

# Oracle® Retail Advanced Science Engine Cloud Services

Release Notes

Release 15.0

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This document highlights the major changes for Release 15.0 of Oracle Retail Advanced Science Engine Cloud Services.

## Overview

The Oracle Retail Advanced Science Engine Cloud Services is comprised of the following Cloud Services:

- Oracle Retail Advanced Clustering Cloud Service
- Oracle Retail Assortment and Space Optimization Cloud Service
- Oracle Retail Customer Decision Tree Science and Demand Transference Science Cloud Service

These Cloud Services support the retail business process of store cluster creation, optimization of item facings to available space, and insights on customer behavior patterns and product preferences. When incorporated within the end-to-end Assortment Planning and Optimization process, retailers are able to move beyond traditional planning processes and create customer-centric and targeted assortments, improving customer satisfaction and overall business profitability.

## Oracle Retail Cloud Services and Business Agility

The Oracle Retail Advanced Science Engine Cloud Services are hosted in the Oracle Cloud for Industry 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 Advanced Clustering Cloud Service

Oracle Retail Advanced Clustering Cloud Service is an enterprise-specific clustering solution that leverages data mining capabilities to create store groupings at various

product levels using multiple inputs, and also to create customer segments using multiple inputs. The inputs used for store groupings include performance data, product attributes, store attributes, third-party data such as demographic data as well as consumer segments. The inputs for customer segmentation include customer demographic attributes, customer sales metrics, and customer category sales metrics. Using embedded science and automation capabilities, retailers are able to identify patterns within available data to create the necessary customer-centric and targeted clusters to be utilized by downstream assortment planning, allocation/replenishment, pricing and promotions planning processes.

The store clustering process enables the creation, review and approval of store clusters for downstream solution use, while also providing the ability to define and use clustering templates that can be specific to given product / location combinations.

The Oracle Retail Advanced Clustering Cloud Service provides retailers with multiple clustering generation approaches and methods. These include the creation of simple, nested and mixed attribute clusters using multiple methods, including those that support discrete / non-discrete attributes.

The types of clusters include the following:

- Performance based clusters (Sales Revenue, Sales Units, Gross Profit %, and so on)
- Product attribute based clusters (Brand, Color Family, Price Band, and so on)
- Location attribute based clusters (Store Size, Climate, Population Size, and so on)
- Consumer Profile based clusters (Consumer Segment Profiles)
- Customer Profile based clusters (Customer Segment Profiles)

The types of customer segments include the following:

- Demographics (Gender, Income, Loyalty Score, and so on)
- Customer Behavior (Sales Revenue, Number of Sales Transactions, Promotional Sales Share, and so on)
- Category Purchase (Category Sales Revenue, Category Sales Share, and so on)
- Demographics and Behavior (A mixture of Demographics and Behavior attributes from above)

In addition to the above, users have the ability to create multiple clustering scenarios within a single cluster run. This enables the ability to leverage embedded rankings, scoring logic, as well as solution recommendations to define and approve the most appropriate clusters for use in intended planning or execution processes.

## **Reporting and Analysis**

Users are able to access and review the following reporting information to drive decisions related to the clustering process.

Users can perform the following and more:

- Determine what categories or merchandise classifications benefit most from clustering; determine the level of product or location hierarchy at which to cluster; and determine what attributes should be leveraged.
- Analyze details related to the available cluster recommendations, assessing areas such as cluster composition, performance, attributes as well as store level scores (in relation to total cluster).

- Review cluster scenario comparison features, visually assessing differences between the respective store cluster details.

## **Oracle Retail Assortment and Space Optimization Cloud Service**

The Oracle Retail Assortment and Space Optimization Cloud Service can help maximize return on space, sales, revenue and profits while improving customer satisfaction by optimizing assortment and facings to available space.

Leveraging key inputs such as optimization goals, demand transference science, visual guidelines as well as inventory/replenishment factors, retailers are presented with a recommended shelf/fixture layout that can be leveraged in downstream execution processes.

### **Dynamic Creation of 'Space Clusters'**

Leveraging available fixture data, the Oracle Retail Assortment and Space Optimization Cloud Service dynamically groups stores (known as Space Clusters) with common fixture dimensions, enabling retailers to optimize and refine their assortment at the planogram or store level.

### **Conduct Micro-Space Optimization 'What-if' Analysis**

The Oracle Retail Assortment and Space Optimization Cloud Service provides retailers with the ability to conduct 'what-if' analysis by adjusting fixture lengths during an optimization run. The solution allows for a visual review, comparison and validation of the results. This provides the ability to dynamically manage and assess the impacts of adding and/or removing fixture space from a particular store (or store group). The solution can help plan for and conduct store projects by recommending the re-allocation of space to planograms with an optimal return on space.

### **Preview Results Leveraging Shelf Preview Capabilities**

Prior to approving optimization results for downstream execution, retailers are able to review shelf previews; assessing variation from current or historical planograms as well as confirming that recommended results align with expectations. Updates to the respective shelf preview may be made in near real-time with forecasted results' being updated in a real-time manner.

## **Oracle Retail Customer Decision Tree Science and Demand Transference Science Cloud Service**

### **Customer Decision Trees**

The Oracle Retail Customer Decision Tree Science and Demand Transference Science Cloud Service enables retailers to create customer segment-specific decision trees using available transaction level data. These customer decision trees are specific to their customer segments and the respective geographies they operate within, and retailers are provided a better understanding of their most important products and product attributes. Using this detailed information, the retailer is able to effectively analyze assortment coverage and identify the duplication of item types as well as prevent the removal of core items that would cause a loss of customers.

## **Demand Transference Science**

Using the Oracle Retail Customer Decision Tree and Demand Transference Science Cloud Service, retailers are able to analyze a significant number of households (for example, in the thousands) to identify and rank which products are truly unique, and whose sales are incremental, as opposed to those that can be discontinued because they are repetitive in nature and can be substituted with other products.

Understanding the incremental and substitutable sales associated to each item within an assortment, category managers are able to optimize the breadth of their assortments, as experienced by their customer's purchase preferences, with the optimal number of SKUs given space constraints or financial goals.

## **Client PC and Web Browser Requirements**

This section provides a list of requirements.

### **Operating Systems**

- Microsoft Windows 7 Service Pack 1
- Microsoft Windows 8.1

### **Browser Support**

Oracle Retail Advanced Science Engine Cloud Services is supported for use with the following browsers:

- Mozilla Firefox Enterprise Version 38.0
- Microsoft Internet Explorer 11.0 (32-bit)
- Google Chrome (latest version)

## **Functional Enhancements**

The enhancements below are included for this release.

### **General Usability Enhancements**

- A new look-and-feel has been introduced across ORASE Cloud Services that provide a more consistent user experience and improves usability.
- A new login URL and unified task list provides a single access point for ORASE Cloud Services. Any ORASE Cloud Service can be accessed using the URL format `https://server:port/orase/faces/Home`

All services available to a user are shown within the Task List after login.

## **Advanced Clustering Cloud Service**

### **Customer Segmentation**

Customer segmentation is an enterprise-specific solution that uses data mining to group customers based on customer attributes and customer transactions. The retailer can use this information to describe and predict customer behavior. It provides the

retailer with a vehicle to target customers with offers, pricing, assortment, and experience.

Customer Segmentation can be used to group customers and to discover hidden customer segments based on the contents of customer shopping baskets and the number of shopping trips they make. Loyalty card data is used to determine if these customer segments differ in terms of sociodemographic or lifestyle characteristics and whether these characteristics can be used to target different customer segments with more relevant product offers.

Retailers can create localized assortments and use customer insights to determine which products to offer by location or channel. This provides insights into the importance of a product to key customer segments and helps when making drop or keep decisions about products within an assortment.

This science-driven tool helps to automate segmentation in a repeatable process and bridges the gap between targeted marketing to targeted assortments.

The key features of Customer Segmentation include:

- Scenario-based segment generation, based on customer attributes, customer behavior, and transactions.
- Attribute importance and correlation mining to identify significant attributes and their associations.
- A three-step segment-generation process.
- What-if capabilities that can be used to create multiple segmentation scenarios and then measure them against one another. This can help ensure that the most appropriate segments are used by the applicable planning and execution processes.
- Automatic ranking of segment scenarios to support what-if comparisons.
- Recommendations for the optimal segment scenario and number of segments are provided.
- Descriptions of the main characteristics of the data assigned to each segment using segment rules.
- The use of Oracle data mining hierarchical segmentation and an enhanced version of the k-means algorithm.

## **Assortment and Space Optimization Cloud Service**

- The Visual Guidelines feature has been improved to provide the following:
  - Up to 4 levels of blocking and 3 levels of sorting within an optimization run.
  - Full support for pegboard and freezer chest type fixtures.
- The Virtual Planogram (VPOG) has been enhanced with new display options, including the ability to display Visual Guidelines blocking patterns and detailed blocking/sorting information in the product hover text.
- Support has been added for complex product placement and orientation options. Users can now specify different combinations of stacking, capping, and nesting when determining how a product facing should appear in the optimization results.
- A new constraint type has been added for Service Levels, which allows the user to specify the minimum service level allowed per planogram.

## Known Issues

The known issues described below are included in this release.

<b>Advanced Clustering Cloud Service Known Issues</b>
The Explore Data's Analyze Stores graph becomes non-functional if you drag the Attributes pivot column into the Filters area. Closing and reopening Explore Data restores the graph functionality.
The Advanced Search icon on the Clustering Overview screen is not functional.

<b>Assortment and Space Optimization Cloud Service Known Issues</b>
Executing a run as User A then toggling between user B and user A to access that same run, all within the same browser session, may require clearing cookies and cache to exit read-only mode.
The following Microsoft Fixit for stabilizing IE 11 is required to export with proper file types: <a href="http://support.microsoft.com/mats/ie_performance_and_safety/">http://support.microsoft.com/mats/ie_performance_and_safety/</a>
The BI context area does not refresh correctly when multiple runs are open to the same train stop page. The first open run updates correctly but all others are not updated when a refresh event occurs. This is an issue with all of the BI panels that have refresh events.
Using the Query by Example filter can result in an incorrect Rows Selected value inconsistent with the number of rows actually selected when the Query by Example filter is in effect. The Query by Example filter suspends selection of rows not visible after Query by Example, and so an update while it is in effect does not apply to rows selected before Query by Example was applied.

## Related Documentation

For more information, see the following documents in the Oracle Retail Advanced Science Engine Cloud Services 15.0 documentation set:

- *Oracle Retail Advanced Science Engine Cloud Services Administration Guide*
- *Oracle Retail Advanced Science Engine Cloud Services Implementation Guide*
- *Oracle Retail Advanced Science Engine Cloud Services User Guide*

## Supplemental Training on My Oracle Support

The following document is available through My Oracle Support. Access My Oracle Support at the following URL:

<https://support.oracle.com>

### **Release Readiness Transfer of Information (TOI) Recordings (Doc ID 732026.1)**

Online training is available to Oracle supported customers at product release. 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. Note that Oracle Retail products with minor updates do not have an associated TOI.

## 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

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

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##### **Oracle Retail VAR Applications**

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