

Oracle® Retail Merchandising Cloud Services

Implementation Guide

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Oracle® Retail Merchandising Cloud Services Implementation Guide, Release 16.0.030

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- Does the structure of the information help you with your tasks?
- Do you need different information or graphics? If so, where, and in what format?
- Are the examples correct? Do you need more examples?

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Preface

This Oracle Retail Merchandising Foundation Cloud Services Implementation Guide provides a high-level view of how the Merchandising Operations Management applications integrate with each other. The guide includes the following:

- Chapters on Oracle Retail applications

These chapters provide an overview of the Merchandising Operations Management solutions. They provide a detailed look at how each application integrates with the other Merchandising Operations Management solutions, as well as the information passed back and forth between those applications (that is, the information the Oracle Retail Merchandising System) provides to other applications and the information other applications provide to Merchandising). These chapters also describe the users that must be created for each application as well as the security settings that these applications can employ.

Audience

The implementation guide is intended for the Oracle Retail Merchandising Operations Management applications integrators and implementation staff, as well as the retailer's IT personnel.

Documentation Accessibility

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- Product version and program/module name

- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

Review Patch Documentation

When you install the application for the first time, you install either a base release (for example, 16.0) or a later patch release (for example, 16.0.030). If you are installing the base release, additional patch, and bundled hot fix releases, read the documentation for all releases that have occurred since the base release before you begin installation. Documentation for patch and bundled hot fix releases can contain critical information related to the base release, as well as information about code changes since the base release.

Improved Process for Oracle Retail Documentation Corrections

To more quickly address critical corrections to Oracle Retail documentation content, Oracle Retail documentation may be republished whenever a critical correction is needed. For critical corrections, the republication of an Oracle Retail document may at times not be attached to a numbered software release; instead, the Oracle Retail document will simply be replaced on the Oracle Technology Network Web site, or, in the case of Data Models, to the applicable My Oracle Support Documentation container where they reside.

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

Oracle Retail product documentation is available on the following web site:

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

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Conventions

The following text conventions are used in this document:

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

Merchandising Cloud Services Suite

This chapter briefly describes each of the solutions in the Merchandising Cloud Services suite, which is made up of Oracle Retail Merchandising Foundation Cloud Service, Oracle Retail Pricing Cloud Service, Oracle Retail Invoice Matching Cloud Service, and Oracle Retail Allocation Cloud Service. The Oracle Retail Merchandising Foundation Cloud Service is made up of three major modules - Merchandising, Trade Management, and Sales Audit. These will all be referred to separately in this document. See the chapters that follow for more detailed descriptions.

Oracle Retail Merchandising

Merchandising is the foundation system that records and controls virtually all data in the retail enterprise and ensures data integrity across all integrated systems. Merchandising includes key functions such as item maintenance, inventory management, and replenishment. This functionality provides easy access to the information that is crucial to the day-to-day merchandising activities within a retail organization, providing the ability to focus on key decisions that help achieve sales and profit targets.

Merchandising streamlines business practices and unifies business systems across retail channels to better serve customers. Because Merchandising has been developed as a Web-based, scalable product, it fully supports the large volumes found in retail, leaving more time for retailers to concentrate on the bottom line.

Oracle Retail Trade Management

Oracle Retail Trade Management is an import management system designed to integrate and streamline the international trade transaction process. Trade Management links multiple departments together for all import functions. Trade Management provides immediate online visibility to the status, location, and disposition of products as they move through the import cycle.

Trade Management links partners in the supply chain-suppliers, agents, bank, transportation providers, freight consolidators, customs brokers-to share a constant flow of information needed to manage the movement of goods from the source to destination across international borders.

Because Trade Management is coupled with Merchandising, the import purchase order process also ties in with regular purchase order features such as open-to-buy, updating stock ledger, and inventory. Trade Management provides the facility to track and capture expenses incurred in the import process, and to apportion the expenses to the actual landed cost of the inventory. The application also provides letter of credit payment processing, which is typically used in import purchase orders.

Oracle Retail Sales Audit

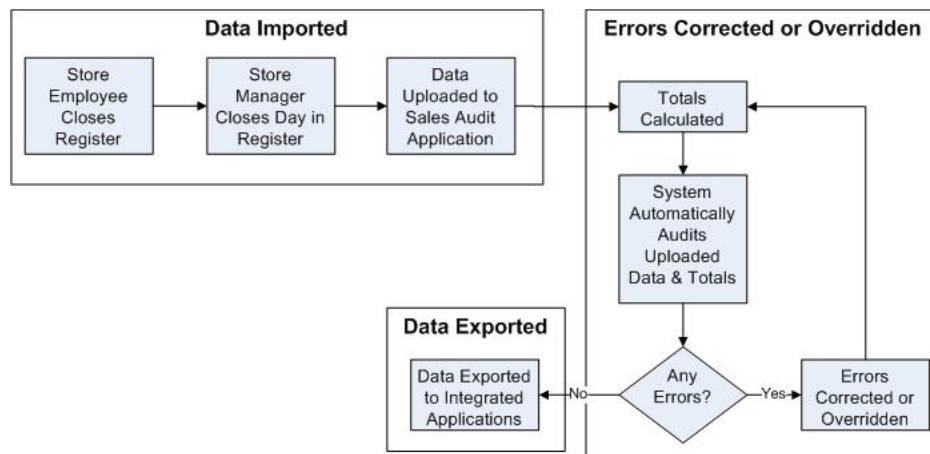
Sales Audit is an auditing system that provides a simplified sales audit process that accepts raw point of sale data and provides clean data to downstream applications, while ensuring integrity of audited data. The application supports automatic and interactive auditing of the sales data. The application supports automatic and interactive auditing of the Sales Data. The application is designed to focus on the exception conditions, while allowing clean data to flow through thus increasing productivity.

Flexibility is provided in the creation of user-defined rules and totals to configure exceptional conditions. User-defined audit rules fine-tune the system to focus validation on potential problem areas, and custom totals are created online for validation of calculations such as data entry or over/short.

Interactive audit functionality allows auditors to focus on exceptions and the audit to navigate through resolution to ensure a clean data load to the integrated applications. The application validates and balances the transactions and tender data, and detects and corrects the errors according to the predefined rules. The application allows sales balancing at store/register or cashier levels. The application helps identify, review, and resolve errors and irregularities in a timely manner.

The following diagram illustrates the audit process.

Figure 1–1 Information Maintained by Oracle Retail Sales Audit



Oracle Retail Pricing Cloud Service

Pricing Cloud Service is a configurable and flexible pricing solution designed to meet the varied needs of the retail industry. Pricing Cloud Service empowers retailers to streamline pricing strategies across the organization, yielding a more predictable and profitable outcome. It provides decision support through pricing-focused business information to validate and approve new retails and markdowns. This approach results in improved margins and strengthened productivity, all while remaining competitive.

Pricing Cloud Service supports the creation and management of price changes, clearances and promotions, integrating with the pricing execution systems, such as the POS in the store and e-commerce systems, to provide details on these events when approved.

Oracle Retail Allocation Cloud Service

A retailer's most important asset is its inventory. Oracle Retail Allocation Cloud Service helps retailers determine the inventory requirements at the item, store/warehouse, and week level using real time inventory information. The system calculates individual store or warehouse need based on parameters you set - whether it's the characteristics of the product, the location, or the category. The result is an allocation tailored to each destination location's unique need.

Oracle Retail Allocation Cloud Service allows you to allocate either in advance of the order's arrival or at the last minute to leverage real-time sales and inventory information. And when you do allocate, the system provides you the flexibility of basing your allocation on many different methods such as: merchandise sales plans, receipt plans, forecast demand and sales history.

Oracle Retail Invoice Matching Cloud Service

Invoice matching is a control procedure designed to ensure that the retailer pays the negotiated cost for actual quantities received.

Invoice Matching Cloud Service supports the invoice verification process with accuracy and efficiency, focusing resources on exception management. Invoice Matching Cloud Service accepts electronic invoice data uploads through Electronic Data Interchange (EDI) and provides rapid online summary entry of invoices. Invoice Matching Cloud Service supports automated and online processes that allow one or more invoices to be matched against one or more receipts. When the cost and quantities of an invoice are matched within tolerance, the invoice is ready for payment and staged to a table to be extracted to the accounts payable application.

If a cost or quantity difference between the invoice and receipts is outside tolerance, a discrepancy is recognized and must be resolved. A flexible resolution process allows cost and quantity discrepancies to be resolved together, and also supports mass resolution of items on an invoice, or even across multiple invoices for different suppliers. Reviewers can assign one or more reason codes that they are authorized to use to resolve the discrepancy.

Each reason code is associated with a type of action (for example, create chargeback or receiver cost adjustment). Many reason codes can be associated with a particular action type, allowing more granular reporting. Actions drive document creation and EDI downloads to suppliers, inventory adjustments, and accounting activities. Actions also allow an invoice to be extracted by a retailer and posted for payment.

Oracle Retail Merchandising Foundation Cloud Service

This chapter gives an overview of the information maintained by Merchandising Foundation Cloud Service and integration with other applications.

Information Maintained by Merchandising Foundation Cloud Service

Seed Data

Merchandising Foundation Cloud Service contains data that must be populated at the time of installation. Either the data is required by the application, or the data is static and can be loaded for any client. The code tables `CODE_HEAD` and `CODE_DETAIL` are examples of tables with system-required values that must be loaded at the time of installation. Additional codes can be added as needed to these tables after installation, by either using the online form or additional client scripts. Customization of the seed data is based on the client's requirements.

Additionally, some configuration tables must be populated for the application to open and function correctly, even though the configuration values can be modified later. These configurations are maintained in System Options set of tables, and are required for initial setup that can be updated prior to the implementation, to reflect final configuration.

Foundation Data

Foundation data is the base for all future information on which Merchandising Foundation Cloud Service builds. This information needs to be present before you begin using the system. The majority of foundation data can be set up online; more commonly, a client performs a data conversion process to import this information from legacy systems.

Foundation data consists of three types of information:

- Organizational hierarchy
- Merchandise hierarchy
- Supplier and partner management

Organization Hierarchy

The organizational hierarchy allows you to create maximum of six levels of hierarchy relationships to support the operational structure of your company.

In a Retail store, the customer walks through the store and buys, retailers procure goods from suppliers and the retailer acts as a customer. In a Franchise store, the retailer supplies goods to the franchise customers, the retailer acts as a supplier and tracks the sales.

You can create a preferred organizational structure to support consolidated reporting at various levels of the company. You can also assign responsibility for any level of the hierarchy to one or more people to satisfy internal reporting requirements.

The organizational hierarchy also supports two types of stores to satisfy the franchise requirements:

- Franchise
- Company

A company store acts as retail store in Merchandising.

The Franchise stores are used to support franchise business models. Other applications, such as RWMS, view franchise stores as they would view any other store in Merchandising Foundation Cloud Service; however, Merchandising Foundation Cloud Service performs special processing based on the store types.

Merchandise Hierarchy

The merchandise hierarchy allows you to create maximum of six levels of hierarchy relationships to support the product management structure of your company. You can assign a buyer and merchandiser at the division, group, and department levels of the merchandise hierarchy. You can also link a lower level to the next higher level. For example, you must indicate to which group a department belongs, or to which division a group belongs.

Supplier and Partner Management

A supplier supplies the merchandise and a partner is involved in other financial taxation that results in an invoice. Supplier and partner management provides functionality to create and store valid merchandise suppliers and partners. You can maintain a variety of information about suppliers such as financial arrangements, inventory management parameters, types of EDI transactions, and invoice matching attributes. Suppliers are typically created in a financial system and interfaced into Merchandising Foundation Cloud Service. Supplier enrichment can be maintained in Merchandising Foundation Cloud Service.

The supplier structure can be extended to supplier-parent and supplier-site relationships, to accommodate financial systems that support this configuration. A supplier site is a location from which the supplier ships merchandise.

Item Maintenance

Merchandising Foundation Cloud Service is responsible for the creation and maintenance of all items. Merchandising Foundation Cloud Service uses a flexible data hierarchy for an item, with levels that allow you to model items in a desired way. The hierarchy consists up to three levels, highest (level 1) to lowest (level 3). Within the defined levels for an item family, one level is denoted as the transaction level. This is the level at which all inventory and sales transaction takes place. This model gives retailers a flexibility to create families of items that share common characteristics.

Merchandising Foundation Cloud Service creates several types of items, such as regular items, deposit items, packs, concession items, consignment items, and transformable items.

Through item maintenance, Merchandising Foundation Cloud Service also maintains the relationships of items with other entities such as suppliers, locations, and attributes.

Purchasing

The Purchase Order module allows you to create and maintain purchase orders in a variety of ways. It provides commitments to vendors for products in specific amounts for specified locations. Purchase orders are created manually or automatically through replenishment or from an external system. They can be created against entered contracts and deals, or directly through direct store delivery or Vendor Managed Inventory (VMI). Merchandising also provides the ability to maintain the items, locations, and quantities ordered for Purchase Orders.

Contracts

The contract dialog gives you the ability to create, maintain, submit, and approve contracts. A contract is a legally binding agreement with a supplier to supply items at a negotiated cost.

In Merchandising Foundation Cloud Service, the contracting functions fit closely with the replenishment and ordering functions. The main functions of the Contracts window are to book manufacturing time, track supplier availability and commitments, and match them with business requirements. The main business benefit of contracting is to achieve supplier involvement during the planning phase of a retailer's business.

Deals

Deals management allows you to create and maintain deals with partners or suppliers. Deal partners can be suppliers, distributors, and manufacturers. Within a deal, clients create deal components, specify the items for each deal component, and define thresholds.

Components are deals or parts of deals that a retailer receives from a supplier. There can be multiple components in a single deal. You must define thresholds to define the quantity or amount that must be purchased or sold to receive the deal. Merchandising Foundation Cloud Service components include off-invoice deals, rebates, vendor-funded promotions, vendor-funded markdowns, and fixed deals.

You also define the items and locations for which the deal can be applied. You can choose to include or exclude locations as necessary.

You also define the Proof Of Performance (POP) terms for a deal. POP terms are defined by the deal vendor that offers the deal. For deals, POP terms are defined at the deal, deal/component, or deal/component/item-location combination. For fixed deals, POP terms are defined at the deal level.

The deal pass-through functionality allows a percentage of a deals discount to be passed from a warehouse to a franchise store. This functionality applies to franchise stores.

For clients that choose to use supplier sites with Merchandising Foundation Cloud Service, deals are managed at the supplier parent level.

Cost Management

For cost changes, the Cost Management dialog gives you the ability to:

- Accept cost changes received through EDI (flat files)
- Create a cost change
- Edit a cost change
- View a cost change

A cost change is an adjustment to the supplier cost of an item, either up or down. Before you create a cost change, you must create a list of user-defined cost change reasons and then apply a reason to each cost change. This is useful in reporting.

The initial cost of an item is established at item setup. The cost of the item is adjusted in the item record until the status of the item is Approved. After the item is approved, any cost changes needs to be handled through the cost change dialog.

When a cost change is submitted through EDI, the EDI cost change is reviewed and released to create a cost change document. The cost change document is then viewed and submitted for approval.

When a cost change document is created online, you enter the cost change, an event description, an effective date, and a reason code, and then submit the cost change for approval.

After a cost change is approved, the item/supplier cost record is updated. Any outstanding purchase order line items with no received units are recalculated, if recalculation is indicated on the cost change.

Additionally, you use the Cost Management dialog to create cost zone groups for zone-type expenses for item estimated landed cost. Zone-type expenses are incurred when imported goods are moved from the discharge port to the purchase order receiving location. Because the expenses can vary depending on the distance between the discharge port and the receiving location, cost zones can be configured to appropriately reflect the expenses. The locations (stores and physical warehouses) must be grouped to reflect the expense variances for moving the goods. Normally a zone strategy is used for these cost zone groups, but it is possible that every location within the company has different expenses to move the goods from the discharge port. If that is the case, a store strategy would be used. If every location within the company has the same transportation costs from the discharge port, a corporate strategy is adequate (but not when multiple currencies are being used). After these cost zone groups are defined, they are added to new items as they are created, in anticipation of the expense profiles that are needed for the items.

Estimated Landed Cost

Estimated landed cost is the total cost of an item received from a vendor inclusive of the supplier cost and all costs associated with moving the item from the supplier's warehouse or factory to the purchase order receiving location. Merchandising Foundation Cloud Service facilitates the setting up of various cost components, associating them to the purchase orders, calculating the estimated landed costs at the time of purchase order creation.

Estimated Landed Cost (ELC) is composed of cost components from the Supplier, Trading Partners, Item and Origin Country, which are brought together during Purchase Order (PO) creation to develop an estimate of costs associated with purchasing a particular item on the current PO.

Expenses

Expenses are direct and indirect costs incurred in moving a purchased item from the supplier's warehouse/factory to the purchase order receiving location. Expenses should not be confused with up charges, which allow add-on costs from an initial receiving location to a final retail location and are not part of the landed cost.

An example of a direct expense is the packing cost or insurance cost. Charges incurred for clearing and loading goods at the lading port are an example of indirect costs. Expenses are either added to the base inventory value or booked as a separate expense. Expenses apportioned to inventory affect the weighted average cost (WAC) of the item. Expenses can be assigned to a particular country, supplier, or partner. Expenses are tracked at country or zone levels, as the following defines.

Country Level Expenses

Country level expenses track the costs of bringing merchandise from the origin country, through the lading port, to the import country's discharge port. For example, track expenses for a silk blouse from China, through the lading port, Hong Kong, to the discharge port, Los Angeles.

Zone Level Expenses

Zone level expenses track the costs of bringing merchandise from the import country's discharge port to the purchase order receiving location. For example, track expenses for a silk blouse from discharge port, Los Angeles, through to the retailer's New York City warehouse and to the retailer's Chicago warehouse. Costs are different based on the final destination (for example, longer truck route, railroad).

Zones are defined using the Cost Zone dialog. When the zones are created they are used to define expenses at the supplier level (by zone) for default to items.

Multiple Set of Books

Support for multiple sets of books provides better integration with financials systems that supports Multiple Sets of Books within a single installation. Multiple Sets of Books option is enabled by default in Merchandising Foundation Cloud Service and the client will need to set up additional location-specific foundation data, including:

- Organizational units
- Transfer entities
- Set of books IDs

Inventory Control

Inventory functionality in Merchandising Foundation Cloud Service is the core of the application. Inventory is tracked perpetually and financially in Merchandising Foundation Cloud Service. The following describes perpetual inventory tracking. For information on financial inventory tracking, see Stock Ledger.

Merchandising Foundation Cloud Service achieves inventory control through functions that include transfers, Return to Vendor (RTV), Inventory Adjustments, Sales Upload, Purchase Order Receipts (shipments), Stock Counts, Allocations, Franchise Orders and Returns, and Customer Orders.

Transfers

Transfers in Merchandising Foundation Cloud Service provide an organized framework for monitoring the movement of stock. Merchandising Foundation Cloud Service creates and maintains transfers; however, you can also interface transfer information into Merchandising Foundation Cloud Service from other systems.

Merchandising Foundation Cloud Service supports a number of different types of transfers such as intercompany transfers, book transfers, Purchase Order-linked transfers, externally generated transfers, customer orders and franchise order. Transfer functions also support the movement of one or more items between two internal Merchandising Foundation Cloud Service locations, and multi-leg transfers in which the intermediate location is considered a finisher location. Finishers are locations where work is performed on merchandise, such as dyeing fabric and attaching labels.

Mass return transfers are used to reallocate merchandise to locations or to return merchandise to the supplier.

Returns to Vendor

Return to Vendor (RTV) transactions are used to send merchandise back to a vendor. The RTV transaction in Merchandising Foundation Cloud Service allows one or more items to be returned to a single vendor. For each transaction, the items, quantities, and costs are specified. Upon shipment out of a location, inventory is removed from the stock on hand.

RTVs are created manually in Merchandising Foundation Cloud Service or imported from an external system. Merchandising Foundation Cloud Service also provides the ability to maintain RTVs. Shipped RTVs create a debit memo or credit note request (based on supplier configuration) in the invoice matching staging table in Merchandising Foundation Cloud Service, for export to Oracle Retail Invoice Matching Cloud Service.

Inventory Adjustments

Inventory adjustments are used to increase or decrease inventory to account for events that occur outside the normal course of business (for example, receipts, sales, stock counts). Inventory adjustments are created in Merchandising Foundation Cloud Service or imported from an external system (store or warehouse application). Merchandising Foundation Cloud Service supports two types of inventory adjustments; stock on hand or unavailable inventory. Inventory adjustments can also be created by locations for multiple items, by item for multiple locations, or through a product transformation for a specific location.

Note: The following Inventory Adjustment Reason Codes are required by Merchandising Foundation Cloud Service and cannot be deleted unless the noted functionality is not utilized:

- Reason Code 1 - Used for wastage adjustments
- Reason Code 2 - Used for adjustments against processed stock counts
- Reason Code 13 - Used for inventory adjustment for unavailable receipts
- Reason Code 190 - Used for inventory adjustments related to 'destroy on receipt' situations for Wholesale and Franchise
- Reason Code 191- Used for Customer Returns without inventory

Additionally, reason codes must be synchronized between SIM and WMS, or any other system communicating inventory adjustments to Merchandising Foundation Cloud Service.

Purchase Order Receipts (Shipments)

Purchase order receipts (Shipments) record the increment to on-hand when goods are received from a supplier. Weighted average cost (WAC) is recalculated at time of receipt using the PO landed cost. Transaction audit records are created for financial audit, and the receiver is made available for invoice matching.

Stock Counts

Stock counts are the processes by which inventory is counted in the store and compared against the system inventory level for discrepancies. Merchandising supports two types of stock counts:

- Unit Stock Counts: These adjust the on hand quantities for the item-locations affected and create an inventory adjustment transaction for the stock ledger.
- Unit and Value stock counts: These adjust the on hand quantities for the item-locations affected and adjust the stock ledger to the results of the stock count.

Replenishment

Automated replenishment constantly monitors inventory conditions. Based on inventory conditions, purchase orders or transfers are created to fulfill consumer demand.

Automated replenishment parameters are set up at the supplier, supplier/department, and supplier/location or supplier/department/location level. These parameters include:

- Review cycle and order control
- Due order processing
- Investment buy attributes
- Scaling constraints
- Rounding attributes
- Supplier minimums
- Truck splitting constraints

Items can be set up for automated replenishment through the Item Maintenance dialog, either individually or through item lists.

Automated replenishment also supports different methods to determining whether purchase orders are created and quantities ordered. These replenishment methods are applied at the item/location.

- Constant is a stock-oriented method in which the item is replenished when the inventory level falls below a specified level.
- Min/Max is a stock-oriented method in which the item is replenished up to the maximum when the inventory level falls below a specified minimum stock level.
- Floating Point is a stock-oriented method in which the item is replenished when the inventory level falls below a dynamic system-calculated maximum stock level.
- Time Supply is a stock-oriented method in which replenishment is based on the number of days of supply for the item a retailer wants in inventory. The Time Supply method requires a forecasting system.
- Time Supply Seasonal is the same as Time Supply, but it takes seasonality and terminal stock into account. The Time Supply Seasonal method requires a forecasting system.
- Time Supply Issues is used only by warehouses, this is the same as Time Supply, but it uses warehouse issues forecast rather than store sales forecast. The Time Supply Issues method requires a forecasting system.
- Dynamic is a method that controls inventory using dynamic calculations of order point and order quantities based on a number of factors, including forecast sales over order lead time, review lead time, inventory selling days, lost sales factor, and safety stock. The Dynamic method requires a forecasting system.
- Dynamic Seasonal is the same as Dynamic, but it takes seasonality and terminal stock into account. The Dynamic Seasonal method requires a forecasting system.
- Dynamic Issues is used by warehouses only, this is the same as Dynamic, but it uses warehouse issues forecast rather than store sales forecast. The Dynamic Issues method requires a forecasting system.
- Store Orders is a method that allows replenishment to look at the store order need quantity when determining the recommended order quantity.

Franchise Management

The Franchise Management allows the retailer to manage their franchise business in the following scenarios:

- **Retailer owns and manages the inventory for a franchise location.**

In this case, the franchise customer (location) needs to be set up as stockholding stores in Merchandising Foundation Cloud Service, with a store type as Franchise. A stockholding franchise store functions similar to a company store with locations of inventory transactions such as Replenishment, Allocation, Stock Counts and Inventory Adjustments being allowed for such stores in Merchandising Foundation Cloud Service. The main differences in these stores are, the way in which the orders are captured and accounted financially.

- **Retailer does not own or manage inventory for a franchise location.**

Here the retailer does not manage the inventory for a franchise location or wherein the wholesale operations constitute a small fraction of the retailers business and thus does not warrant a separate Order Management System Cloud Service.

In both these scenarios, non-stockholding stores must be setup in Merchandising Foundation Cloud Service to represent these franchise (or wholesale) customers.

Franchise Pricing

Franchise pricing determines the price that is charged on a franchise partners for an item. Pricing for these stores is maintained in the future cost table. The pricing for franchise locations are determined by setting up cost templates in Merchandising Foundation Cloud Service and associating these templates with an item or a franchise location. Franchise pricing includes any landed costs and applicable deals through deal pass-through to the final pricing.

The user has an option to override the future cost franchise price and instead define a fixed price to be charged for an item for manually or through the batch upload orders.

Franchise Ordering

Franchise store can source the merchandise from company locations (Warehouse or Store) or from a supplier. The franchise order can be initiated manually using the franchise order form or by an batch upload process using flat file received from an external application. The franchise order created using the flat file also creates a purchase order for supplier sourced and transfers for company location sourced orders.

In addition, franchise order gets initiated in response to any inventory transaction process where the receiving location is a franchise store and the sending location is a company location or supplier. Some of these inventory transactions are Replenishment Requests, Allocation, Store Orders, Items requests; AIP generated Purchase Orders or Transfers, and externally generated transfers.

Franchise Returns

Franchise stores returns the items back to the company location (warehouse or store). Item return from a franchise store directly to the supplier is not allowed. The franchise returns can either be a physical return to the company location or can be a book return. Book Return is possible when the item is destroyed at the site, in such scenario the inventory is not physically returned but can be financially accounted.

The franchise return can be initiated manually using the franchise return form or by batch upload process using flat file received from an external application. Franchise returns results in creating a transfer to track the inventory movement.

In addition, franchise returns gets created in response to any inventory transaction where the sending location is a franchise store and receiving location is a company location. Some of these processes are AIP or externally generated transfers.

Stock Ledger

The stock ledger in Merchandising Foundation Cloud Service records the financial results of the merchandising processes such as buying, selling, price changes, and transfers. All of these transactions are recorded in the Merchandising Foundation Cloud Service stock ledger and rolled up to the subclass/location level for days, weeks, and months, depending on calendar settings. The aggregate levels in the stock ledger are used to measure inventory amounts and merchandise profitability. The stock ledger is mainly used for reporting purposes; however, there is some online visibility as well.

The stock ledger supports multiple currencies. All transaction-level information is stored in the local currency of the store or warehouse where the transaction occurred.

As transaction-level information is rolled up to the aggregated levels in the stock ledger, records are kept in local currency and converted to primary currency. This allows corporate reporting to be performed in the primary currency of the company, while still providing visibility by location to the profitability in the local currency.

The stock ledger supports both the retail and cost methods of accounting. The cost method can use standard cost or average cost, depending on how the system is configured. The stock ledger supports both the retail (4-5-4) and the normal (Gregorian) calendar. If the retail calendar is used, data is maintained by the 4-5-4 month and the week. If the normal calendar is used, data is maintained only by the Gregorian month. Data can also be maintained daily using the retail (4-5-4) or normal (Gregorian) calendar.

Merchandising Foundation Cloud Service supports multiple sets of books. Clients that use multiple sets of books assign Merchandising Foundation Cloud Service locations to a particular set of books defined in an external financial system. Changes to the stock ledger affect the set of books with which a particular transaction is associated.

Investment Buy

Investment buy facilitates the process of purchasing inventory in excess of the replenishment recommendation in order to take advantage of a supplier deal or to leverage inventory against a cost increase. The inventory is stored at the warehouse or in outside storage to be used for future issues to the stores. The recommended quantity to investment buy, that is, to order, is calculated based on the following:

- Amount of the deal or cost increase
- Upcoming deals for the product
- Cost of money
- Cost of storage
- Forecasted demand for the product, using warehouse issue values calculated by Oracle Retail Demand Forecasting
- Target return on investment (ROI)

The rationale is to purchase as much product as profitable at the lower cost and to retain this profit rather than passing the discount on to customers and stores. The determination of how much product is profitable to purchase is based on the cost savings of the product versus the costs to purchase, store and handle the additional inventory.

Investment buy eligibility and order control are set at one of these four levels:

- Supplier
- Supplier-department
- Supplier-location (warehouse locations only)
- Supplier-department-location

Warehouses must be enabled for both replenishment and investment buy on Merchandising Foundation Cloud Service WH (warehouse) table.

The investment buy opportunity calculation takes place nightly during the batch run, after the replenishment need determination, but before the replenishment order build. The investment buy module IBCALC.PC attempts to purchase additional inventory beyond the replenishment recommendation in order to achieve future cost savings. Two distinct events provide the incentive to purchase investment buy quantities:

- A current supplier deal ends within the look-ahead period.
- A future cost increase becomes active within the look-ahead period.

The calculation determines the future cost for a given item-supplier-country-location for physical warehouse locations only.

If the order control for a particular line item is buyer worksheet, it might be modified in the buyer worksheet dialog, and can be added to either new or existing purchase orders.

Merchandising Foundation Cloud Service Integration with Other Applications

Merchandising Foundation Cloud Service provides essential information to all of the Oracle Retail Merchandising Operations Management applications (Sales Audit, Trade Management, Invoice Matching Cloud Service, Allocation Cloud Service), and interacts with all of them. Merchandising Foundation Cloud Service exists on the same database schema as all of the other applications, which provides flexibility in how information is shared between Merchandising Foundation Cloud Service and the other Oracle Retail Merchandising Operations Management applications.

Information is shared with other Oracle Retail Merchandising Operations Management applications through direct reads from Oracle Retail Merchandising Operations Management application tables, calls to Oracle Retail Merchandising Operations Management application packages and batch processes.

Merchandising Foundation Cloud Service and Trade Management

Trade Management and Merchandising Foundation Cloud Service share the same database instance. When Trade Management is enabled in a Merchandising Foundation Cloud Service instance, certain import-specific data maintenance is required for country, supplier, partners and items. These are directly updated into the Merchandising Foundation Cloud Service database and subsequently used in Trade Management.

Merchandising Foundation Cloud Service and Sales Audit

Sales Audit and Merchandising Foundation Cloud Service share the same database. Sales Audit shares some of its master data with Merchandising Foundation Cloud Service data such as stores a company/location close dates, location traits, bank setup and tender types are maintained in Merchandising Foundation Cloud Service and used in Sales Audit.

Sales Upload Process

Current reference data is retrieved from Merchandising Foundation Cloud Service into Sales Audit by the batch program SAGETREF. The data is extracted into multiple data files. The data in the files is used by the batch program SAIMPTLOG as reference data for doing validation checks on the POS/OMS transaction data during the data upload to Sales Audit. Having the reference in data file formats increases the performance of the SAIMPTLOG process. SAGETREF generates the following reference files:

- Items
- Wastage
- Sub-transaction level items

- Primary variant relationships
- Variable weight PLU
- Store business day
- Code types
- Error codes
- Store POS
- Tender type
- Merchant code types
- Partner vendors
- Supplier vendors
- Employee IDs
- Banner IDs

Along with the reference files, the following files are generated:

- Currency File - This file contains valid currency codes in Merchandising Foundation Cloud Service.
- Warehouse File - This file contains valid physical warehouses from Merchandising Foundation Cloud Service.
- Inventory Status File - This file contains valid inventory status values from Merchandising Foundation Cloud Service.

All clean and audited sales and returns data is extracted from Sales Audit into a POSU file by the batch program SAEXPRMS. All sale and return transactions that do not have Merchandising Foundation Cloud Service errors are extracted into the file. The sales audit system options parameter work unit controls the export of data into files in case of the presence of Merchandising Foundation Cloud Service errors in the POS/OMS transaction data. The shell scripts UPLOADSALES.KSH and SALESPROCESS.KSH will load the data from the POSU file into the Merchandising Foundation Cloud Service tables.

Merchandising Foundation Cloud Service and Allocation Cloud Service

Merchandising Foundation Cloud Service provides the following to Allocation Cloud Service:

- Foundation Data is essential to all areas of Allocation Cloud Service including valid locations to allocate to and from, location groupings, and valid merchandise hierarchies to allocate within. It also receives Supplier, Season, Phase and UDA information from the Merchandising Foundation Cloud Service.
- Item-Allocations are generated at the item location level so it is necessary that the Allocation Cloud Service application has complete visibility to items and item/locations combinations that are present in the system.
- Purchase Order-One of the sources from which a user can allocate. Allocation Cloud Service relies on Merchandising Foundation Cloud Service to provide Purchase Order information.
- Transfer-One of the sources from which a user can allocate. Allocation Cloud Service relies on Merchandising Foundation Cloud Service to provide Transfer information.

- Bill Of Lading (BOL)-One of the sources from which a user can allocate. Allocation Cloud Service relies on Merchandising Foundation Cloud Service to provide BOL information.
- Advance Shipment Notices (ASN)-One of the sources from which a user can allocate. Allocation Cloud Service relies on Merchandising Foundation Cloud Service to provide ASN information.
- Inventory-In order to determine the correct need at an item location level before performing an allocation the application needs visibility to the current on hand inventory at each location being allocated to. Allocation Cloud Service relies on Merchandising Foundation Cloud Service to provide inventory information at the item/location level.
- Sales Information-Allocation Cloud Service can use historical sales, forecasted sales, and plan sales in order to determine the need at an item/location level for an allocation. Allocation Cloud Service interfaces this information in from external planning system to an Allocation Cloud Service table.

Allocation Cloud Service provides the following to Merchandising Foundation Cloud Service:

- Allocations- When the allocations is moved to Approved or Reserved status, the Allocation is written to RMS tables to give visibility to the allocation results.
- Purchase Orders created by What-If process in Allocation-The client can create a simulated allocation based on current need and then automatically create a purchase order from that Allocation in RMS to fulfill that need. Allocation uses an RMS API to build the purchase order in RMS.

Invoice Matching Cloud Service provides the following to Merchandising Foundation Cloud Service:

- Invoice Matching Cloud Service results for shipments-Shipment records are updated with the invoice matching results from the invoice match process (this involves updating the match status and quantity matched of the shipments in question). The matching process is handled by the AutoMatch batch process in Invoice Matching Cloud Service which attempts to match all invoices in ready-to-match or unresolved status.
- Receiver Cost Adjustments-An API is executed when invoice matching discrepancies are resolved through a receiver cost adjustment. The API updates the purchase order, shipment, and potentially the item cost in Merchandising Foundation Cloud Service, depending on the reason code action used.
- Receiver Unit Adjustments-An API is executed when invoice matching discrepancies are resolved through a Receiver Unit Adjustment. The API updates the purchase order and shipment in Merchandising Foundation Cloud Service to complete the transaction.
- Closing unmatched shipments-Invoice matching closes the invoice matching status for shipments in Merchandising Foundation Cloud Service after a set period of time (defined by the client in system options). This updates the invoice matching status of the shipment on the shipment table in Merchandising Foundation Cloud Service. This process is managed by the ReceiptWriteOff batch program.

Merchandising Foundation Cloud Service and Xstore Office/Xstore Point of Service

Merchandising provides the following to Xstore Office/Xstore Point of Service:

- Foundation Data - This data is essential to the Xstore Office/Xstore Point of Service suite functionality. This includes the following:
 - Full organizational hierarchy to support functionality such as rolling out new keyboard configurations by region, etc.
 - Stores including their addresses
 - Full merchandise hierarchy to support Xstore Office/Xstore Point of Service reporting. functionalities.
 - Differentiators and differentiator groups to support functionality such as looking up a SKUs by style/color.
- Item - Item information is generated at both the corporate and location level specific files and is sent to the Xstore Office/Xstore Point of Service application. Item information being sent includes the Item header, Item/Location, VAT Item, and Related Item information.

Note: The Merchandising Foundation Cloud Service interfaces can integrate with other third party Point of Sale applications.

Dynamic Hierarchy

The hierarchy terms used by Merchandising Foundation Cloud Service like department or class may not be the terms used by the retailer to call the merchandise hierarchy. They may be referring to these levels as Category and Sub-Category. The dynamic hierarchy capability of Merchandising Foundation Cloud Service allows retailers to configure at install time 15 hierarchy terms.

The UI labels and message along with code_detail description and rtk_errors message have tokens like @MHP4@ which refers to Department. The mapping of tokens to the default Merchandising Foundation Cloud Service terms and to custom client's terms is maintained in the table dynamic_hier_token_map and this table is loaded during installation using the script dynamic_hier_token_map.sql. During the installation process, the tokens in ADF bundle files inside the application ear and the tokens in code_detail and rtk_errors tables gets replaced with a client provided value for these tokens. If the client provided value is not available, the tokens get replaced with the Merchandising Foundation Cloud Service default value.

Note: The dynamic hierarchy support in the previous version was carried out by run-time token replacement in the strings. The token replacement now happens during install and patch time to avoid performance overhead for every message and label during runtime.

If the retailer wants to use to use the dynamic hierarchy capability to use different terms to refer to the hierarchy terms, they should update the script dynamic_hier_token_map.sql with their client value of the token as a pre-installation step. The dynamic hierarchy strings can be changed post installation by updating the client value in the dynamic_hier_token_map table and running the installation again to replace the tokens with the new value for client value.

The list of dynamic hierarchy tokens and its default terms are listed below.

Token	Default Value	Token	Default Value
@COM@	Country Of Manufacture	@COMN@	Countries Of Manufacture
@MH2@	Division	@MHP2@	Divisions
@MH3@	Group	@MHP3@	Groups
@MH4@	Department	@MHP4@	Departments
@MH5@	Class	@MHP5@	Classes
@MH6@	Subclass	@MHP6@	Subclasses
@OH1@	Company	@OHP1@	Companies
@OH2@	Chain	@OHP2@	Chains
@OH3@	Area	@OHP3@	Areas
@OH4@	Region	@OHP4@	Regions
@OH5@	District	@OHP5@	Districts
@SUH1@	Manufacturer	@SUHP1@	Manufacturers
@SUH2@	Distributor	@SUHP2@	Distributors
@SUH3@	Wholesaler	@SUHP3@	Wholesalers
@SUH4@	Franchise	@SUHP4@	Franchisee

Note: The dynamic hierarchy is translation supported and the translation entries are maintained in `dynamic_hier_token_map_tl` table. The installation token replacement replaces the tokens by language in `code_detail_tl`, `rtk_errors_tl` and the language bundle files in the application ear.

Operational Insights

Oracle Retail Operational Insights dashboards and reports provide pervasive business intelligence. To provide a seamless user experience, they are designed to be embedded within Merchandising Foundation Cloud Service application.

The `RMS_OI_SYSTEM_OPTIONS` table drives the configuration parameters for Operational Insights Dashboards and reports. Default values are populated by seed data script during installation and can be changed later according to the customer requirements. Values for these parameters can also be defined at Department level using the `RMS_OI_DEPT_OPTIONS` table. Department level values take precedence over the system level configuration.

Report Name	System Option	Definition	Column Name	Department Level?
Cumulative Markon Variance	Variance threshold	A count of subclass/locations with variance higher than this number would result in tile turning Yellow or Red.	FA_CUM_MARKON_VAR_CRITICAL_CNT	No

Report Name	System Option	Definition	Column Name	Department Level?
Cumulative Markon Variance	Minimum Variance %	Configuration used to compare the CMO % of displayed month to the department budgeted intake %.	FA_CUM_MARKON_MIN_VAR_PCT	Yes
Early/Late Shipments	Beginning of Week to Estimated Arrival Date Duration	Number of days between beginning of week and Estimated Arrival Date to determine if an order qualifies as an OTB Shift In issue.	B_NUM_DAYS_BOW_EAD	No
Early/Late Shipments	Estimated Arrival Date to Open to Buy Date Duration	Number of days between Estimated Arrival Date and OTB End of Week date to determine if an order qualifies as an OTB Shift Out issue.	B_NUM_DAYS_EAD_OTB	No
Early/Late Shipments	Not After Date to End of Week Duration	Number of days between Not After Date and End of Week Duration.	B_NUM_DAYS_NAD_EOW	No
Early/Late Shipments	Display OTB for Reports	This configuration allows the user to decide whether OTB should be shown in reports.	B_OTB_IND	No
Incomplete Items	Dimensions	Possible Values: Required, Optional and No. This will determine whether the report will show dimension details.	DS_SHOW_INCOMP_ITEM_DIMEN	Yes
Incomplete Items	HTS	Possible Values: Required, Optional and No This will determine whether the report will show item HTS details.	DS_SHOW_INCOMP_ITEM HTS	Yes
Incomplete Items	Images	Possible Values: Required, Optional and No This will determine whether the report will show item image details.	DS_SHOW_INCOMP_ITEM_IMAGES	Yes

Report Name	System Option	Definition	Column Name	Department Level?
Incomplete Items	Import Attributes	Possible Values: Required, Optional and No This will determine whether the report will show item import details.	DS_SHOW_ INCOMP_ITEM_ IMP_ATTR	Yes
Incomplete Items	Locations	Possible Values: Required, Optional and No This will determine whether the report will show Location details.	DS_SHOW_ INCOMP_ITEM_ LOC	Yes
Incomplete Items	Minimum days past item creation	Specifies number of days post creation of items after which the item will appear in this report.	DS_DAYS_ AFTER_ITEM_ CREATE	Yes
Incomplete Items	Reference Items	Possible Values: Required, Optional and No This will determine whether the report will show reference item details.	DS_SHOW_ INCOMP_ITEM_ REF_ITEM	Yes
Incomplete Items	Related Items	Possible Values: Required, Optional and No This will determine whether the report will show related item details.	DS_SHOW_ INCOMP_ITEM_ REL_ITEM	Yes
Incomplete Items	Replenishment	Possible Values: Required, Optional and No This will determine whether the report will show replenishment details.	DS_SHOW_ INCOMP_ITEM_ REPL	Yes
Incomplete Items	Seasons / Phases	Possible Values: Required, Optional and No This will determine whether the report will show seasons/phases details.	DS_SHOW_ INCOMP_ITEM_ SEASONS	Yes

Report Name	System Option	Definition	Column Name	Department Level?
Incomplete Items	Simple Packs	Possible Values: Required, Optional and No This will determine whether the report will show Simple Pack details.	DS_SHOW_ INCOMP_ITEM_ SPACK	Yes
Incomplete Items	Substitute Items	Possible Values: Required, Optional and No This will determine whether the report will show substitute details.	DS_SHOW_ INCOMP_ITEM_ SUBS_ITEM	Yes
Incomplete Items	Tickets	Possible Values: Required, Optional and No This will determine whether the report will show ticketing details.	DS_SHOW_ INCOMP_ITEM_ TICKETS	Yes
Incomplete Items	UDAs	Possible Values: Required, Optional and No This will determine whether the report will show UDA details.	DS_SHOW_ INCOMP_ITEM_ UDA	Yes
Incomplete Items	VAT	Possible Values: Required, Optional and No This will determine whether the report will show VAT details.	DS_SHOW_ INCOMP_ITEM_ VAT	Yes
Inventory Variance to Forecast	Low Lower Inventory Variance %	Specifies the lower limit of the lower threshold range which will limit the items returned in the table based on the inventory variance percentage for an item to the forecasted value.	IA_VARIANCE_ RANGE_PCT_2	No
Inventory Variance to Forecast	Low Upper Inventory Variance %	Specifies the lower limit of the upper threshold range which will limit the items returned in the table based on the inventory variance percentage for an item to the forecasted value.	IA_VARIANCE_ RANGE_PCT_4	No

Report Name	System Option	Definition	Column Name	Department Level?
Inventory Variance to Forecast, Order Alerts	Filter Location Type	Specifies if the user wants to see the inventory variance at the area level or at a store grade level.	IA_VARIANCE_RANGE_PCT_1	No
Inventory Variance to Forecast	High Lower Inventory Variance %	Specifies the upper limit of the lower threshold range which will limit the items returned in the table based on the inventory variance percentage for an item to the forecasted value.	IA_VARIANCE_RANGE_PCT_2	No
Inventory Variance to Forecast	High Lower Inventory Variance %	Specifies the upper limit of the lower threshold range which will limit the items returned in the table based on the inventory variance percentage for an item to the forecasted value.	IA_STORE_GRADE_OR_AREA_IND	No
Late Posted Transactions	Transaction Variance Threshold	If the count of late transactions per location is greater than this number the tile color will change to Yellow or Red.	FA_LATE_POST_THRESHOLD_TRN_CNT	No
Late Posted Transactions	Location Count threshold	If the count of locations with late transaction is greater than this number the tile color will change to Yellow or Red.	FA_LATE_POST_THRESHOLD_LOC_CNT	No
Late Posted Transactions	Organizational Hierarchy Display Level	Configuration to define the level of organization hierarchy that the chart should display on its Y axis.	FA_LATE_POST_ORG_HIER_LEVEL	No
Negative Inventory	Quantity Threshold	Indicates the count per item/location below which the item/loc should appear in this report.	IC_NEG_INV_TOLERANCE_QTY	Yes

Report Name	System Option	Definition	Column Name	Department Level?
Unexpected Inventory	Item/Location Critical Count	A count of locations with unexpected inventory that is higher than this number would result in the related tile turning Red in the dashboard.	IC_UNEXP_INV_CRITIAL_COUNT	No
Unexpected Inventory	Item/Location Warning Count	A count of locations with unexpected inventory that is higher than this number would result in the related tile turning Yellow in the dashboard.	IC_UNEXP_INV_WARN_COUNT	No
Order Alerts	Include Factory Check	This option will control whether or not to check if a Factory has been associated with the order.	IA_ORD_ERR_FACTORY_IND	No
Order Alerts	Validate Reference Items	This option will control whether or not to check for the existence of at least one Reference item for each item on the Order.	IA_ORD_ERR_REF_ITEM_IND	No
Orders Pending Approval	Show Worksheet Orders	Determines whether orders in worksheet status will be shown in the report for approval.	B_PO_PENDING_APPROVAL_LEVEL	No
Overdue Shipments	Past Expected Receipt Date	Number of days since the transfer, allocation or RTV should have been received into a location, beyond which the transfer, allocation or RTV should be shown in the reports.	IC_OVERDUE_SHIP_DAYS	No
Shrinkage Variance	Maximum Variance %	Will be used to determine the color of the tile (Red).	FA_SHRINKAGE_VAR_MAX_PCT	No

Report Name	System Option	Definition	Column Name	Department Level?
Shrinkage Variance	Variance Count	Will be used to determine the color of the tile along with the variance value.	FA_SHRINKAGE_VAR_CRITICAL_CNT	No
Shrinkage Variance	Variance Tolerance %	Define the tolerance outside of which if the variance between budgeted shrinkage and actual shrinkage falls, that subclass/location will be shown in the report.	FA_SHRINKAGE_VAR_TOLERANCE_PCT	No
Stock Count Unit Variance	Variance Threshold %	Variance percent above or below what was expected on a count which determine if a location should appear on the report.	FA_STK_CNT_VALUE_TOLERANCE_PCT	No
Stock Counts Missing	Stock Count Location Exception Count	This will determine whether the tiles for the applicable report is green, yellow, or red.	IC_MISS_STK_COUNT_CRIT_CNT	No
Stock Count Unit Variance	Stock Count Unit Location Exception Count	This will determine whether the tiles for the applicable report is green, yellow, or red.	IC_STK_COUNT_VAR_LOC_CNT	No
Stock Count Value Variance	Stock Count Value Location Exception Count	This will determine whether the tiles for the applicable report is green, yellow, or red.	FA_STK_CNT_VALUE_VAR_CRIT_CNT	No
Stock Orders Pending Close	Past Receipt Date	Number of days since the transfer or allocation was received but is not yet closed, beyond which it should appear in this report.	IC_STKORD_CLS_PEND_CRIT_DAYS	No
Transfers Pending Approval	Stock Order Exception Count	This will determine whether the tiles for the applicable report is green, yellow, or red.	IC_TSF_APPRV_PEND_CRITIAL_CNT	No

Report Name	System Option	Definition	Column Name	Department Level?
Stock Orders Pending Close	Stock Orders Pending Exception Count	This will determine whether the tiles for the applicable report is green, yellow, or red.	IC_STKORD_ CLS_PEND_ CRIT_CNT	No
Overdue Shipments	Overdue Shipments Exception Count	This will determine whether the tiles for the applicable report is green, yellow, or red.	IC_OVERDUE_ SHIP_COUNT	No
Transfers Pending Approval	Past Creation Date	Number of days since transfer creation - determines whether a submitted transfer appears in this report.	IC_TSF_APPRV_ PEND_CRITIAL_ DAYS	No
Unexpected Inventory	Include Deleted Item/Locations	Indicates whether item/locations in deleted status with a ranged ind = Y should be included in this report if they have inventory.	IC_UNEXP_INV_ DELETE_IND	Yes
Unexpected Inventory	Include Discontinued Item/Locations	Indicates whether item/locations in discontinued status with a ranged ind = Y should be included in this report if they have inventory.	IC_UNEXP_INV_ DISCONTINUE_ IND	Yes
Unexpected Inventory	Include Inactive Item/Locations	Indicates whether item/locations in inactive status with a ranged ind = Y should be included in this report if they have inventory.	IC_UNEXP_INV_ INACTIVE_IND	Yes
Unexpected Inventory	Quantity Threshold	Indicates the count per item/location above which the item/loc should appear in this report.	IC_UNEXP_INV_ TOLERANCE_ QTY	No
WAC Variance	Maximum Variance %	This value will be used to determine the color of the tile, denoting the criticality along with # of item/locations.	FA_WAC_VAR_ MAXIMUM_PCT	No

Report Name	System Option	Definition	Column Name	Department Level?
WAC Variance	Variance Count	This value will be used to determine the color of the tile, denoting the criticality along with Max variance.	FA_WAC_VAR_ITEMLOC_CNT	No
WAC Variance	Variance Tolerance %	Identifies the tolerance outside of which if the variance between unit cost and average cost falls, that item/location will show in the report.	FA_WAC_VAR_TOLERANCE_PCT	No
Inventory Analyst Dashboard	Item Filter Display	Indicator to display all Item filters (Item/Item Parent/Parent Diff) in inventory analyst dashboard prompt.	IA_ITEM_PARENT_FILTER	No
Variance to Forecast	Variance to Forecast Indicator	Indicates if the Inventory Variance to Forecast report in the Inventory Analyst dashboard is supported. If yes, the system will preserve 4 weeks of item weekly forecasted sales data before loading the next set of forecasting data.	IA_VARIANCE_TO_FORECAST_IND	No
Margin Impact Contextual Report	Margin Impact Month Range	Defines a Month Range Considered for Margin Impact Contextual BI Report	MI_MONTH_RANGE	No

Oracle Retail Trade Management

This chapter is an overview of Oracle Retail Trade Management.

Master Data

Oracle Retail Trade Management shares the same database with Merchandising Foundation Cloud Service. Trade Management is enabled in an Merchandising Foundation Cloud Service instance by the following system options parameter settings:

- Simplified Trade Management Indicator is N
- Import Indicator is Y

Trade Management requires certain master data maintenance such as outside locations, Freight Type, Freight Size and Standard Carrier Alpha Codes (SCAC). Import-specific data maintenance is required for country, supplier, partners and items. For calculation of duties, fees, and taxes applicable on import merchandise, Harmonized Tariff Schedule (HTS), files must be uploaded or entered into the system.

Assessments

Assessments represent the total tax, fee, and duty charges for an item. Computation formulas and specific fee and tax types contained in the harmonized tariff schedule (HTS) determine most assessments. The harmonized tariff schedule is defined for an import country.

The HTS comprises a hierarchical structure for describing all goods in trade for duty, quota and statistical purposes. The HTS structure is based on the international Harmonized Commodity Description and Coding System (HS), administered by the World Customs Organization in Brussels, Belgium.

There are two components used to track HTS within the system:

- HTS chapter tables
- HTS tariff item tables

The HTS chapter tables are organized by the first one to four digits of the tariff schedule classification. The HTS tariff item tables are organized around the full tariff item number. The length of the HTS heading or chapter is defined by import country along with the display format of the tariff number on the HTS import country setup table. The item level tariff codes do vary among GATT (General Agreement on Trades and Tariffs) countries. Each tariff item has various duty rates assigned to it. Classification of goods in this system must be done in accordance with the country-specific rules. For example, in the U.S. it should be done as per General and

Additional U.S. Rules of Interpretation, starting with the a four digit heading level to find the most specific provision and then moving to the subordinate categories. Other assessments, such as taxes, fees, countervailing charges, and anti-dumping charges are also assigned at the tariff item level.

Trade Management also allows the retailer to set up the quota restrictions imposed by the government on an item. The quota is linked to the HTS classification.

HTS calculations can be performed based on the country of manufacture or the country of sourcing for their products. This determination is made at implementation time and is defined on the System Options table.

Purchasing

If Trade Management is enabled, then import orders can be created in Merchandising Foundation Cloud Service. The purchase order dialog provides additional import functionalities along with standard PO information, if the import purchase order indicator is checked. Throughout each step of the import purchase order creation, there are several options available to capture additional information-specific to ordering imported merchandise.

The menu options within the PO Header Maintenance window are used to attach shipping, letter of credit, order dates, attributes, required documents, and timeline information. The menu options within the PO Item Maintenance window are used to attach HTS, required documents, and timeline information for line items on the PO. The PO Item/Location window provides the option to assign expenses at the Item/Location level. All of the expense components are brought together in one view in the Order Item Expense Maintenance window.

Letter of Credit

A letter of credit (LC) is a bank instrument used by most retailers to finance purchase of imported goods. LCs are a preferred method of international settlement because the conditions of the purchase, such as required documents and special instructions are detailed in the text of the LC and reviewed by the bank for compliance before the release of payment. They provide importers with a secure method to pay for merchandise and vendors with a secure method to receive payment for merchandise. Letters of credit can be created and applied to purchase orders. Activity against the letter of credit can also be tracked. When the goods are shipped and shipping documents are available, the seller presents documents at the desk of the advising bank, and if there are no discrepancies, collects the specified payment amount. The advising bank debits the issuing bank for the amount of the negotiation as well as any charges, and the issuing bank makes payment and notifies the retailer of the amount of the principal draw down and associated charges.

Trade Management also supports the exchange of letter of credit (LC) information with a bank in the internationally recognized Society for Worldwide Interbank Financial Telecommunications (SWIFT) format.

Transportation

The transportation functionality in Trade Management provides a facility to track information from trading partners as merchandise is transported from the manufacturer through customs clearance in the importing country. This information is recorded at various levels: vessel/voyage, bill of lading (BOL), container, PO/item,

and commercial invoice. Transportation information is most often received through EDI. When entered, the information is tracked and edited, as it changes.

The Transportation module is used to track the following information: Shipments, deliveries, licenses and visas, claims, missing documents, packing, dates, timelines, commercial invoices, inland freight, and totals.

When a transportation record is complete, the record is finalized. Finalized transportation records are used to automatically create customs entries. The goods are then tracked as they move through customs.

Customs Entry

The Customs Entry module manages entries of merchandise for clearance through customs while providing the information required for government documentation and reporting. Government duties, taxes and fees are calculated in accordance with the country of import. Entry information is prepared for transmission to the customs broker for entry submission. The Customs Entry module provides the ability to track the arrival of a shipment at customs, the customs clearance or associated delays, customs exams, and entry and liquidation payment amounts.

When the charges and assessments are complete, the retailer can choose to allocate the costs to the actual landed cost module. When the customs entry is complete, the custom entry record needs to be confirmed. Non-merchandise invoices are created automatically from confirmed customs entries in the Oracle Retail Invoice Matching Cloud Service application.

Obligations

As an item progresses through the import process, bills are received from various service providers. As non-merchandise invoices are received from trade partners and suppliers, they can be recorded in the obligations module. They are allocated over the shipment, orders and items that they cover, and the system proportionally allocates the charges to the line item level. Approving an obligation allocates the costs to the actual landed cost module. Approving an obligation creates a non-merchandise invoice in approved status in the Oracle Retail Invoice Matching Cloud Service application.

Actual Landed Costs

Trade Management helps to track the actual landed cost incurred when buying an import item. The module reports variances between estimated and actual landed costs by cost component and shipment. The Actual Landed Cost (ALC) dialogs provide the flexibility to view information about actual and estimated landed costs for any item on a purchase order or invoice obligation. The information can be organized by obligation, obligation cost component, shipment, or location. Duties, fees and taxes are posted directly to the Actual Landed Cost module bypassing the obligations maintenance process. While finalizing the ALC at a purchase order level, the user can also choose whether or not to update weighted average cost (WAC) for each purchase order. For those circumstances where goods might be partially or completely processed through a distribution center to another location prior to assembly and calculation of ALC, it might be more accurate to have WAC be determined by ELC to stand rather than updating it with an ELC/ALC variance.

Trade Management Integration with Other Applications

This section describes Trade Management integration with other application.

Integration with Merchandising Foundation Cloud Service

Oracle Retail Trade Management and Merchandising Foundation Cloud Service share the same database schema. When Trade Management is enabled in a Merchandising Foundation Cloud Service instance, certain import-specific data maintenance is required for country, supplier, partners and items. These are directly updated into the Merchandising Foundation Cloud Service database and subsequently used in Trade Management.

Integration with Oracle Retail Invoice Matching Cloud Service

Trade Management, Merchandising Foundation Cloud Service, and Invoice Matching Cloud Service share the same database schema.

Customs Entry Record - Confirmation of the customs entry record inserts an approved non-merchandise invoice record into the Invoice Matching Cloud Service staging tables for extract and uploads into Invoice Matching Cloud Service.

Obligations Entry - Approving an obligation inserts an approved non-merchandise invoice record into the Invoice Matching Cloud Service staging tables for extract and upload into Invoice Matching Cloud Service.

Integration with External Partners

Trade Management automates the international import transaction data. Four components of Trade Management: Customs Entry, Harmonized Tariff Schedule, Letter of Credit, and Transportation have batch-processing modules that facilitate the flow of data between Trade Management and external applications and files.

Sharing the Letter of Credit Data with the Trading Partners

Letter of credit batch modules process letter of credit applications and amendments to banks, and upload confirmations, drawdown notifications, and related information from banks. Letter of credit batch module downloads and uploads data in an internationally recognized standard format called SWIFT (Society for Worldwide Interbank Financial Telecommunications).

The batch program LCADNLD extracts approved letter of credit applications to banks. The LCMT700 Perl script converts the LC applications from a Trade Management file format to the SWIFT (MT 700) format.

The issuing bank sends the retailer a confirmation when it agrees to stand as guarantee for the LC. The LCMT730 Perl script converts letter of credit confirmations from a SWIFT format (MT730) to an Trade Management flat file format. The batch program LCUPLD uploads the converted data from the table to the Trade Management database tables.

The issuing bank informs the retailer when credit drawdowns are made against the LC or when bank charges the retailer the bank fees. The LCMT798 Perl script converts draw downs and bank fees data from a SWIFT file format to an Trade Management format. The batch program LCUP798 uploads the converted data from the table to the Trade Management database tables.

At times after a LC has been issued and confirmed, the retailer might want to make amendments to the LC. An amendment to a LC is valid when all parties involved

agree to the new conditions and the agreement has been registered. Retailer initiated amendments are extracted by the batch program LCMDNLD. The LCMT707 Perl script converts the LC Amendments from a Trade Management file format to the SWIFT (MT707) format.

Integration with Customs Broker

The batch program CEDNLD (customs entry download) extracts custom entry information from the Trade Management database to custom brokers. Custom Entry (CE) transactions that are in a Sent status are written into a flat file. One flat file is written per broker. Information contained in the files include: order items, bill of lading/airway bill information, shipment information, container information, license, and visa information, broker charges and missing documents information.

The output file could be FTP to the broker. This process has to be handled during implementation and is outside the scope of Trade Management.

Upload of HTS Data

Customs agencies provide HTS data, this information must be converted to the Trade Management HTS upload file format for uploading into the system. The Trade Management batch program TRANUPLD uploads the data from the file into the Trade Management database. The program handles both the initial HTS information load as well as mid-year HTS updates that are supplied by the import country's government. The initial upload is handled by inserting information from the file into the tables. HTS information already available in the tables is handled by adjusting the effective dates of the existing HTS records and inserting a new set of HTS records into the tables. Files provided by the import country's government includes HTS Chapters, HTS classification, HTS Tax, HTS Fee, HTS OGA, Tariff Treatments, Tariff Treatment Exclusions.

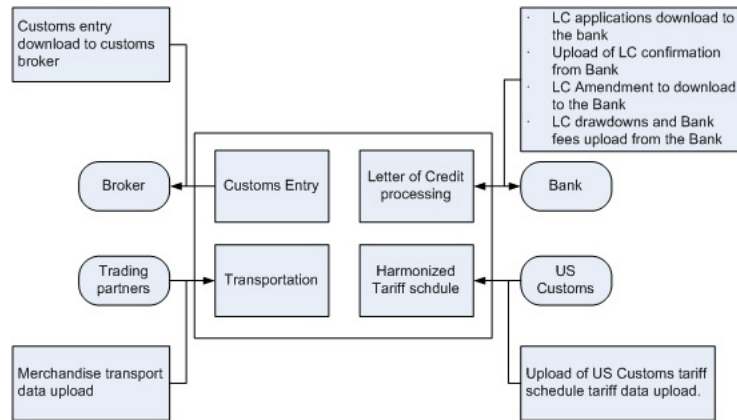
The files provided by the import country government must be placed in the proper input directory after it is converted, so that the batch program TRANUPLD can pick up the file and process the data.

Integration with Supply Chain Partners

As the merchandise moves from manufacturers' warehouse/factory to the discharge port at the import country, the supply chain partners share information with the retailer in a specified file format. The batch program TRANUPLD uploads the information provided in the files into the transportation tables in Trade Management database, thus providing online visibility of the merchandise in the supply chain.

The files provided by the supply chain partners should be placed in the proper input directory, so that the batch program TRANUPLD can pick up the file and process the same. In case the files provided by the supply chain partners differ from the expected file format, custom program must be written to convert the data from the original file format to the required file format.

The following diagram illustrates the interaction between Trade Management and external agencies.

Figure 3–1 Interaction between Trade Management and External Agencies

Simplified Trade Management Configuration

Trade Management is a simplified version of Oracle Retail product suite targeted at mid-tier retailers.

If the system option parameter Simplified Trade Management indicator is set to Yes, then the following Trade Management functionality is not available in the application:

- Setting up Trade Management-specific master data such as freight type, freight size, and standard carrier alpha codes (SCAC)
- Letter of Credit functionality
- Transportation functionality
- Customs Entry functionality
- Obligation maintenance
- Actual Landed Costs

If configured to use Import functionality, as well as Simplified Trade Management, then the retailer has the option to set up the HTS data and use it in the purchase order process. The retailer can also choose Letter of Credit as a payment option in the Purchase Order header level, but all other related LC functionality is not available. It is assumed that the retailer is using some other external system for LC processing.

If the import indicator is not enabled, then no Trade Management functionality is available in the application.

Other Features

As Trade Management is related to import purchases and might use foreign currency, it is important that the current exchange rate between the primary currency and the supplier's currency is maintained in the application. Merchandising Foundation Cloud Service does maintain currency exchange rates and can accept currency updates.

Oracle Retail Sales Audit

This chapter is an overview of Oracle Retail Sales Audit.

Information Maintained by Sales Audit

The following information is maintained in the Sales Audit application.

System Options

Oracle Retail Sales Audit contains a set of system options that is different from the Merchandising Foundation Cloud Service system options set. These system options control functionality in Sales Audit. One of the important system option parameters is the balancing level. The balancing parameter could be Cashier or Register. If the balancing parameter is Cashier, the totals are balanced for each cashier. If the balancing parameter is Register, the totals are balanced for each register. Another important option is the unit of work. This determines whether transactions are exported prior to the elimination of all errors for the store/day. Other parameters include defining the escheatment party and the details of the clearinghouse. Certain business rules like duplicate and missing transaction number checks are also controlled through the system options setting.

Foundation Data

Sales Audit requires a certain amount of foundation data to start working. Sales Audit shares some of its foundation data with Merchandising Foundation Cloud Service, while the rest of the foundation data needs to be maintained in Sales Audit.

Foundation data in Sales Audit includes company/location close dates, location traits, bank setup, tender types, reference maintenance, error codes and store-specific foundation data.

Totals

Sales Audit allows the retailer to define the Totals needed for their business. Totals in Sales Audit can be a Sales Audit-calculated value from raw transaction data or a total that comes from the POS/OMS through the RTLog. Sales Audit calculates a total based on raw transaction data or on existing totals. Totals are used for performing store balancing over/short analysis within Sales Audit. Totals are also used to create data for external systems such as General Ledger. By assigning an audit rule to the total, business validation is built in Sales Audit. For example, the retailer defines a Sales Audit-calculated total of total cash tendered at a register for a store/day. He defines another total, a POS/OMS-declared total, for the total cash declared at the register for a store/day. He defines an audit rule to compare both the totals for over/short

analysis. Totals are used to export consolidated data to an external system. So, while defining a total, the retailer defines the systems to which the total is exported.

Audit Rules

Rules are used in Sales Audit to perform custom data validation against transactions and totals. Audit rules run on POS/OMS transaction data and totals during the automated and interactive audit process. When the rule is broken, an exception error is thrown that must be edited or overwritten by the auditor. Sales Audit comes with some standard pre-configured rules and also provides flexibility to the retailers to define rules needed for their business.

Error Codes

Error codes provide information to the auditor about the type of error and the remedial action needed to solve the error, thus increasing the effectiveness of the audit process. When setting up audit rules for automated audit process, an error code is associated to the rule. The error code contains an explanation of why the rule failed, as well as a recommended solution. The error code also contains security settings to determine if the error can be overridden at the store or headquarters. When a rule fails, the error code is available to the auditor in the error list. Additionally the specific location where the error has occurred is available in the transaction details, thus helping the auditor to quickly understand and correct the error.

Automatic Audit Process

Automatic auditing is done in Sales Audit using batch programs. The goal of the automatic audit process is to accept transaction data from point-of-sale (POS/OMS) applications and move the data through a series of processes that culminate in clean data. Sales Audit uses several batch-processing modules to perform the following activities:

- Import POS/OMS transaction data from the RTLog.
- Perform initial validation of data during upload of data from the RTLog to Sales Audit.
- Produce totals using user-defined totaling calculation rules that are user reviewable during the interactive audit.
- Validate transaction and total data with user-defined audit rules and generate errors whenever data does not meet the criteria. The user reviews these errors during the interactive audit.
- Create and export files of clean data in formats suitable for transfer to other applications.
- Update the Sales Audit database with adjustments received from external systems on previously exported data.

Interactive Audit Process

Auditors use the interactive audit process to view and correct errors. This process is done after the automated audit is completed. This process allows the auditors to view errors at summary or detail level, fix or override errors, update the totals and close the store/day. In addition, it is also possible to review and edit data of missing transactions or transactions that have passed automated audit, add transactions and delete invalid or missing transactions.

Summary Views

Sales Audit provides summary views for the auditor to identify and fix the problem areas quickly. A Store/Day Summary View screen contains the following information about a store/day: The audit status, the data status, the number of transactions, the number of errors and the over/short amount. The auditor has access to other options in the Store/Day Summary screen such as: The error list, the balancing level summary, over/short, miscellaneous totals, missing transactions and the import/export log.

Sales Audit provides two other summary views: Tender Summary and Item Summary.

Automated Clearing House (ACH) Processing

Automated Clearing House (ACH) is a U.S.-based banking network used to electronically transfer funds. Retailers use ACH to enable them to have access to funds before the funds have been physically deposited in the bank. This is done by estimating the following day's bank deposit and sending this amount to the consolidating bank through the ACH network. In this way, the cash to be received from the stores is hedged.

Escheatment Processing

Escheatment is the process of forwarding monies of outstanding, non-expiring vouchers to the proper government authorities (state or country) after a defined period of time from the date of issuance. Some government authorities require that unredeemed vouchers be escheated after a specific period of time has passed. When a voucher is escheated, an invoice is generated that initiates payment of the escheated voucher amount to the government authority. The government authorities then attempt to locate the consumers owed the monies.

To accommodate Escheatment, a new total should be added to Sales Audit to create escheatment totals. Sales Audit automatically totals sales transactions based on calculation definitions set up for the total.

Audit Trail

The audit trail functionality provides the users with the capability of tracking all changes to transactions and totals. Sales Audit maintains versions of all modified transactions thus enabling easy tracking of changes.

Totals for General Ledger that are impacted by a revised transaction are reversed and both the reversal and the new total are extracted for the General Ledger.

Reporting

Sales Audit provides some basic online reporting that allows users to view sales audit data that is in the system. The following reports are available in Sales Audit:

- Flash Sales report
- Flash Totals report
- Voucher Activity report
- Dashboard and In-context reports

Customer Information

A system option controls whether Merchandising Foundation Cloud Service and Sales Audit are systems of record for customer information associated with customer orders or other POS transactions.

If Merchandising Foundation Cloud Service and Sales Audit are the systems of record, any information that the customer provided at the time the order was created or at the time the transaction occurred will be stored in the respective Merchandising Foundation Cloud Service and Sales Audit tables. If they are not the systems of record, Merchandising Foundation Cloud Service and Sales Audit will only store customer identifiers on the tables, and any required fields on the tables will contain generic default values (e.g. XXXX). These customer identifiers may be used to request the customer information from a third party order management system or customer engagement system that holds the complete customer information.

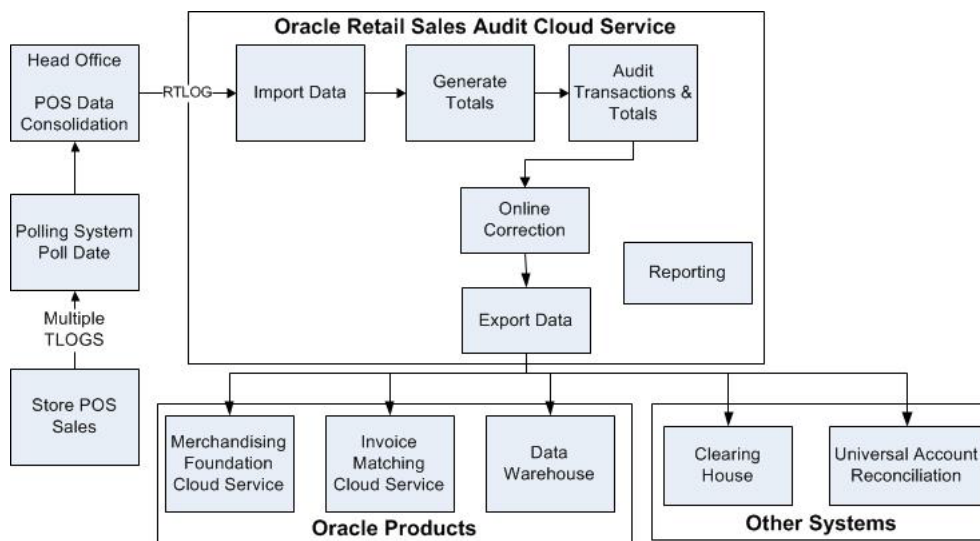
Integration with Other Applications

Oracle Retail Sales Audit interfaces with the following Oracle products:

- Oracle Retail Merchandising Foundation Cloud Service
- Store Inventory Management Cloud Service
- Oracle Retail Invoice Matching Cloud Service
- Oracle Retail Insights Cloud Service

This figure displays the Sales Audit interfacing products:

Figure 4–1 Oracle Retail Sales Audit Interface



Oracle Retail Sales Audit also interfaces with the following third-party applications:

- Automated Clearing House.
- Universal Account Reconciliation System.

Integration with Oracle Retail Merchandising Foundation Cloud Service

Sales Audit and Merchandising Foundation Cloud Service share the same database. Sales Audit shares some of its master data with Merchandising Foundation Cloud Service data such as items, stores, company/location close dates, location traits, bank setup, and tender types are maintained in Merchandising Foundation Cloud Service and used in Sales Audit.

Current reference data is retrieved from Merchandising Foundation Cloud Service into Sales Audit by the batch program SAGETREF. The data is extracted into multiple data files. The data in the files are used by the batch program SAIMPTLOG as reference data for doing validation checks on the POS/OMS transaction data during the data upload from POS/OMS to Sales Audit. Having the reference in data file formats increases the performance of the SAIMPTLOG process. SAGETREF generates the following reference files: Items, Wastage, Sub-transaction level items, Primary variant relationships, Promotions File, Currency File, Warehouse File, Inventory Status File, Variable weight PLU, Store business day, Code types, Error codes, Store POS, Tender type, Merchant code types, Partner vendors, Supplier vendors, Employee IDs, Banner IDs.

All clean and audited sales and returns data is extracted from Sales Audit into a POSU file by the batch program SAEXPRMS. All corrected sale and return transactions that do not have Merchandising Foundation Cloud Service errors are extracted into the file. The sales audit system options parameter work unit controls the export of data into file in case of presence of Merchandising Foundation Cloud Service errors in the POS/OMS transaction data. The shell scripts UPLOADSALES.KSH and SALESPROCESS.KSH load data from the POSU file into the Merchandising Foundation Cloud Service tables.

Integration with Xstore Point-of-Service and Order Management System Cloud Service

Sales, returns, and other transaction data are loaded into Sales Audit from a Point-of-Service application, such as Oracle Retail Xstore Point of Service, for in-store transactions and an Order Management System Cloud Service, for ecommerce orders fulfilled from non-store locations. These applications should provide a standard RTLog file. The RTLog data is loaded into Sales Audit either in trickle mode or once a day. If the data is uploaded in trickle mode, then corporate inventory reflects a more accurate intra-day stock position. The data from the RTLog is loaded into Sales Audit using the batch program SAIMPTLOG for end-of-day. If trickle processing is used the final RTLog for the day must include a count of all RTLog files for the store/day.

Integration with Oracle Retail Invoice Matching Cloud Service

In the normal course of business, payments are made to vendors at the store level. Payments for merchandise purchases done at store level are booked against a corresponding merchandise invoice. Payments of non-merchandise purchases or miscellaneous services availed at the store are booked against a corresponding non-merchandise invoice. These transactions are passed from the POS/OMS to Sales Audit as specially designated PAID OUT transactions (sub-transaction type of EV - Expense Vendor or MV - Merchandise Vendor). All these invoices are assumed paid. The batch program SAEXPIM transfers the PAID OUT type of transactions to the Invoice Matching Cloud Service staging tables.

The batch program SAEXPIM is also used for escheatment processing. Unclaimed monies of outstanding, non-expiring vouchers are totaled after a defined period of time from the date of issuance of the voucher and posted to the Invoice Matching Cloud Service staging tables as a non-merchandise invoice by SAEXPIM. The

unclaimed amount is paid out as income to the issuing Retailer. In some U.S. states, it is paid out to the state (based on configuration). Sales Audit determines who receives this income and accordingly posts a non-merchandise invoice for the partner. These invoices are assumed not paid.

The batch job EDIDLINV is used to extract the invoices from the Oracle Retail Invoice Matching Cloud Service staging tables and load as EDI invoices to Invoice Matching Cloud Service.

Integration with General Ledger

The batch program SAEXPGL transfers the sales data from Sales Audit into the financial staging tables in Merchandising Foundation Cloud Service. This batch program executes only if the external financial system is set to O (for other), E-Business Suite, or some other external financial application based on system options configuration.

SAEXPGL directly inserts the data into financial stage tables of Merchandising Foundation Cloud Service.

Integration with Automated Clearing House

Sales Audit determines the estimated bank deposit for each store/day. The batch program SAEXPACH posts the store/day deposits into a database table and creates the standard ACH format file. The output file is sent to a Clearing House. The output file conforms to the requirements imposed by the National Automated Clearing House Association (NACHA). The nature of the ACH process is such that as much money as possible must be sent as soon as possible to the consolidating bank. Any adjustments to the amount sent can be made front-end. This batch assumes that there is only one total to be exported for ACH per store/day.

Integration with Universal Account Reconciliation Solution

The batch program SAEXPUAR extracts specified TOTALS to a flat file that is interfaced to an account reconciliation application. For each store day, all specified totals are posted to their appropriate output files. All the stores and totals with usage type starting with UAR are exported.

Integration with Store Inventory Management

Sales Audit sends audited data to SIM which helps SIM to be synchronized with Merchandising Foundation Cloud Service with respect to inventory levels. The batch program SAEXPSIM extracts information from transactions with changed item quantities, item deletions, item addition, change in item status to VOID, and change in transaction status to PVOID. This information in the form of a file (SIMT) is uploaded and processed by SIM.

Oracle Retail Pricing Cloud Service

Oracle Retail Pricing Cloud Service is a pricing and promotions execution system. Its functionality includes the definition, maintenance, and review of price changes, clearances, and promotions, with capabilities that range from simple item price changes at a single location to complex promotional offers across zones. Pricing events are defined against the zone structure, which represents a group of locations organized to support a retailer's pricing strategy. It also allows the user to break out of the zone structure and create location-level events as needed. Pricing Cloud Service has three primary functions to create and maintain regular price changes, clearances, and promotions. Although each of the three pricing activities is unique, the system displays these using a common look and feel to the user creating events. The solution also supports a dashboard for the Pricing Analyst to support management by exception, and leverages the notification framework to alert users to conflicting pricing events.

Pricing Cloud Service Foundation Data

During installation and implementation, Pricing Cloud Service requires some initial data setup to create and implement price changes and clearances. This foundation data includes zone structures, initial price zone definitions, and rounding rules.

Zone Groups and Zones

The zone structure in Pricing Cloud Service allows you to define groupings of locations for pricing purposes and eliminates the need to manage pricing at the most granular, location, level. At the highest level, these groupings are divided into categories called zone groups. Zone groups are used in regular, clearance and promotional pricing. You can determine how zone groups are created for your business based on a number of different factors, the type of pricing event, regular and/or clearance, or the items being priced, such as by department or division.

Within zone groups are groupings of locations (stores or warehouses) called zones. The function of these zones is to group locations together in a manner that best facilitates company pricing strategies. For example, you might choose to create a zone group based on geographic region such as the North America. Then, within the North America Zone Group, you could have regional zones, such as:

- US East region
- US West region
- Mexico stores

Similarly, you can create a zone group based on customer characteristics. Then, within the zone group create zones with similar geographical or customer characteristics, such as

- US urban stores
- US rural stores

There are no restrictions on the number of locations a zone can contain and a location can (and likely will) exist in multiple zone groups. For example, a New York City store might exist in the US urban stores zone as well as the US East region zone, which is part of the North American Zone Group. However, two rules apply to the relationship between locations and zones:

- A location cannot exist in more than one zone within a zone group.
- All locations within the same zone must use the same currency.

Adding New Stores or Warehouses

When new stores or warehouses are added in Merchandising Foundation Cloud Service, a pricing location is designated for the new store or virtual warehouse. Pricing Cloud Service will take this information for the new location and attempt to add the new location to every zone group/zone in which the pricing location exists across all zone groups. If the pricing location and the new location are not of the same currency, then the new location will be added to every zone group where the pricing location exists, but the system will create a new zone for the location with the currency of the new location. This process applies for all store types, including company and customer (franchise, or wholesale) stores and stockholding or non-stockholding locations.

Note: Pricing of warehouses is determined by a system option in Pricing Cloud Service.

Empty Zones

You can create an empty zone and add locations to the zone at a later date. Price events can also be created against a zone with no locations, based on a system option setting; however, conflict checking will not run and records are not generated on the Future Retail table. Once locations have been added to those zones, any new item/location relationships created will be added to price events created for those zones.

Zone Maintenance

When a location is added to an existing zone, the location will participate in any price events which are approved in the future, but it will not inherit any existing approved events. When a location is removed from a zone, it will stay on any existing approved events, but will not be included in any new events created for that zone. If a location needs to be added to or removed from an existing event, setting the event back to worksheet and then re-approving will add that location.

Initial Price Zone Definition

Once zone groups are created in Pricing Cloud Service, you are able to assign them to Initial Price Zone Definitions. This allows you to specify the zone structure that is used when pricing new items added in a particular department, class, or subclass, including markup percentage, and markup type (cost or retail), and rounding rules.

Note: Markup is also defined as part of the department creation process, but Pricing Cloud Service uses the Initial Zone Definition to determine initial price markup.

Rounding Rules

Rounding rules help you create a uniform pricing strategy. They are used to smooth proposed retails in order to maintain a consistent set of price points by applying "ends in" logic to retail values. Rounding Rules are defined globally, but can also include exceptions or exclusions based on merchandise hierarchy and/or currency. This provides a simple but flexible configuration to handle a wide variety of scenarios.

Note: Editing rounding rules details will only affect retails derived by the rounding rules from that point on. It will not affect/overwrite any retails that have already been derived based on the old rounding rules.

Rounding rules are optional. If you do not use rounding rules, the following rules are enforced for "percent off" price events, based on the number of decimal places defined as part of the currency set up in Merchandising Foundation Cloud Service:

- Regular Price Changes: if the extra digit (beyond the number of digits for the currency) is between 0 and 4, round down; if it is between 5 and 9, round up.
- Clearance Events: retail will always round down

Price Events

This section of the document provides details that pertain to all types of price events and helps provide insight on how to optimize and configure data to get the most out of the functionality in Pricing Cloud Service.

Price Changes

Price changes are the pricing events that affect the regular retail price. When a price change is created, the following information is specified:

- The item receiving the price change, by specifying items by parent, parent/diff, or transaction item.
- Where the price change is occurring, by selecting zones or locations.
- How the price is changing, by selecting a percent or amount change, or a new fixed price.
- When the price change will take effect, by designating an effective date
- Why the price change is occurring, by optionally specifying a reason code

Price change groups are used to group together multiple price change events for easier management of the individual events, such as facilitating mass approval of items in the group. For example, a price change group might be used to group together items whose prices are changing on the same date within a department or a set of zones.

When price change events are approved in Pricing Cloud Service, they are made available in advance of their effective date to multiple systems for ticketing and to prep selling locations for the upcoming changes. Normally, only one price change for

an item/location on a given day is allowed to be approved, however there can be more than one if an "emergency" retail price change is entered and executed by an authorized emergency user. Once the emergency price is received by the selling systems (POS, ecommerce) it will overlay the other retail price that was received previously. For more on emergency events, see below.

Clearance Events

Clearance events are defined as a reduction in the permanent retail designed to increase demand and move inventory out of stock. These reductions may consist of a single markdown or a series of markdowns, with the goal of selling through all stock in the locations designated. When a clearance event is created, you specify the items and locations where the clearance is in effect along with the discounted price and the dates on which it will apply. Like price changes, clearance events can be created for parent items, parent/diffs, or transaction items. Locations where the markdown applies are selected by zone or individual location.

Clearance groups are used to group together multiple clearance events for easier management of the individual events. This is particularly helpful for items that will have multiple markdowns throughout their lifecycle to provide visibility to the various markdown prices and dates together for easier management. This can also help facilitate mass update of the events in the group, such as approving multiple events together.

Promotion

Promotional price changes are temporary reductions in price for one or more items at one or more stores for a defined amount of time. Promotions are made up of a collection of offers, which define the reward and the conditions to receive the reward. Offers can be applied to regular priced items, clearance items, or both.

Pricing supports two levels of offers, item and transaction. Each offer level has templates associated with it which define how the offer is set up. For example, some offer templates will require only reward related information to be defined, such as the item level offer Get Y for Discount. This type of offer requires only the list of items that can be discounted if purchased and the discount amount or percent. Whereas other offer types, such as the transaction level Spend X, Get Discount offer, require a conditional spend amount, as well as a list of items that must be purchased to reach that spend amount, along with reward details such as the discount amount/percent and, optionally, a list of items excluded from the transaction level discount.

Best Practices

When creating price change and clearance events for a group of items, it is recommended to enter the item data at the highest level possible. For fashion items, this is generally parent item (style) or parent/diff (style/color), whereas for grocery and hardlines this is generally at the transaction item level (SKU). This is also true for the selection of locations; it is recommended creating price events at zone level, rather than by store or warehouse. This provides the following advantages:

1. Managing price events at the higher levels will increase the usability of the application by having fewer rows for you to manage. It will also help ensure pricing consistency for similar items and locations, in line with your company pricing strategy.

2. The Future Retail tables will have the ability to store data at the highest level possible which, in turn, will ensure that Pricing Cloud Service will run as efficiently as possible, including response time for processing and screen flow.

Emergency Price Events

There is a system option called Price Event Processing Days that is set to designate the number of days required between the current date and the effective date of a price event. This rule ensures that price changes, clearances and promotions are created and approved with enough advance timing that stores and other impacted areas can react accordingly.

However, for situations where price events were missed for one or more items or locations, emergency price events can be created. This allows you to create events that go into effect less than the standard number of processing days, which can even include the current date. A separate security privilege provides the ability to limit the users that can create these emergency events, while preventing others who have the ability to create price change and clearance events from creating emergency events. For example, if the setting for price event processing is 3 days, you will be prevented from creating or approving an event that occurs within 3 days, unless you have emergency security privileges.

When an emergency price event is created and approved the information is passed to downstream systems the next time the batch extracts are run. If the price change is to go into effect on the current date, then the item/location price in Merchandising Foundation Cloud Service is done on approval, along with any markdowns or markups in the stock ledger.

Conflict Checking

Whenever a price change or clearance is submitted or approved, it will be subject to the conflict checking process. This ensures that invalid prices, or prices out of alignment with your pricing strategy, are not sent down to the point of sale. Conflicts that are checked can be configured using some of the Pricing Cloud Service system options, which are covered in detail below. It also relies on a calculated "future retail" to help determine when a conflict has occurred.

Future Retail

When price changes and clearance events are approved or unapproved, they can negatively impact the retail value of an item/location when it goes into effect, which can cause conflicts. As such, the Pricing Cloud Service module uses these events to calculate a future retail price for the impacted items and locations on the events. This allows it to have a view to the regular or clearance price on any given day and helps facilitate the conflict checking process.

A roll-up batch ensures the system holds future retail data at the highest level possible. This batch looks at lower-level timelines and attempts to roll up to a higher level where timelines match exactly between lower levels and higher levels.

When conflicts occur, the Conflicts window displays the price event at the level of the timeline where the conflict occurred, which could be higher than transaction item and location level.

Pricing Cloud Service and Merchandising Foundation Cloud Service

As referred to above, Merchandising Foundation Cloud Service shares a number of key pieces of information with Pricing Cloud Service, including items, locations, item/location relationships, and merchandise hierarchies. Pricing Cloud Service also provides Merchandising Foundation Cloud Service with key information. This section will outline the key data points that are shared between modules.

Pricing Cloud Service to Merchandising Foundation Cloud Service

Price Event Execution

When regular or clearance price changes are set to go into effect, the Price Event Execution batch process integrates the new price information to update the item and stock ledger information in Merchandising Foundation Cloud Service. This initiates the process to update the unit retail and the clearance flag for the item/location (if needed), records the markup or markdown in the stock ledger, and records the price history for the item so that sales can be correctly classified when they occur as either regular or clearance.

Initial Pricing

Initial pricing for items created in Merchandising is dependent upon the Initial Price Zone Definition managed in the Pricing Cloud Service. When the department, class, and subclass are selected for a new item in Merchandising, the markup percent and type defined in the Initial Price Zone Definition are used to calculate a suggested initial price for each zone in the zone group that is part of that definition, based on the unit cost for the primary supplier/country that has been defined for the item. Rounding rules are also applied, if included in the definition to calculate the suggested retail using a standard "ends in" amount.

This price is then assigned to stores and warehouses when ranging occurs for the item, based on the zone to which the location is assigned. If there is not a zone price defined for a location, then the pricing location, which is defined for store or warehouse, is used as the initial price for that item/location. If the Pricing Location is not defined for the store or warehouse being ranged or if it also doesn't have a zone price available, then initial zone definition's markup percent will be used.

Once an item has been approved, any subsequent ranging of locations to the item works similarly. But because other pricing activity may have occurred in the interim, it could be either the current retail or clearance retail (if the item is on clearance) for the zone of the location; or, if not available, then the regular or clearance zone price of the Pricing Location for that store or warehouse is used. If the Pricing Location is not defined for the store or warehouse being ranged, or if it also doesn't have a zone price available, then the initial zone definition's markup percent will be used.

Margin

Merchandising Foundation Cloud Service also relies on future retail details that are provided by Pricing Cloud Service to calculate item/location level margin information. Future retail, combined with the future cost calculations in Merchandising Foundation Cloud Service, provides the ability to show not only the current margin for an item/location, but also a view of future margin based on upcoming clearance and price changes.

Merchandising Foundation Cloud Service to Pricing Cloud Service

Foundation Data and Items

Foundation information, such as merchandise and organization hierarchies, is essential to Pricing Cloud Service functionality. Price events ultimately impact an item, so Pricing Cloud Service needs to know all approved, sellable items currently in Merchandising Foundation Cloud Service, including their item/location relationships.

When an item is reclassified to a new department/class/subclass in Merchandising Foundation Cloud Service, Pricing Cloud Service is notified. Similarly, when an existing item is deleted in Merchandising Foundation Cloud Service, Pricing Cloud Service is notified to remove all references to that item including table clean up and removing them from existing price events.

Foundation Data and Item information are accessed directly from Merchandising Foundation Cloud Service to support pricing functions and allow for more streamlined communications between modules.

Stores and Warehouses

As noted above, new stores and virtual warehouses created in Merchandising Foundation Cloud Service must be added to a zone structure in Pricing Cloud Service to ensure that items sold in the locations can be priced according to company strategies.

Item/Locations

When new item/location relationships are established in Merchandising Foundation Cloud Service, Pricing Cloud Service is informed to create the initial Future Retail record (for sellable, approved, transaction items) and looks to see if there are any pricing events that will be inherited by this new relationship. If any active events, such as the item/location should be on clearance due to the location's zone relationship, pricing information in Merchandising Foundation Cloud Service will be updated immediately. For future events, the Future Retail timeline will be established and the price event will be sent for the item at the new location to the selling systems, as needed.

When an existing item/location is deleted in Merchandising Foundation Cloud Service, Pricing Cloud Service is notified to remove all references to that item/location, including table clean up and removing it from existing price events.

System Options and Defaults

The Pricing Cloud Service module uses a number of system options to configure the functionality, which allows you to tailor the functionality for your business, including conflict checking options, defaulting commonly used values, and data retention.

System Options

All of the following system options can be viewed and edited through the Pricing Cloud Service screens.

System Options	Functional Area	Description
Single UOM for All Items	Price Changes Clearance Promotion	When a value is designated for this system option, this value is used as the unit of measure (UOM) for all price events created and Pricing Cloud Service does not perform UOM validation when you create events. If a value is not selected, when you create fixed-price price changes or clearance events, either a UOM must be designated, or Pricing Cloud Service will attempt to derive one and will raise errors if it is not consistent amongst items in the event.
Price Event Processing Days	Price Changes Clearance Promotion	<p>Number of days required between the current date and the effective date for price changes and clearance. It ensures that price events are created with enough advance timing that stores and other impacted areas can react accordingly.</p> <p>Security will permit certain users to create price events inside this window, including creating same day price events, sometimes called "emergency" changes. This must be set to a value greater than zero.</p> <p>Note: this system option does not determine the communication processes to the selling systems.</p> <p>Default value: 1</p>
Offer End Date Required	Promotion	<p>If this indicator is checked, the End Date on the Offer becomes a required field. The user must enter it before navigating to the next screen.</p> <p>Default value: Unchecked.</p>
Reset Clearance with Price Change	Price Change Clearance	If this indicator is set, it extends the functionality of a price change event. This enables the price change event to end a clearance cycle by acting as an implied clearance reset when the price change is executed.
Regular Retail Greater than Clearance Retail	Conflict Checking	<p>If the indicator is checked, conflict checking will raise a conflict for the event when the retail of the clearance is greater than the regular retail for the item location. If the indicator is unchecked, conflict checking will skip this rule.</p> <p>Default value: checked</p>
Clearance Retail Less than Previous Markdown	Conflict Checking	<p>If the indicator is checked, conflict checking will raise a conflict for the clearance event when the retail of the clearance is greater than the previous markdown for the item/location. If the indicator is unchecked, conflict checking will skip this rule.</p> <p>Default value: checked</p>

System Options	Functional Area	Description
Run for Submit	Conflict Checking	<p>This option determines whether or not conflict checking will be performed when submitting a price event for both price changes and clearance. If this system option is checked, conflict checking process will be performed when you submit a price event. Otherwise, conflict checking will be skipped and not performed until approval.</p> <p>Default value: No (unchecked)</p>
Zone/Parent Ranging	Zones	<p>If this system option is checked, when you create a price change/clearance at a level higher than transaction item/location, there must be at least one ranged item/location combination represented. If there is not at least one, then the system will not allow you to create the event.</p> <p>If this system option is not checked, then ranging checks will not be performed on events created at a level higher than transaction item / location.</p> <p>Default value: Yes (checked)</p>
Recognize Warehouses as Locations	Zones	<p>This system option controls whether warehouses will exist in zone groups/zones and if price events can be created against warehouses. When the system option is checked, warehouses can be assigned to price zones and can be used in price events. When the system option is unchecked, warehouses cannot be added to zones or events.</p> <p>Default value: No (unchecked)</p>
Price Change/Clearance Rejects	Data Retention	<p>This field defines the number of days after the effective date of a rejected price change or clearance the event should be purged from the system.</p> <p>Valid values: 1- 999</p> <p>Default values: 30</p>
Clearance Groups for Download or Search Results	Search Results	<p>This option limits the data that is displayed in the Clearance Group Search results to a manageable number to review. You can enter additional criteria to narrow down the list if the groups they are searching for is not returned in the initial search.</p> <p>This option is also used to limit the number of Clearance Groups to be downloaded.</p> <p>Valid values: 1-999</p> <p>Default value: 100</p>

System Options	Functional Area	Description
Price Change Groups for Download or Search Results	Search Results	<p>This option limits the data that is displayed in the Price Change Group Search results to a manageable number to review. You can enter additional criteria to narrow down the list if the groups they are searching for is not returned in the initial search.</p> <p>This option is also used to limit the number of Price Change Groups to be downloaded.</p> <p>Valid values: 1-999</p> <p>Default value: 100</p>

System Defaults

The following system defaults can be viewed and edited through the user interface. Also, there are separate options for price changes and clearance for each of these defaults, so that different values can be used for defaults by price event type.

System Defaults	Functional Area	Description
Diff Type	Price Change Clearance Promotion	This defines a default value for the desired default diff type in price change and clearance events. Examples of diff types are color, size, flavor, and so on. Valid values for diff type are defined as part of Merchandising Foundation Cloud Service Foundation Data.
Item Level	Price Change Clearance Promotion	This defines the default item level that will be used when you create a price change or clearance. Valid values are Parent, Parent/Diff, or Transaction Item. If a value is not defined for this option, then Transaction Items will be used.
Change Type	Price Change Clearance Promotion	<p>This defines a value for the change type that will be displayed when you are creating a price change or clearance.</p> <p>Valid values (price change): Change by Percent, Change by Amount, or Fixed Price</p> <p>Valid values (clearance, promotion): Percentage Off, Amount Off, or Fixed Price</p> <p>Note: For promotion, this field is called Discount Type.</p> <p>Default value: Change by Amount</p>
Reason Code	Price Change Clearance	This defines a value for the default reason code in price change and clearance events. Valid values are dependent on the values setup in the Pricing Cloud Service system.

Oracle Retail Allocation Cloud Service

This chapter provides an overview of Oracle Retail Allocation Cloud Service.

Information Maintained by Allocation Cloud Service

The following information is maintained in the Allocation Cloud Service application:

Standard Allocations - Oracle Retail Allocation Cloud Service provides the customer a number of sources from which to allocate products. These sources include:

- Purchase Orders
- Advanced Shipment Notifications (ASN)
- Transfers
- Bill of Lading (BOL)
- Warehouse inventory
- Approved warehouse-to-warehouse allocations

Customers have more access and control to existing transactions as a result of the different item sources, which results in increased supply chain efficiency.

What if Allocations - These allocations are similar to the standard ones with the exception that it is assumed that these have an infinite amount of product available to allocate. This allows a customer to determine the true need for the locations being allocated to, and they can choose to create a purchase order based on the allocation to fulfill the need. The user can also enter a finite available quantity during the creation of a 'what if' allocation, in which case this value gets treated as an upper cutoff.

Scheduled Allocations - Manually re-creating allocations that have the same criteria requires time. Oracle Retail Allocation Cloud Service allows users to define an allocation and schedule it to be automatically re-created on specific dates and time until the end date is met, warehouse stock is depleted, or threshold is met.

Allocation Templates - Oracle Retail Allocation Cloud Service users can create standard templates to apply to allocations to save time. Two types of templates can be created: allocation location groups and policy.

Policies - Oracle Retail Allocation Cloud Service requires the selection of a policy for the calculation of an allocation. The policy defines the source of the data used in the calculation of the allocation and other parameters that are used in the calculation.

Advanced Need Determining Calculations - Allocations are calculated in real time by advanced internal algorithms that calculate store or warehouse need based on the policy parameters established by the customer and the current perpetual inventory and sales for the items being allocated.

Split Allocations - Oracle Retail Allocation Cloud Service allows users to react to changes (such as short ships, delays, and cancelled product) by splitting an allocation. Using this functionality, users can split one or many items off from an existing allocation and onto a new allocation of their own.

Implementation Considerations

As part of the implementation of Allocation Cloud Service, customers may need to make specific choices about Merchandising item setup and location ranging. Customers may also need to populate tables used by Allocation Cloud Service in order leverage certain functionality, such as size profiles or auto quantity limits. This section provides details on the expected values to leverage these capabilities.

Allocation Cloud Service Item Types

The way items are classified in Allocation Cloud Service is different from Merchandising Foundation Cloud Service and most of the enterprise. The ALC_ITEM_TYPE is best explained with examples. This is not the exhaustive list of possible combinations, but is instead an illustration of possibilities. When examples of the data in the item_master table are presented, please be aware that the example only shows a small subset of the columns on the table. Not all items in the ITEM_MASTER table will be considered by Allocation Cloud Service. Thus, not all items in ITEM_MASTER will have the ALC_ITEM_TYPE column populated.

ALC_ITEM_TYPES

- Staple Item (ST)
- Sellable Pack (SELLPACK)
- Style (STYLE)
- Fashion Item (FA)
- Fashion SKU (FASHIONSKU)
- Pack Component (PACKCOMP)
- Non-sellable Fashion Simple Pack (NSFSP)
- Non-sellable Staple Simple Pack (NSSSP)
- Non-sellable Staple Complex Pack (NSSCP)
- Non-sellable Fashion Multi-color Pack (NSFMCP)
- Non-sellable Fashion Single Color Pack (NSFSCP)

Staple Item

A one level item is not related to any other items.

Item (ID, not null)	Item_ parent (nullable)	Item_ grandparent (nullable)	Item_level (not null)	Tran_level (not null)	Diff_1	Diff_2	ITEM_ AGGREGA TE_IND	ALC_ ITEM_ TYPE
182920285	Null	Null	1	1	Null	Null	N	ST

Transaction level items of multiple level item families that have their aggregation indicator marked as N.

Item (ID, not null)	Item_ parent (nullable)	Item_ grandparent (nullable)	Item_level (not null)	Tran_level (not null)	Diff_1	Diff_2	ITEM_ AGGREGATE _IND	ALC_ ITEM_ TYPE
100001393	Null	Null	1	2	COLOR	SIZE	N	
100001828	100001393	Null	2	2	RED	SMALL	N	ST
100001561	100001393	Null	2	2	BLUE	SMALL	N	ST
100075018	Null	Null	1	3	null	null	N	
100075026	100075018	Null	2	3	null	null	N	
100075034	100075026	100075018	3	3	null	null	N	ST

Sellable Packs

All pack items that have ITEM_MASTER.sellable_ind = Y are classified as Sellable Packs in Allocation Cloud Service.

Item (ID, not null)	Item_level (not null)	Tran_level (not null)	PACK_IND	SELLABLE_ IND	ALC_ITEM_ TYPE
110919650	1	1	Y	Y	SELLPACK
110919649	1	1	Y	Y	SELLPACK
111394648	1	1	Y	Y	SELLPACK

Fashion Item Families

These are item families where the transaction level is 2 and the aggregation indicator at level 1 is Y. Allocation Cloud Service introduces a new level between the level 1 item and the level 2 items. These intermediate level items (1.5) do not exist on the ITEM_MASTER table.

Level 1 items hold differentiator groups and level 2 items hold differentiators in fashion item families

Item (ID, not null)	Item_ parent (nullable)	Item_ grandp arent (nullabl e)	Item_ level (not null)	Tran_ level (not null)	Diff_1	Diff_2	ITEM_ AGGRE GATE_ IND	DIFF_ 1_ AGGRE GATE_ IND	DIFF_ 2_ AGGRE GATE_ IND	ALC_ITEM_ TYPE
100001393	Null	Null	1	2	COLOR	SIZE	Y	Y	N	STYLE
100001828	100001393	Null	2	2	RED	SMALL	N	N	N	FASHIONSKU
100001561	100001393	Null	2	2	RED	LARGE	N	N	N	FASHIONSKU
100001465	100001393	Null	2	2	BLUE	SMALL	N	N	N	FASHIONSKU
100001721	100001393	Null	2	2	BLUE	LARGE	N	N	N	FASHIONSKU

The Allocation Cloud Service constructed items (FA) between the STYLE items and the FASHIONSKU items are a combination of the STYLE and the unique aggregation diffs of the FASHIONSKU items. In our example the STYLE is 100001393. The unique aggregation diffs (where the DIFF_X_AGGREGATION_IND is Y at the STYLE level): RED, BLUE. They are concatenated in this format {STYLE agg position~aggregation diff}

ITEM	ALC_ITEM_TYPE
100001393 1~RED	FA

ITEM	ALC_ITEM_TYPE
100001393 1~BLUE	FA

The same example if DIFF_2_AGGREGATE_IND is Y instead of DIFF_1_AGGREGATE_IND

Item (ID, not null)	Item_ parent (nullable)	Item_ grandp arent (nullabl e)	Item_ level (not null)	Tran_ level (not null)	Diff_1	Diff_2	ITEM_ AGGRE GATE_ IND	DIFF_ 1_ AGGRE GATE_ IND	DIFF_ 2_ AGGRE GATE_ IND	ALC_ITEM_ TYPE
100001393	Null	Null	1	2	COLOR	SIZE	Y	N	Y	STYLE
100001828	100001393	Null	2	2	RED	SMALL	N	N	N	FASHIONSKU
100001561	100001393	Null	2	2	RED	LARGE	N	N	N	FASHIONSKU
100001465	100001393	Null	2	2	BLUE	SMALL	N	N	N	FASHIONSKU
100001721	100001393	Null	2	2	BLUE	LARGE	N	N	N	FASHIONSKU

ITEM	ALC_ITEM_TYPE
100001393 2~SMALL	FA
100001393 2~LARGE	FA

Non-sellable Staple Simple Pack

These are non-sellable simple packs that contain only 1 component item. The component item must be classified as a Staple item by Allocation Cloud Service.

In this example pack item 110919650 is a simple pack with 1 component item 110919649 which is a ST item.

Item (ID, not null)	Item_level (not null)	Tran_level (not null)	PACK_IND	SELLABLE_ IND	SIMPLE_ PACK_IND	ALC_ITEM_ TYPE
110919650	1	1	Y	N	N	NSSSP
110919649	1	1	N	Y	N	ST

Non-sellable Fashion Simple Pack

These are non-sellable simple packs that contain only 1 component item. The component item must be classified as a Fashion SKU item by Allocation Cloud Service.

In this example pack item 110919650 is a simple pack with 1 component item (110919649) which is a FASHIONSKU item.

Item (ID, not null)	Item_level (not null)	Tran_level (not null)	PACK_IND	SELLABLE_ IND	SIMPLE_ PACK_IND	ALC_ITEM_ TYPE
110919650	1	1	Y	N	N	NSSSP
110919649	1	1	N	Y	N	FASHIONSKU

Non-sellable Staple Complex Pack

These are non-sellable complex packs that only contain staple items as components.

In this example pack item 110919650 is a simple pack with 3 component items which are ST items.

Item (ID, not null)	Item_level (not null)	Tran_level (not null)	PACK_IND	SELLABLE_ IND	SIMPLE_ PACK_IND	ALC_ITEM_ TYPE
110919650	1	1	Y	N	N	NSSSP
110919649	1	1	N	Y	N	ST
110919648	1	1	N	Y	N	ST
110919647	1	1	N	Y	N	ST

Non-sellable Fashion Single Color Pack

These are non-sellable complex packs that only contain FASHIONSKU components. The component items must all share the same item_parent. The component items must all share the same aggregate diff values.

In this example, let's say pack item 110919650 has two components: 100001828 and 100001561. The two components share a common parent item (100001393). The two components are classified as FASHIONSKU in ALC_ITEM_TYPE. The aggregation diff for the STYLE the components both belong to is position 1 and both components have the same value for DIFF_1.

Item (ID, not null)	Item_ parent (nullable)	Item_ grand parent (nulla ble)	Item_ level (not null)	Tran_ level (not null)	Diff_1	Diff_2	ITEM_ AGGR EGAT E_IND	DIFF_ 1_ AGGR EGAT E_IND	DIFF_ 2_ AGGR EGAT E_IND	PACK_ IND	SELL ABLE _IND	SIMP LE_ PACK _IND	ALC_ ITEM_ TYPE
100001393	Null	Null	1	2	COLOR	SIZE	Y	Y	N	N	Y	N	STYLE
100001828	100001393	Null	2	2	RED	SMALL	N	N	N	N	Y	N	FASHION SKU
100001561	100001393	Null	2	2	RED	LARGE	N	N	N	N	Y	N	FASHION SKU
100001465	100001393	Null	2	2	BLUE	SMALL	N	N	N	N	Y	N	FASHION SKU
100001721	100001393	Null	2	2	BLUE	LARGE	N	N	N	N	Y	N	FASHION SKU
110919650	Null	Null	1	1	Null	Null	N	N	N	Y	N	N	NSFSCP

Non-sellable Fashion Multi Color Pack

These are non-sellable complex packs that only contain FASHIONSKU components. The component items must all share the same item_parent. The component items can have varying aggregate diff values.

In this example, let's say pack item 110919655 has two components: 100001828 and 100001721. The two components share a common parent item (100001393). The two components are classified as FASHIONSKU in ALC_ITEM_TYPE. The aggregation diff for the STYLE the components both belong to is position 1 and both components have different values for DIFF_1.

Item (ID, not null)	Item_ parent (nullable)	Item_ grand parent (nulla ble)	Item _level (not null)	Tran _level (not null)	Diff_1	Diff_2	ITEM_ AGGR EGAT E_IND	DIFF_ 1_ AGGR EGAT E_IND	DIFF_ 2_ AGGR EGAT E_IND	PACK _IND	SELL ABLE _IND	SIMP LE_ PACK _IND	ALC_ ITEM_ TYPE
100001393	Null	Null	1	2	COLOR	SIZE	Y	Y	N	N	Y	N	STYLE
100001828	100001393	Null	2	2	RED	SMALL	N	N	N	N	Y	N	FASHION SKU
100001561	100001393	Null	2	2	RED	LARGE	N	N	N	N	Y	N	FASHION SKU
100001465	100001393	Null	2	2	BLUE	SMALL	N	N	N	N	Y	N	FASHION SKU
100001721	100001393	Null	2	2	BLUE	LARGE	N	N	N	N	Y	N	FASHION SKU
110919655	Null	Null	1	1	Null	Null	N	N	N	Y	N	N	NSFMCP

Items Not Supported By Allocation Cloud Service

Item below transaction level items

Allocation Cloud Service does not support Items where the item_level is greater than the tran_level.

Non-sellable complex packs that contain a mix of FASHIONSKU and ST components

Allocation Cloud Service does not support packs with both ALC_ITEM_TYPE = FASHIONSKU and _ITEM_TYPE = ST components.

Non-sellable complex packs that contain FASHIONSKU items with different parent items

Allocation Cloud Service does not support packs with component items that belong to more than one fashion item family.

Size Profile

Overview

All fashion, fashion pack, and fashion group allocations need to have size profile information. Size profile information is determined based on the selling ratio of the fashion items and is used to spread the quantity being allocated from Style/Color down to the SKU level. If an item / destination location does not have size profile information, it is excluded while performing the calculations.

In order to properly use Allocation Cloud Service for fashion items, customers need to populate the size profile data either through the UI or the database table. Each record should have hierarchy, location, and quantity information and should only contain details relevant to the target hierarchy level. For further information about size profile, see the Allocation Cloud Service and SPO section.

A combination of a merchandise hierarchy and location group can have multiple size profiles set up, which are termed as Generation IDs (GIDs). Size Profile Optimization application in RPAS provides size profile information for different seasons. These seasonal profiles are stored using three different tables in Allocation Cloud Service.

Column	Required	Description
ID	Y	This is the primary unique ID generated from the sequence
GID	Y	This is the GID season code, populated from SPO
GID_DESC	Y	The description for the GID
CREATED_BY	Y	Indicates the user who created the record
CREATION_DATE	Y	The timestamp of the record creation date
LAST_UPDATED_BY	Y	Indicates the user who last updated the record
LAST_UPDATE_DATE	Y	The timestamp of the last updated date for the record
LAST_UPDATE_LOGIN	Y	Indicates the session login associated to the user who last updated the row.

Column	Required	Description
GID_ID	Y	This is the foreign key to the primary key of ALC_GID_HEADER
GID_PROFILE_ID	Y	This is the primary unique ID generated from the sequence
CREATED_BY	Y	Indicates the user who created the record
CREATION_DATE	Y	The timestamp of the record creation date
LAST_UPDATE_DATE	Y	The timestamp of the last updated date for the record
LAST_UPDATE_LOGIN	Y	Indicates the session login associated to the user who last updated the row

Column	Required	Description
SIZE_PROFILE_ID	Y	This column is auto-generated
LOC	Y	This column stores the location to which the size profile will apply. This column should always be populated
DEPT	N	This column stores the dept to which the size profile will apply. This column should be populated only for dept, class, and subclass level size profiles.
CLASS	N	This column stores the class to which the size profile will apply. This column should be populated only for class, and subclass level size profiles.
SUBCLASS	N	This column stores the subclass to which the size profile will apply. This column should be populated only for subclass level size profiles.

Column	Required	Description
STYLE	N	This column stores the Style Id to which the size profile will apply. This column should be populated only for Style, or Style Diff level size profiles.
SIZE1	N	This column stores the aggregated or non-aggregated Diff_1 information to which the size profile will apply. In the case of Style_Diff level, this column contains the aggregated or non-aggregated diff. In the case of Dept, Class, Subclass or Style Level; This column contains the non-aggregated diff.
SIZE2	N	This column stores the aggregated or non-aggregated Diff_2 information to which the size profile will apply. In the case of Style_Diff level, this column contains the aggregated or non-aggregated diff. In the case of Dept, Class, Subclass or Style Level; This column contains the non-aggregated diff.
SIZE3	N	This column stores the aggregated or non-aggregated Diff_3 information to which the size profile will apply. In the case of Style_Diff level, this column contains the aggregated or non-aggregated diff. In the case of Dept, Class, Subclass or Style Level; This column contains the non-aggregated diff.
SIZE4	N	This column stores the aggregated or non-aggregated Diff_4 information to which the size profile will apply. In the case of Style_Diff level, this column contains the aggregated or non-aggregated diff. In the case of Dept, Class, Subclass or Style Level; This column contains the non-aggregated diff.
SIZE_GROUP1	Y	This column stores the value 'X'
SIZE_GROUP2	N	This column stores the value 'null'.
QTY	Y	This column stores the individual size profile quantity.
CREATED_BY	Y	This column stores the created by user name
CREATION_DATE	Y	This column stores the creation date
LAST_UPDATED_BY	Y	This column stores the last updated by user name
LAST_UPDATE_DATE	Y	This column stores the last updated date
LAST_UPDATE_LOGIN	Y	This column stores the last updated login
OBJECT_VERSION_NUMBER	Y	This column store the object version number

Column	Required	Description
GID_PROFILE_ID	N	This column stores the GID_PROFILE_ID. This column is populated when the size profile is part of a Seasonal or Generation set. This column is null if it is a standard size profile. This column is a Foreign Key on the table ALC_GID_PROFILE
SIZE_PROFILE_LEVEL	Y	This column stores a numerical size profile level. Dept = 1, Class = 2, Subclass = 3, Style = 4, Style_Diff = 5

Auto Quantity Limits

Overview

Auto quantity limits provides users a way to store pre-defined quantity limits for multiple merchandise hierarchy levels, including item, style diff, style, department, class, and subclass levels. Auto quantity limits will automatically use the lowest available hierarchy level data to apply to each item location. The quantity limits information retrieved from the auto quantity limits table will display in the existing quantity limits section of the UI. These values will then be saved to the Allocation Cloud Service as normal quantity limits, so once auto quantity limits are applied to an allocation, any subsequent changes to the values in the auto quantity limits table will not be reflected automatically. The user will need to load the allocation, first uncheck and then select the 'Auto Quantity Limits' checkbox present in the quantity limits tab which will apply the latest set of values to the current allocation. Auto quantity limits can be defaulted for every allocation through a system option. A UI is also available to define or update the Auto Quantity Limits values.

Implementation

In order to use the auto quantity limits, customers need to populate the auto quantity limits table manually or through the UI. Each record should have hierarchy and location information and should only contain information relevant to the target hierarchy level. Every record uses a start and end date to determine the effective dates of that record. Start dates must be populated, however, end dates are optional.

Overlapping dates for a particular hierarchy level location are not supported. If there is a record with no end date specified, then only records with start and end dates can be populated in the time period before the start of the original record which has no end date.

Column	Required	Description
AUTO_QUANTITY_LIMITS_ID	Y	This column is auto-generated
LOCATION_ID	Y	This column stores the location to apply the quantity limits to. This column should always be populated
DEPT	N	This column stores the department to apply the quantity limits to. This column should be populated only for department, class, and subclass level quantity limits.
CLASS	N	This column stores the class to apply the quantity limits to. This column should be populated only for class, and subclass level quantity limits.

Column	Required	Description
SUBCLASS	N	This column stores the subclass to apply the quantity limits to. This column should be populated only for subclass level quantity limits.
ITEM_ID	N	This column stores the Item id or Style Id to apply the quantity limits to. This column should be populated only for Item, Style, or Style Diff level quantity limits.
DIFF_1	N	This column stores the Diff_1 information to apply the quantity limits to. This column should be populated only for Style Diff level quantity limits where Diff_1 is the aggregate Diff.
DIFF_2	N	This column stores the Diff_2 information to apply the quantity limits to. This column should be populated only for Style Diff level quantity limits where Diff_2 is the aggregate Diff.
DIFF_3	N	This column stores the Diff_3 information to apply the quantity limits to. This column should be populated only for Style Diff level quantity limits where Diff_3 is the aggregate Diff.
DIFF_4	N	This column stores the Diff_4 information to apply the quantity limits to. This column should be populated only for Style Diff level quantity limits where Diff_4 is the aggregate Diff.
START_DATE	Y	This column stores the date when this record can start to be applied. This column should always be populated.
END_DATE	N	This column stores the date that this record can no longer be applied. This column does not need to be populated, in which case, anything date after the start date is valid.

Integration with Other Applications

A retailer that acquires Oracle Retail Allocation Cloud Service gains the ability to achieve more accurate allocations on a stable product. Having the right product in the right stores or warehouses allows for service levels to be raised, sales to be increased, and inventory costs to be lowered. By accurately determining which stores or warehouses should get which product, retailers can meet their turnover goals and increase profitability.

Merchandising Foundation Cloud Service owns virtually all of the information that Oracle Retail Allocation Cloud Service needs to operate and the information that Oracle Retail Allocation Cloud Service provides is of primary interest/use for Merchandising Foundation Cloud Service. As a result, Oracle Retail Allocation Cloud Service has limited interaction with other Oracle Retail Merchandising Operations Management applications. For Oracle Retail Merchandising Operations Management applications that Oracle Retail Allocation Cloud Service does interact with, it is managed through direct reads from Oracle Retail Merchandising Operations Management application tables, direct calls to Oracle Retail Merchandising Operations Management packages, and Oracle Retail Allocation Cloud Service packages based on Oracle Retail Merchandising Operations Management application tables.

For more information on the Merchandising Foundation Cloud Service Architecture, see *Retail Reference Architecture artifacts on My Oracle Support*.

Allocation Cloud Service and Merchandising Foundation Cloud Service

Merchandising Foundation Cloud Service provides the following key information to Allocation Cloud Service:

- **Foundation Data**-This information is essential to all areas of Oracle Retail Allocation Cloud Service including valid locations to allocate to and from, location groupings, valid merchandise hierarchies to allocate within, and so forth.
- **Item**-Allocations are generated at the item/location level so it is necessary that the Allocation Cloud Service application understands what items and item/locations are eligible in the system.
- **Purchase Order**-One of the sources from which a user allocates is an approved Purchase Order. Oracle Retail Allocation Cloud Service relies on Merchandising Foundation Cloud Service to provide Purchase Order information.
- **Transfer**-One of the sources from which a user allocates is an approved Transfer. Oracle Retail Allocation Cloud Service relies on Merchandising Foundation Cloud Service to provide Transfer information.
- **BOL**-One of the sources from which a user allocates is a bill of lading. Oracle Retail Allocation Cloud Service relies on Merchandising Foundation Cloud Service to provide BOL information.
- **ASN** -One of the sources from which a user allocates is an ASN. Oracle Retail Allocation Cloud Service relies on Merchandising Foundation Cloud Service to provide ASN information.
- **Approved Allocation** - Allocation Cloud Service relies on Merchandising Foundation Cloud Service for approved warehouse to warehouse allocation identifiers, which can be used to source further allocations.
- **Inventory** -In order to determine the correct need at an item-location level before performing an allocation, the application needs visibility to the current on-hand inventory at each location being allocated to. Oracle Retail Allocation Cloud Service relies on Merchandising Foundation Cloud Service to provide inventory information at the item/location level.
- **Shipping Information** - Once an allocation is shipped by the Warehouse Management System, this information is passed on to the Merchandising Foundation Cloud Service. This shipment information implies that the allocation has been processed and is not available for any further user edits from the UI. Oracle Retail Allocation Cloud Service relies on the Merchandising Foundation Cloud Service to provide shipment information.
- **Sales Information** - Oracle Retail Allocation Cloud Service uses historical sales, forecast sales, and plan in order to determine the need at an item/location level for an allocation. Oracle Retail Allocation Cloud Service relies on Merchandising Foundation Cloud Service to provide sales information, RDF to provide forecast information, and Assortment Planning (or external planning system) to provide plan information.
- **Item/Location Ranging** - Oracle Retail Allocation Cloud Service uses the item/location ranging data set up in Merchandising Foundation Cloud Service. The following logic is applied during the determination of valid item/location combinations:
 - a. For Staple, Fashion and Sellable Pack items, the transaction item will be used to determine valid Item/Location ranging.

- b. For Non Sellable Packs, Pack or Component item will be used to determine the valid Item/Location ranging, by considering FP_PACK_RANGING value P or C in System Options.

Allocation Cloud Service uses Merchandising Foundation Cloud Service ITEM_LOC, Store and WH table to identify the valid Location, logic is as follows:

- If the 'Use Default Sourcing Location Only' checkbox is checked, then the SOURCE_WH in ITEM_LOC table is considered first to identify the warehouse that is valid to allocate to a destination location. If this is not found, then the DEFAULT_WH specified in the Store or WH table for the destination location will be used.
- If the 'Use Default Sourcing Location Only' checkbox is not checked, then the SOURCE_WH in ITEM_LOC table is considered first to identify the warehouse that is valid to allocate to a destination location. If this is not found, then the DEFAULT_WH in Store or WH table for the destination location will be used. If neither of these options is able to meet the destination need, then a sequencing logic will be used based on the ORG_UNIT, CHANNEL, PROTECTED indicator (of the source warehouse), and PRIMARY indicator (of the source warehouse) in the Store or WH table will be used to identify the valid Source based on the legal entity which will be either the transfer entity or set of books, depending on the Intercompany Basis defined in Merchandising Foundation Cloud Service. For more details, see the *Oracle Retail Allocation Cloud Service User Guide*.

Allocation Cloud Service and Pricing Cloud Service

- Future Retail – This information is used to provide the future retail price values of the set of items present in an allocation based on their respective allocated quantities. Allocation Cloud Service relies on Pricing Cloud Service to provide this information at an item/ location level for the current system date as well as the release date of the allocation.
- Promotion – Oracle Retail Allocation Cloud Service relies on Pricing Cloud Service to provide information on active or future promotions. An allocation can be tagged to the relevant promotion for better tracking.

Allocation Cloud Service and Trade Management

No information is exchanged.

Allocation Cloud Service and Sales Audit

No information is exchanged.

Allocation Cloud Service and Invoice Matching Cloud Service

No information is exchanged.

Allocation Cloud Service and Assortment Planning

Allocation Cloud Service is integrated with RPAS Assortment Planning via RETL using the Receipt Plan feature. Assortment Plan data ideally represents what the store or warehouse is expected to receive at the item level.

Allocation Cloud Service and Size Profile Optimization

Oracle Retail Size Profile Optimization enables you to create various seasonal sets of store size profile data in terms of generation IDs (GIDs). GIDs are commonly created in advance of a selling period and based off current trend. Oracle Retail Allocation Cloud Service will allow you to select a specific GID to be applied during the allocation process. This is illustrated in the following three business case examples:

- **Business Case 1:** When creating a pre-allocation for the upcoming fall season. You may want to use a forward out Subclass Fall 2020 set of size profile data. This helps to better align the planning and execution process.
- **Business Case 2:** When creating an in-season allocation, where the allocation is expected to be processed the next day, you may want to take advantage of a current trend GID and select the Style level GID set of size profile data. Results will be based off actual trend data.
- **Business Case 3:** For key items, you may want to apply key item level specific GIDs instead of the store size profile data created at higher levels, such as Class or Subclass.

Note: The GID option applies only to stores. For a fashion allocation involving destination warehouses, there are other options to determine the size profile. For more details, see the *Oracle Retail Allocation Cloud Service User Guide*.

Allocation Cloud Service System Options

In order to increase operational efficiencies, Allocation Cloud Service has provided the ability of viewing/maintaining the system properties settings via the UI based on user privileges. The Allocation Foundation > Manage System Options under the updated Task List allows you to view various system settings.

The System Options UI displays the existing set of system options in the form of logically grouped containers. Out of the set of options, System Properties which are global system settings and get configured and defined during install and implementation are controlled and maintained by the System Administrator user role. The User Group Properties are the ones which the Allocation Cloud Service user group can manage such as business trend and needs which change due to a shift in season or a change in their business model. These properties are controlled and maintained by the Allocation Manager user role. Allowing allocation users have view access of these settings which allows for them to better understand the Allocation Cloud Service product, process and results.

System Properties

- **END OF WEEK DAY**
Indicates the day treated as the end of the week. This system option is vital for all customers implementing Oracle Retail Allocation Cloud Service. Any weekly rollups performed by the application during need calculations are based on this setting. For accurate results, this needs to be in sync with the setup within the merchandising system.
- **DISPLAY ITEM LOCATION WARNING**
Indicates whether a warning message needs to be displayed to the user in case of, selection of an invalid item/location combination. This system option is important

for customers to understand that invalid item/locations combinations have been added in an allocation. Once these are identified, the user can take necessary steps to rectify them before proceeding with the workflow.

- **AUTO UPDATE LOCATION GROUP**

Indicates whether the location groups need to be updated for worksheet allocations. This system option is important for customers who extensively use location groups. In cases where a location group undergoes modifications within the merchandising system, where there are stores that were added to or deleted from the group, the Allocation Cloud Service user would be alerted of such changes on accessing an allocation making use of the modified location group.

- **SIZE PROFILE VALIDATION LEVELS**

Indicates the levels at which the validation should be done. The valid values are STYLE, STYLE/COLOR, SUBCLASS, CLASS, and DEPT. If you want to specify more than one value, then use the comma as a delimiter.

This needs to be set to the merchandise hierarchy levels at which the retailer is likely to store the size profile data.

- **USE SISTER STORE DEMAND**

Indicates whether the need of a similar store can be used during allocation calculation. If this is set to True, the system uses the sister store's need when the records don't exist for a store. If this is set to False, the system uses the sister store's need when the records don't exist for a store or when there are existing records but with zero need.

This gives the retailer the option to use item sales data from a like store in case of no existing records from the store in the allocation or there is a new store receiving goods for the first time and which is unlikely to have any past history data.

- **CONSIDER ON ORDER IN STOCK CALCULATION**

Indicates whether the On Order quantities against open purchase orders are considered while calculating item stock on hand.

On Order quantities against open purchase orders are considered while calculating stock on hand (SOH) for the items in the order only if this option is set to Yes. This setting needs to be taken into consideration while analyzing the net need quantity generated for a store by the calculation algorithm.

- **LOCATION STATUSES TO EXCLUDE**

Indicates the item-location relationship status that needs to be excluded from product sourced allocations. Separate multiple statuses with a space. Example: Location Exception Reason Product Sourced = C D I. If you want to exclude a non-existing item location relationship, add NULL to the list.

Within the merchandising system, there are multiple item-location relationships that may exist. During the implementation phase, it is very important that the retailer takes a decision around which of these relationships would be considered valid during the creation process for a regular allocation. Defining the set of invalid relationship status through this system option removes an additional overhead of having to individually examine each allocation and manually remove invalid item location combinations.

- **LINK PROMOTIONS**

Indicates whether or not the system should allow the user to link promotions with an allocation during the creation process.

- **DISPLAY FUTURE RETAIL**

Indicates if the user will be allowed to view the future unit retail for items present in an allocation.
- **"WHAT IF" SUMMARY DEFAULT ACTION**

Indicates the What If Summary Default Action: Create or Update PO.
- **LOCATION STATUSES TO EXCLUDE**

Indicates the item-location relationship status that needs to be excluded from What If allocations. Separate multiple statuses with a space. Example: Location Exception Reasons What If = C D I. If you want to exclude a non-existing item location relationship, add NULL to the list.

Within the merchandising system, there are multiple item-location relationships that may exist. During the implementation phase, it is very important that the retailer takes a decision around which of these relationships would be considered valid during the creation process for a 'what if' allocation. Defining the set of invalid relationship status through this system option removes an additional overhead of having to individually examine each allocation and manually remove invalid item location combinations.
- **DEFAULT IMPORT WAREHOUSE**

Indicates the default warehouse for import based purchase orders from What If allocations. This is a non-finisher virtual warehouse where the customer would require the delivery of purchase orders created out of What If allocations. It needs to be noted here that this warehouse would be considered only in cases where the destination stores do not have a designated default delivery warehouse in the merchandising system.

Business example: Default What If Import Warehouse = VWH1. For store S1, default delivery warehouse in the merchandising system = VWH2. For store S2, there is no default delivery warehouse in the merchandising system. In the above setting, a What If PO raised for S1 would be sent to VWH2 and for S2 would be sent to VWH1.
- **IMPORT WAREHOUSES**

Indicates the set of warehouses that can be used for import based purchase orders from What If allocations. These are non-finisher virtual warehouses where the customer would require the delivery of purchase orders created out of What If allocations. Multiple values need to be comma separated.
- **DEFAULT WAREHOUSE FOR BULK ORDERS**

Indicates the non-finisher virtual bulk warehouse ID for PO creation for What If allocations. This is a non-finisher virtual warehouse where the customer would require the delivery of bulk purchase orders created out of What If allocations. It needs to be noted here that this warehouse would be considered only in cases where the destination stores do not have a designated default delivery warehouse in the merchandising system.

Business example: Bulk Warehouse Setting = VWH1. For store S1, default delivery warehouse in the merchandising system = VWH2. For store S2, there is no default delivery warehouse in the merchandising system. In the above setting, a bulk PO raised for S1 would be sent to VWH2 and for S2 would be sent to VWH1.
- **ITEM SOURCE QUERY LEVEL**

For this property, the retailer would need to set the merchandise hierarchy at which the maximum number of item queries are likely to be carried out while creating a What If allocation. This would largely need to be a corporate decision during the implementation phase.

- **CONSIDER FUTURE AVAILABLE**

Indicates whether or not to consider Future Available inventory for What If Allocations. True - Use the future SOH; False - Use the current SOH only.

While raising purchase orders out of What If Allocations, this system option gives the retailer the extra edge of being able to see inventory likely to be delivered within the time horizon of the allocation at the locations being covered by the allocation. The order quantity gets optimized as a result of this and it also safeguards the retailer against over-allocation and markdown scenarios.

- **LOCATION LIST THRESHOLD**

Indicates threshold value to be used in SQL IN while fetching a location list.

- **ITEM SEARCH MAXIMUM ROW COUNT**

Indicates the limitation on the number of rows that are returned by the item search.

- **ALLOCATION RETENTION**

Indicates the number of days you can retain allocations that are not linked to Merchandising Foundation Cloud Service allocations in the system without them being picked up by the purge batch. This is calculated based on the last modified date of the allocation.

- **WORKSHEET RETENTION**

Indicates the number of days to keep worksheets not linked to any Merchandising Foundation Cloud Service allocations in the system. Purging occurs once this time frame is over.

- **BATCH PROVIDER PATH**

Indicates the WebLogic context Uniform Resource Locator (URL) that the Async process uses. This property requires a reboot/restart of Oracle Retail Allocation Cloud Service to take effect.

- **CALCULATION LOG PATH**

Directory path to hold calculation dat files. This property requires a reboot/restart of Oracle Retail Allocation Cloud Service to take effect.

User Group Properties

The User Group properties are assigned to the Allocation Manager standard user role.

- **BAYESIAN SENSITIVITY FACTOR FOR PLAN REPROJECT**

Indicates the plan sensitivity value used while using the Plan Re-project policy. The sensitivity factor is set to 0.3 by default. This value can be changed to any value between zero to one based on the requirements.

- **DEFAULT RELEASE DATE**

Indicates whether or not to use Default Release Date. 'Yes' indicates Allocation Cloud Service will have a default release date and 'NO' indicates Allocation Cloud Service will not have a default release date.

- **DEFAULT AUTO QUANTITY LIMITS**

Indicates whether or not to use Default Auto Quantity Limits. 'Yes' indicates Allocation Cloud Service will have Default Auto Quantity Limits and 'No' indicates Allocation Cloud Service will not have Default Auto Quantity Limits
- **DISPLAY SECONDARY DESCRIPTION**

Indicates whether to display secondary description of store or supplier in store field and supplier field respectively.
- **ALLOCATE ACROSS LEGAL ENTITIES**

Indicates whether or not the user can cross legal entities while allocating goods. 'YES' indicates Allocations cannot cross legal entities and 'NO' indicates Allocation can cross legal entities.
- **ENFORCE BREAK PACK FUNCTIONALITY**

Indicates whether the break pack functionality is enabled or not.
- **DEFAULT PRESENTATION MINIMUM**

Indicates if presentation minimums are initially defaulted into the quantity limits UI. This field impacts the default setting of the Auto Quantity Limits check box in the Quantity Limits tab on the Policy Maintenance window.
- **LIMIT SKU OVERAGE**

Indicates the Limit SKU Overage value that is to be used while calculating.
- **DEFAULT CALCULATION/ORDER MULTIPLE**

Indicates the default store calculation multiple. Possible Values are:

 - Each
 - Inner
 - Case
 - Pallet
- **DEFAULT SOURCE TYPE FOR ITEM SEARCH PAGE**

Indicates the Item Source that will be checked by default when entering the Item Search page.
- **RULE TYPE FOR NEED DISPLAY IN ALLOCATION MAINTENANCE**

Indicates the rule type for which the need value is displayed on the Allocation Maintenance window.
- **DISTRIBUTION METHOD FOR QUANTITY LIMITS IN LOCATION GROUPS**

Indicates the method of splitting quantity limits across individual stores in a location group.
- **VALIDATION LEVEL FOR PACK RANGING**

Indicates the option of performing pack ranging at either of the following levels:

 - Pack Level: Allows the retail to plan and execute at the same level.
 - Component Level: Allows each unique component within the pack to be ranged to the store. If a single component of the pack is not ranged, the pack cannot be allocated to the store.
- **DAYS BEFORE RELEASE DATE**

Indicates the number of days before the release date, that is used during the creation of a purchase order for a What If allocation. This field is set to three days by default.

- **DAYS BEFORE RELEASE DATE FOR SCHEDULED ALLOCATION**

Indicates the number of days beyond the release date of a schedule allocation. The batch process uses the system date to derive the release date.

- **MAXIMUM ITEM DESCRIPTION DISPLAY LENGTH**

Indicates the maximum length to be used for display of Item descriptions in the user interface.

- **MAXIMUM ITEMS FOR DISPLAY IN USER SELECTION**

Indicates the maximum number of items per alternate hierarchy selection.

Operational Insights

Oracle Retail Operational Insights dashboards and reports provide pervasive Business Intelligence. To provide a seamless user experience, they are designed to be embedded within the Allocation Cloud Service application.

Operational Insights Dashboards and report does not require SSO for seamless integration of dashboards and reports except when there is a contextual launch from the report into a task flow of an external application. Such as in Allocation Cloud Service, there is a link from the PO Arrivals report to open the order maintenance task flow in Merchandising Foundation Cloud Service.

The ALC_SYSTEM_OPTIONS_OI table drives the configuration parameters for the Allocation Operational Insights dashboards reports and is present in the Allocation Cloud Service application database schema. This following table describes the configuration parameters for OI reports for Allocation Cloud Service:

System Option	Definition	Column Name
Need Calculation Type	The PO Arrival/Shipment Arrival report, WH Inventory report and the Allocated to Plan/Forecast have the ability to support using either Forecast or Plan data. Retailers should configure this parameter based on the data that they have available for their items and wish to see in these reports. Values - P (plan); F (forecast)	NEED_CALC_TYPE
Order Allocation Time threshold	Number of days before the not after date of the purchase order that the retailer expects a quantity greater than the 'Percentage Allocated PO Threshold' to be allocated.	PO_ALC_TIME_THRESHOLD
Order Threshold	The percentage of the warehouse order quantity against the given PO that is expected to be allocated within the 'PO Allocation Time Threshold' defined.	ALLOCATED_PO_THRESHOLD

Oracle Retail Invoice Matching Cloud Service

This chapter is an overview of Oracle Retail Invoice Matching Cloud Service.

Information Maintained by Invoice Matching Cloud Service

The following information is maintained in the Invoice Matching Cloud Service application.

Multi-dimensional matching utilizes complex matching logic designed to maximize match rates and processing productivity for both invoice and credit note matching.

Discrepancy routing identifies cost and quantity discrepancies when a match has not occurred after a user-specified period of time and automatically routes discrepancies to the Discrepancy Review List.

Resolution dialog offers a powerful, streamlined approach to handling invoice discrepancies where reviewers can disposition a discrepancy based on a set of user-defined reason codes.

Self-billing and deals bill-back integration provides robust integration with the Oracle Retail Merchandising Foundation Cloud Service that supports supplier billing for RTVs, rebates and other deals, consignments, direct store delivery, evaluated receipts, and other non-merchandise billings from obligations and customs entry.

Receiver adjustments integration provides direct updates of receiver cost and quantity adjustments initiated from the matching/resolution process to inventory valuation and positions in the Merchandising Foundation Cloud Service.

Best terms date uses payment terms rankings (predetermined by the user) to identify the invoice or purchase order term best supporting the retailer's cash management objectives. Payment terms and terms date information is exported to the retailer's accounts payable solution to support payment of the invoice, as well as processing of other documents.

Debit reversals allow the user to efficiently convert a supplier-disputed debit memo into an editable credit memo with supplier comments for resolution.

Matching tolerances offers the flexibility to set up tolerances by monetary range, nominal amount, or percent. Separate tolerances can be applied for quantity and cost and for discrepancies in either the retailer's or its supplier's favor. Tolerances created as individual entities and can be mapped to supplier site, supplier, supplier group, or department. One tolerance entity can be designated as the system default.

Integration with Other Applications

The Invoice Matching Cloud Service application's primary purpose is to match invoices so they can be exported to Accounts Payable (AP) to be paid. Invoice Matching Cloud Service has limited interaction with the Oracle Retail Merchandising Operations Management applications with the exception of Merchandising Foundation Cloud Service. Merchandising Foundation Cloud Service is the owner of the information that Invoice Matching Cloud Service needs to match invoices it receives.

Information from the Invoice Matching Cloud Service application is shared with Oracle Retail Merchandising Operations Management applications through direct reads from Oracle Retail Merchandising Operations Management application tables, calls to Oracle Retail Merchandising Operations Management application packages, Invoice Matching Cloud Service packages based on Oracle Retail Merchandising Operations Management application tables, and batch processes. Invoice Matching Cloud Service is also integrated with Oracle Retail Merchandising Operations Management via EDI link.

For more information on the Merchandising Foundation Cloud Service Architecture, see *Retail Reference Architecture artifacts on My Oracle Support*.

Invoice Matching Cloud Service and Merchandising Foundation Cloud Service

Merchandising Foundation Cloud Service provides the following to Invoice Matching Cloud Service:

- **Foundation Data** is essential to all parts of invoice matching, including valid locations for invoices to be executed, valid suppliers from which to receive invoices, supplier addresses to send credits and debits based on invoice matching results, and more.
- **Item** information is essential to the invoice matching process as item information ensures that invoices being received are valid for the business. For example, an item received on an invoice is carried by the client, is supplied by the supplier who sent the invoice, and is carried in the locations for which the item was received.
- **Purchase Orders** are used by Invoice Matching Cloud Service to facilitate the invoice matching process which can be performed at the purchase order/location level as well as the purchase order level.
- **Shipments** information is used by Invoice Matching Cloud Service to determine if a PO has been received, which affects the matching algorithm used by the AutoMatch batch program in Invoice Match Cloud Service, as well as online matching process.
- **Deals and Rebate**-Invoice Matching Cloud Service creates credit memos, debit memos, and credit note requests based on deal and rebate information in Merchandising Foundation Cloud Service for processing by the financial (AP) system. This is performed by the ComplexDealUpload and FixedDealUpload batch processes that read from Merchandising Foundation Cloud Service staging tables.
- **Staged Accounts Payable transactions**-Accounts Payable documents created in Merchandising Foundation Cloud Service for consignment invoices, Obligations invoices, customer entries invoices, payment transactions sent through Sales Audit, and Return to Vendor chargebacks (either debit memos or credit note requests) are staged to Invoice Matching Cloud Service staging tables in

Merchandising Foundation Cloud Service and extracted using the batch EDIDLINV to be loaded as EDI documents into Invoice Matching Cloud Service.

Invoice Matching Cloud Service provides the following to Merchandising Foundation Cloud Service/Trade Management/Sales Audit:

- **Invoice Matching results for shipments**-Shipment records are updated with the invoice matching results from the invoice match process. This involves updating the match status and quantity matched of the shipments in question. The matching process is handled by the AutoMatch batch process in Invoice Matching Cloud Service, which attempts to match all invoices in ready-to-match, unresolved, or multi-unresolved status, as well as online matching process.
- **Receiver Cost Adjustments**-An API executed when invoice matching discrepancies are resolved through a receiver cost adjustment. The API updates the purchase order, shipment, and potentially the item cost in Merchandising Foundation Cloud Service, depending on the reason code action used.
- **Receiver Unit Adjustments**-An API is executed when invoice matching discrepancies are resolved through a receiver unit adjustment. The API updates the purchase shipment in Merchandising Foundation Cloud Service to complete the transaction.
- **Closing unmatched shipments**-Invoice Matching Cloud Service closes the invoice matching status for shipments in Merchandising Foundation Cloud Service after a set period of time (defined by the client in system options). This updates the invoice matching status of the shipment on the shipment table in Merchandising Foundation Cloud Service. This process is managed by the ReceiptWriteOff batch program.
- Additionally Invoice Matching Cloud Service can provide information about inaccurate tax setup in Merchandising Foundation Cloud Service determined as part of tax discrepancy resolution process.

Invoice Matching Cloud Service and Trade Management

Trade Management provides to Invoice Matching Cloud Service:

- **Finalized Customs Entry**-When Customs Entries are confirmed in Trade Management, a non-merchandise invoice is automatically created in Invoice Matching Cloud Service staging tables.
- **Approved Obligations**-when an Obligation is approved in Trade Management, a non-merchandise invoice is automatically created in Invoice Matching Cloud Service staging tables.

Note: Invoice Matching Cloud Service provides no information to Trade Management.

Trade Management data, as well as any other data staged for Invoice Matching Cloud Service in Merchandising Foundation Cloud Service would need to be extracted from Merchandising Foundation Cloud Service using EDIDLINV Merchandising Foundation Cloud Service process to generate EDI files and loaded into Invoice Matching Cloud Service using EDIInjector from EDI files.

Invoice Matching Cloud Service and Sales Audit

Sales Audit provides the following to Invoice Matching Cloud Service:

Store Level Purchasing-Payments for merchandise purchases done at store level are booked against a corresponding merchandise invoice. Payments of non-merchandise purchases or miscellaneous services availed at the store are booked against a corresponding non-merchandise invoice. These transactions are passed from the POS/OMS to Sales Audit as specially designated PAID OUT transactions. All these invoices are assumed paid. The batch program SAEXPIM transfers the specially-designated PAID OUT type of transactions to the Invoice Matching Cloud Service staging tables for extract to the Invoice Matching Cloud Service application.

Escheatment Processing - Unclaimed monies of outstanding, non-expiring vouchers are totaled after a defined period from the date of issuance of the voucher and posted to Invoice Matching Cloud Service staging tables as a non-merchandise invoice by SAEXPIM. The unclaimed amount is paid out as income to the issuing retailer or, in some U.S. states; it is paid out to the state. Sales Audit determines who receives this income and accordingly posts a non-merchandise invoice for the partner. These invoices are assumed not paid.

Note: Invoice Matching Cloud Service provides no information to Sales Audit.

Invoice Matching Cloud Service and Allocation Cloud Service

Information is not shared between these applications.

Invoice Matching Cloud Service and Financial Systems

Invoice Matching Cloud Service exports data to financial staging tables through the FinancialPosting batch program. However, clients using any other system for financials must create their own interface to deliver information to that system. Invoice Matching Cloud Service validates accounts against the financial system.

Valid accounts can be pre-loaded into Invoice Matching Cloud Service to improve performance of the posting process.

Payment terms and currencies need to accurately synced between the financial system and Merchandising Foundation Cloud Service.

Invoice Matching Cloud Service provides optional extraction capability for the financial system data. The data can be extracted from the tables and exported as CSV files.

Invoice Matching Cloud Service and External Suppliers

Invoice Matching Cloud Service gets invoices from external suppliers in one of two ways: EDI or hardcopy. When EDI is used, the EdiInjector batch program is responsible for uploading the invoice details from the vendor using a standardized file format. When a hardcopy is used, the client needs to manually enter the invoice in the system before matching can proceed.

Notification to suppliers of charge backs and requests for credit notes, as well as credit memos is provided in a flat file extracted by EdiDownload batch process.

Internationalization

Internationalization is the process of creating software that can be translated more easily. Changes to the code are not specific to any particular market. The Merchandising applications are internationalized to support multiple languages.

This chapter describes configuration settings and features of the software that ensure that the base application can handle multiple languages.

Translation

Translation is the process of interpreting and adapting text from one language into another. Although the code itself is not translated, components of the application that are translated may include the following:

- Graphical user interface (GUI)
- Error messages
- Reports
- Spreadsheets

The following components are not translated:

- Documentation (online help, release notes, installation guide, user guide, operations guide)
- Batch programs and messages
- Log files
- Configuration tools
- Demonstration data
- Training materials

The user interface for Merchandising is translated into:

- Arabic
- Chinese (simplified)
- Chinese (traditional)
- Croatian
- Dutch
- English
- French

- German
- Greek
- Hungarian
- Italian
- Japanese
- Korean
- Polish
- Portuguese (Brazilian)
- Russian
- Spanish
- Swedish
- Turkish

Translation Support for Multiple Entities

Merchandising Cloud Services entities support translations in which the name or description or some text field for that entity can be maintained in other supported languages, in addition to the data integration language for that installation. There are more than 100 entities for which corresponding translations exist.

The translation entries are loaded based on the usage of the entities. The entities that are populated during install time also contain the seed script in all supported languages. This includes entities such as Units of Measure and Code Head and Code Detail.

User-created entities have the ability to maintain the translation values for individual entities. This includes entities such as items and merchandise hierarchy. Translation support is “inbuilt” in both the user interface for entities maintained through the UI, and in the spreadsheet as a separate worksheet for entities maintained through spreadsheet upload.

User Interface Language Display Settings

Merchandising users can select a preferred language through the UI user preference menu. The language selected in the user preference menu can be defaulted for all subsequent logins for that user, or it can be configured for that session only. The default language for the user, if the user preference is not set, is the browser default language.

Note: During installation, the primary language for the installation is English. This can be changed to any one of the supported languages either during installation or after installation. The primary language is also referred to as the Data Integration language.

All inbound and outbound integration with Merchandising will use names, descriptions, and so on in the Data Integration language only, even though those values are maintained in multiple languages.

Maintenance of Translation Values through the User Interface

In the user interface, there is a screen on which the entities supporting translation are maintained. The data on this screen changes depending on the user language configuration and the mode in which the user launches the screen.

The values loaded in the base table of the entity are always maintained in the Data Integration language for the installation. While in Create or Edit mode, all users maintain the Name or Description field of the Merchandising application entity in the Data Integration language. This is not affected by the a user's configured language.

If the user enters an entity page in View mode, the Name or Description field for that entity is visible in the user language (if entries exist in the entities translation table for the user language). If the user language entry is not the same as the Data Integration language, and there are no entries in the entities translation table, the data in the Data Integration language is presented to the user.

The entities that both support translation and are maintained through the user interface have two ways to maintain the translation entry through the UI:

1. On the main entity page, the user is presented with a globe icon. Clicking on the globe icon opens a translation popup in which the user is able to view and maintain other language entries for that entity, and the columns that support translation.

For example, in the case of the Item screen, the user is allowed to maintain translation values in all supported language for item description, short description and secondary description.

2. A generic Translation screen is available on the left navigation link. This allows users to maintain data across multiple entities through a single screen. When the user chooses the entity for which translation entries will be maintained, the data for that entity will be presented to the user. The user can then choose filters to identify a specific record. The translation entry can then be maintained for all supported languages.

Maintenance of Translation Values through Spreadsheet Uploads

For entities with translation support, translation entries can be maintained through spreadsheet uploads. These spreadsheets have an additional worksheet with the default name of the worksheet suffixed with `_TL` to indicate that it is a translation worksheet. The base-entity worksheet sets the values for the Name and Description columns in the primary language. The translation worksheet sets the translation values for the translatable columns in the non-Data-Integration language.

Translations

Oracle Retail Invoice Matching Cloud Service and Oracle Retail Allocation Cloud Service

Most user interface and message translations are stored in java files. When you select a different language from the Preferences screen, these applications selects the correct java file for that language.

Some translations for some drop-down menus are stored on database tables. The tables are `RTC_LOOKUP_VALUES_TL`, `RTC_LOOKUP_TYPES_TL`, `RAF_FACET_`

ATTRIBUTE_CFG_TL, RAF_MODEL_REPORTS_TL, and RAF_NOTIFICATION_TYPE_TL. These tables are multilingual; all languages of these strings (English as well as all translations) are stored in the same place.

Oracle Retail Sales Audit

All user data, including default language, is stored internally in the ADF Metadata Store (MDS) provided by the RAF platform library.

The User Interface strings are stored in a series of java files deployed with the application. The data translation for content fetched from the database like rtk_errors or code_detail uses the Merchandising translation tables.

Unlike Merchandising which relies on the language code mapped to the database user id, Sales Audit uses the locale of the logged in application user.

Oracle Retail Pricing Cloud Service

Most user interface and message translations are stored in java files. When you select a different language from the Preferences screen, Pricing Cloud Service selects the correct java file for that language.

Some translations for some drop-down menus are stored on database tables. The tables are RTC_LOOKUP_VALUES_TL, RTC_LOOKUP_TYPES_TL, S9T_TMPL_COLS_DEF_TL, RAF_FACET_ATTRIBUTE_CFG_TL, RAF_MODEL_REPORTS_TL, and RAF_NOTIFICATION_TYPE_TL. These tables are multilingual; all languages of these strings (English as well as all translations) are stored in the same place.