



# Oracle Retail AI Foundation Cloud Service

These days competing in retail often means competing in retail analytics, retail artificial intelligence, (AI) and machine learning (ML).

AI and ML employ the more advanced analytics – the predictive (what will happen) and the prescriptive (what actions are recommended). It is imperative that retail AI and ML be ubiquitous in retail decision making, whether those decisions tie to assortments, offers, inventory placement, forecasts, plans, pricing, etc.



## ORACLE RETAIL AI FOUNDATION

The Oracle Retail AI Foundation is common to the unified Oracle Retail Analytics and Planning family, harnessing the retail industry's best analytical minds, technology, and data to power each decision therein.

Drawing upon the data consolidation and extensibility of the Oracle Retail Data Store, the AI Foundation models operational data and applies statistical algorithms that identify the patterns informing its predictive and prescriptive analytics.

The AI Foundation is highly-configurable and can be tuned to reflect a retailer's unique business model and objectives and, in the spirit of machine learning, is constantly improving, regardless of the level of user assistance. It offers a flexible, consumption-based subscription model, supporting the levels of storage and computing that each retailer uniquely requires.

## ORACLE RETAIL 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. It is based upon an architecture and technology stack optimally engineered for rapid, low-cost deployments and exceptional performance and scalability, with the highest system availability and security levels - from storage to scorecard.

### Key Benefits:

- Core retail AI and ML to power retail decision making across planning, buying, moving, and selling teams
- Ability to orchestrate strategic retail decisions across teams with one consolidated, end-to-end view of retail data
- An embedded analytics toolset that enables users to consume retail AI and ML; however, they prefer
- Retail innovation through extensibility
- Rapid, lower-cost SaaS deployments while enjoying the performance and security of the Oracle Cloud Infrastructure

## ORACLE RETAIL AI FOUNDATION CORE AREAS

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

**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.

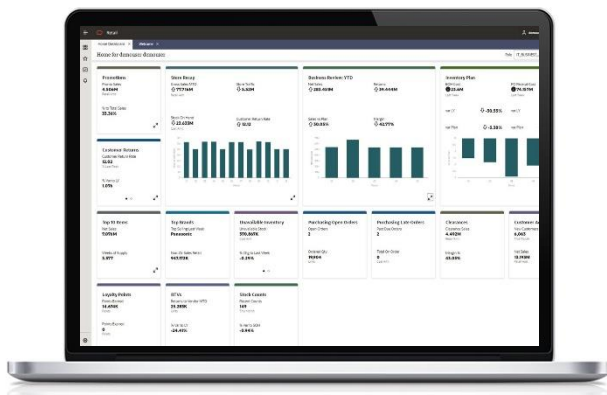
### Key Features

- Forecasting Engine
- Customer Segmentation
- Advanced Clustering
- Profile Science
- Attribute Extraction and Binning
- Customer Decision Trees
- Demand Transference
- Affinity Analysis
- Innovation Workbench
- Oracle Retail Home
- Oracle Analytics
- Oracle Application Express
- Oracle REST Data Services
- Oracle Machine Learning

## ORACLE RETAIL HOME

Oracle Retail Home is a single access point to simplify users' interactions with the data and applications that are most relevant to their roles and empowers them to anticipate informed actions and 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. It 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

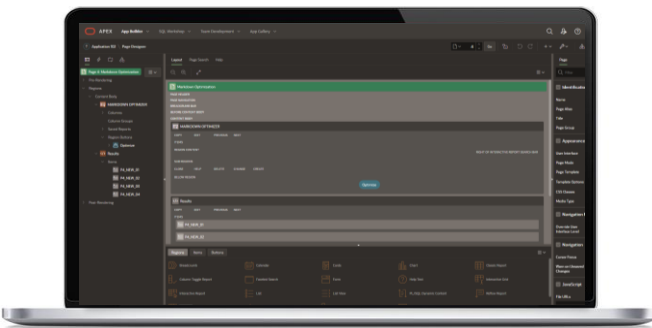
- Natural Language Processing
- Voice and Chatbot
- Data Enrichment
- One-Click “Explain”
- Adaptive Personalization



## 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, AutoML, 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.

*The Oracle Retail Analytics and Planning family of cloud services include:*

- 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

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