

# Oracle Retail Big Data Cloud Service

**Data-driven retail mandates being compelled by big data - by informing decisions based on data rather than by intuition, personal preference, or experience. Big data includes information on volume, velocity, variety, value, and veracity. Today, big data has become capital, yet while most retailers are data-rich, many are information-poor.**

While technology has evolved to not only reduce the costs of data storage and compute but also ease analysis and discovery, the ability to fully exploit the analytical value of big data eludes most retailers. Using technology to integrate, manage, and analyze data has come a long way. Still, volume, velocity, variety, value, and veracity in the retail industry hold more promise, yet more challenges than most other industries.

Oracle Retail Big Data Cloud Service can help, regardless of the answers to these top data questions:

- Which architecture is most appropriate – a Data Warehouse or a Data Lake?
- Is the analytical value known or presumed?
- Should the data be loaded nightly, intra-day, or real-time?
- Is the data structured, semi-structured, or unstructured?
- Are the related insights operational or analytical, and if the latter, are they descriptive, predictive, or prescriptive?
- Is end-user consumption governed, self-service, augmented, or all three?
- Are end-users casual business users, power users, or data scientists?
- Are you innovating with niche use cases or answering traditional retail business questions?
- Is your data 1<sup>st</sup>-party, 2<sup>nd</sup>-party, 3<sup>rd</sup>-party, or all three?

## EXTENDING A PLATFORM FOR MODERN RETAIL SCIENCE AND ANALYTICS

Oracle Retail Big Data Cloud Service introduces a Hadoop-based Data Lake infrastructure and analytical tools to the [Oracle Retail Science Platform](#) and [Oracle Retail Insights Suite](#). This extended architecture enables retailers to acquire, model, prepare, and serve data that is structured, semi-structured, and unstructured for advanced retail science and analytics applications.

### Key Benefits

- *Consolidates the science and analytics demands of the retailer into a comprehensive and unified platform.*
- *Enables the acquisition and application of data with diverse volume, variety, veracity, velocity, and value.*
- *Accelerates the operationalization of Big Data applications using leading science and analytics tools paired with the retail-specific context of the Oracle Retail Science Platform and Oracle Retail Insights Suite.*
- *Scales to the data volume needs of each retailer.*

## COMPONENTS THAT ARE INCLUDED

- **Hadoop** - An open-source ecosystem of big data components. Oracle employs the Cloudera distribution of Hadoop, which is designed on top of Apache Hadoop.
- **Spark** - An open-source distributed computing engine.
- **Flink** - A data collection and aggregation engine, in which the data lands on a centralized data store.
- **Kafka** - A data collection and aggregation engine, in which the data resides in multiple distributed systems.
- **Hive** - Provides a SQL-like interface to Hadoop.
- **Zookeeper** - Coordinates services across clusters.

Additionally, Oracle Big Data Connectors are included to move data between Oracle Retail Big Data and the Oracle Database upon which the Oracle Retail Science Platform and Insights Suite operate.

## EXAMPLES THAT RESIDE IN ORACLE RETAIL BIG DATA

- Clicks
- Tweets
- Emails
- Texts
- Images
- Geospatial
- Expense Reports
- Surveys
- RFID's
- Census
- Error logs
- Calls
- Weather

It's an "endless aisle" for retail data that lacks a home in the packaged Oracle Retail data model. Whether aligning unstructured with structured data or extending the packaged data model, Oracle Retail Big Data can accelerate a retailer's journey to data-driven innovation on a modern platform for retail science and analytics.

## REQUEST A DEMO TODAY

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### Use Case On Weather Data

Forecasts can inform planning - for example, why promote tank-tops during a week of heavy rain? Furthermore, history can de-weatherize past retail performance for more accurate root cause analysis.

No matter the source, format, and volume of weather data, it can be housed and blended with data in the Oracle Retail Science Platform and operationalized in solutions like [Oracle Retail Demand Forecasting](#).

