

Oracle® AI Foundation Cloud Services Release Readiness Guide



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Preface

This guide outlines the information you need to know about Retail AI Foundation Cloud Services new or improved functionality in this update, and describes any tasks you might need to perform for the update. Each section includes a brief description of the feature, the steps you need to take to enable or begin using the feature, any tips or considerations that you should keep in mind, and the resources available to help you.

Audience

This document is intended for the users and administrators of Oracle Retail AI Foundation Cloud Services.

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(Data Model documents can be obtained through My Oracle Support.)

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Oracle Retail Cloud Services and Business Agility

Oracle Retail AI Foundation Cloud Services are hosted in the Oracle Cloud with the security features inherent to Oracle technology and a robust data center classification, providing significant uptime. The Oracle Cloud team is responsible for installing, monitoring, patching, and upgrading retail software.

Included in the service is continuous technical support, access to software feature enhancements, hardware upgrades, and disaster recovery. The Cloud Service model helps to free customer IT resources from the need to perform these tasks, giving retailers greater business agility to respond to changing technologies and to perform more value-added tasks focused on business processes and innovation.

Oracle Retail Software Cloud Services are acquired exclusively through a subscription service (SaaS) model. This shifts funding from a capital investment in software to an operational expense. Subscription-based pricing for retail applications offers flexibility and cost effectiveness.

1

Overview

The Oracle Retail AI Foundation Cloud Service (AIF) combines AI, machine learning, and decision science with data captured from Oracle Retail SaaS applications and third-party data. The unique property of AIF Cloud Service, a learning-enabled application, is that it detects trends, learns from results, and increases its accuracy the more it is used, adding massive amounts of contextual data to obtain a clearer picture on what motivates outcomes.

The Oracle Retail AI Foundation Cloud Services are composed of the following Cloud Services:

- Oracle Retail AI Foundation Cloud Service
- Oracle Retail Assortment and Space Optimization Cloud Service
- Oracle Retail Promotion, Markdown and Offer Optimization Cloud Service
- Oracle Retail Inventory Optimization Cloud Service

The Oracle Retail AI Foundation Cloud Service

The Oracle Retail AI Foundation Cloud Service provides retailers with a data science toolkit that supports specific use-cases in planning, operations, and execution and can be expanded to support broader retail uses. This includes Advanced Clustering, Customer Segmentation, and Transference, Customer Decision Tree, Affinity Analysis, Attribute Extraction/Binning and Innovation Workbench capabilities, and Profile Science.

The new Strategy and Policy Management dashboard is the central place for admin users and implementers to manage configurations, rules, and policies for different applications. In this new dashboard, Manage Forecast Configurations can be used for setting up and configuring the forecast runs. The user can set up batch runs, create and submit what-if runs, and manage the configuration parameters that are used by the forecasting method.

Oracle Retail Inventory Optimization Cloud Service

The Oracle Retail Inventory Optimization Cloud Service provides insights into trade-offs between service level and inventory cost and helps retailers set replenishment strategies in terms of safety stock or service level. These data-driven strategies are translated into item-location replenishment policies that are pushed to replenishment systems, such as the Oracle Retail Merchandising System (RMS), or any external system to generate and execute orders. To provide full visibility, the replenishment policies are also leveraged within Inventory Optimization to calculate the optimal transfers and purchase orders.

To support strategic inventory optimization throughout the lifecycle, Inventory Optimization recommends optimal rebalancing transfers between stores to increase sell-through and avoid markdowns. This type of strategy can be turned off when not applicable (for example, for grocery categories).

Inventory optimization leverages historical sales and inventory, business requirements such as lead time and review schedule, and the demand forecast to generate optimal recommendations throughout the life cycle. The demand forecast takes into account different factors such as demand transference, variation across customer segments, holidays and

promotions, and returns (primarily for fashion and hardline categories). Alternatively, demand forecast can be provided through an interface by external forecasting system.

Oracle Retail Assortment and Space Optimization Cloud Service

The Oracle Retail Assortment and Space Optimization Cloud Service is used to determine the optimal selection and arrangement of products within stores by optimizing the product assortment and product placement on a virtual planogram.

Oracle Retail Promotion, Markdown and Offer Optimization Cloud Service

The Oracle Retail Promotion, Markdown and Offer Optimization Cloud Service reflects the evolution of our price and promotion optimization capabilities into an integrated life-cycle price optimization offering that enables retailers to engage their customers in an omnichannel environment while maximizing profits. The modular approach to offering life cycle pricing for promotions and markdowns separate from targeted offers enables retailers to innovate at the speed of their customer, while also accounting for the maturity of loyalty data necessary for targeted offers. The combined capabilities provide the following benefits to retailers:

- Drive optimal promotion and pricing decisions for the entire product life cycle
- Engage customers with targeted and contextual offers
- Execute consistently, incorporating price and promotion plans, projected receipts, and returns
- Simplify decision-making through high-automation, exception-driven processes and what-if optimizations
- Maximize accuracy and scale using artificial intelligence, machine learning, and optimization on Oracle Retail's data science infrastructure

2

Feature Summary

This chapter describes the feature enhancements in this release.

Noteworthy Enhancements

This guide outlines the information you need to know about new or improved functionality in the AI Foundation Cloud Services application updates and describes any tasks you might need to perform for the update. Each section includes a brief description of the feature, the steps you need to take to enable or begin using the feature, any tips or considerations that you should keep in mind, and the resources available to help you.

Column Definitions

- **Feature:** Provides a description of the feature being delivered.
- **Module Impacted:** Identifies the module impacted associated with the feature, if any.
- **Scale:** Identifies the size of the feature. Options are:
 - **Small:** These UI or process-based features are typically comprised of minor field, validation, or program changes. Therefore, the potential impact to users is minimal.
 - **Large:** These UI or process-based features have more complex designs. Therefore, the potential impact to users is higher.
- **Delivered:** Is the new feature available for use immediately after upgrade or must the feature be enabled or configured? If no, the feature is non-disruptive to end users and action is required (detailed steps below) to make the feature ready to use.
- **Customer Action Required:** You must take action before these features can be used. These features are delivered disabled and you choose if and when to enable them.

Table 2-1 Noteworthy Enhancements

Feature	Module Impacted	Scale	Delivered	Customer Action Required?
Date range filters	Size Profiling	Small	Yes	No
Approval filters	Size Profiling	Small	Yes	No
Export process change	Size Profiling	Small	Yes	No
Queue run status	Size Profiling	Small	Yes	No
Generate higher level profiles button removed	Size Profiling	Medium	Yes	Eliminated need for manual runs and using a POM adhoc job process
Added size range descriptions	Size Profiling	Small	Yes	No
Adjusted 'Submitted' versus 'Approved'	Size Profiling	Small	Yes	No

Table 2-1 (Cont.) Noteworthy Enhancements

Feature	Module Impacted	Scale	Delivered	Customer Action Required?
Improvements to scoring	Customer Decision Trees	Small	Yes	No
Job enhancements	Promotion, Markdown and Offer Optimization	Small	Yes	No
Time phased inventory planning	Inventory Optimization	Large	Yes	No
Truck scaling	Inventory Optimization	Large	Yes	No
Purchase Order / Transfer View	Inventory Optimization	Small	Yes	No
Trade-off Analysis	Inventory Optimization	Small	Yes	No

Size Profiling Cloud Service Enhancement

Approved By User Filter

A new filter, Approved by user, has been added. Initially when a user opens an approved profiles tab, it will be set to the logged in user and only profiles approved by the logged in user are displayed. The user will need to select any user name from the list and then apply the filter to see the profiles approved by other users. Auto-approved profiles can be viewed by selecting SPO_BATCH_USR from the drop down. (The option in the drop down will change to Auto Approved).

Approval Filters

A new filter, Approved by user, was added. Initially when a user opens an approved profiles tab, it is set to the logged in user and only profiles approved by the logged in user are displayed. The user will need to select any user name from the list and then apply the filter to see the profiles approved by other users. Auto-approved profiles can be viewed by selecting SPO_BATCH_USR from drop down. (in the August release the option in the drop down will change to Auto Approved.)

Export Process Changes

The export process, which is used to export the submitted profiles available in the system, has been modified to generate export file content only if there have been submitted profiles available from the last exported date.

'In Queue' Status for Runs

A new status for Runs has been introduced once runs are submitted. If a user submits a run and the execution has not yet started, the run will be in 'In Queue' status. The status will be changed to 'In Progress' when the run execution starts. The user cannot perform the view/edit operations on the run when it is in the 'In Queue' status; however it can be copied or deleted.

Generate Higher Level Profiles from Submitted Profiles Tab — Removed

The Generate Higher Level Profiles button is no longer available from the Submitted Profiles tab. This was used to generate submitted profiles from the front end. This is now performed using a POM AdHoc job process (On-Demand) or batch process that runs daily. The final outcome of the process can be seen in the Submitted Profiles tab once the job completes.

Size Range Description Column added to Size Ranges Data Grid

The Size Range Description column has been added to the Size Ranges data grid. At the time of creating a run, this enables the user to identify to which size range a size belongs. This is used while editing size ranges in bulk so that a user can filter the size ranges according to the value in this column.

Adjusted 'Submitted' versus 'Approved'

The "Approve" and "Submit" labels have been switched to be better aligned with the terminology used in downstream applications in Merchandising and Planning. Labels are switched in all screens, actions, and filters. Submitted profiles are the ones that are internally reviewed and submitted within Profile Sciences. Approved profiles are the ones that are exported to other applications like Merchandising and Assortment and Item Planning.

Customer Decision Tree Enhancements

Improvements to scoring

Improvements to Scoring of the Customer Decision Tree modeling have been added to support scoring larger tree sizes.

Promotional and Markdown Optimization Operational Enhancements

Job Enhancements

The following operational enhancements have been made:

- Performance of POM jobs associated with loading product hierarchy into AIF have been improved.
- Adhoc job for creating Offer Optimization batch runs has been added. It is called PRO_OPT_CREATE_RUNS_ADHOC.
- Modified the PMO_ACTIVITY_LOAD_JOB to not throw an error for weeks when either the sales or the inventory for that week is missing.

- Fixes for the RSE_INV_PR_LC_WK_PROCESS_JOB for RSE inventory load:
 - Performance of POM job for RSE inventory load has been improved.
 - Modified process to avoid using RI table statistics to identify which weeks to load.
 - Changed rse_proc_stat update process to not move last processed week unless the week contained a few records.
- Pro_season_curr_opt_metric job is no longer needed as markdown metrics (for example, last markdown, last markdown date) have been added to the RSE price cost ETL process. The process now uses the first receipt date to extract the price and new metrics.
- Performance of one of the data cursors used in PRO_OPT_JOB for optimization has been improved. This resulted in further reducing the time needed for optimization process.

Inventory Optimization Enhancements

Time Phased Inventory Plan

Time-Phased Inventory Plan: A time-phased inventory plan is generated using simulation and optimization techniques to determine the optimal projected values of purchase orders, transfers, expected wastage quantity, and so on for each review day in the configured horizon of up to 16 weeks. Supply chain attributes such as lead time, review frequency, and the supply chain network are combined with the demand forecast to determine inventory projections and the resulting inventory movements necessary to meet target inventory.



Note:

The time-phased plan can be viewed in the “more details” pop-up in the PO/Transfer tab. The documentation change is outlined below:

See the *Oracle Retail Inventory Optimization Cloud Service User Guide* for update 22.2.301.0.

Truck Scaling

Truck Scaling: Truck scaling is the process of reviewing and adjusting purchase orders so that truck capacity is maximized. The truck scaling process recommends scaled order quantities that maximize truck utilization while taking into account business rules. Truck scaling is performed automatically for every run, and the scaled quantity is shown in the table of the PO/Transfer view. The recalculate option in the same view rescales the quantities when the user overrides recommended order quantities.

See the *Oracle Retail AI Foundation Cloud Service Implementation Guide* for update 22.2.301.0.

PO/Transfer View

The table in the PO/Transfer view has been restructured to show the line items within each PO.

Trade-off Analysis

Trade-off analysis is the process that ultimately generates the trade-off curve that the user reviews to understand the inventory required to meet a given service level. The trade-off analysis now uses Machine learning, Simulation and Optimization techniques to evaluate the impact of different policies on key business metrics, namely inventory cost and lost revenue. The output of this analysis is used to recommend the initial replenishment policies for each item-location.

3

Browser Requirements and Compatibility



Note:

Oracle Retail assumes that the retailer has ensured its Operation System has been patched with all applicable Windows updates.

The following browsers are supported:

- Mozilla Firefox
- Microsoft Edge
- Google Chrome (Desktop)

Microsoft has deprecated Internet Explorer 11 in Windows 10 and recommends using Edge as the default browser. Refer to the [Oracle Software Web Browser Support Policy](#) for additional information.

Supported Retail Products

Product	Version
Retail Insights Cloud Service Suite	22.2.302.0+
Assortment and Space Optimization Cloud Service	22.2.302.0+
Inventory Optimization Cloud Service	22.2.302.0+
Offer Optimization Cloud Service	22.2.302.0+
Promotion and Markdown Cloud Service	22.2.302.0+
Merchandise Financial Planning Cloud Service	22.2.302.0+
Retail Demand Forecasting Cloud Service	22.2.302.0+
Assortment Planning Cloud Service	22.2.302.0+