



# Oracle Retail Promotion, Markdown & Offer Optimization Cloud Services

Research shows that consumers want to be understood and engaged with relevant, personalized, and special offers. Oracle Retail's [consumer research](#) found that 49% of consumers move from just browsing to buying when presented with a special offer or discount.

## MAXIMIZING INVENTORY PRODUCTIVITY & OPTIMIZE WORKING CAPITAL

Oracle Retail Promotion, Markdown & Offer Optimization Cloud Services pair with the Oracle Retail AI Foundation, which provides analytical insights to drive planning, buying, moving, and selling decisions. These capabilities enable retailers to drive profit and remain flexible to the changing retail environment.

Engaging omnichannel customers with personalized offers while increasing profits requires modern applications in planning and retail science. Oracle Retail provides a common connection and a single view of the enterprise, enabling retailers to innovate with speed and scale. With Oracle Retail Offer Optimization Cloud Service, retailers can win over customers with promotions, targeted offers, and markdowns, while maximizing results.

Oracle Retail Promotion, Markdown & Offer Optimization Cloud Services reflect the evolution of price optimization capabilities into a lifecycle optimization solution that recommends promotions, targeted offers, and markdowns.

## OPTIMIZE THE ITEM LIFECYCLE

Offer Optimization Cloud Service is the only solution in the marketplace that provides lifecycle promotion, markdown, and targeted offer recommendations, in conjunction with planned business initiatives, such as time-bound marketing campaigns. This empowers retailers to drive better profit margins, inventory sell-through, and meet forecast expectations with the power of exception-based retailing and advanced machine learning models.

## POWER OF A SINGLE VIEW

Delivering an effective pricing strategy that engages the customer in an omnichannel environment requires a single view of customer, inventory, order, demand, and pricing/promotions. When optimized results are presented appropriately across the enterprise - directly as a promotion or indirectly as a forecast - retailers can maximize the value of a unified pricing, promotion, and markdown optimization strategy.

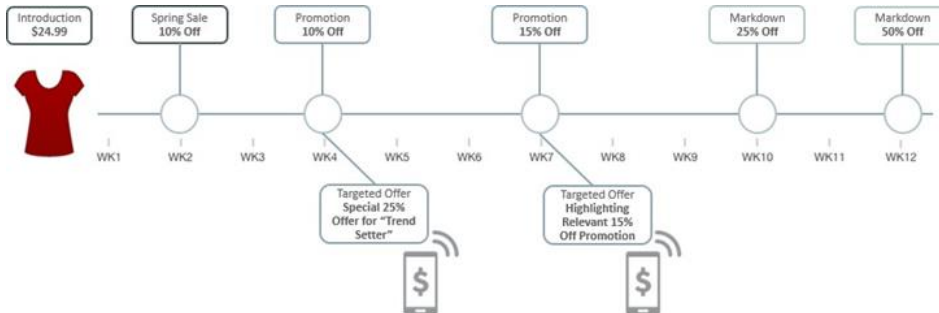


### Key Features

- Automatically evaluates the trade-off between temporary promotions and permanent markdowns.
- Ensures consistency from markdown budgets and promotional campaigns to projected receipts and forecasted returns.
- Simplifies decision-making through high-automation, exception-driven processes.
- Maximizes accuracy and scale using artificial intelligence, machine learning, and decision sciences.
- Embedded Retail AI Foundation, powering Oracle Retail Demand Forecasting Cloud Service with:
  - Forecasting Engine
  - Customer Segmentation
  - Advanced Clustering
  - Profile Science
  - Attribute Extraction & Binning
  - Customer Decision Trees
  - Demand Transference
  - Affinity Analysis
  - Innovation Workbench

## OFFER OPTIMIZATION USE CASE EXAMPLE

Retailer Goal: Maximize profit over the product lifecycle of women's t-shirt with promotions, targeted offers, and markdowns with baseline conditions: Initial Price of \$24.99, with a 10% off brand-wide spring sale in week two.



This example shows that targeted offers that reflect both the deal type (e.g., 25% and BOGO) and channel (e.g., text message and email) are recommended throughout the lifecycle (e.g., weeks four and seven) with the objective of driving customer redemption.

Offer Optimization intelligently recommends the best channel per segment based on historically effective redemptions and continues to learn and adjust recommendations based on embedded machine learning. Of the hundreds of promotions that a retailer may be running, only a handful are relevant to each customer.

The solution easily identifies the best ones to offer and the appropriate promotional delivery method. In both targeted offers displayed above, the optimization solution is recommending that these customers be engaged through mobile text messaging. The text message channel is chosen because past redemption information from each customer shows it's most effective.

Overall, the solution provides contextual insight on the estimated impact of promotions, offers, and markdowns, which includes the impacts on sales, margin, and inventory. It forecasts what will happen if you take the system recommendations versus doing nothing. This helps retailers deliver the most relevant and effective offers, which is critical to today's consumers.

## ORACLE CLOUD INFRASTRUCTURE

All Oracle Retail Analytics and Planning cloud services are deployed as cloud-native Software-as-a-Service solutions within Oracle Cloud Infrastructure (OCI) upon Oracle's Autonomous Data Warehouse, and are based upon an architecture and technology stack that is optimally engineered for rapid, low-cost deployments and exceptional performance and scalability, and the highest levels of system availability and security - from storage to scorecard.

## ORACLE RETAIL AI FOUNDATION

Core retail AI and machine learning (ML) powers all Oracle Retail Analytics and Planning cloud services. For example:

- **Forecasting Engine** - Provide an intelligent starting point for your planners, increasing automation and accuracy. Move to a more touchless and exception management planning process.

### Further extensibility with:

- Oracle Retail Home
- Oracle Analytics
- Oracle Application Express
- Oracle REST Data Services
- Oracle Machine Learning

### The Oracle Retail Analytics and Planning family of cloud services includes:

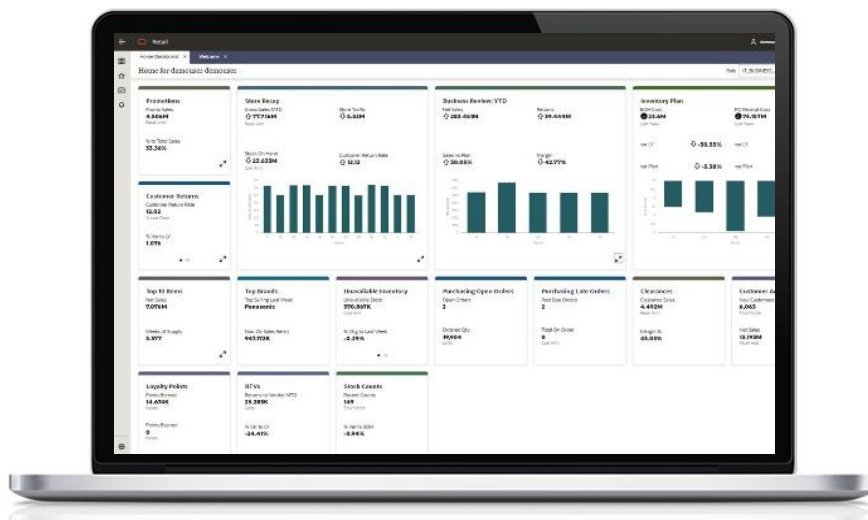
- Oracle Retail AI Foundation
- Oracle Retail Insights
- Oracle Retail Assortment and Space Optimization
- Oracle Retail Promotion and Markdown Optimization
- Oracle Retail Offer Optimization
- Oracle Retail Merchandise Financial Planning
- Oracle Retail Assortment Planning
- Oracle Retail Demand Forecasting
- Oracle Retail Inventory Optimization

- **Customer Segmentation** - Group customers based on attributes, behaviors, and transactions to tailor offers, pricing, and assortments accordingly, incorporating previously hidden patterns in your data.
- **Advanced Clustering** - Cluster your stores based upon traditional approaches of volume, square footage, region, etc., or leverage machine learning techniques to cluster stores based upon similar selling patterns, truly creating a customer-centric assortment.
- **Profile Science** - Determine the best size ratio for your buys by understanding the true demand of your sizes while considering stock-outs.
- **Attribute Extraction and Binning** - Extract item attributes from free-form descriptions, correcting short forms, misspellings, and other inconsistencies, and apply them to Demand Transference, Customer Decision Trees, Advanced Clustering, and more.
- **Customer Decision Trees** - Understand how your customers are shopping your assortments to drive attribute-based alternate hierarchies and effectively plan your assortment the way your customer shops.
- **Demand Transference** - Understand how unique your items are and the incremental revenue that item brings to determine the most optimal assortment for your customer.
- **Affinity Analysis** - Determine how items interact with each other to drive a more effective promotional strategy within your financial planning process.
- **Innovation Workbench** - Leverage open source along with your data science team to create your own AI and ML models. Utilize the language of your choice with Jupyter/Zeppelin notebooks.

## ORACLE RETAIL HOME

Oracle Retail Home is a single access point, to simplify a user's interactions with the data and applications that are most relevant to their roles, and to better empower them to anticipate informed actions, and to inspire engagement.

Based on a robust and flexible portal framework, Retail Home is intended first to provide timely and role-specific high-level insights, and second to enable selectively drilling into relevant applications for more details.



## ORACLE ANALYTICS

Oracle Analytics can be used to generate and consume analytics from Oracle Retail AI Foundation data, and in turn can also surface dashboards to Oracle Retail Home.

Oracle Analytics is a comprehensive platform that parlays data into information to provide business insights, federating a broad array of features to suit business users, power-users and data scientists:

### Governed

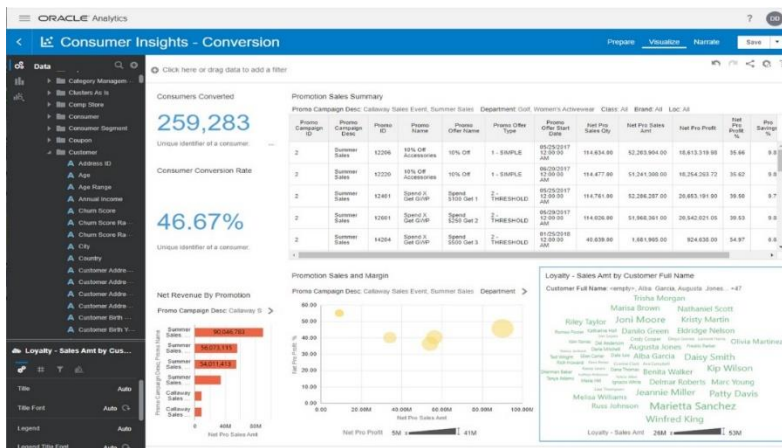
- Corporate Dashboards
- Pixel Perfect Report
- Semantic Models
- Role-based Access Control
- Query Federation

### Self-Service

- Data Preparation
- Data Visualization
- Storytelling
- Sharing and Collaboration
- Mobile Apps

### Augmented

- Natural Language Processing
- Voice and Chatbot
- Data Enrichment
- One Click “Explain”
- Adaptive Personalization



Beyond the extensibility afforded by the Oracle Retail AI Foundation’s Innovation Workbench, Oracle Analytics, and Oracle Retail Home, these areas are also included:

## ORACLE DATA STORE AND APPLICATION EXPRESS

Oracle Retail Data Store can supply data for Oracle Application Express (APEX) apps and Oracle REST Data Services, which both are included. APEX is a low-code development platform that enables you to build scalable, secure enterprise apps with world-class features that can be deployed anywhere.

Developers can quickly develop and deploy compelling apps that solve real problems and provide immediate value using APEX. You won’t need to be an expert in a vast array of technologies to deliver sophisticated solutions. Focus on solving the problem and let APEX take care of the rest.

## ORACLE REST DATA SERVICES

Oracle REST Data Services bridges HTTPS and your Oracle Database, providing, among other things, a REST API, SQL Developer Web, a PL/SQL Gateway, SODA for REST, and the ability to publish RESTful Web Services for interacting with the data and stored procedures in your Oracle Database.

## ORACLE MACHINE LEARNING

Oracle Machine Learning supports data exploration, preparation, and machine learning modeling at scale using SQL, R, Python, REST, Auto ML, and no-code interfaces. It includes more than 30 high-performance in-database algorithms producing models for immediate use in applications.

By keeping data inside the database, organizations can simplify their overall architecture and maintain data synchronization and security. It enables data scientists and other data professionals to build models quickly by simplifying and automating key elements of the machine learning lifecycle.

### Request a 1:1 Demo

#### CONNECT WITH US

Call +1.800.ORACLE1, visit [oracle.com/retail](https://oracle.com/retail) or email [retail-central\\_ww@oracle.com](mailto:retail-central_ww@oracle.com).

Outside North America, find your local office at [oracle.com/contact](https://oracle.com/contact).

 [blogs.oracle.com/retail/](https://blogs.oracle.com/retail/)

 [facebook.com/oracleretail](https://facebook.com/oracleretail)

 [twitter.com/oracleretail](https://twitter.com/oracleretail)

Copyright © 2020, Oracle and/or its affiliates. All rights reserved. This document is provided for information purposes only, and the contents hereof are subject to change without notice. This document is not warranted to be error-free nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document, and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners

