RETAIL
Zoomdata & Cloudera

Solving the Customer Insights Puzzle
with Zoomdata and Cloudera for Retail

Industry
Data Analytics & Visualization

Website
www.zoomdata.com

Company Overview
Zoomdata is the leading provider of Next Generation, Big Data Analytics software to Global 1000 enterprises. The Zoomdata interface allows users to easily connect, visualize, and interact with data on browsers and mobile devices. Once deployed, users are able to create interactive D3.JS based dashboards, fuse disparate data sources from across the enterprise into a single user experience and create a corporate data quilt that lets business users collaborate on the data that drives their business.

Product Overview
Zoomdata's Next Generation Data Analytics and Reporting platform integrates with Cloudera's Impala and Search products to support big data implementations with streaming analytics and unstructured search. With a tactile experience, users can interact with data using a Data DVR (RW/FF/Pause), conduct drill downs and employ complex algorithms to share insights with their colleagues.

Solution Highlights
_ Stream Processing
_ Pre-Built Connectors
_ Native Source Access
_ Big Data Implementations

The Growing Need for Customer Insights

Increasingly, businesses are gaining a competitive advantage by consuming and taking action on customer data. More data is available than ever before about every aspect of the customer journey. Those businesses who use this data to gain a 360-degree view of their clientele stand to see returns on their investment by leaps and bounds. However, getting there is easier said than done. Analysts are faced with a number of challenges, such as managing the size and variety of data and anticipating privacy and security concerns. There are numerous opportunities to step ahead of the competition for those who overcome the challenges and turn customer data into customer insights.

Navigating Customer Data in Retail

With consumer data of all types becoming increasingly available, the retail industry offers perhaps the most potential when it comes to customer insights. In-app and mobile wallet purchases provide a view into the products that pique the customer's interest. Social media provides insight not only into the business's customers, but also those of its competitors. Brick-and-mortar foot traffic, point-of-sale systems, and ad-tech campaigns add data pertaining to shopping times, volumes, and product interest. Clearly, there is no shortage of data ready to be digested by the retailer.

However, this data ingestion is no small feat. The business must be equipped to handle massive volumes and varieties of data. Retailers with high transaction volumes, for example, require processing that cannot be obtained through a traditional relational database. Streaming data like that from the internet of things (IoT) and social media needs to be processed and delivered to the data analysts in real time. Analysts must be equipped with the proper tools to join these various data sources and interact with them visually. Even with the right tools, consumer privacy and security must be carefully dealt with to protect both the customer and brand from potential PR disasters.

Benefits of customer insights in retail include:

_Increased market share through personalized offerings

_Improved demand forecasting and inventory planning

_Increased customer loyalty

_Consistent customer experience across all channels (Omni-channel)

_Better brand management through consumer sentiment analysis

Seizing the Opportunity

For retailers, consumer data presents a number of opportunities. By making use of consumer-centric data such as store traffic, loyalty systems, queue management, and mobile payment solutions, retailers can tap into an understanding of customer intimacy that allows them to personalize products, experiences, and offers in real time. Store and ecommerce transaction histories along with inventory data can drive forecasting, planning, and supply chain initiatives, equipping retailers with both the means to accurately predict future demand and to drive products and services to the right locations at the right time.

Cloudera Enterprise Benefits

STORES AND ANALYZES ANY TYPE OF DATA

_ Leverage the full power of your data to achieve pervasive analytics, increase business visibility, and reduce costs

_ Bring diverse users and application workloads to a single, unified pool of data on common infrastructure; no data movement required

ENTERPRISE APPROACH

_ Compliance-ready perimeter security, authentication, granular authorization, and data protection through encryption and key management

_ Enterprise-grade data auditing, data lineage, and data discovery

INDUSTRY-LEADING MANAGEMENT AND SUPPORT

_ Best-in-class holistic interface that provides end-to-end system management

_ Open platform ensures easy integration with existing systems

_ Open source to achieve stability, continuous innovation, and portability

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Perhaps more than any other area, customer insights necessitate a focus on big data and present problems that could not previously be addressed with traditional tools. By combining Cloudera with Zoomdata, businesses can establish the single source of truth that is needed to seize the massive opportunities presented by a better understanding of their customers.

For more information, check out the Customer Insights Solution on the Cloudera Solution Gallery.

About Cloudera

Cloudera delivers the modern platform for machine learning and advanced analytics built on the latest open source technologies. The world's leading organizations trust Cloudera to help solve their most challenging business problems by efficiently capturing, storing, processing and analyzing vast amounts of data.

Learn more at cloudera.com

Customer Insights with Cloudera & Zoomdata

Customer Insights Delivered by Leading Edge Technologies

The combination of Cloudera's customer insights stack and Zoomdata's visual analytics platform is ideally suited for analysis of customer data. By providing a dynamic and flexible storage platform, Cloudera empowers the business to digest any volume and variety of data while adapting the schema to changing business needs. Zoomdata then takes that power directly to the business user with intuitive visual analytics based on the freshest data available. Zoomdata optimizes the connection to Cloudera by querying directly on each of the data technologies without replicating or moving the data. Cloudera's real-time data processing capabilities feed directly into Zoomdata to instantly make streamed data available for ad-hoc exploration, data discovery and analytics dashboards 365 days a year, 24 hours a day, 7 days a week.

Data Storage & Processing with Cloudera

Consuming customer information requires a robust and powerful way to store, and process, and serve different types of data. Cloudera allows businesses to consolidate customer data of all volumes and varieties into a single data platform. The platform was also built with data flexibility in mind, allowing engineers to easily grow and alter the customer record as their needs change. Cloudera's Analytic Database, powered by Apache Impala, enables analysis of extremely large data sets with SQL-like capabilities. For streaming data, Cloudera's Operational Database and Apache Spark and data stores like Apache Kudu are ideal for processing data that must be made available to end users in real-time. Cloudera Search helps you discover your data to best build you analytics practice around.

Creating a data-driven organization starts with Cloudera. It combines data sources into one platform while giving data engineers the flexibility to adjust models according to changing needs and the ability to grow the data to any scale. With Zoomdata, this allows for self-service analytics on big data using the same high-performance SQL and Data Science tools that analysts are used to on traditional data sets. Its full range of data storage platforms allows for optimized performance for all types, sizes, and structures of data. Access engines like Apache Spark allow for a mix of stream processing and scalable machine learning so businesses can learn about key behaviors, engage with their customers in real time, and improve the overall customer experience.

Analysis & Interpretation with Zoomdata

While Cloudera provides a robust and powerful stack to store and serve the data, analysis and interpretation of the customer data becomes much easier with fast, intuitive visual analytics. Zoomdata extends Cloudera's platform by bringing self-service business intelligence to business users and allowing them to intuitively interact with the data themselves. It was built from the ground up to allow a direct connection to data sources while allowing IT to maintain control and governance over the data. The simple, intuitive, and collaborative tool makes it easy for business users to create a full range of data visualizations, from exploratory data analyses to dashboards. By allowing for self-service analytics, Zoomdata enables business users to actively engage with the customer rather than waiting for assistance from IT. Customer insights generated through stream processing and machine learning in Cloudera become even more apparent through visualizations with Zoomdata.

Zoomdata's visual analytics platform allows businesses to visualize and interact with customer data of all sizes and varieties. Its Smart Connectors optimize the connection to the data by taking queries directly and individually to each data source, rather than first pulling them into a secondary data store. Zoomdata Fusion allows for seamless joining across data sources so they can be viewed as a single source of truth. When viewing real-time and streaming data, users can turn to Live Mode where they can pause, rewind, and fast forward the data visualization using Zoomdata's DataDVR.

![Cloudera logo]