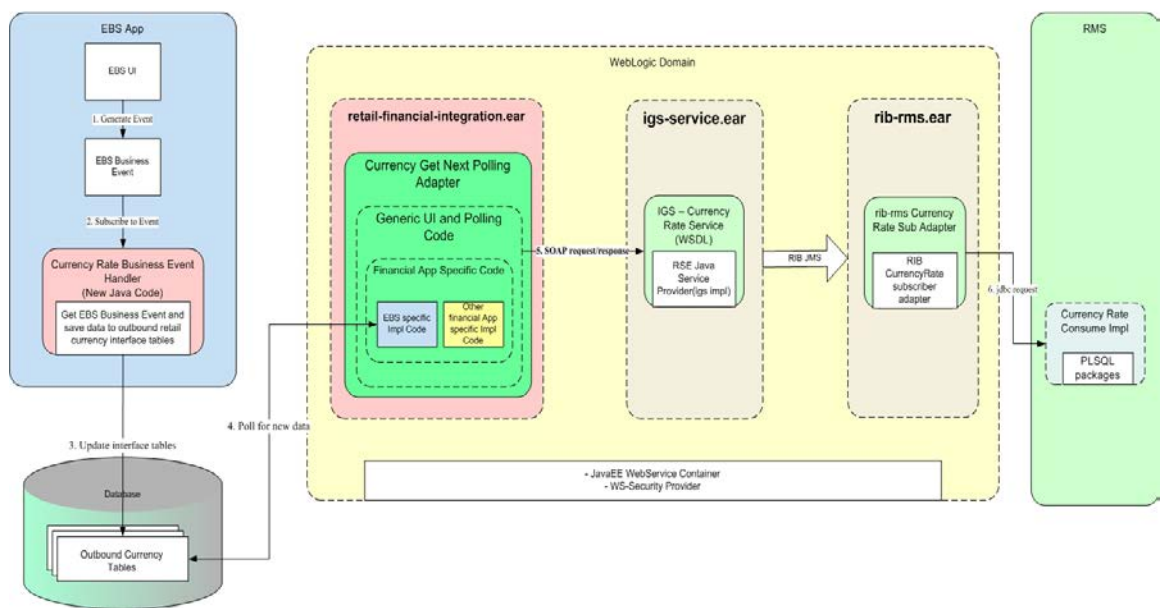
The RMS FIF_CURRENCY_XREF table should have the appropriate exchange rate type mapping entries between Finance application and RMS.

Solution Assumptions and Constraints

The integration design assumes that:

- E-Business suite stores daily exchange rate for each day. For example, for the month of August 2009 for USD to Euro, there will be 31 entries with the specific conversion rates. Even if the same conversion rates apply for the entire month, there will still be an individual exchange rate for each day.
- The E-Business Suite application supports triangulation of currency exchange rates, but Oracle Retail does not.
- The Retail RIB Error Hospital holds all the Oracle Retail side errors and handles any notification on their side. Deleted currency exchange rates are not passed to Retail and the sync is one-direction only. This diagram illustrates the currency exchange rate integration flow:

RMS EBS Currency Rate Integration flow (EBS to RMS)



Currency Exchange Rate Integration Flow

Currency Exchange Rate Integration Details

The integration flow uses the following services:

- CurrencyRateBES - Business Event Subscriber
- Currency EJB Service

- IGS Currency Service
- RIBforRMS CurRate Subscriber

Incremental Loading of Currency Exchange Rates

When the process is initiated, the following steps would occur :

- Oracle E-Business Suite invokes the Business Event Subscriber Java class CurrencyRateBES whenever a currency exchange rate is created or loaded into Oracle E-Business Suite.
- The Business Event Subscriber Java class CurrencyRateBES extracts all the currency exchange rates from the Oracle E-Business Suite Business Event object and moves the currency exchange rates into RFI Database Staging table RFI_CURR_RATE_STAGE.
- A Configured Timer for Currency service invokes the Currency EJB service.
- The Currency EJB service picks up the records from the RFI Database Staging table RFI_CURR_RATE_STAGE and transforms the Currency Code and Currency Exchange type using the CURR_CODE_DVM and CURR_CONV_TYPE_CODE_DVM respectively.
- Then IGS Currency Service is invoked with the transformed currency rate record.
- If there are any errors in Currency EJB service, the errors are added to the logs file. The Currency logs can be viewed using the RFI Adapter Manager screens in RFI Administration GUI.

Initial Loading of Currency Exchange Rates

The purpose of this flow is to load the existing currency exchange rates from E-Business Suite into Retail.

How to Start or Run Initial Load of Exchange Rates

Before executing the following steps from E-Business Suite, VDATE in RMS should be made to point to a date in past (for example, 01-JAN-2008). This is required, because any exchange rate older than VDATE will be filtered out by RIB and will not be interfaced to RMS. Therefore, to load the complete history of exchange rate information in RMS, it is imperative that VDATE is set to past, depending on retailer's cutover choice of effective date.

Use the following steps to load the currency exchange rates initially from Oracle E-Business Suite to Retail. Use the database link to load the currency data from the E-Business Suite to the RFI database.

1. A wrapper script `currency_initial_load.sh` is provided to load the existing currency rates from E-Business Suite to the RFI Staging table. This file is available in the RFI pack, folder - `$INSTALL_DIR/retail-financial-integration-solution/etl-based-integration/retail-to-ebfin-etl-flows/setup-data/dml`.
2. Use the database link to load the currency data from E-Business Suite to the RFI database. A database link `EBS_RFI_DBLINK` should be created between E-Business Suite APPS schema and RFI staging schema in RFI Database (created as part of RFI installation step).
3. Skip this step if the database link is created with default (`EBS_RFI_DBLINK`) name. Open the sql script `currency_initial_load.sql` in a text editor and change the database link values created in the above step.
4. Run the `currency_initial_load.sh` (available in `$INSTALL_DIR/retail-financial-integration-solution/etl-based-integration/retail-to-ebfin-etl-flows/setup-data/dml`)

/) script to load data from EBS to RFI staging area. This script considers the required environment variables (ORACLE_HOME, INSTALL_DIR) are present.

The script takes two arguments on the command line: APPS schema database login credentials and conversion_date (from when the currency rates have to be pushed to Retail system).

```
Example: prompt$ sh currency_initial_load.sh  
apps/apps@edvols08 02-AUG-2013
```

```
sh currency_initial_load.sh apps/apps@edvols08 02-AUG-2013
```

5. Once the initial currency rate data is moved to the RFI Staging table, RFI_CURR_RATE_STAGE, the records are sent to Retail similar to the Currency Incremental Loading process.

Data Requirements

No data requirements exist for this process integration.

Currency Exchange Rate Integration Extension

The RFI Application supports passing custom payload data to the Currency Integration Service.

- The additional information that has to be passed from E-Business suite should be captured in Attribute Columns (Attribute1 to Attribute15) in GL_DAILY_RATES table.
- The Attribute columns are pushed to the RFI Currency staging table RFI_CURR_RATE_STAGE by the Business Event Subscriber Java class CurrencyRateBES.
- A Java interface RfiCurRateCustomPayload is provided in the RFI Application.
- A Java class needs to be written by implementing the above interface RfiCurRateCustomPayload and the additional custom payload attributes (Attribute1 to Attribute15) can be added to CurrRateDesc object. A sample implementation class RfiCurRateCustomPayloadImpl is provided in the RFI application.
- In RfiSpringBeans.xml, an entry for the implementation class has to be provided.

```
<bean id="rfiCurRateCustomPayloadBean" class="<Implementation Class Name>">  
</bean>
```

Suppliers Information Integration

This section provides an overview of the process integration for initial loading and incremental synchronization of suppliers' information between Oracle Payables and Oracle Retail Merchandising System (RMS) and discusses:

- Supplier integration details
- Data requirements
- Extensions

Supplier Integration Overview

In the integrated environment, Oracle Payables acts as a payable, and RMS handles supplier payments, merchandise write-offs, and prepaid adjustments.

Merchandise suppliers are suppliers of goods and services that the retailer sells to customers. Oracle Payables and RMS require sharing of suppliers' information between them. RMS requires the supplier information for several key functions including creation and management of items and purchase orders. Oracle Payables requires suppliers' information for supplier payment. For end-to-end business integration, same supplier instance and related information must be shared between these two systems.

Between the two systems, Oracle Payables is the source of valid suppliers (vendors in Oracle Payables) and their Remit to Location and Order from addresses

The supplier integration synchronizes supplier's information from Oracle Payables to RMS through these integration flows:

- Load initial suppliers from Oracle Payables to RMS: Enables the loading of all active merchandise suppliers, the current effective supplier locations and their current effective remit and order to addresses.
- Incremental creation and updates of suppliers from Oracle Payables to RMS: Enables the synchronization of incremental creation and updates of the active suppliers from Oracle Payables to RMS.

Note: For incremental loads, Oracle Payables doesn't propagate deleted suppliers information to Retail.

This integration is not a point-to-point integration between Oracle Payables and RMS. A RFI layer serves as an intermediate thin layer of application between Oracle Payables and RMS. As a part of the supplier integration, Oracle Payables sends the suppliers' information to the RFI layer and the RFI layer delivers the information to RMS. The RFI layer performs message filtering, message transformation, and message routing. Because this integration is not a point-to-point integration, the vendor number (ID) in Oracle Payables is not similar to the supplier number (ID) in Oracle Retail.

Prerequisites

These are the prerequisites for this integration:

Note: For more information about initial load of the Org Id and Payment term cross reference table, see 'section Setting up Cross-References for Oracle Retail IDs and Oracle Entities.

The following DVM's/XREFs are available in RFI_XREF_DVM table:

- ADDRESS_COUNTRY_DVM
- CURR_CODE_DVM
- LANGUAGE_CODE_DVM
- STATE_DVM
- SUPPLIER_ADDRESS_TYPE_DVM
- SUPPLIER_PRIMARY_SITE_FLAG_DVM
- SUPPLIER_STATUS_CODE_DVM
- FREIGHT_TERMS_XREF
- PAYMENT_TERMS_XREF
- ORG_ID_XREF
- SUPPLIER_XREF
- SUPPLIER_SITE_XREF

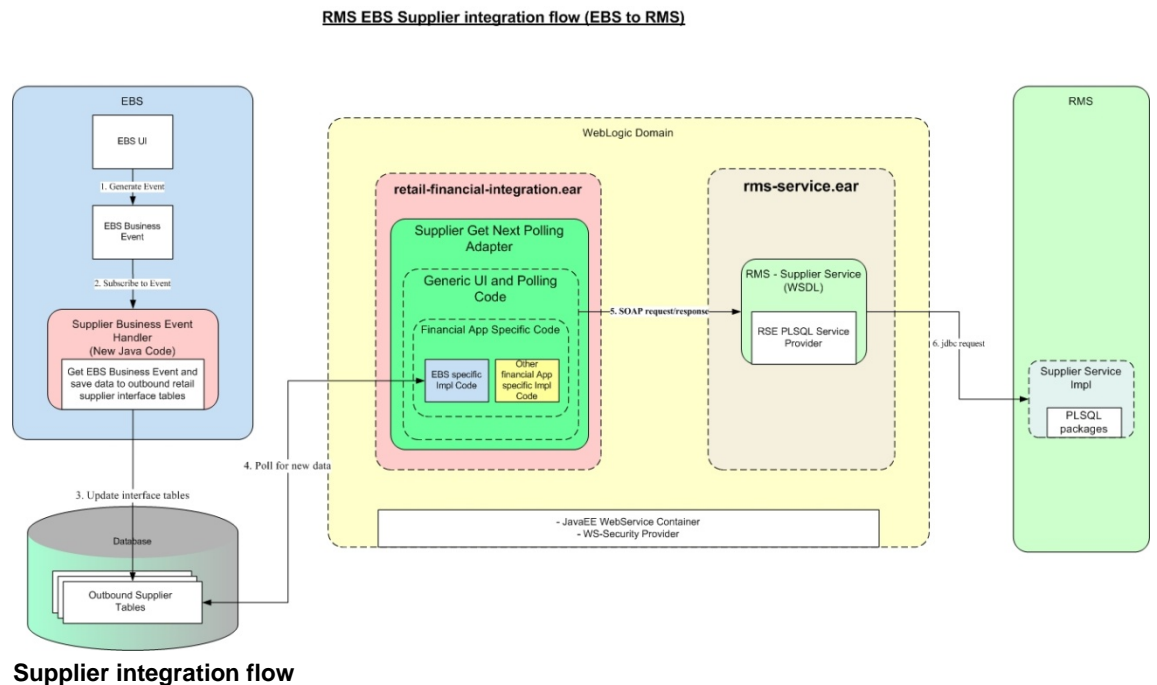
Payment and freight terms synchronization between both the systems is a manual process. Supplier and Supplier XREF data is populated by a Supplier Integration Adapter, the values are required during the Supplier Update flow.

Solution Assumptions and Constraints

The integration design assumes that:

1. Oracle Payables is the source system for merchandise suppliers, their contacts, locations, addresses and other attributes.
2. You can create suppliers and suppliers' locations in Oracle Payables.
3. You can maintain the relationship between suppliers, suppliers' locations in Oracle Payables. This integration is a one-way synchronization. Any update to supplier information in RMS is not synchronized with Oracle Payables. The volume of data that is handled by the process depends on the server configuration.
4. Oracle sends the suppliers in batches based on different criteria.
5. The Oracle system sends all the related information over to RFI. For example, if an address is changed, then the supplier linked to that address is sent.

This diagram illustrates the supplier integration flow:



Supplier Integration Details

These services are specific to sync supplier integration flows:

- SupplierBES – Business Event Subscriber
- Supplier EJB Service
- RMS Supplier Service
- RIBforRMS Vendor Subscriber

Supplier Sequence Incremental Load

When you initiate the process:

1. Oracle Payables invokes the SupplierBES Business Event Subscriber whenever a supplier is created or updated.
2. The Business Event Subscriber Java class SupplierBES extracts all the supplier, supplier sites and supplier contacts from the Oracle E-Business Suite Business tables and moves the supplier, supplier sites and supplier contacts into RFI Database Staging tables RFI_SUPP_STAGE, RFI_SUPP_SITES_STAGE, RFI_SUPP_CONTACTS_STAGE respectively.
3. A Configured Timer for RFI Supplier service invokes the Supplier EJB service.
4. The Supplier EJB service picks up the records from the RFI Database Staging tables RFI_SUPP_STAGE, RFI_SUPP_SITES_STAGE, RFI_SUPP_CONTACTS_STAGE and transforms the Organization id using ORG_ID_XREF, Currency Code using CURR_CODE_DVM, Language using LANGUAGE_DVM, Payment terms and Freight terms using PAYMENT_TERMS_XREF and FREIGHT_TERMS_XREF respectively.
Then RMS Supplier Service is invoked with the transformed supplier records. If there are any errors in Supplier EJB service, the errors are added to the logs file. The Supplier logs can be viewed using the RFI Adapter Manager screens in RFI Administration GUI.
5. If the transaction is successful, Retail Id cross references for supplier, supplier site are stored in the cross reference table RFI_XREF_DVM. The cross references updated is SUPPLIER_XREF, SUPPLIER_SITE_XREF respectively.

Note: Transformation applies the DVM and invokes create or update web service from RMS. It also updates the cross-reference table after the Retail web service call.

Data Requirements

The process integration for supplier information requires the following data:

- Suppliers must be assigned to at least one GL business unit (set of books)
- For this integration, Oracle suppliers must be created with these status attributes:
 - Classification of supplier. Other type of vendors such as attorneys, employees, and HCM are not synchronized with Oracle Retail. All suppliers except employee are synced.
 - The Open for ordering option is selected. If the supplier is approved but is not open for ordering, the RFI layer on the RMS side changes its status to inactive. EBS doesn't have an approval status.

Note: Only contacts associated with supplier sites or addresses will be synchronized from Oracle Payables to RMS.

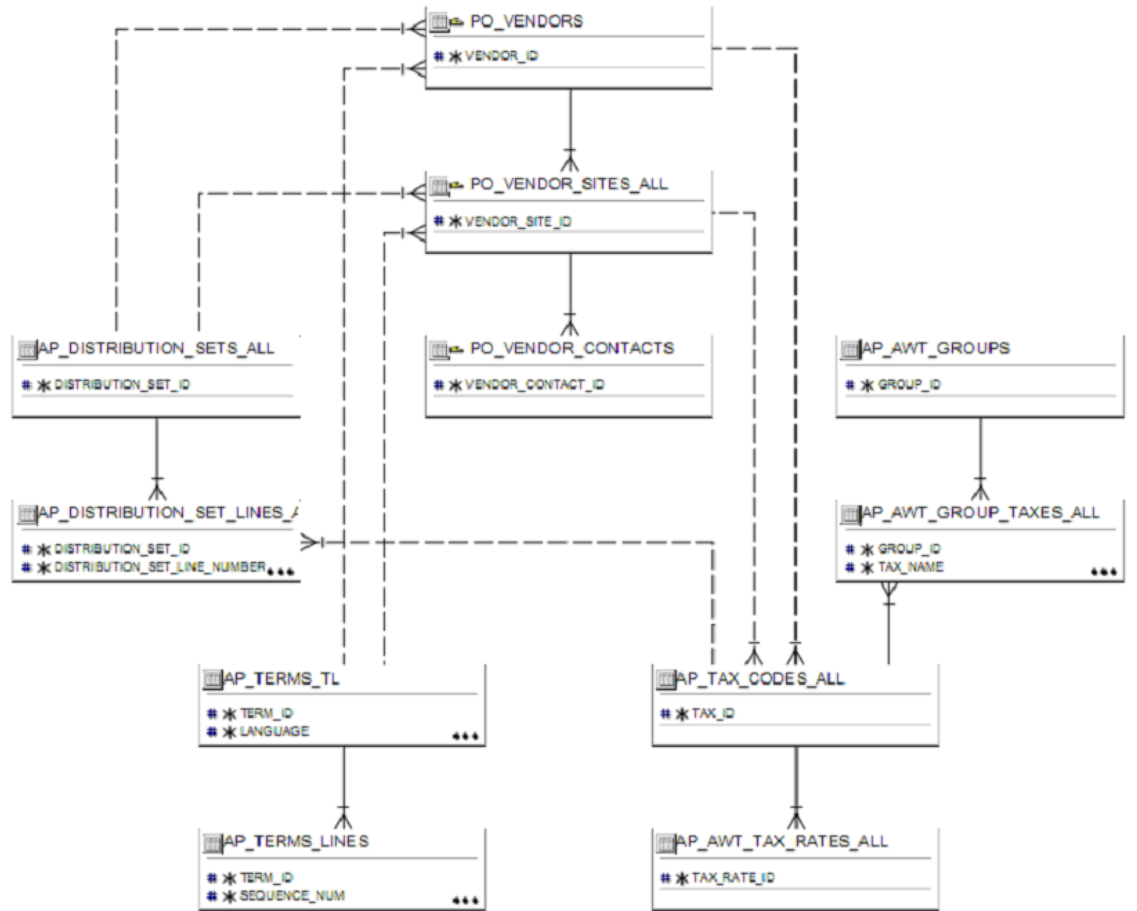
For Retail to EBS integration, only certain suppliers with specific criteria are sent to Retail:

- Supplier must have at least one or more address or site
- Supplier address or site must be a purchasing and/or a payment purpose.
- If a supplier has one address or site, it must be both a purchasing and payment purpose.
- If a supplier has two or more addresses, one address may be a purchasing site and other address a payment site.

- Supplier address or site without a purchasing or payment purpose will not be sent to Retail.
- Only Supplier address or site(s) which are active, are interfaced to Retail. Deactivate date for the site should either be NULL or a future-date in E-Business Suite.
- In the contact details and purpose, the phone area code, fax number and email address are meant for general contact information such as a main operator number or a general company inquiry email address. This information should not be passed to Retail.
- Under Company Profile --> Contact directory, there is contact information for specific people and their specific contact information. For example, the Account Receivable person's phone #, name, and email address is listed here. This information is passed to Retail.
- Supplier Recommendation
 - Data cleansing prior to Supplier Initial Load: It is recommended that for each E-Business Suite supplier, you must select a supplier site as a primary pay site. The values on the primary pay site are used as the default values for any supplier attributes such as payment terms and freight terms that are missing during the integration.
 - Integration Supplier Logic: Payment/Freight terms and other attributes of parent supplier are defaulted from the primary Pay site. If the supplier does not have a primary pay site, then the first purchasing site is used. If no payment or freight terms are defined at supplier or any supplier purchasing site, and there is no primary pay site, then the supplier transfer fails or errors.

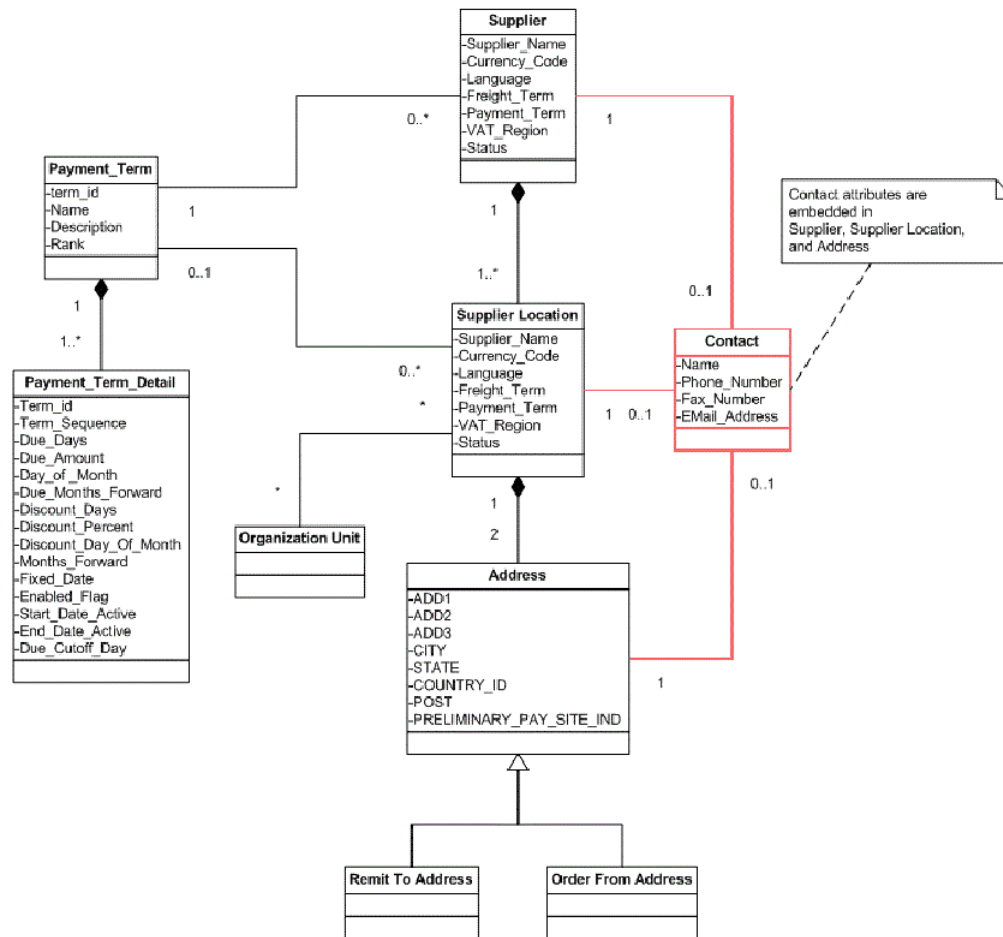
Class Diagram

The following diagrams show supplier relation in E-Business Suite and Retail:



Supplier Relations in E-Business Suite

Retail Supplier & Payment Term



Supplier Relation in Retail

How to Start or Run Initial Load of Supplier Parties

The purpose of this flow is to load the existing active Suppliers, Supplier Sites, and Supplier Contacts from E-Business Suite into Retail. Database link is used to load the currency data from E-Business Suite to RFI database.

These are the steps to load the Supplier details initially from Oracle E-Business Suite to Retail.

1. A wrapper script `supplier_initial_load.sh` is provided to load the existing Suppliers, Supplier Sites, and Supplier Contacts from E-Business Suite to RFI Staging table. These files are available in the RFI pack, folder - `$INSTALL_DIR/retail-financial-integration-solution/etl-based-integration/retail-to-ebsfin-etl-flows/setup-data/dml`.
2. Database link is used to load the currency data from E-Business Suite to RFI database. A database link `EBS_RFI_DBLINK` should be created between E-Business Suite APPS schema and RFI staging schema in RFI database (created as part of RFI installation step).

3. Skip this step if the database link is created with default (EBS_RFI_DBLINK) name. Open below list of SQL scripts in a text editor and change the database link values.
 - supplier_initial_load.sql
 - supplier_sites_initial_load.sql
 - supplier_contacts_initial_load.sql
4. Run the supplier_initial_load.sh (available in \$INSTALL_DIR/retail-financial-integration-solution/etl-based-integration/retail-to-ebfin-etl-flows/setup-data/dml/) script to load data from EBS to RFI staging area. This script considers the required environment variables (ORACLE_HOME, INSTALL_DIR) are present.
The script takes one arguments on the command line: APPS schema db login credentials.

Example: prompt\$ sh supplier_initial_load.sh
apps/apps@edvols08

```
sh supplier_initial_load.sh apps/apps@edvols08
```

5. Suppliers, Supplier Sites, Supplier Contacts records are pushed to RFI Staging tables RFI_SUPP_STAGE, RFI_SUPP_SITES_STAGE, and RFI_SUPP_CONTACTS_STAGE respectively.
6. Once the initial supplier details are moved to RFI Staging tables, the records are sent to Retail similar to the Supplier Incremental Loading process.

Supplier Information Integration Extension

The RFI Application supports passing custom payload data to the Supplier Integration Service.

- The additional information that has to be passed from E-Business suite should be captured in Attribute Columns (Attribute1 to Attribute15) in AP_SUPPLIERS, AP_SUPPLIER_SITES_ALL, AP_SUPPLIER_CONTACTS table.
- The Attribute columns are pushed to the RFI Supplier staging tables RFI_SUPP_STAGE, RFI_SUPP_SITES_STAGE, RFI_SUPP_CONTACTS_STAGE by the Business Event Subscriber Java class SupplierBES.
- A Java interface RfiSupplierCustomPayload is provided in the RFI application.
- A Java class needs to be written by implementing the above interface RfiSupplierCustomPayload and the additional custom payload attributes (Attribute1 to Attribute15) can be added to SupplierDesc object. A sample implementation class RfiSupplierCustomPayloadImpl is provided in the RFI application
- In RfiSpringBeans.xml, an entry for the implementation class has to be provided.

```
<bean id="rfiSupplierCustomPayloadBean" class="<Implementation Class
Name>">
</bean>
```

Requesting Chart of Accounts Validation

This chapter describes how to request the chart of accounts combination validation and discusses:

- Oracle Retail interfaces
- Oracle GL interfaces
- Data requirements

Requesting Chart of Accounts Combination Validation

Oracle General Ledger (GL) is the system of record for chart of accounts segment combinations. Chart of accounts (segments) combinations are set up manually in Oracle Retail Merchandising System (RMS), Retail Invoice Matching (ReIM), and Retail Sales Audit (ReSA). This manual setup enables assignment of transaction data in sales audit, stock ledger, and invoice match to specific account codes. ReIM also creates segment combinations dynamically during the invoice match transaction processing.

While creating the valid segment combinations, Oracle Retail validates each created combination individually against Oracle GL. Any valid segment combination in Oracle Retail must exist as a valid combination in Oracle GL. Oracle Retail publishes the segment combination to Oracle GL for validation. Oracle GL verifies the combination and returns the status to Oracle Retail. If the combination is valid, the combination is stored in the Oracle retail database tables for future validation purpose.

Oracle Retail sends these data for validation to Oracle GL:

- Requesting system (RMS, ReIM, or ReSA)
- Set of books (GL business unit)
- Segment or ChartField combination values

Oracle GL sends the validation status whether the combination is valid. The RFI layer copies all the other information from the original request and sends these response data to Oracle Retail:

- Requesting system (RSM, ReIM, or ReSA)
- Set of books (GL business unit)
- Date
- Validation status – valid or invalid

Prerequisites

These are the prerequisites for this integration:

The following DVM's are available in RFI_XREF_DVM table

- COA_GLELEMENT_REIM_DVM
- COA_GLELEMENT_RESA_DVM
- COA_GLELEMENT_RMS_DVM
- COA_STATUS_DVM
- Also, Set of Books should be setup in RMS/ReSA/ReIM similar to EBS GL

Solution Assumptions and Constraints

This design assumes that:

- The Oracle Retail request contains a field called requesting system that identifies the system that is requesting the service so that the correct Retail segment is retrieved from the Domain Value Map (DVM) lookup.
- DVM (Retail segments to Oracle accounts) may be set up differently for each system (RMS, ReSA, or ReIM).
- Oracle GL receives the array of the values for each segment. If the structure is segment1-segment2-segment3-segmentn, then Oracle GL expects that the array size (in this case is n) and the array of value in the order of 1 to n is passed.
- Multiple sets of GL accounts can be sent from Oracle Retail to the E-Business Suite validation web service.
- Once the validated chart of account is stored in Retail, Oracle GL doesn't send any updates if chart of account becomes invalid.
- The Account Segment values in E-Business Suite and Retail are same.

Chart of Accounts Combination Validation Integration Flow

These services are delivered with the chart of accounts combination validation integration flow:

- GLAccountValidationServiceCons
- GLAccountValidationService
- GLAccountValidationServiceProviderImpl

This diagram illustrates the chart of accounts combination validation integration flow:

RMS EBS GL Account Validation integration flow (ReIM/RMS to EBS)

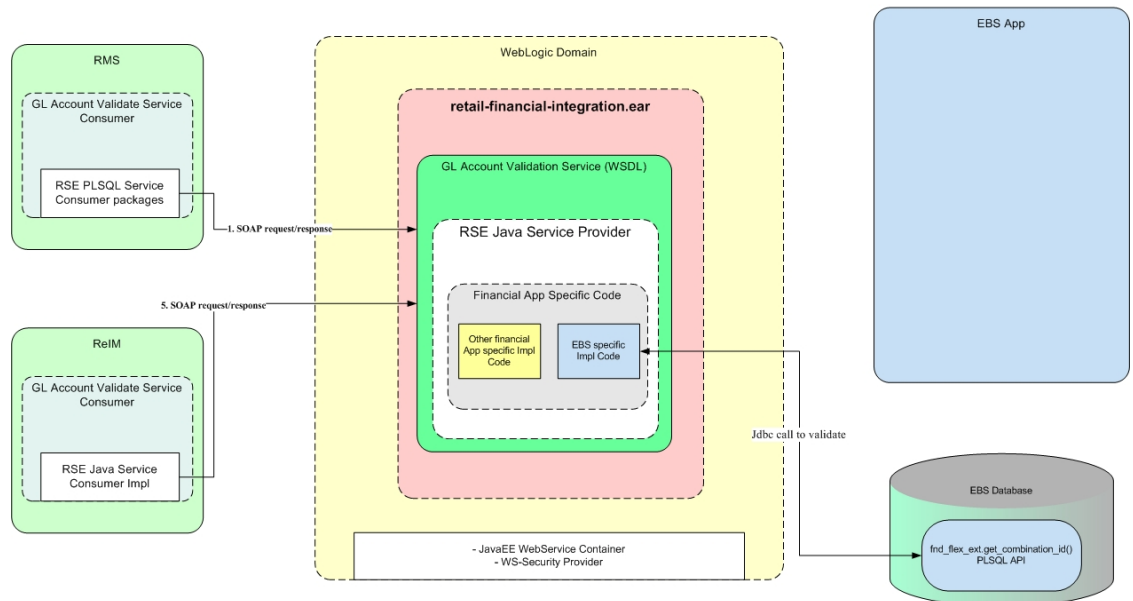


Chart of accounts combination validation diagram

When the chart of accounts validation process is initiated:

1. Oracle Retail calls the `GLAccountValidationServiceCons` Consumer service with Requesting System, Set of Books Id, Segment 1..N values whenever a GL account is required to be validated.
 - The `GLAccountValidationServiceCons` Consumer service calls the `GLAccountValidationService` service which routes the request to `GLAccountValidationServiceProviderImpl` Provider service
2. The `GLAccountValidationServiceProviderImpl` Provider service does the following transformations.

The Set of Books ID from Oracle Retail is transformed to `ChartOfAccountIdentification` field in E-business suite using Chart of Accounts DVM lookup `COA_GLELEMENT_<Requesting System>_DVM` (for e.g. if RMS is the requesting system, `COA_GLELEMENT_RMS_DVM` is used) lookup has the entry like `< Set of Books ID >-SEGMENT1` for Retail value and `< ChartOfAccountIdentification>-SEGMENT1` for the E-business suite value.

The `COA_GLELEMENT_<Requesting System>_DVM` lookup is also used to transform the Segment combination in Retail to Segment Combination in E-business suite.
3. `GLAccountValidationServiceProviderImpl` Provider service invokes the E-Business suite account validation API. E-Business suite account validation API validates the account combination and returns valid/invalid status.
4. Regardless of whether the account is valid or invalid, a transformation occurs in `GLAccountValidationServiceProviderImpl` Provider service to populate the `account_status` field. A `COA_STATUS_DVM` DVM is used to transform the E-Business suite value to the Oracle Retail value.
5. If the account is valid, then sets the valid CCID received from E-Business suite account validation API to the response; otherwise, set the received CCID to the response variable.

Oracle Retail Interfaces

Retail Outbound Interactions:

- Name: `GLAccountValidationServiceCons`: Oracle Retail (RMS, RESA, or REIM) invokes this service to determine whether an account is valid with Oracle GL.

Data Requirements

The segment combinations in the GL ACCOUNT MAINTENANCE (Sales Audit), GL CROSS REFERENCE (RMS), and GL CROSS REFERENCE (ReIM) forms must be entered manually.

Reviewing Process Integration for Inventory Valuation and Revenue Recognition Accounting Entries

This chapter provides an overview of the process integration for accounting entries from Oracle Retail Sales Audit (ReSA), Retail Merchandising System (RMS), and Retail Invoice Matching (ReIM) to Oracle General Ledger (GL) and discusses how to:

- Perform setup tasks
- Configure and generate data in Oracle Retail applications
- Pick up and transform the data
- Configure and run the process integration for accounting entries

Process Integration for Inventory Valuation and Revenue Recognition Accounting Entries Overview

The process integration for accounting entries enables you to record the financial impact of changes to sellable store and warehouse inventory. It also records the financial impact of sales and returns, cash reconciliation, and void transactions from stores.

The system sends sales audit and stock ledger data in Oracle Retail to Oracle GL through accounting entries. Similarly the system sends the prepaid invoice reversals and write-offs of aged receipts Oracle GL. RMS, ReIM, and ReSA are the source for accounting entry. After successful completion of data transfer, the system deletes the data from the source interface tables.

This integration uses the Oracle Data Integrator (ODI) application to transfer the data from the Oracle Retail applications to the Oracle GL application.

The process integration between Oracle Retail (RMS, ReSA, and ReIM) and Oracle GL supports the following integration flows:

- Post stock ledger from RMS to Oracle GL
- Post channel sales, cash, and deposits from ReSA to Oracle GL
- Post write-offs (aged receipts, not invoiced to ledger) from RMS to Oracle GL
- Post prepaid invoice reversals after receipt from ReIM to Oracle GL

Business Process Flow for the Integration of Accounting Entries

The overall process includes:

Oracle Retail	Step1: Prepare the interface data
Integration Process (ODI)	<p>Step2: Integration process will wait for the data to arrive in Retail staging tables.</p> <p>Step3: Load and Transform retail data into E-Business Suite GL interface table.</p> <p>Step4: Delete the data from the source staging tables.</p>
E-Business Suite Financials	Step5: Launch journal import concurrent program to import data from GL interface table to journal transaction tables. An event will be raised after the concurrent program is completed. Then manually post to GL.

Pre-requisites

Before performing this process integration, ensure that:

The following Domain Value Maps (DVMs) have been entered on the RFI_XREF_DVM table :

- BUSINESS_UNIT_DVM
- CURR_CODE_DVM
 - The currency exchange rate is synchronized between Oracle Retail and E-Business Suite Financials.
 - The journal category and source are set up in E-Business Suite Financials.

Facts and Constraints

Oracle Retail:

1. RMS, ReSA, and ReIM are the source of the accounting entry flow.
2. Oracle Retail populates one of the staging tables: STG_FIF_GL_DATA or IM_FINANCIALS_STAGE (depending on whether the RMS or ReIM package is running) on a scheduled basis.
3. Data in the Oracle Retail staging tables is deleted after the ODI job completes successfully.

Oracle GL:

- Oracle GL has one interface table to receive data; GL_INTERFACE .

Performing Setup Tasks

Setup Tasks Specific to E-Business Suite Financials (General Ledger)

- Synchronize currency exchange rate between Oracle Retail and E-Business Suite.
- Set up journal category and source.
- The following DVMs/Xref have been entered on the RFI_XREF_DVM table:
 - BUSINESS_UNIT_DVM
 - CURR_CODE_DVM
 - TAX_DVM
 - SUPPLIER_XREF
- The following email options have been entered in the RFI_XREF_DVM table:
 - RMS_GL_MSG_NOTIFICATION
 - ReIM_GL_MSG_NOTIFICATION

Configuring and Generating Data in Oracle Retail

This section discusses:

- Configuring the data in Oracle Retail
- Generating the data in Oracle Retail

Configuring the Data in Oracle Retail

Before running any accounting data, perform these tasks in RMS and ReIM:

- Set up general ledger (GL) account cross-reference
- Define GL options.

For more information, see the RMS User Guide, version 14.0, "Financial Management," "Stock Ledger," "Maintain general ledger cross reference" and the ReIM User Guide, version 1, "System Administration," "General Ledger Accounts".

Generating the Data in Oracle Retail

RMS stages GL data for subsequent upload into the integrated financial system. A set of batch processes gather and organize the data before using it to populate the related staging table.

These batch designs are included in this functional area

- FIFGLDN1.PC
- FIFGLDN2.PC
- FIFGLDN3.PC

For more information, see the Chapter 13 General Ledger (GL) Batch in RMS Operations Guide, Volume 1, Release 14.0.

In ReIM, the batch process engages in these high-level steps:

1. Performs any resolution actions (for example, initiate the creation of payment documents).
2. Calls the posting process to write applicable financial accounting transactions to the financials staging table, IM_FINANCIALS_STAGE.

The processing occurs after discrepancies for documents have been resolved by resolution documents. Once all of the resolution documents for a matched invoice are built, and all of the RCA/RUA external processing has been confirmed, the process inserts financial accounting transactions to the financials staging table, to represent the resolution and consequent posting of the invoice. The process also inserts financial accounting transactions for the approved documents that are being handled.

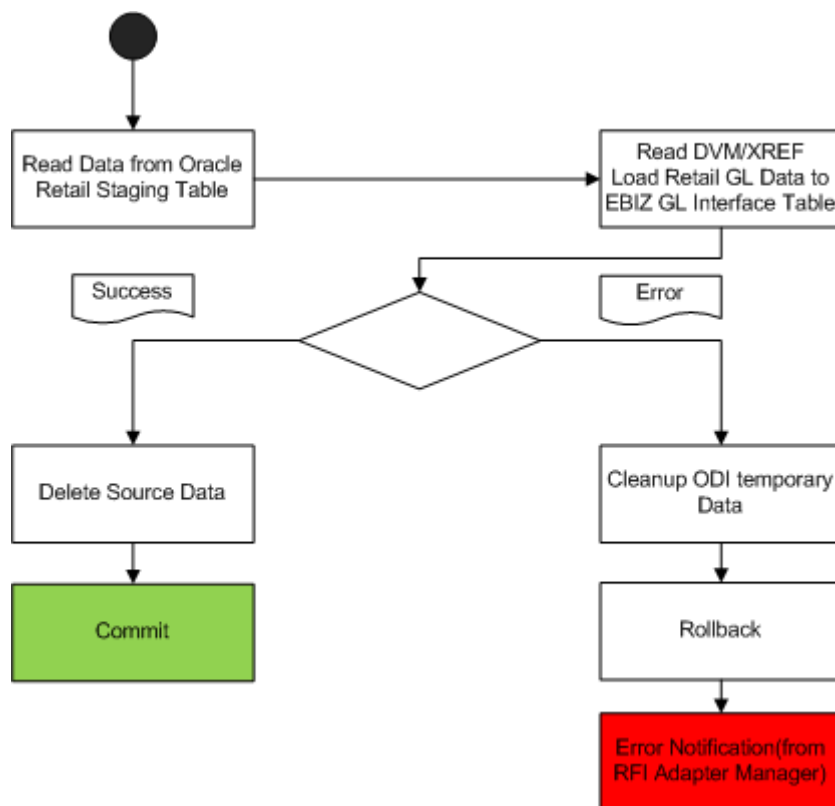
Once all of the transactions have been written, the process switches the status of the current invoices or documents to "Posted", and then moves on to the next invoice or document. If a segment look-up fails, the failed record is written to a financials error table.

For more information, see the Chapter 9-26 Financial Posting Batch Design of the latest ReIM Operations Guide.

Picking Up and Transforming the Data

The process integration for accounting entries uses ODI to pick up the data from RMS, ReSA, and ReIM, transform it, and load it into the Oracle staging table for the GL Generator.

This flowchart illustrates the process:



Accounting entries load process

These tasks are performed as a part of the accounting entries load process:

1. The system polls the STG_FIF_GL_DATA or IM_FINANCIALS_STAGE tables (depending on whether the RMS or ReIM package is running) until the data has been loaded in the tables.
2. An ODI interface object is run to transform and map the data from the Retail table to the EBS table.

3. If the package has errors, an email is sent to the administrator indicating the error in the interface.

The system deletes the processed data in the STG_FIF_GL_DATA and IM_FINANCIALS_STAGE tables.

Note: If any of these steps fails, an error message is entered in RFI_ODI_LOGS table. The same information can be viewed using the RFI Administration UI screens. Data in Retail table is not deleted; saving it for another run after the error is fixed.

Configuring and Running the Process Integration for Accounting Entries

This section discusses how to:

- Configure the process integration for accounting entries
- Set up a schedule
- Run the process integration for accounting entries

Configuring the Process Integration for Accounting Entries

This section discusses how to set up a schedule.

Setting Up a Schedule

Part I: Set Up Master Repository and Work Repository

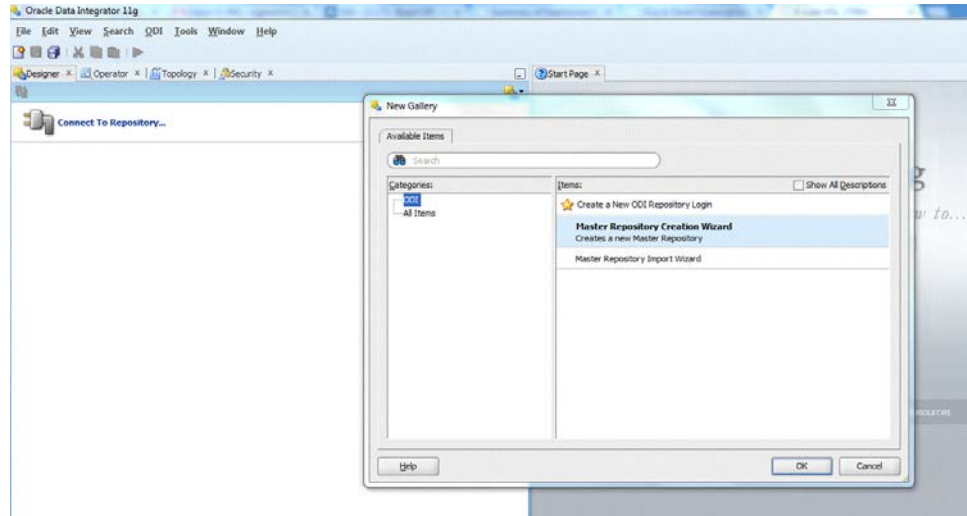
Note: If you haven't had a master and work repository created, you need to create it beforehand according to the sections F.3, F.4, F.5 and F.6 in Oracle Data Integrator Installation guide 11.1.1 or follow the steps given below. It is better to create master and work repository schema in server where ODI is installed.

Create master repository

Pre-Requisite:

1. Create Database schemas for Master Repository and Work Repository. It is better to create master and work repository schema in server where ODI is installed.
2. Make sure RFI_ODI_TEMP schema exists in E-Business suite database.
3. Make sure RFI Infrastructure Database setup is completed.
4. Give DBA privileges to "AP" schema in E-Business suite database.

Launch ODI Studio, Click **File** > **New** and select Master Repository Creation Wizard



Enter the Master Repository Database connection details and Click **Next**.

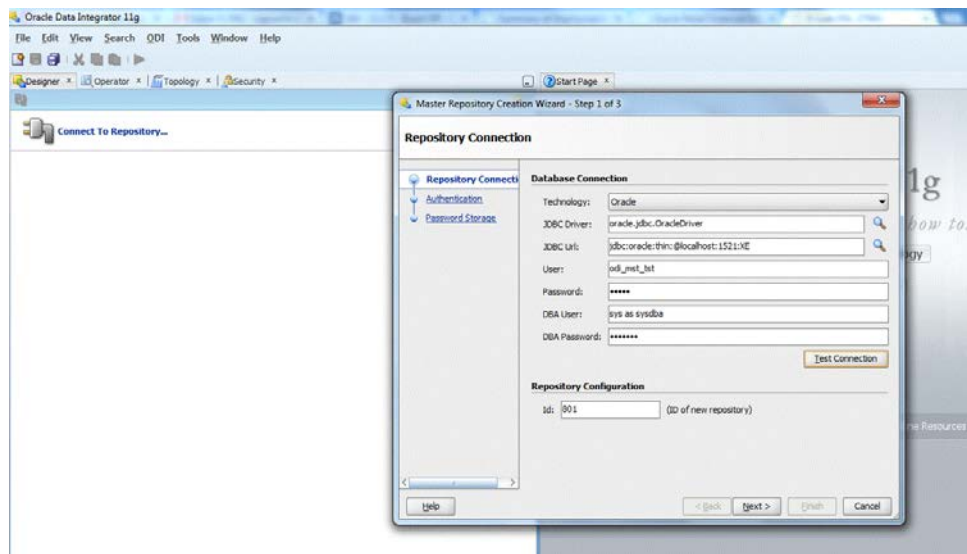
a. Database Connection

Enter valid Master Repository schema details.

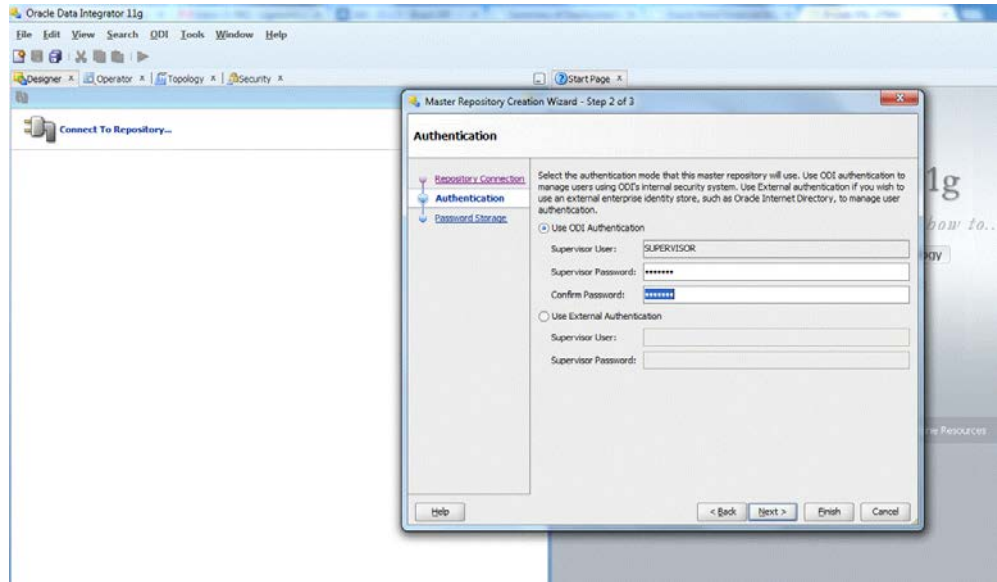
Note: You have to enter sysdba credentials in DBA User and DBA Password fields.

b. Repository Configuration

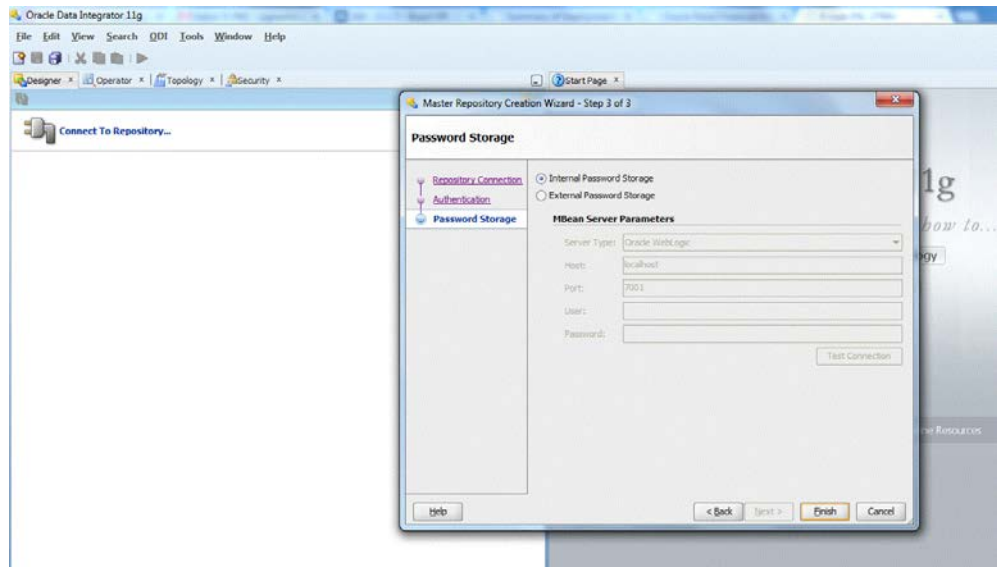
a. Enter any Id other than 804, 805 in ID field.



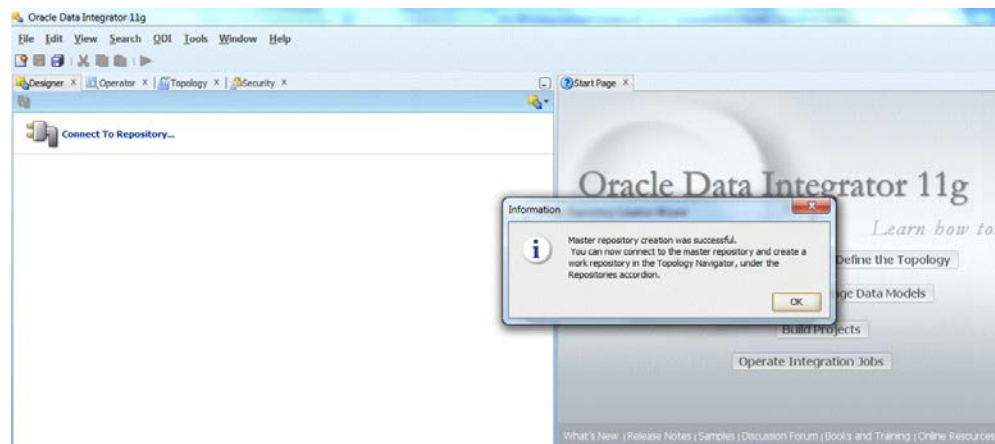
b. Enter "SUPERVISOR" password and Click **Next** .



c. Click Next.



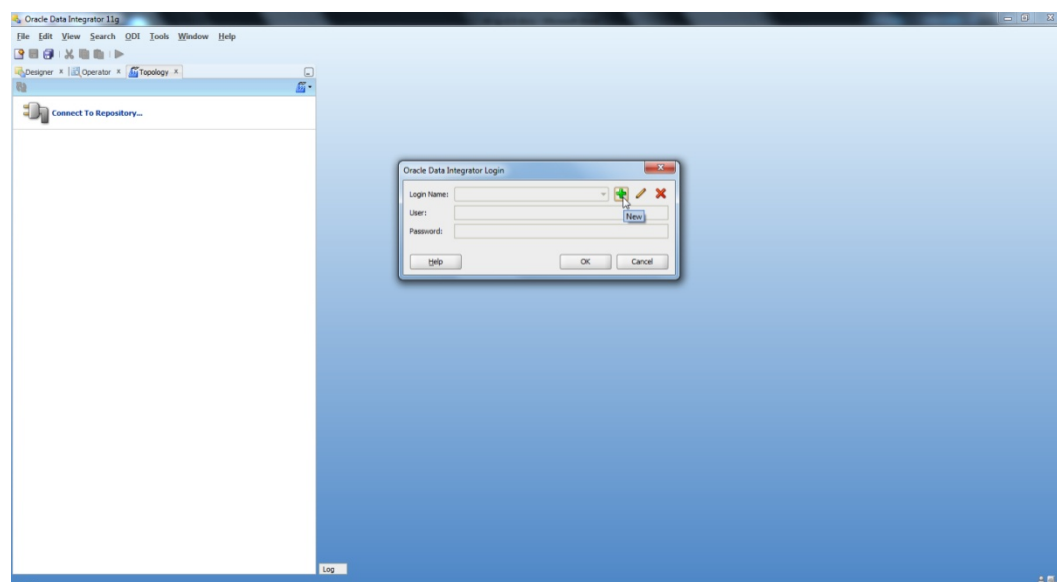
d. Click Finish.



RFI Create work repository

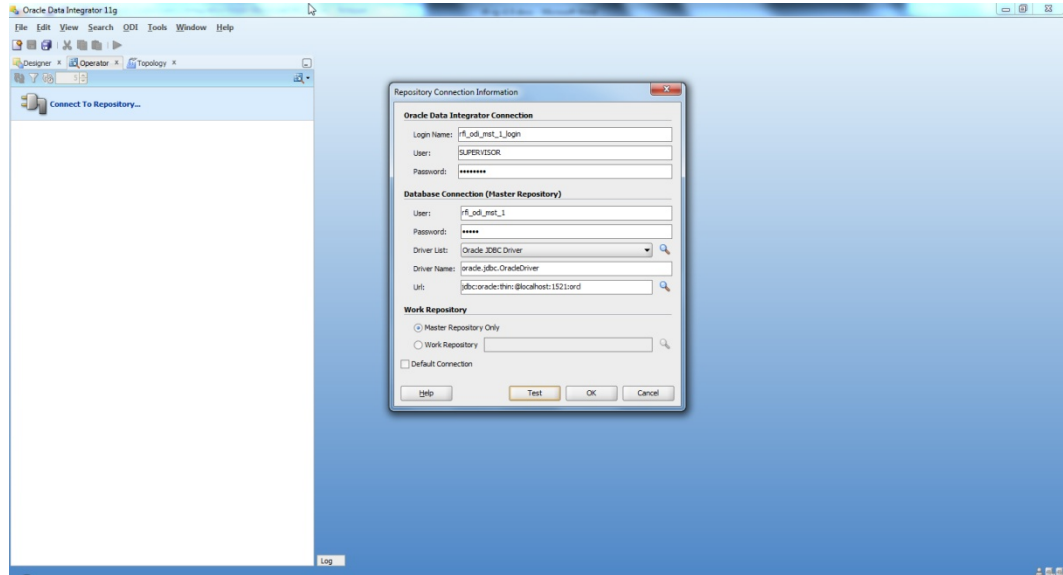
To create a work repository, take the following steps:

1. Login to Master Repository in Oracle Data Integrator (ODI) Studio to create a Work Repository.
2. Select the **ODI Menu** → **Connect** option.
3. Create Master Repository login credentials selecting the + button from a Oracle Data Integrator Login popup.

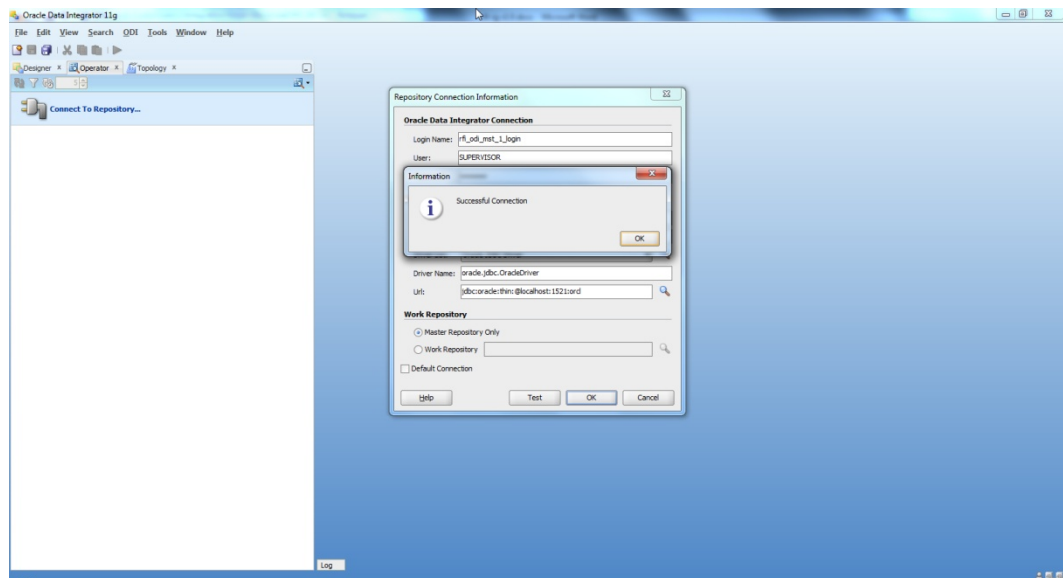


4. Update Repository Connection Information as below:
 - a. Oracle Data Integrator Connection
 - i. Login Name: <Login Name>
 - ii. User: <Enter "SUPERVISOR" in this field>
 - iii. Password: <Which you had entered in step 2.4 from Create Master Repository section.>

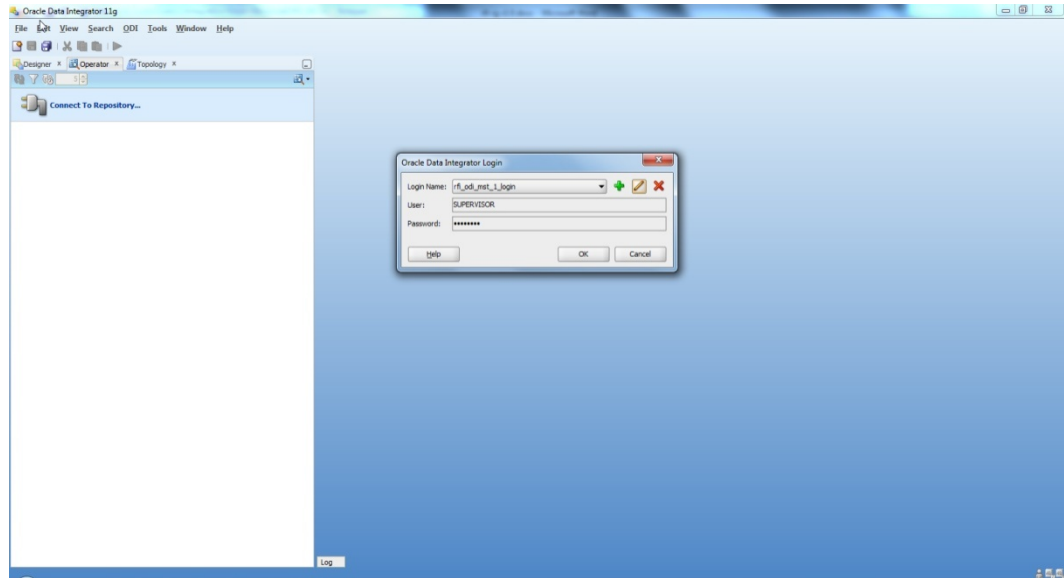
- b. Database Connection (Master Repository)
 - i. Enter Master Repository database credentials for User and Password fields.
 - ii. Select “Oracle JDBC Driver” from dropdown list for Driver List field.
 - iii. Enter Url field as below:
jdbc:oracle:thin:@<host>:<port>:<sid>
- c. Work Repository
 - i. An option should be select as “Master Repository Only”.



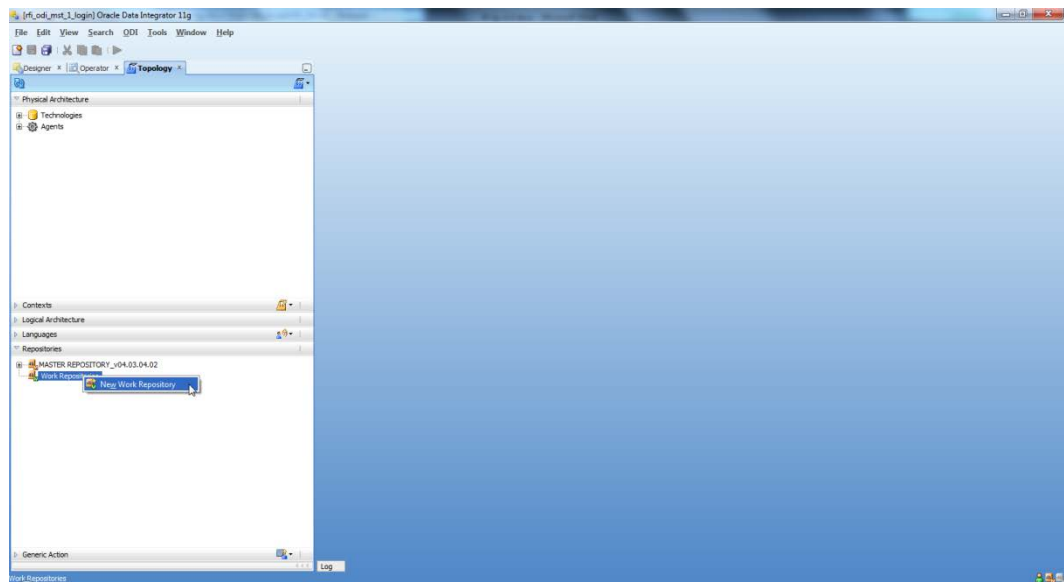
- 5. Test your credentials information by using “Test” button. If it is successful then click OK.



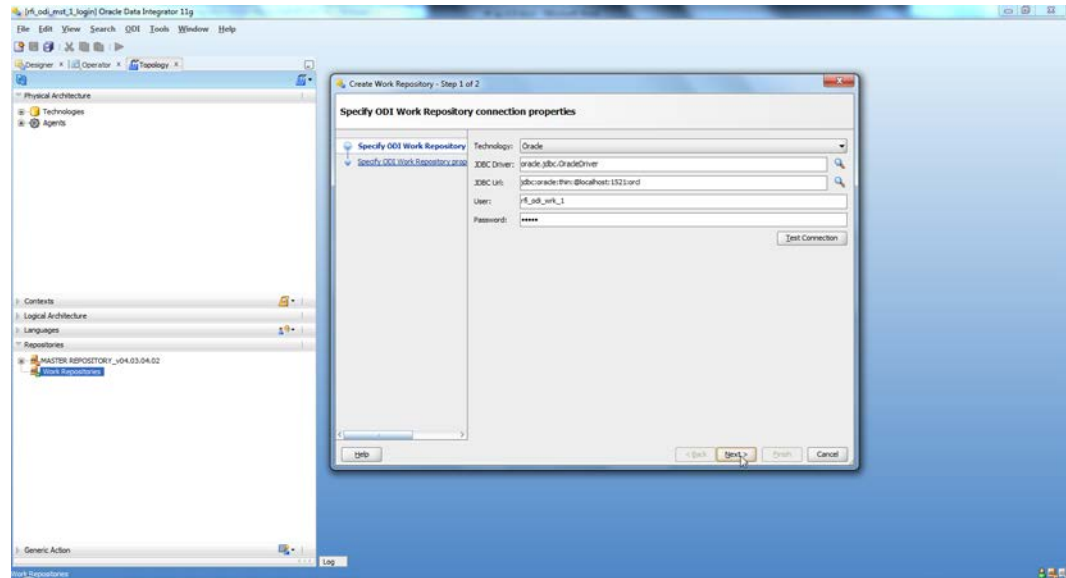
- 6. Select OK from Oracle Data Integrator Login popup.



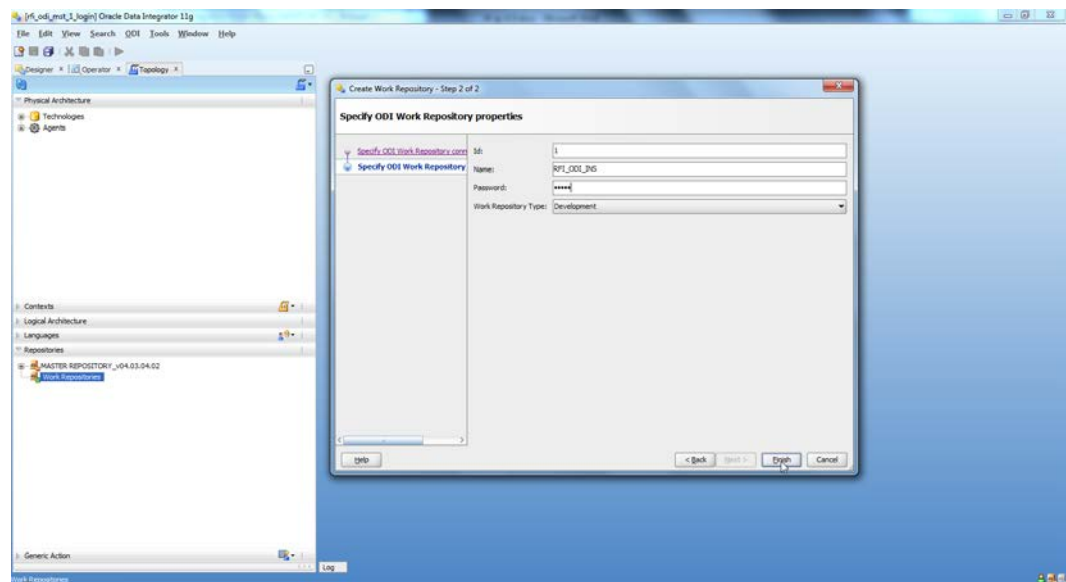
7. From Topology tab select Repositories, right click on the Work Repositories. Select the **New Work Repository** option.



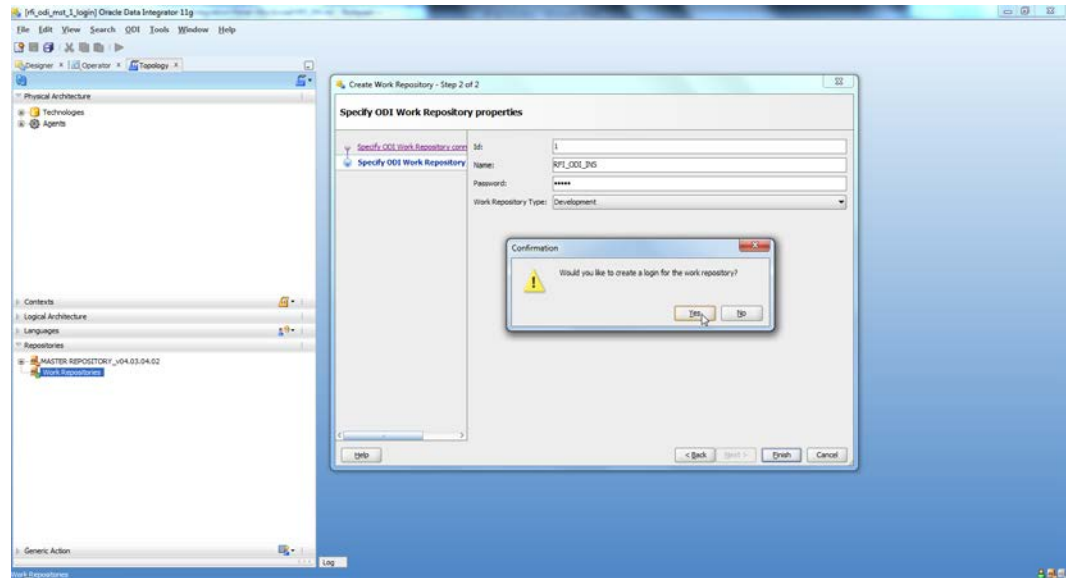
8. Enter the work repository database credentials details.
 - a. Test your credentials information with using “Test” button. If it is successful then click **Next**.



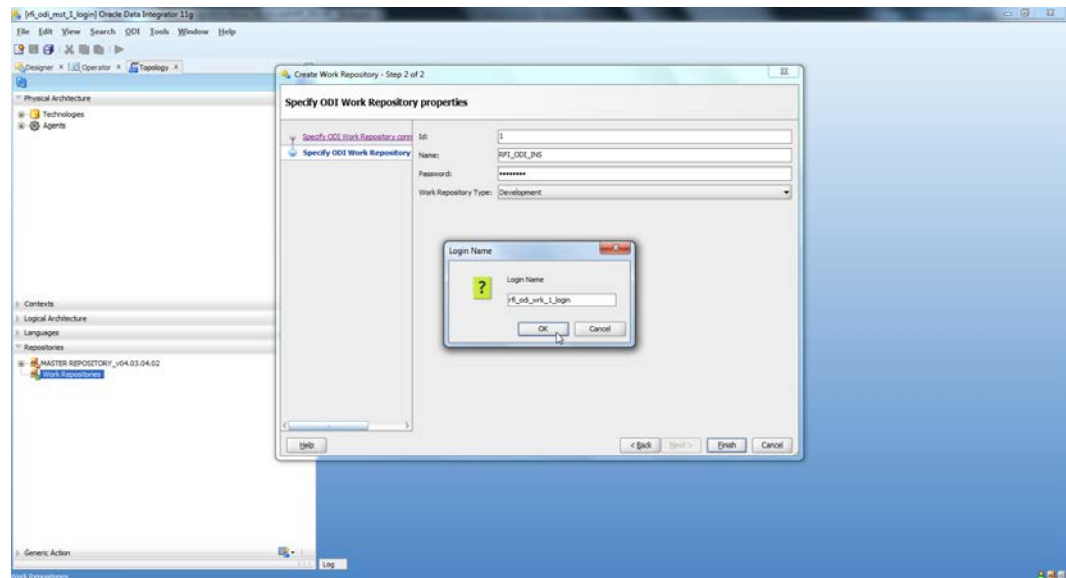
9. Update ODI Work Repository properties
 - a. Enter any Id other than 804, 805 in Id field.
 - b. Enter Name and Password (should be "SUPERVISOR" password) for work repository and click **Finish**.



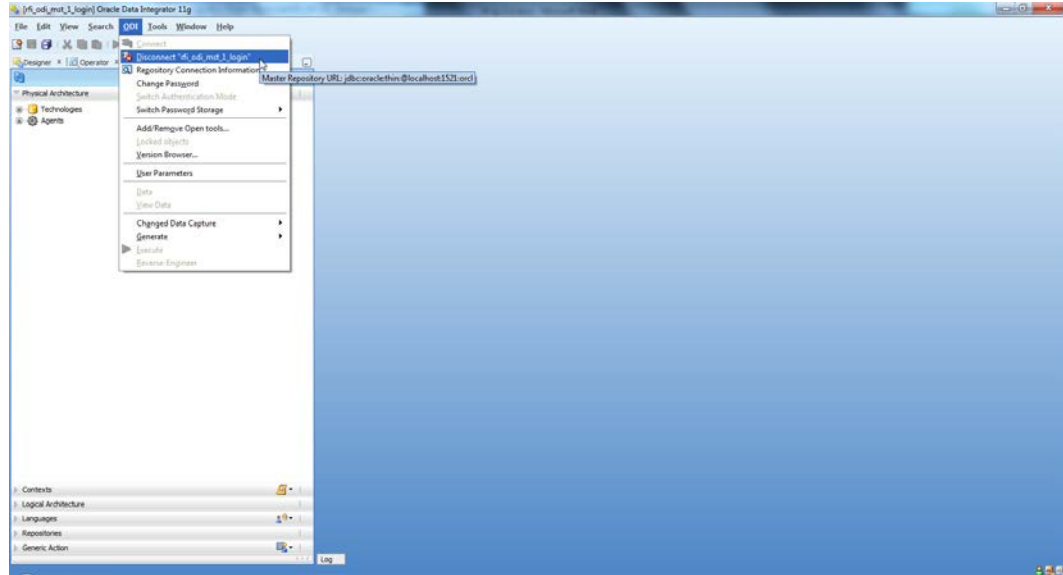
10. Select **Yes** to create an ODI login for work repository.



11. Enter ODI work repository login name in the popup.

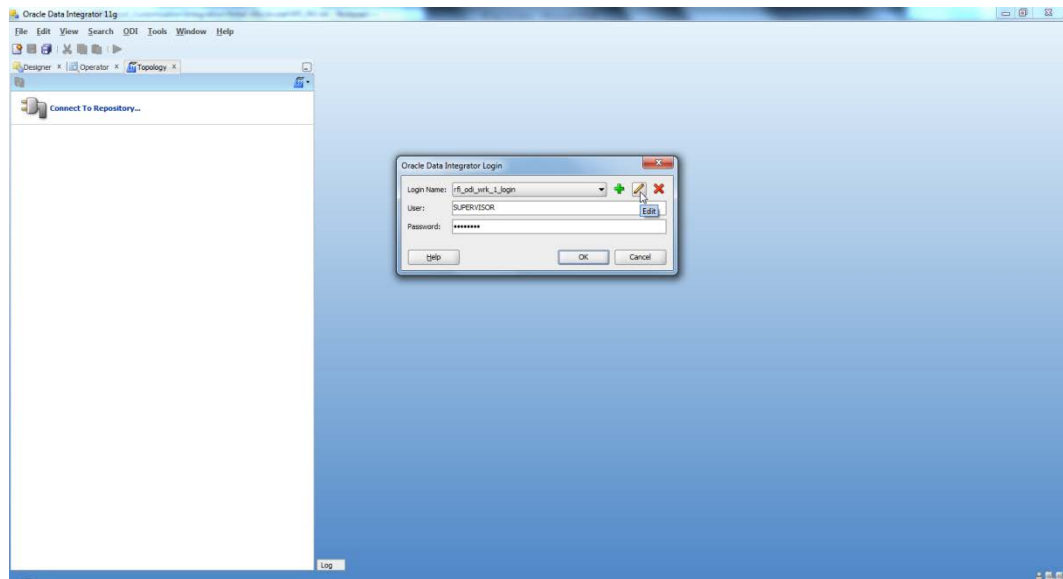


12. Select the **ODI Menu**→**Disconnect** option to connect Work Repository.



13. Select the **ODI Menu**→**Connect** option.

- a. ODI Login popup select Login Name from dropdown list (select which you had created in previous step7).
- b. Enter user as "SUPERVISOR".
- c. Enter "SUPERVISOR" password.
- d. Select edit option.

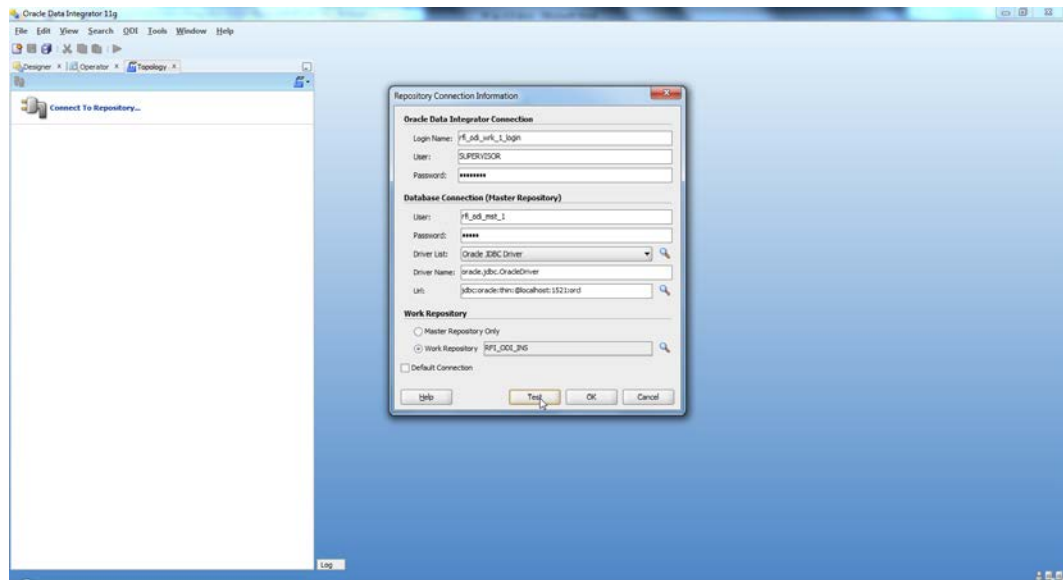


14. Validate Repository Connection Information:

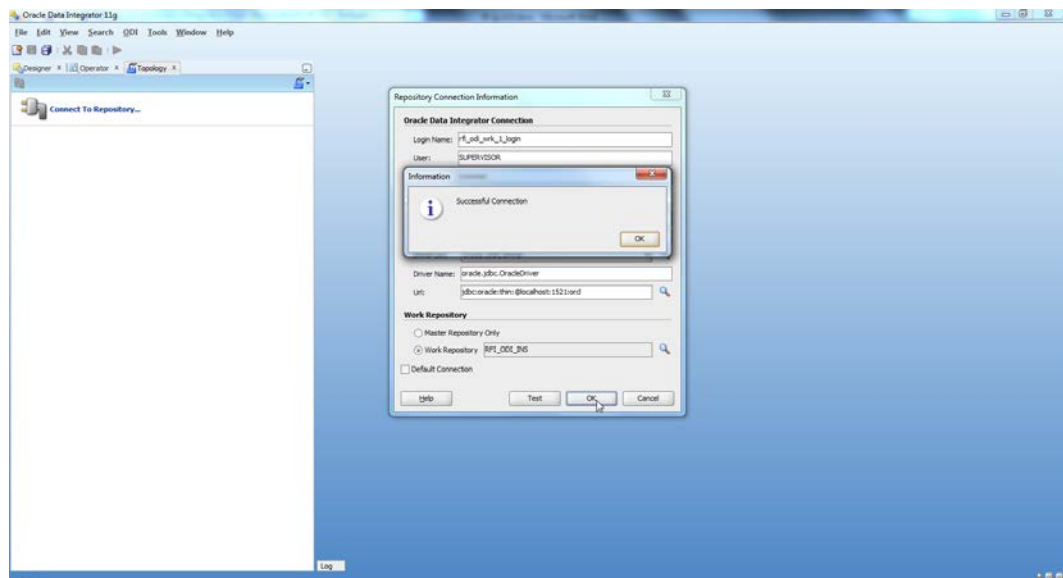
- a. Oracle Data Integrator Connection
 - i. Login Name: <work repository login name>
 - ii. User: <"SUPERVISOR">
 - iii. Password: <SUPERVISOR Password>
- b. Database Connection (Master Repository)
 - i. Validate Master Repository database details.

c. Work Repository

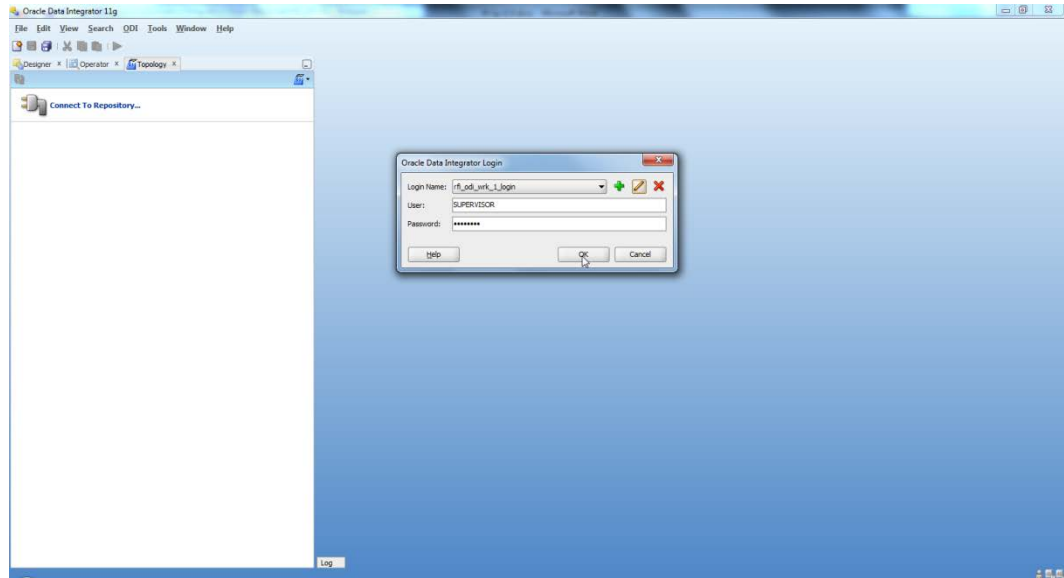
- i. Select Work Repository option and select the repository which you had created in step 1.8.



- 15. Test your credentials information with using “Test” button. If it is successful then click OK.

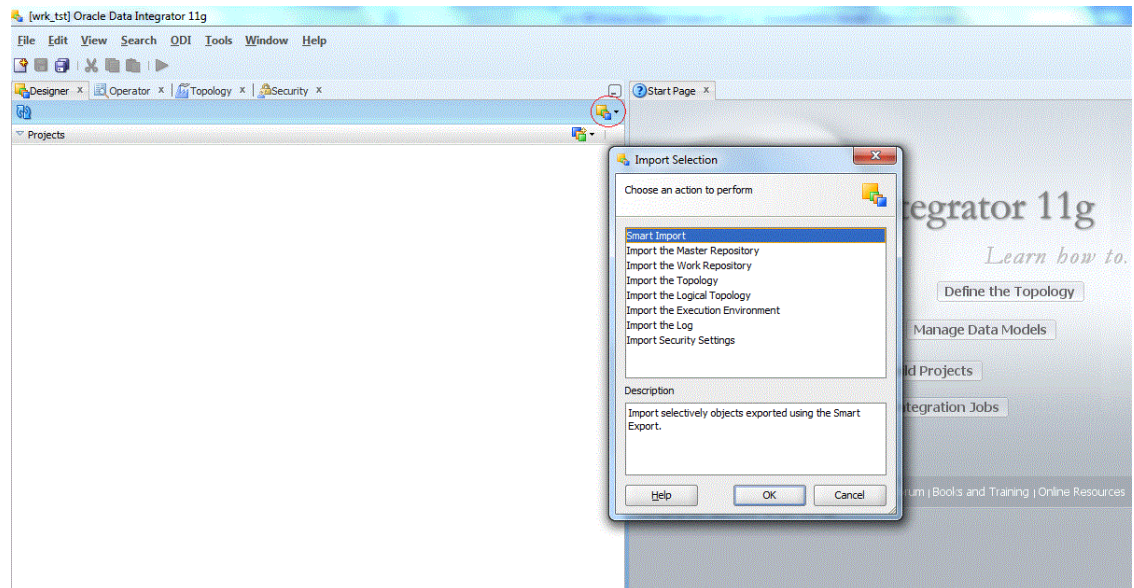


- 16. Select OK from Oracle Data Integrator Login popup.

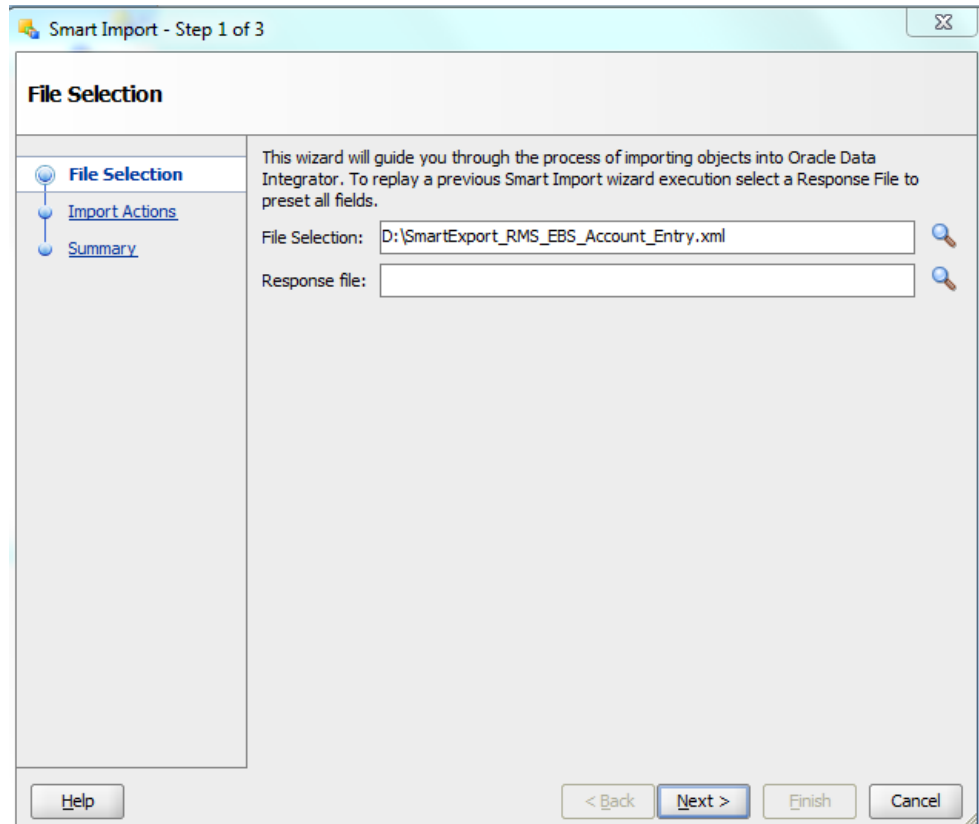


Smart Import the ODI interfaces

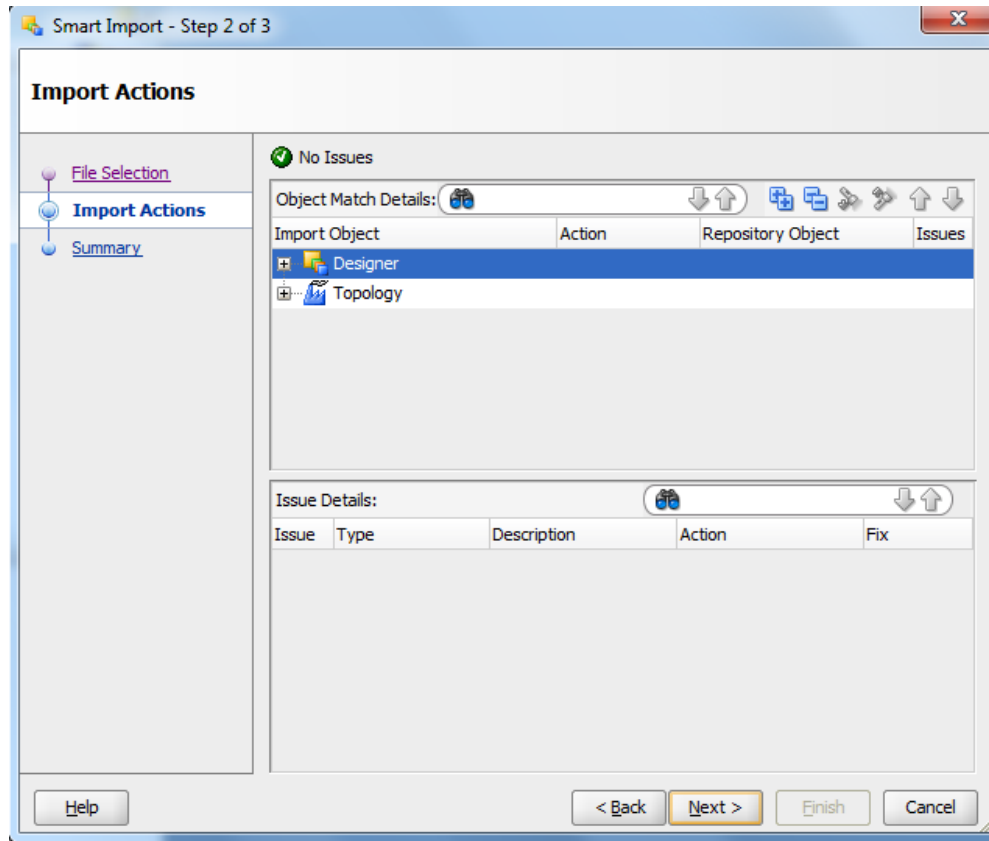
1. Import the ODI interface RMS to E-Business Account Entry.



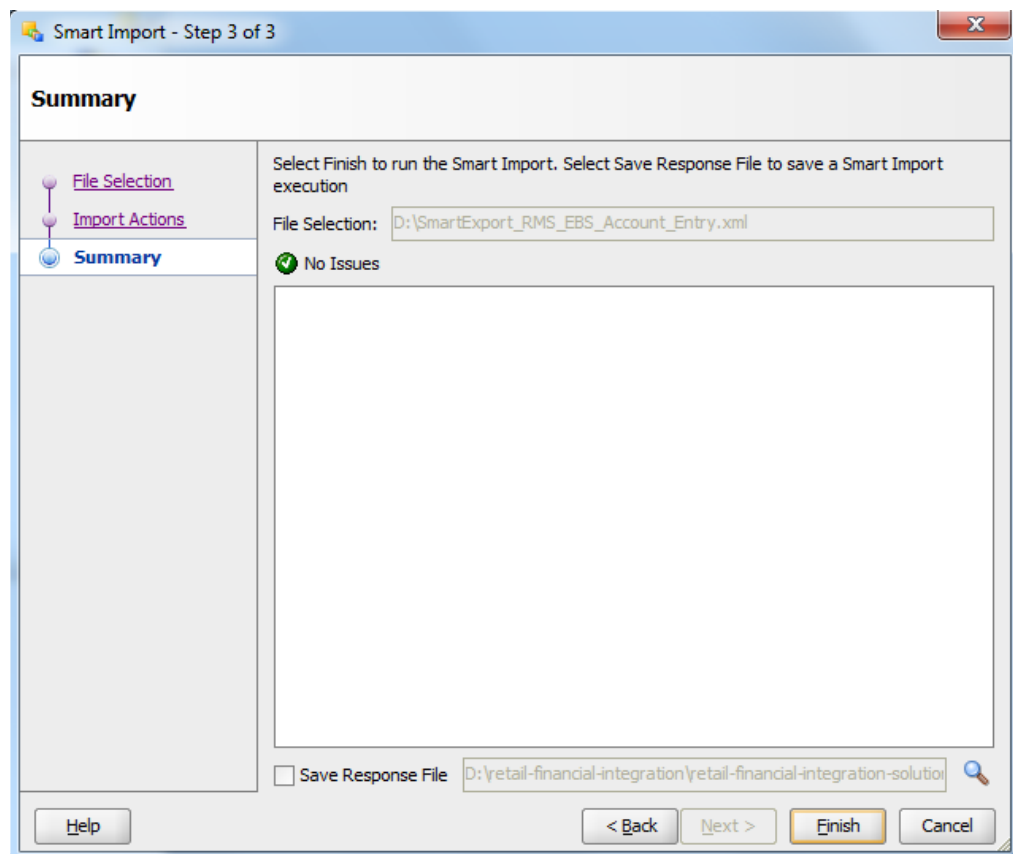
2. Select SmartExport_RMS_EBS_Account_Entry.xml file in the File Selection Field.



3. Click Next.



4. Click Next.



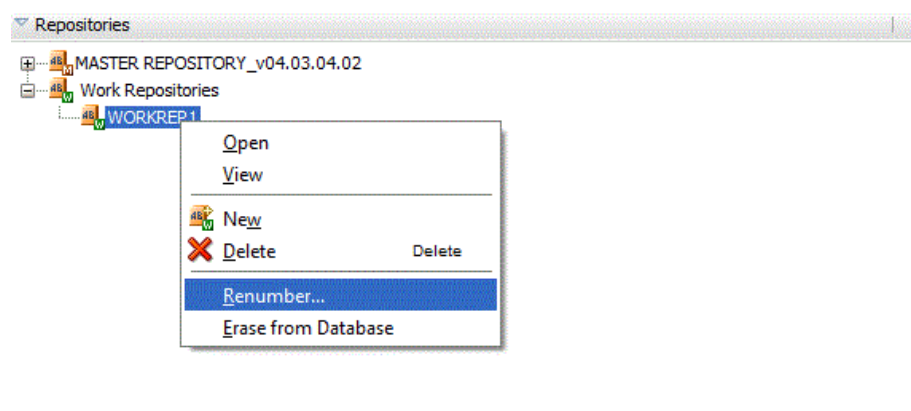
5. Click **Finish**.

Similarly perform Smart Import for the other ODI Interfaces.

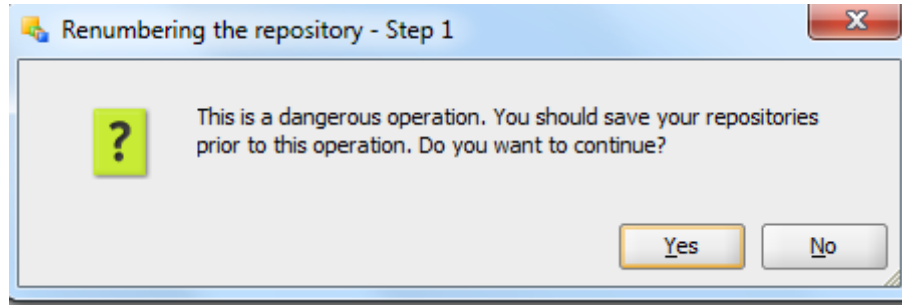
- SmartExport_ReIM_EBS_Account_Entry.xml
- SmartExport_ReIM_EBS_Invoice_Entry.xml

If there are any errors during Smart Import like “Cannot import with same work repository Id”, then manually update the work repository Id.

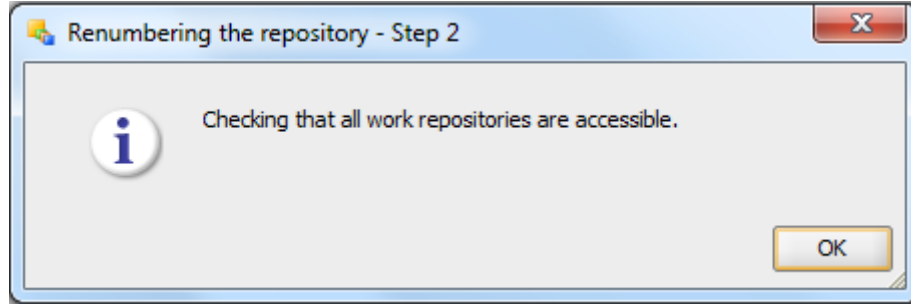
6. In Topology, under Repositories, right click on the work repository and select **Renumber**.



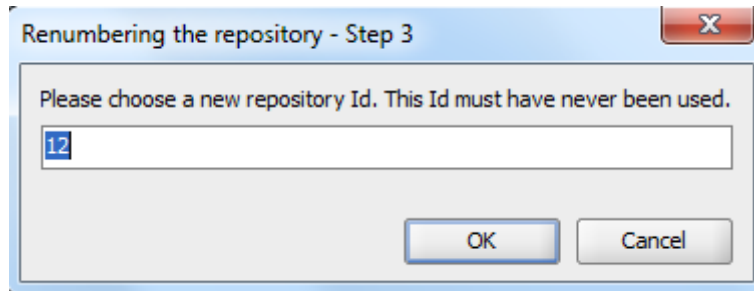
7. Click **Yes**.



8. Click OK.

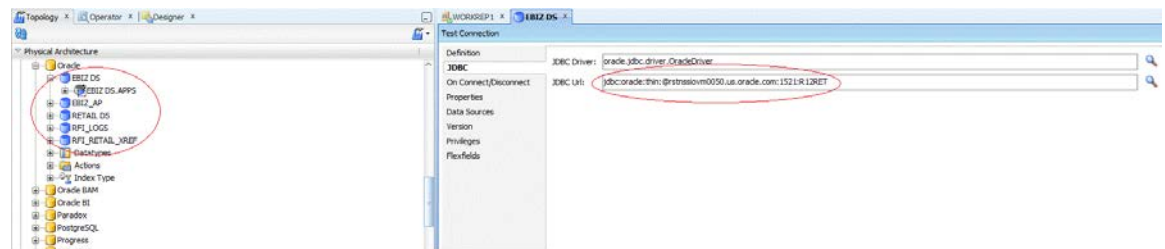


9. Enter a new Repository Id and Click OK.



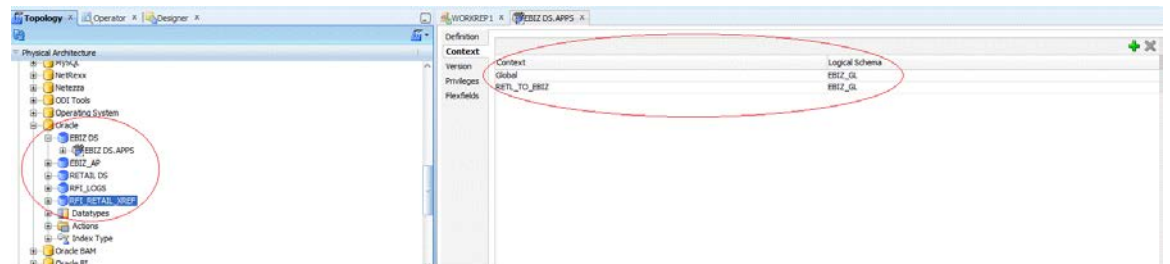
Update Connection Information

In **Topology**, under **Physical Architecture**, **Technologies > Oracle**, Update Database Connection detail in Physical Servers and Physical Schemas as given in the table below.



Physical Server (Data Server)			Physical Schema	
Name	Definition > Connection	JDBC	Schema (Schema)	Schema (Work Schema)
EBIZ_DS	User: <APPS Schema Name> Password: <APPS Schema Password>	Update EBS JDBCUrl	APPS Schema	RFI_ODI_TEMP Schema
EBIZ_AP	User: <APPS Schema Name> Password: <AP Schema Password>	Update EBS JDBCUrl	AP Schema	RFI_ODI_TEMP Schema
RETAIL_DS	User: <RMS User Schema Name> Password: <RMS User Schema Password>	Update RMS JDBCUrl	RMS Schema Owner	RMS Schema Owner
RFI_LOGS	User: <RFI Schema Name> Password: <RFI Schema Password>	Update RFI JDBCUrl	RFI Schema	RFI Schema
RFI_RETAIL_XREF	User: <RFI Schema Name> Password: <RFI Schema Password>	Update RFI JDBCUrl	RFI Schema	RFI Schema

In Physical Schema, make sure the context (Global and RETL_TO_EBIZ) is mapped to Logical Schemas as given in the table below. If some mapping is missing, map the Logical schemas as given in the table below:



Physical Schema	Logical Schema
EBIZ_DS.APPS	EBIZ_GL
EBIZ_AP.AP	EBIZ_AP
RETAIL_DS.RMS01APP	Retail
RFI_LOGS.RFI	RFI_LOGS
RFI_RETAIL_XREF.RFI	RFI_RETAIL_XREF

Part II: Set up Domain Value Maps

Enter appropriate values to the DVM table (RFI_XREF_DVM).

DVM Name (CATEGORY_TYPE Column)	Retail Value (RETL_ID column)	E-Business suite value (EXT_SYSTEM_ID column)	EXT_SYSTEM column
BUSINESS_UNIT_DVM	Enter Retail Value for Business Unit	Enter EBS Value for Business Unit	EBS
CURR_CODE_DVM	Enter Retail Value for Currency Code	Enter EBS Value for Currency Code	EBS
TAX_DVM	Enter Retail Value for VAT Code	Enter EBS Value for VAT Code	EBS
SUPPLIER_XREF (Inserted by Supplier Integration Adapter)	Enter Retail Value for Supplier Id	Enter EBS Value for Supplier Id	EBS

Enter appropriate values for Mail option (RFI_XREF_DVM).

Name (CATEGORY_TYPE Column)	Retail Value (RETL_ID column)	E-Business suite value (EXT_SYSTEM_ID column)	EXT_SYSTEM column
RMS_GL_MSG_NOTIFICATION	SUBJECT_ERROR	Enter the mail Subject for ODI Error Notification.	RMS
RMS_GL_MSG_NOTIFICATION	BODY_ERROR	Enter the mail content for ODI Error Notification, Max length 240 chars	RMS
ReIM_GL_MSG_NOTIFICATION	SUBJECT_ERROR	Enter the mail Subject for ODI Error Notification.	ReIM
ReIM_GL_MSG_NOTIFICATION	BODY_ERROR	Enter the mail content for ODI Error Notification, Max length 240 chars	ReIM

The FROM Email Address and TO Email Address List will be specified during RFI deployment.

Part III: Set up EBS source data

1. Login to EBS self-service, navigate to General Ledger responsibility, **Setup > Journals**, launch Categories form, enter the following categories:

Category	Key	Desc
RETEK	RETEK	RETEK
RMS	RMS	Retail RMS
Retail Invoices	Retail Invoices	Retail Invoices
ReSA	ReSA	Retail ReSA

2. Launch Sources form, enter the following sources:

Source	Key	Desc
RMS	RMS	Retail RMS
Write-offs	Write-offs	Retail Write-offs
Prepayments	Prepayments	Retail Prepayments
Manual Payments	Manual Payments	Retail Manual Payments
ReSA	ReSA	Retail ReSA

3. Navigate to Payables responsibility, **Setup > in the Lookups** menu, launch Payables form.

- Enter the following condition and search:
 - Type: SOURCE Application: Payables
 - In the result list, add the following line and save:

Code	Meaning	Desc
REIM	Retek ReIM	Retek ReIM

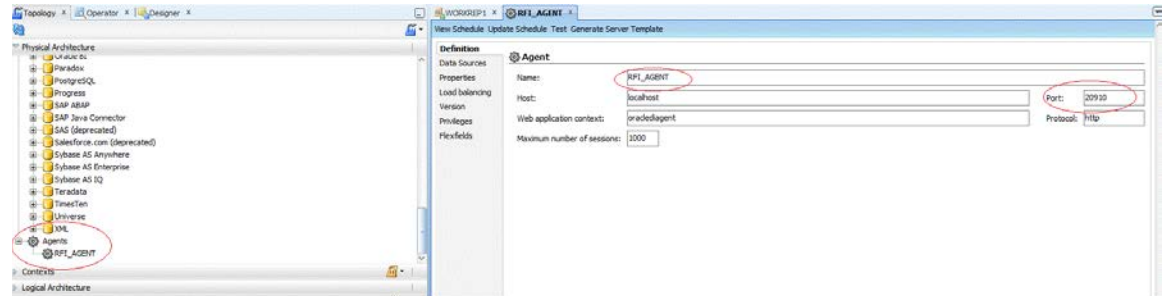
Part IV: Scenario test

In this part, you need to do similar things to the three packages in this RFI. In this guide we only use package, Migrate RMS To EBIZ Acc Entry Package, for example.

Agents and Scenario

Oracle Data Integrator run-time Agents orchestrate the execution of jobs. The run-time agent functions as a listener and a scheduler agent. The agent executes jobs on demand (model reverses, packages, scenarios, interfaces, and so forth). The agent is also to start the execution of scenarios according to a schedule defined in Oracle Data Integrator. Schedules can be attached to scenarios and also to Load Plans. In ODI Topology, navigate to Physical Architecture > Agents.

Make sure the RFI_AGENT is available and default to port 20910.



Run Agent Scheduler

1. Modify odiparams file and set the following lines to connect them to the work repository. For example:

In Windows OS (odiparams.bat),

```
set ODI_MASTER_DRIVER=oracl.jdbc.driver.OracleDriver
set ODI_MASTER_URL=<JDBC Connection URL to ODI>
set ODI_MASTER_USER=<ODI Master Schema>
set ODI_MASTER_ENCODED_PASS=< ODI Master Schema password>
set ODI_SUPERVISOR=SUPERVISOR
set ODI_SUPERVISOR_ENCODED_PASS=<ODI SUPERVISOR password>
set ODI_SECU_WORK_REP=<ODI Work Repository name>
```

In Linux/Unix OS (odiparams.sh),

```
ODI_MASTER_DRIVER=oracle.jdbc.driver.OracleDriver
ODI_MASTER_URL=<JDBC Connection URL to ODI>
ODI_MASTER_USER=<ODI Master Schema>
ODI_MASTER_ENCODED_PASS=< ODI Master Schema password>
ODI_SUPERVISOR=SUPERVISOR
ODI_SUPERVISOR_ENCODED_PASS=<ODI SUPERVISOR password>
ODI_SECU_WORK_REP=<ODI Work Repository name>
```

You can use the following command to generate the encoded password:

```
encode <password>
```

Go to a CMD prompt and type

```
agent "-NAME=<physical agent name>"
```

For example

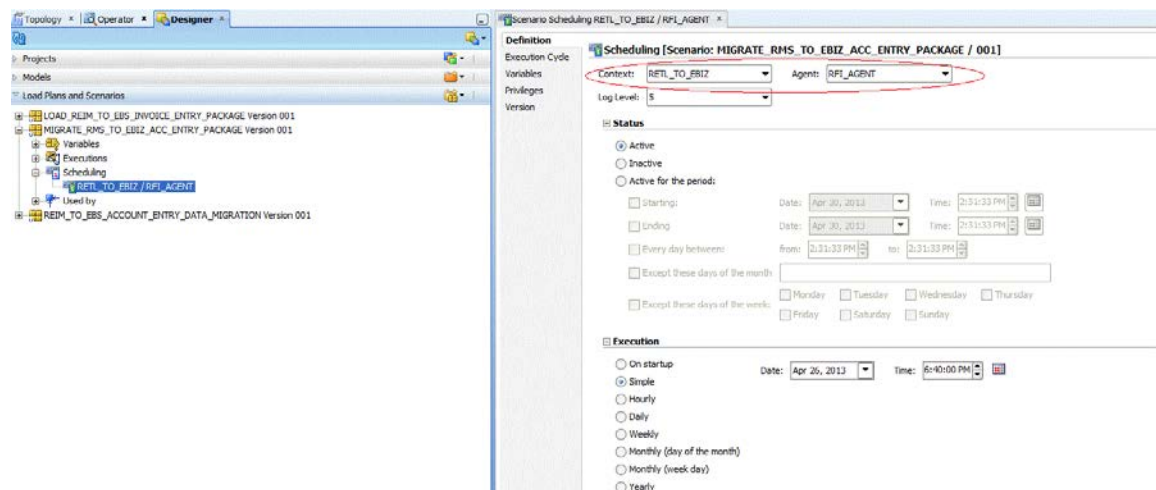
```
agent "-NAME=RFI_AGENT"
```

You should get a message that the agent is started successfully.

Generate scheduler

In ODI designer, navigate to Load Plans and Scenarios, select scenario MIGRATE_RMS_TO_EBIZ_ACC_ENTRY_PACKAGE.

Select Existing Scheduling. Make sure the context is set to RETL_TO_EBIZ and agent is selected as RFI_AGENT.



Update schedule

Go back to Topology and find your Physical Agent, right click and update schedule.

Check

The agent runs at a predefined execution time as given in the schedule. When it runs, you can check it in the Operator. You can also check the data in EBS side interface tables if the execution is successful and data has flown to EBS interface tables.

Run concurrent import program

When running the import program, enter the source name you set up in previous steps. When the concurrent program is complete, you can check the data in the EBS transaction tables.

Running the Process Integration for Accounting Entries

This process runs based on the schedules created for it. The integration between Oracle Retail and Oracle GL can be scheduled to occur automatically.

Note: You can start or stop the scheduler agent whenever you want, which enables you to control the integration process. For more information about starting and stopping the scheduler agent, see *Oracle Data Integrator Installation Guide 11.1.1*, Section 3.2.6 “Starting the Standalone Agent” and section C.1.2 for “Stopping a Standalone Agent.”

Reviewing Process Integration for Retail Merchandise Procure to Pay

This chapter provides an overview of the process integration for Retail Merchandise Procure to Pay between Oracle Retail Invoice Matching (ReIM) and Oracle Payables and discusses how to:

- Perform setup tasks
- Configure and generate data in Oracle Retail
- Pick up and transform the data
- Configure and run the process integration for Retail Merchandise Procure to Pay

Process Integration for Retail Merchandise Procure to Pay Overview

ReIM is the source of matched invoices, credit notes, debit memos, and rebates. Oracle Payables requires these details for payment to the suppliers. Invoices from suppliers for retail merchandise are matched to the original purchase order (PO) for the merchandise and the receipt of the merchandise by the retailer. A proper match of invoice, PO, and receipt trigger the payment authorization of the supplier's invoice. Invoices may be authorized for payment prior to receipt of goods for which prepayment is required. When the authorization for payment is generated, the appropriate accounting distribution is also generated to support the payment authorization. The Retail Merchandise Procure to Pay integration automates the processing of invoice payments, adjustments, and write-offs from ReIM to Oracle Payables and General Ledger. Other accounting transactions are generated from ReIM to write off aged receipts that were never invoiced and to post accounting distribution for manually paid or prepaid invoices after receipt.

This integration uses the Oracle Data Integrator (ODI) application to transfer the data from ReIM to Oracle Payables.

The process integration between ReIM and Oracle Payables supports the following integration flows:

- Post matched invoices for payment from ReIM to Oracle Payables.
- Post credit notes (matched or unmatched) for payment adjustment from ReIM to Oracle Payables.
- Post debit or credit memos for payment adjustment from ReIM to Oracle Payables.
- Post rebates for payment adjustment from ReIM to Oracle Payables.
- Post unmatched invoices for prepayment from ReIM to Oracle Payables.

Business Process Flow for Integration of Retail Merchandise and AP_INVOICE_LINES_INTERFACE.

Work Location	Step
Oracle Retail (ReIM)	Configure and generate outgoing data from ReIM.
Integration process	The integration process checks for data in the ReIM Invoice Header and Invoice Lines interface tables. Load and transform the Oracle Retail data into the Oracle Voucher Header and Voucher Lines Staging tables. Delete the data from the source tables (ReIM Invoice Header and Invoice Lines interface tables) after a successful load.
Oracle Payables	Run the Voucher Build process and import the vouchers into Oracle Payables system for the pay cycle.

Pre-requisites

Before performing this process integration, ensure that:

1. Chart of accounts code combinations are validated.
2. Calendars must be set up for transactions.
 - Supplier synchronization and supplier cross-reference.
 - Supplier address synchronization and supplier address cross-reference.
 - Payment terms synchronization and payment terms cross-reference.
 - Currency code domain value mapping (DVM) and currency exchange rate synchronization.
3. Chart of accounts combinations are manually entered into the Oracle Retail and E-Business Suite applications.
4. The DVM data is set up in RFI_XREF_DVM table that is used as input in the ODI interfaces.

Assumptions and Constraints

The integration design assumes that:

1. The data moves from one instance of source database to one instance of target database.
2. If the user loads the same data twice in the Oracle Retail interface table then the data is transported again to the Oracle interface tables.
3. In the ODI interface, no business validation is applied to check whether any data is already transported.
4. The chart of accounts combinations are valid for invoice lines.
5. Invoice lines with invalid combinations are rejected by General Ledger and the correction is a manual process in E-Business Suite applications.
6. Oracle GL does not delete the invoices with source as RETL.
7. Oracle Retail modifies the IM_AP_STAGE_HEAD and IM_AP_STAGE_DETAIL tables and adds an ORG_UNIT column to map it to BUSINESS_UNIT.

Performing Setup Tasks

This section discusses:

- Setup tasks specific to ReIM
- Setup tasks specific to Oracle General Ledger
- Setup tasks specific to Oracle Payables
- Setup tasks specific to the integration layer

Setup Tasks Specific to ReIM

For more information, see the latest version of the ReIM Operations Guide for details about the setup tasks specific to ReIM.

Setup Tasks Specific to Oracle Payables

Perform the following tasks:

- Need to check
- Suppliers synchronization
- Supplier locations synchronization
- Payment Terms synchronization
- Chart of account code combination validation
- Currency Exchange Synchronization
- The invoice source has been setup in E-Business Suite
- The following DVM have been entered in the RFI_XREF_DVM TABLE:
 - CURR_CODE_DVM TAX_DVM
 - BUSINESS_UNIT_DVM
 - TAX_DVM
- The following XREF has been populated:
 - ORG_ID_XREF
 - SUPPLIER_XREF
 - SUPPLIER_SITE_XREF
 - PAYMENT_TERMS_XREF
- The following email options have been entered in the RFI_XREF_DVM TABLE:
 - REIM_AP_MSG_NOTIFICATION

Configuring and Generating Data in Oracle Retail

This section discusses how to:

- Configure the data in Oracle Retail
- Generate the data in Oracle Retail

Configuring the Data in Oracle Retail

Before running any transaction data, these tasks must be done in ReIM:

- General ledger (GL) account cross-reference is set up.
- GL options are defined.

For more information, see the latest version of the ReIM User Guide, specifically the System Administration and the General Ledger Accounts chapters.

Generating the Data in Oracle Retail

In ReIM, the batch process engages in these high-level steps:

1. Performs any resolution actions (for example, instigates the creation of payment documents).
2. Calls the posting process to write applicable financial accounting transactions to the financials staging tables IM_AP_STAGE_HEAD and IM_AP_STAGE_DETAIL

The processing occurs after discrepancies for documents have been resolved by resolution documents. Once all of the resolution documents for a matched invoice are built, and all of the RCA/RUA external processing has been confirmed, the process inserts financial accounting transactions to the financials staging table, to represent the resolution and consequent posting of the invoice. The process also inserts financial accounting transactions for the approved documents that are being handled.

Once all of the transactions have been written, the process switches the status of the current invoices or documents to “Posted”, and then moves on to the next invoice or document. If a segment look-up fails, the failed record is written to a financials error table. For more information, see the latest version of the ReIM Operations Guide, specifically the Batch Processes chapter.

Configuring and Running the Process Integration for Retail Merchandise Procure to Pay

This section discusses the steps to set up a schedule.

Configuring the Process Integration for Retail Merchandise Procure to Pay

Setting up a Schedule

Part I: Set up master repository and work repository

Please refer to the steps in section “Process Integration for Inventory Valuation and Revenue Recognition Accounting Entries Overview”.

If the master/work repository setup, Smart Import and Scenario Scheduling is not done, please do the setup as mentioned in section “Process Integration for Inventory Valuation and Revenue Recognition Accounting Entries Overview”.

Part II: Set up client side configuration and DVM files

Enter appropriate values to the DVM table (RFI_XREF_DVM).

DVM Name (CATEGORY_TYPE Column)	Retail Value (RETL_ID column)	E-Business suite value (EXT_SYSTEM_ID column)	EXT_SYSTEM column
BUSINESS_UNIT_DVM	Enter Retail Value for Business Unit	Enter EBS Value for Business Unit	EBS
CURR_CODE_DVM	Enter Retail Value for Currency Code	Enter EBS Value for Currency Code	EBS
TAX_DVM	Enter Retail Value for VAT Code	Enter EBS Value for VAT Code	EBS

Enter appropriate values for Mail option (RFI_XREF_DVM).

Name (CATEGORY_TYPE Column)	Retail Value (RETL_ID column)	E-Business suite value (EXT_SYSTEM_ID column)	EXT_SYSTEM column
ReIM_AP_MSG_NOTIFICATION	SUBJECT_ERROR	Enter the mail Subject for ODI Error Notification.	ReIM
ReIM_AP_MSG_NOTIFICATION	BODY_ERROR	Enter the mail content for ODI Error Notification, Max length 240 chars	ReIM

The FROM Email Address and TO Email Address List will be specified during RFI deployment.

Part III: Set up XREF data

Enter appropriate values to the XREF table (RFI_XREF_DVM).

XREF Name (CATEGORY_TYPE Column)	Retail Value (RETL_ID column)	E-Business suite value (EXT_SYSTEM_ID column)	EXT_SYSTEM column
SUPPLIER_XREF (Inserted by Supplier Integration Adapter)	Enter Retail Value for Supplier	Enter EBS Value for Supplier	EBS
SUPPLIER_SITE_XREF(Inserted by Supplier Integration Adapter)	Enter Retail Value for Supplier Site	Enter EBS Value for Supplier Site	EBS
ORG_ID_XREF (Manual Sync)	Enter Retail Value for Org Unit	Enter EBS Value for Org Unit	EBS
PAYMENT_TERMS_XREF (Manual Sync)	Enter Retail Value for Payment Term	Enter EBS Value for Payment Term	EBS

Part IV: Set up EBS source data

Login to EBS self-service, navigate to General Ledger responsibility, launch Categories form, and enter the following categories:

Category	Key	Desc
RETEK	RETEK	RETEK
RMS	RMS	Retail RMS
Retail Invoices	Retail Invoices	Retail Invoices
ReSA	ReSA	Retail ReSA

Launch Sources form, enter the following sources:

Source	Key	Desc
RMS	RMS	Retail RMS
Write-offs	Write-offs	Retail Write-offs
Prepayments	Prepayments	Retail Prepayments
Manual Payments	Manual Payments	Retail Manual Payments
ReSA	ReSA	Retail ReSA

Navigate to the Payables responsibility, in the Lookups menu, launch Payables form.

Enter the following condition and search:

- Type: SOURCE Application: Payables
- In the result list, add the following line and save:

Code	Meaning	Desc
REIM	Retek ReIM	Retek ReIM

Part V: Scenario test

Refer to the steps in section “Process Integration for Inventory Valuation and Revenue Recognition Accounting Entries Overview”.

If the master/work repository setup, Smart Import and Scenario Scheduling is not done, please do the setup as mentioned in section “Process Integration for Inventory Valuation and Revenue Recognition Accounting Entries Overview”.

Run concurrent import program

When running the import program, you need to enter the source name you set up in previous steps. When concurrent program is completed, you can check the data in the EBS transaction tables. For more information about creating schedules and scenarios, see Oracle Data Integrator User Guide, version 11.1.1 and Oracle Data Integrator Installation Guide, version 11.1.1.

Running the Process Integration for Accounting Entries

This process runs based on the schedules created for it. The integration between Oracle Retail and Oracle GL can be scheduled to occur automatically.

Note: You can start or stop the scheduler agent whenever you want, which enables you to control the integration process.

For more information about starting and stopping the scheduler agent, see Oracle Data Integrator Installation Guide 11.1.1, Section 3.2.6 “Starting the Standalone Agent” and section C.1.2 for “Stopping a Standalone Agent.”

Data Requirements

The accounting entry and invoice ODI integration flows are run. For more information, see Chapters 4 and 5 of this guide.

Implementing Oracle Retail Merchandise Integration Pack for Oracle E-Business Suite Financials

This chapter discusses the following:

- Setting up Oracle Retail applications
- Setting up Oracle General Ledger
- Setting up Oracle Payables
- Setting up Oracle Domain Value Maps
- Synchronizing freight terms manually
- Synchronizing currency rate types manually
- Synchronizing currency codes manually
- Synchronizing chart of accounts values manually
- Synchronizing financial calendar manually
- Mapping business and organization units
- Working with cross-references
- Working with Domain Value Maps (DVMs)
- Handling errors
- Setting configuration properties

Oracle Retail applications, Oracle General Ledger (GL), and Oracle Payables must be set up for the Oracle Retail to Oracle Retail Financial Integration (RFI) to work properly. This chapter describes these setups in detail.

Setting Up Oracle Retail Applications

Before integration, you must set up Oracle Retail Merchandising System (RMS), Oracle Retail Invoice Matching (ReIM), and Oracle Retail Sales Audit.

For more information, see the ReIM Operations Guide, version 14.0, RMS Operations Guide, Volume 3, version 14.0 for setting up the Oracle Retail applications.

Setting Up Oracle General Ledger (GL)

To set up Oracle GL, perform these actions:

- Activate service operations, queue, and handlers
- Activate or create routings
- Set up end points (connector properties) for provided services
- Setup recurring run controls for delay publish of effective dated objects
- Activate validation service operations
- Set up cross-reference tables
- Synchronize currency exchange rate

For more information, see the Oracle General Ledger Implementation Guide, Release 12.1.3.

Setting Up Oracle Payables

To set up Oracle Payables, perform these actions:

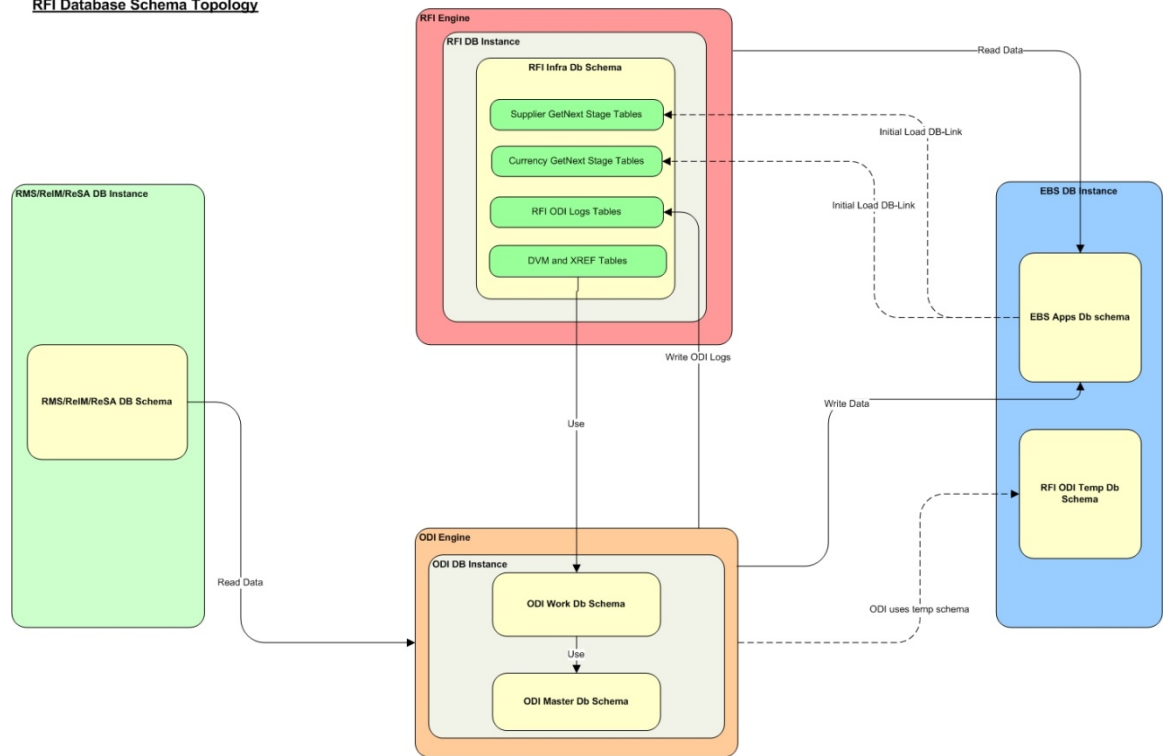
- Activate service operations, queue, and handlers
- Activate or create routings
- Set up end points (connector properties) for provided services
- Set up recurring run controls for delay publish of effective dated objects
- Activate validation service operations
- Set up cross-reference tables
- Synchronize payment terms and vendors

For more information, see the Oracle Payables Implementation Guide, Release 12.1.3.

RFI Database Schema Topology

The diagram below illustrates the Database schema topology.

RFI Database Schema Topology



Setting Up Cross-References for Oracle Retail IDs and Oracle Entities

Before running the supplier flow, you must load the initial **ORG_ID_XREF**, **PAYMENT_TERMS_XREF**, **FREIGHT_TERMS_XREF** cross-reference in **RFI_XREF_DVM** table. Because no automated process for this synchronization is available, you need to load this table manually.

Setting Up Oracle Domain Value Maps

Set up these Oracle domain value maps (DVMs):

Name	Description
BUSINESS_UNIT_DVM	Business Unit Mapping
CURR_CODE_DVM	Currency code mapping
CURR_CONV_TYPE_CODE_DVM	Currency Exchange Conversion Type Mapping
LANGUAGE_CODE_DVM	Language Code DVM
STATE_DVM	State Code DVM
ADDRESS_COUNTRY_DVM	Country Code DVM
SUPPLIER_ADDRESS_TYPE_DVM	Supplier Address Type DVM (Order and Remittance), 04/06 in Retail to PURCHASING_SITE_FLAG/ PAY_SITE_FLAG in EBS
SUPPLIER_STATUS_CODE_DVM	Supplier Status DVM
COA_GLELEMENT_REIM_DVM COA_GLELEMENT_RESA_DVM COA_GLELEMENT_RMS_DVM	Segment name mappings between Retail Requesting System and EBS
COA_STATUS_DVM	DVM mappings for valid/invalid status in Retail to TRUE/FALSE in EBS
TAX_DVM	Tax code (VAT) DVM

Synchronizing Freight Terms Manually

Freight is the transportation charge paid by retailers when they receive goods from a supplier. Freight term is an agreement between a retailer and a supplier regarding the type and payment of freight. Because the volume of freight terms are low, they are maintained and synchronized manually in Oracle Payables and RMS.

Synchronizing Currency Exchange Rate Types Manually

Oracle Retail allows for multiple currency exchange rate types (such as operational, consolidated, letter of credit or bank, purchase order, customs entry, and transportation) but uses only one type for the default processing—either Operational or Consolidation.

The Oracle Financials system supports any number of currency exchange rate types and allows for multiple currency exchange rate types. Because Oracle Retail uses only one currency exchange rate for the default processing, one exchange rate is selected. The selected currency exchange rate is used by all of the Oracle Retail products that integrate with E-Business Suite.

The E-Business Suite system can have separate currency exchange rate types that are not integrated with Oracle Retail. The relationship between Oracle Retail and Oracle rate types is mapped in a Domain Value Mapping (DVM) table.

When the selected currency exchange rate type is manually set up in RMS, RMS uses the Currency Exchange Type Mapping window to map the external exchange type sent by the E-Business Suite system. This currency exchange rate type is used by the Oracle Retail applications for all transactions.

Because the volume of currency exchange rate types is low, they are maintained and synchronized manually in Oracle GL and RMS. These are not synchronized automatically. This synchronization is required for the synchronization of currency exchange rates between Oracle GL and RMS. For more information, see the Oracle General Ledger Implementation Guide, Release 12.1.3.

Synchronizing Currency Codes Manually

Oracle Retail and Oracle GL synchronize the currency codes manually. The currency codes mapping between Oracle GL and Oracle Retail is required for the sales audit and stock ledger transactions. For more information, see the Oracle General Ledger Implementation Guide, Release 12.1.3.

Synchronizing Chart of Accounts Segments Manually

A chart of accounts is a listing of all the accounts in the general ledger. You can use a chart of accounts to view specific information about a transaction.

Oracle Retail uses the chart of accounts as reference information to create accounting entries for both sales and inventory transactions. Oracle General Ledger (GL) is the system of record for this information. Oracle Retail also stores and uses the GL accounts.

In E-Business Suite, the chart of accounts implies all the accounting segments and values such as chart of accounts, business unit, and setID. A chart of accounts includes account, department, operating unit, and other segments. The attributes under each segment can differ from those of other segments. For example, Account can have Account Number, Description, Account Type, and VAT Flag, and Department can have Department number, Description, and Manager.

Chart of accounts is manually synchronized from Oracle Payables to Oracle Retail. It is not synchronized automatically.

The chart of accounts is validated based on the currently chart of account. The most current active Chart of Account value row needs to be manually synchronized from Oracle GL to Oracle Retail.

The E-Business Suite system can also create future dated chart of accounts. These future dated charts of accounts need to be re-validated against E-Business Suite. Also, chart of accounts can be end-dated or disable. The chart of account will need to be manually re-validated.

After the chart of account segment mappings have been set up in both systems, a validation occurs for each Oracle Retail transaction ready to be transmitted to E-business Suite system

Synchronizing Financial Calendar Manually

The calendars are manually maintained in Oracle Retail and E-Business Suite; they are not automatically synchronized.

For more information, see the Oracle General Ledger Implementation Guide, Release 12.1.3.

Working with Cross-References

Cross-references maps and connects the records within the application network, and they enable these applications to communicate in the same language. The RFI application stores the relationship between applications in a persistent way so that others can refer to it. The following table lists the Oracle Retail to Oracle Financials RFI cross-references:

Working with Domain Value Maps (DVM)

Cross Reference Table – RFI_XREF_DVM Column: Category_Type	Retail Column Name RETL_ID	EBS Column Name – EXT_SYSTEM_ID	Description	Usage
PAYMENT_TERMS_XREF (manual sync)	Payment Term Value in Retail	Payment Term Value in EBS	Payment Term Id	Manual Sync
FREIGHT_TERMS_XREF (manual sync)	Freight Term Value in Retail	Freight Term Value in EBS	Freight Term Id	Manual Sync
ORG_ID_XREF	ORG_UNIT_ID in Retail	ORGANIZATION_ID value in EBS	Organization Unit	Manual Sync. EBS Table : HR_OPERATING_UNITS Retail Table: ORG_UNIT
SUPPLIER_XREF	Supplier Id in Retail	Supplier Id in EBS	Supplier Id	Xref value for Retail is Supplier. The value for EBS will be the VendorID. Populated during the supplier integration.
SUPPLIER_SITE_XREF	Supplier Site Id in Retail	Supplier Site Id in EBS	Supplier Site Id	Xref value for Retail is Supplier. The value for EBS will be the VendorSiteID .Populated during the supplier integration.

DVM's are tables containing mapping between related information in the participating applications. They enable you to equate lookup codes and other static values across applications, for example, FOOT and FT or US and USA. These DVM tables are maintained in the RFI layer. The RFI layer uses these DVM tables in transforming the messages from one system in the expected format of the other system.

DVM types are seeded for the Oracle Retail to Oracle Financials flows, and administrators can extend the list of mapped values by adding more maps. The DVM data should be synchronized with what the participating applications use. This synchronization should occur before any initial loads are run or any incremental transactional flows are initiated.

RFI uses the same table RFI_XREF_DVM to store XREF and DVM information, the differentiator is the CATEGORY_TYPE column.

Note: DVM and Xref (Manual Sync) is not pre-seeded, the values have to be entered manually as give in the sections below.

The following table lists the DVMs for the Oracle Retail to Oracle Financials RFI:

DVM Type	DVM Column Name	Comments
BUSINESS_UNIT_DVM	RETL_ID, EXT_SYSTEM_ID	This maps Oracle Retail's Set Of Books ID to Oracle GL business unit (Ledger Id). EBS Table : GL_LEDGERS Retail Table: FIF_GL_SETUP
COA_STATUS_DVM	RETL_ID, EXT_SYSTEM_ID	This is a hard coded DVM and should not be changed. This maps the EBS value of "TRUE" or "FALSE" to Oracle Retail's value of "valid" or "invalid".
ADDRESS_COUNTRY_DVM	RETL_ID, EXT_SYSTEM_ID	This maps the country codes between Oracle Retail and Oracle system.
CURR_CONV_TYPE_CODE_DVM	RETL_ID, EXT_SYSTEM_ID	This maps the Currency Conversion Types between Oracle Retail and Oracle system.
CURR_CODE_DVM	RETL_ID, EXT_SYSTEM_ID	This maps the currency codes between Oracle Retail and Oracle system.
LANGUAGE_CODE_DVM	RETL_ID, EXT_SYSTEM_ID	This maps the language code between Oracle Retail and E-Business Suite system. This DVM is used to determine which language to be sent the translatable fields to Oracle Retail.
COA_GLELEMENT_REIM_DVM COA_GLELEMENT_RESA_DVM COA_GLELEMENT_RMS_DVM	RETL_ID, EXT_SYSTEM_ID	Segment name mappings between Retail Requesting System and EBS The values are mapped like COA_GLELEMENT_<RequestingSystem>_DVM (fore.g if RMS is the requesting system, COA_GLELEMENT_RMS_DVM is used) lookup has the entry like < Set of Books ID >-SEGMENT1 for Retail value and < ChartOfAccountIdentification>-SEGMENT1 for the E-business suite value.
STATE_DVM	RETL_ID, EXT_SYSTEM_ID	This maps the state codes between Oracle Retail and Oracle Payables.
SUPPLIER_ADDRESS_TYPE_DVM	RETL_ID, EXT_SYSTEM_ID	This maps the supplier's address type between Oracle Retail and Oracle Payables. Order and Remittance Address type 04/06 in Retail to PURCHASING_SITE_FLAG/ PAY_SITE_FLAG in EBS
SUPPLIER_STATUS_CODE_DVM	RETL_ID, EXT_SYSTEM_ID	This maps the supplier's status between Oracle Retail and Oracle Payables. "I" for Inactive and "A" for Active status in both Retail and EBS
TAX_DVM	RETL_ID, EXT_SYSTEM_ID	This maps the Tax code (VAT) between Oracle Retail and EBS

The DVM/XREF table RFI_XREF_DVM has the following table structure:

Column Names	Description
CATEGORY_TYPE	<p>The DVM or XREF name.</p> <p>The below DVM/XREF are Static Values and should be manually entered. The XREF here are manually synchronized.</p> <ul style="list-style-type: none"> ▪ ADDRESS_COUNTRY_DVM ▪ BUSINESS_UNIT_DVM ▪ COA_GLELEMENT_REIM_DVM ▪ COA_GLELEMENT_RESA_DVM ▪ COA_GLELEMENT_RMS_DVM ▪ COA_STATUS_DVM ▪ CURR_CODE_DVM ▪ CURR_CONV_TYPE_CODE_DVM ▪ FREIGHT_TERMS_XREF ▪ LANGUAGE_CODE_DVM ▪ MAIL_INFO ▪ ORG_ID_XREF ▪ PAYMENT_TERMS_XREF ▪ RMS_GL_MSG_NOTIFICATION ▪ ReIM_AP_MSG_NOTIFICATION ▪ ReIM_GL_MSG_NOTIFICATION ▪ STATE_DVM ▪ SUPPLIER_ADDRESS_TYPE_DVM ▪ SUPPLIER_PRIMARY_SITE_FLAG_DVM ▪ SUPPLIER_STATUS_CODE_DVM ▪ TAX_DVM ▪ XREF values inserted by Supplier Integration Adapter ▪ SUPPLIER_XREF ▪ SUPPLIER_SITE_XREF
CATEGORY_TYPE_DESC	Description of the DVM or Xref
COMMON_ID	Common identifier for the record. Make sure the Common Id entered for DVM's are below 25000. The Integration Adapter uses database sequence RFI_XREF_SEQUENCE which starts from 25000.
RETL_ID	Retail value
EXT_SYSTEM_ID	EBS value
EXT_SYSTEM	External system name. Hardcode to "EBS".

Handling Errors

This section discusses how you can handle errors in the application.

Currency Exchange Rate, Supplier Information, GL Account Validation Integration Flows

The errors are logged in CurrencyRate.log, Supplier.log, GLAccount.log log files respectively. These log files are created in the Application Server where RFI application is deployed.

The logs can be viewed from the RFI Adapter Manager Screens. The RFI Adapter Manager can be accessed using the URL:

<http://<Application Server Name>:<Port>/<RFI Application Deployed Name>>

The following information is available in the logs

- DVM/XREF mapping not available
- Any error returned by Web service
- Any RFI application errors

ODI Interfaces

ODI interfaces log the messages in RFI_ODI_LOGS table in RFI Schema available in RFI database. If there are any transformation errors due to DVM/XREF, then the Retail Staging tables are updated with the following values and the number of records with transformation error is logged in the RFI_ODI_LOGS table.

Retail Staging Table	Column	Value
STG_FIF_GL_DATA	STATUS	TRANSFORM_ERROR
IM_FINANCIALS_STAGE	ODI_SESSION_NUM	-2
IM_AP_STAGE_HEAD	ODI_SESSION_NUM	-2
IM_AP_STAGE_DETAIL	ODI_SESSION_NUM	-2

Any other ODI errors during execution are logged in the RFI_ODI_LOGS table.

If there are any interface errors or transformation error records, an error notification is sent from RFI Adapter Manager to the To Email Address list specified during RFI deployment. The adapter logs can be viewed from the RFI Adapter Manager Screens. The RFI Adapter Manager screens can be accessed using the URL:

<http://<Application Server Name>:<Port>/<RFI Application Deployed Name>>

Global Logs

Global logs for Adapter Timers are logged in RfiGlobal.log file and can be viewed from the RFI Adapter Manager Screens. For more information about the errors generated by Oracle Retail or Oracle applications, see that product's documentation.

Understanding the RFI Administration User Interface

RFI provides an Administration UI where the Integration adapter timers could be started/stopped and also the logs can be viewed for the individual adapters. The RFI Administration user interface can be accessed using the URL:

<http://<Application Server Name>:<Port>/<RFI Application Deployed Name>>

Scheduling Adapters

Schedulers are created for the RFI Integration Adapters at the time of RFI Application deployment. The following adapter schedule can be updated by changing values of below mentioned properties configured at the time of deployment:

- Currency Rate
 - scheduler.currencyRate.timer.delyToStart
 - * Start time in minutes from the time of deployment or restart of Application Server.
 - scheduler.currencyRate.timer.interval
 - * Interval, the time between the initial run to the next run in minutes

Similarly, for:

- Supplier
 - scheduler.supplier.timer.delyToStart
 - scheduler.supplier.timer.interval
- ODI Error Mail Notification
 - scheduler.mail.timer.delyToStart
 - scheduler.mail.timer.interval

The adapters can be stopped/started from the RFI Adapter Manager Screens Logs. The errors are logged in CurrencyRate.log, Supplier.log, GLAccount.log log files respectively. These log files are created in the Application Server where the RFI application is deployed. The logs can be viewed from the RFI Adapter Manager Screens. The RFI Adapter Manager can be accessed using the URL:

<http://<Application Server Name>:<Port>/<RFI Application Deployed Name>>

ODI interfaces logs the messages in RFI_ODI_LOGS table in RFI Schema available in Retail Database. If there are any transformation errors due to DVM/XREF, then the Retail Staging tables are updated with the following values:

Retail Staging Table	Column	Value
STG_FIF_GL_DATA	STATUS	TRANSFORM_ERROR
IM_FINANCIALS_STAGE	ODI_SESSION_NUM	-2
IM_AP_STAGE_HEAD	ODI_SESSION_NUM	-2
IM_AP_STAGE_DETAIL	ODI_SESSION_NUM	-2

The logs can be viewed from the RFI Adapter Manager Screens. The RFI Adapter Manager can be accessed using the URL:


<http://<Application Server Name>:<Port>/<RFI Application Deployed Name>>

If there are any interface errors or transformation error records, the Error Notification is sent from RFI Adapter Manager to the To Email Address list specified during RFI deployment.

Global Logs

Global Logs for Adapter Timers are logged in RfiGlobal.log file and can be viewed from the RFI Adapter Manager screens.

RFI Adapter Manager Screen



ORACLE
RETAIL
RFI Integration Manager

[Welcome, rfadmin](#) [Logout](#)

RFI: Adapter Manager
Page Refreshed Thu Sep 12 2013 13:33:42 GMT-0500 (CDT).

[Home](#)
[Adapter Manager](#)
[RFI Application Logs](#)

Service Adapters

Name	Source	Destination	Status	Start / Stop	Start Time	View Log
CurrencyRate	EBS	RMS	↑	(Stop)	Thu Sep 12 13:31:43 CDT 2013	View Log
Supplier	EBS	RMS	↑	(Stop)	Thu Sep 12 13:31:43 CDT 2013	View Log
GLAccount	ReIM, RMS, ReSA	EBS	↑			View Log
RFI Error Email Notification	ReIM,RMS,EBS,RFI	Email	↑	(Stop)	Thu Sep 12 13:31:43 CDT 2013	View Log

Bulk Adapters

Name	Source	Destination	Description	Last Run	View Log
RMS To EBS - Account Entry	RMS	EBS		NO_LAST_RUN_DATA	View Log
ReIM To EBS - Account Entry	ReIM	EBS		NO_LAST_RUN_DATA	View Log
ReIM To EBS - Invoice Entry	ReIM	EBS		NO_LAST_RUN_DATA	View Log

[Home](#)
[Adapter Manager](#)
[RFI Application Logs](#)

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Configuring Web Service Security

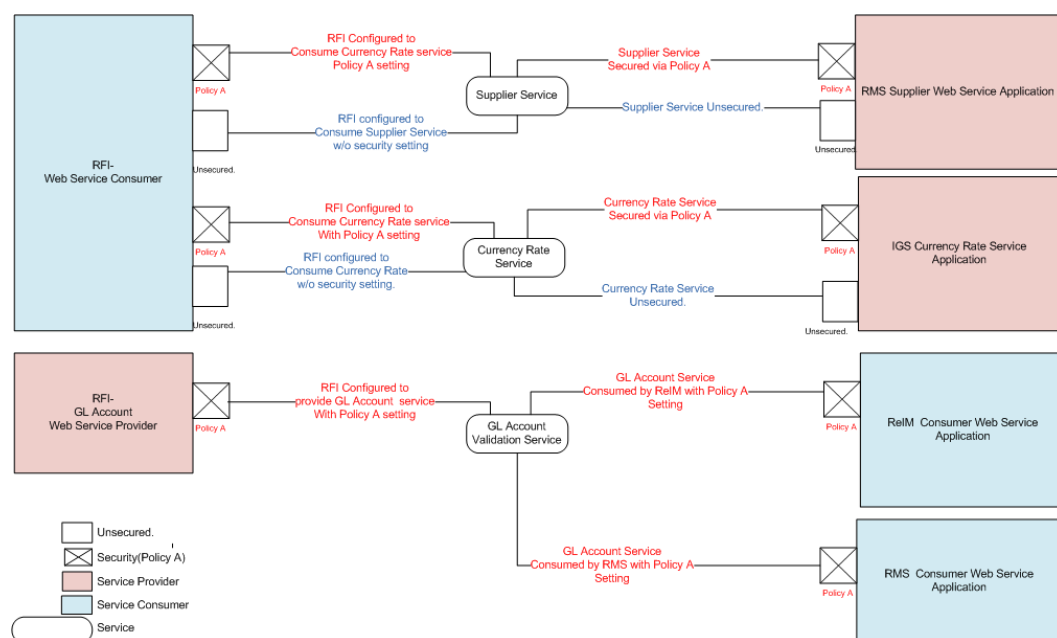
Web service providers are secured using security policies. There are many security policies available to use in the WebLogic server. When a service provider is secured with a particular policy, the service consumer will have to provide the required information (like username, password, certificate etc) for the provider to validate, authenticate and secure the service invocation. Two such security policy configurations are certified by Oracle for RFI. These are referred to as Policy A and an Unsecured policy in this document.

- Policy A is Username Token over HTTPS. The transport layer of the service invocation uses https for this policy. The consumers will have to provide the username and password for invoking the service.

For more information on configuring security, see the *Oracle Retail Services Backbone Security Guide*.

When RFI is a Web service consumer, either Policy A or Unsecured can be setup for the provider service. The consumer must be configured with corresponding Policy A or Unsecured setting. For example, if RMS supplier service is configured with policy A, the RFI Web service consumer should be configured to Policy A.

When the RFI acts as a Web service provider, only Policy A is supported in this release. For example, for GL Account validation Web service, supplied by RFI can be secured using only policy A; policy setting in RMS should be configured to use Policy A.



The above diagram shows the security configurations that are needed for web service providers and consumers. If RMS Supplier Web service is configured with Policy A

configuration then the corresponding RFI consumer should be configured to use Policy A.

The RFI GL account Web service can be configured with only Policy A. For invoking services over SSL, RFI will need to provide a username and password for authentication of the service. User credentials are recommended to be stored in Oracle credential wallets. These wallets should be accessible to service consumer.

RFI will also need to provide a username and password for user authentication with the service. User credentials are recommended to be stored in a wallet file.

RFI uses credential wallets, a password-protected container, for storing authentication information.