Oracle® Retail Science Cloud Services

Release Notes

Release 18.0.002

F20606-02

July 2020

This document highlights the major changes for Release 18.0.002 of Oracle Retail Science Cloud Services.

Overview

The Oracle Retail Science Cloud Service combines AI, machine learning, and decision science with data captured from Oracle Retail SaaS applications and third-party data. The unique property of these learning-enabled applications is that they detect trends, learn from results, and increase their accuracy the more they are used, adding massive amounts of contextual data to obtain a clearer picture on what motivates outcomes.

The Oracle Retail Science Cloud Services are comprised of the following Cloud Services:

- Oracle Retail Science Platform Cloud Service
- Oracle Retail Assortment and Space Optimization Cloud Service
- Oracle Retail Promotion and Markdown Optimization Cloud Service
- Oracle Retail Offer Optimization Cloud Service
- Oracle Retail Inventory Optimization Cloud Service

Oracle Retail Science Platform Cloud Service

The Oracle Retail Science Platform 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, Demand Transference, and Customer Decision Tree, Affinity Analysis, Attribute Extraction/Binning and Innovation Workbench capabilities, and Profile Science.

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 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 life cycle, 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 promotion, 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 and Markdown Optimization Cloud Service and Oracle Retail Offer Optimization Cloud Service

The Oracle Retail Promotion and Markdown Optimization Cloud Service and Oracle Retail Offer Optimization Cloud Service reflect 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

Client System Requirements

> **Note:** With this release, Microsoft Windows 7 is no longer supported. Microsoft Windows 10 is the only supported operating system.

The following technology is supported:

- Operating system:
  - Microsoft Windows 10 with Microsoft Office 2013

    > **Note:** Oracle Retail assumes that the retailer has ensured its Operating System has been patched with all applicable Windows updates.

- Web browsers supported on Microsoft Windows 10:
  - Mozilla Firefox 68+ ESR

- Google Chrome (Desktop) 79+
- Microsoft Edge 44+

Oracle Retail Cloud Services and Business Agility

Oracle Retail Science Cloud Service is 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 Service is 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.

Oracle Retail Inventory Optimization Cloud Service

Oracle Retail Inventory Optimization Cloud Service maximizes the productivity of inventory across the entire product life cycle with AI-driven outcomes to achieve business strategies. The solution applies multiple inventory movement levers to address the inventory challenges unique to each stage in the product life cycle. This includes in-season replenishment policies to minimize inventory and late-season inventory re-distributions to avoid markdowns. The AI-driven approaches apply analytics to the customer and transaction to automate the transformation from inventory strategies to operational decisions at the item-location level. Oracle Retail Inventory Optimization Cloud Service provides the following key benefits to the retailer:

- Informs replenishment strategies with service-to-inventory trade-offs.
- Translates objectives into AI-driven replenishment policies down to the item-location.
- Recommends AI-driven inventory redistribution to engage prized customers and avoid markdowns.
- Enriches the inventory movement processes with time-phased inventory projections.
- Interacts with Offer Optimization science to drive better outcomes through simultaneous manipulation of supply and demand.

Enhancements

The following enhancements are included in this release:

Offer Optimization Cloud Service

The New Manage Recommendations screen has been added.

- Provides the user with the ability to bulk accept or modify recommendations from different runs.

- Provides the user with an aggregate summary view of the budgets used for promotions and markdowns.
- Provides the user with the ability to send selected recommendations to a price execution system in either Submitted or Approved status. (When the retailer uses RPM, then the recommendations are directly pushed in Submitted or Approved status.)

Strategy Interface has been added that allows the user to send business rules at any merchandise and location level and associate it with a Strategy Set. Batch runs use rules specified in the DEFAULT_SET. Adhoc runs can use any available strategy sets to do a what-if analysis.

Product Groups can now be fed in through an interface. (When retailer uses RMS, the product groups can flow in from RMS to OO.)

An enhancement to the Allocate Budget screen that allows users to let OO optimally determine the budget allocation.

Enhancements to Product inclusion, Exit date, and Eligibility Dates.

Two new visualization reports have been added. The first report (OO Recommendation Summary) allows the user to see the number and type of recommendations by any merchandise/location. In the second report (OO Budget Usage), the user can see the budget used by any merchandise/location combination.

Offer Optimization Forecasting: Bugs in the parameter estimation process. have been fixed. Parameter estimation process is now executed

- Parameter review - Elasticity: Review the distribution of elasticity values currently present in the system and the updated values based on new data. Also review the parameter values for all partitions where the change is above a set threshold.
- Parameter review - Event lift: Review the distribution of event lift values currently present in the system and the updated values based on new data. Also review the event lift values for all partitions where the change is above a set threshold.
- Parameter review - Seasonality correlation: Review the histogram of correlation values between current seasonality curves and the updated seasonality curves. Also review the partitions where the correlation is below certain threshold.
- Parameter review - Seasonality curve: Review the current and updated seasonality curves.
- Forecast vs Actual comparison - Compare the forecast and actual sales values.

Retail Science Platform Cloud Service

Affinity Analysis

One new report has been added for Affinity Analysis. In the Affinities report, the user can see the visualization of If Then rules along with lift, support, and confidence. In the Product Similarities report, the user can view the product similarities between two particular items.

Demand Transference

One new report has been added to allow the user to view product dissimilarities.

Profiles Science

Integration is now available with RDF and A&IP to provide the size profiles at merchandise and location hierarchy level required by each of these applications.

Related Documentation

For more information, see the following documents in the Oracle Retail Science Cloud Services documentation set:

- *Oracle Retail Science Cloud Services Administration Guide*
- *Oracle Retail Insights Cloud Services Suite /Oracle Retail Science Cloud Services Data Interface*
- *Oracle Retail Science Cloud Services Implementation Guide*
- *Oracle Retail Science Cloud Services User Guide*

Supplemental Training

The following documents are available through My Oracle Support. Access My Oracle Support at the following URL:

https://support.oracle.com

Transfer of Information (TOI) Material (Doc ID 732026.1)

For applicable products, online training is available to Oracle supported customers. These online courses provide release-specific product knowledge that enables your functional and technical teams to plan, implement and/or upgrade and support Oracle Retail applications effectively and efficiently.

Documentation Accessibility

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

Access to Oracle Support

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Value-Added Reseller (VAR) Language

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(i) the **MicroStrategy** Components developed and licensed by MicroStrategy Services Corporation (MicroStrategy) of McLean, Virginia to Oracle and imbedded in the MicroStrategy for Oracle Retail Data Warehouse and MicroStrategy for Oracle Retail Planning & Optimization applications.

(ii) the **Wavelink** component developed and licensed by Wavelink Corporation (Wavelink) of Kirkland, Washington, to Oracle and imbedded in Oracle Retail Mobile Store Inventory Management.

(iii) the software component known as **Access Via™** licensed by Access Via of Seattle, Washington, and imbedded in Oracle Retail Signs and Oracle Retail Labels and Tags.

(iv) the software component known as **Adobe Flex™** licensed by Adobe Systems Incorporated of San Jose, California, and imbedded in Oracle Retail Promotion Planning & Optimization application.

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