

Oracle® Retail Science Cloud Services

Release Notes

Release 18.0.001

F17773-02

May 2019

This document highlights the major changes for Release 18.0.001 of Oracle Retail Science Cloud Services.

Overview

The Oracle Retail Science Cloud Services 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

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.

The new Size Profiles application is a module under Profile Science and is used to estimate the distribution of demand for different sizes of a product (that is, size profiles) for each style-color and store. The size profiles are generated by mining weekly sales and inventory data and estimating the lost demand for the stock-out weeks, with additional post-processing for low-selling sizes. The generated size profiles help determine the optimal order quantities at the sku-store level. These are used by downstream applications such as inventory planning, replenishment, and allocation systems. Moreover, Size Profile Science can help reduce stock-outs and end-of-season markdowns, ensuring that sufficient inventory is on hand in the right combination of sizes to meet customer needs.

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.

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

The following technology is supported:

- Operating system:
 - Microsoft Windows 7 Professional and 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 7 and 10:
 - Microsoft Internet Explorer 11.0
 - Mozilla Firefox Version 52+ ESR
 - Google Chrome 52+
- Web browser supported on Microsoft Windows 10:
 - Microsoft Edge

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.

Enhancements

The following enhancements are included in this release:

- With this version, the Oracle Retail Science Platform adds integration with Oracle Identity Cloud Service (Oracle IDCS) for new customers. IDCS is a cloud-native, identity and security, multi-tenant platform designed to provide a full set of Identity Access Management and Governance capabilities. IDCS provides a powerful set of hybrid identity features to maintain a single identity for each user across their on premise and in the cloud services. IDCS also includes a set of rich access control policies to allow or grant access to applications.

The Retail Science platform now supports Oracle Digital Assistance (ODA). ODA is a NLP and Machine Learning-based cloud service that enables application-specific interactions. ODA is a virtual user that assist end users with complex engagements using transactional data to review key business insights and exceptions. It also provides an out-of-the-box knowledge sharing by responding to typical Q & A questions for customer service and support. ODA features are supported using voice along with a conversational interface to distill end user intents, invoke actions and provide reasonable responses. This minimizes consulting services with minimal training and support.

- Innovation Workbench Python Notebook
 - This new feature allows the data scientist to create notebooks, which are a collection of documentation, snippets of code, and visualizations. Notebooks are bundled with key python modules for machine learning, data mining, natural language processing, network analysis, and optimization solvers.
 - It also enables interactive graph visualization that supports highlighting, expansion, and applying filters. It supports custom paragraphs for advanced graph visualization concepts such as visual graph creation and large graph visualization concepts. The analyst can use these powerful widget concepts to curate data into a form easier to understand, highlight trends and outliers, and share reports with business.
- ASO Cloud Service
 - Gross Profit Return on Investment (GMROI) and Weighted GMROI have been added as one of the objectives. Two implementations are available for GMROI: the generic version and the non-generic version. The generic version can be used when the retailer is unable to provide store inventory.

- Offer Optimization
 - Support for Price Zones has been added. Each price zone can be associated with a combination of products and locations.
 - In Promotion and Markdown tiles, the contextual BI panel for each item shows the projected sales units and projected inventory units over the life of the item.
 - Additional rules have been added: Absolute Maximum Markdown Rule in Markdown Rules, and Minimum and Maximum Number of Items for Promotions and Markdowns in Temporal Rules.
 - The Overview screen displays the pricing objective selected for the run.
 - Integration with RPM for markdowns and CE for targeted offers.
 - Data interface support for taking in external forecast effects. Data interface integration support for taking in MFP budgets and warehouse to store/price zone mapping.
 - OO provides the user with the ability to virtually allocate warehouse inventory to stores/price zones.
- Attribute Extraction
 - Support for extracting attributes at different levels of the product hierarchy have been added.
 - An Annotation screen displays the product hierarchy and allows the user to handle exceptions by modifying the attribute labels at any level of the hierarchy.
- Consumer Decision Trees
 - Users can manually create CDTs from the Manage CDT UI.
- Data Interface
 - The order of some columns has been modified in exports from ORASE to match the order expected by RPAS applications.
 - The ability to import into ORASE SKU-store ranging data using the W_RTL_IT_LC_DS interface has been added. Retailers who have SKU-store ranging data can use this interface to override the internally-calculated ranging data of DT.
- Demand Transference
 - The logic for handling manually entered attribute weights has changed. Previously, the system adjusted the manually entered weights and the system-generated weights together so that the sum of all weights was 1.00. Now, the system only adjusts the system-generated weights, and the manually entered weights are accepted with no adjustments. The system adjusts only the system-generated weights so that all weights together total to 1.00. If the user enters weights that themselves total greater than 1.00, then the system generated weights are all adjusted down to 0, and only the manually modified attributes will have a weight greater than 0.
 - The UI has an option to hide positive assortment-elasticity values, and this can be configured by modifying the RSE_CONFIG table.

- **Process Orchestration and Monitoring (POM).** Allows customers to manage, execute, and monitor the batch processes across multiple applications. The key features of POM include batch configuration and monitoring, reconciling errors, status updates, email notifications, and alerts. It can also be used to configure callbacks, external dependencies, and inter-schedule dependencies as well as managing throttling for optimal batch execution.
- **Resource Bundle Customization (RBC).** All Oracle Retail applications come packaged with resource bundles, files that contain text resources. This framework provides a way to customize the resource bundles and strings (labels and messages) in each application. Retailers can customize text resources for any Oracle Retail supported language.
- **Module Definition Framework (MDF).** Used to manage activation of Retail application features based on the customer's license or subscription agreements.

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)

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Value-Added Reseller (VAR) Language

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