

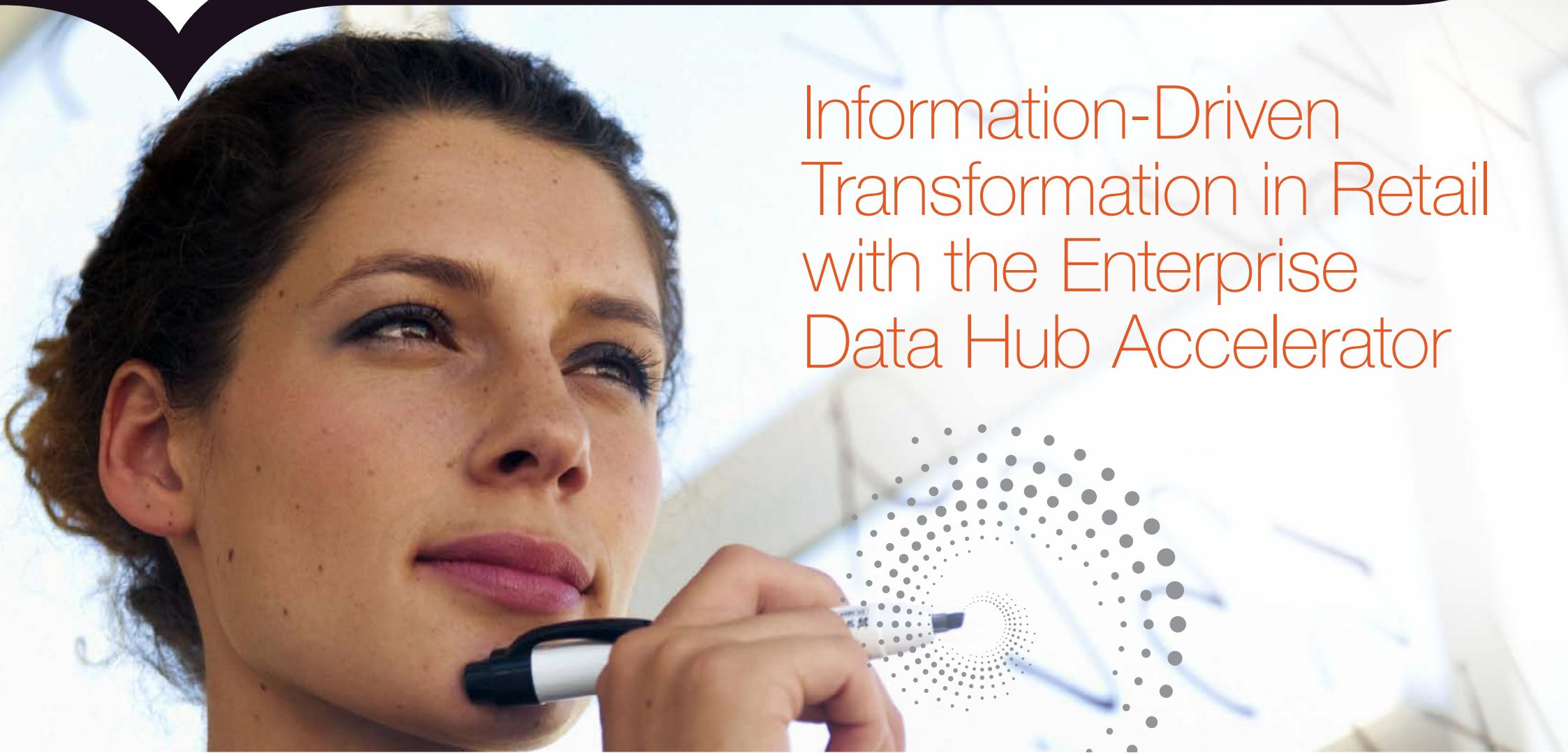
Introduction

Enterprise Data Hub Accelerator

Retail Sector

Use Cases

Capabilities



Information-Driven Transformation in Retail with the Enterprise Data Hub Accelerator



Introduction

Introduction

Introduction

Enterprise Data Hub Accelerator

Retail Sector

Use Cases

Capabilities



Watch Capgemini's
CTO Lanny Cohen and
Cloudera's CSO
Mike Olson

Capgemini and Cloudera have collaborated to build an execution framework for your Big Data initiatives: the Enterprise Data Hub Accelerator. For the five dimensions of Big Data (business drivers, governance, analytics, data and platform), we guide you on the road to information-driven transformation.

To help you kick-start your Big Data initiatives, we have assembled a catalog of sample key use cases we see as good starting points for the retail industry





Enterprise Data Hub Accelerator

The how-to guide for Big Data

Enterprise Data Hub Accelerator

Introduction

Enterprise Data Hub Accelerator

Retail Sector

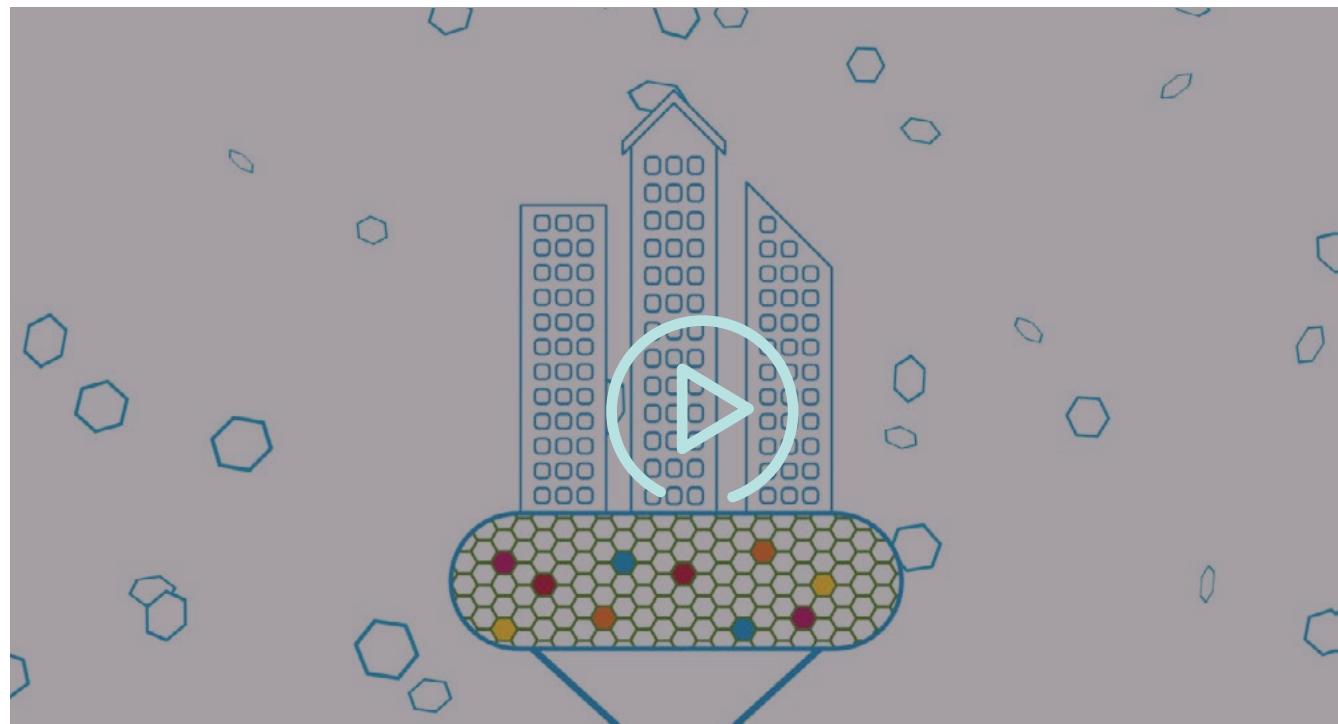
Use Cases

Capabilities



What is the Enterprise Data Hub Accelerator?
Have a look at this animation

The Enterprise Data Hub Accelerator is an execution framework for Big Data, built around Cloudera's Apache Hadoop-based open-source enterprise data management platform. It helps you to define your first projects, make sure you execute them well, and show you how to grow these to a fully-defined and sustainable Big Data strategy for your organization.





Retail Sector



Retail Sector

[Introduction](#)[Enterprise Data Hub Accelerator](#)[Retail Sector](#)[Use Cases](#)[Capabilities](#)

Retail Sector Overview

Many retailers operate across multiple channels and often as part of larger groups. Throughout the years, these groups have grown via mergers and acquisitions, and this has resulted in technology ecosystem where data resides in disparate systems and silos. This creates significant challenges around both gaining an overview at group level, and acting independently, with actionable insight, for individual brands within the group.

Using an enterprise data hub and the new analytical capabilities of the platform, retailers can integrate all of their data along with new datasets like clickstream data or external data to get more precise and dynamic insights into Demand Planning, Supply Chain Optimization and targeted marketing.

Sub-Domains

[Fashion](#)[Hardline](#)[Grocery](#)[Drug](#)[Convenience](#)

Industry Overview

The retail industry generates detailed data on consumer behavior and purchase history. Exploiting these data to increase basket value and optimize margin remains a challenge with traditional BI and data warehouse architectures. As consumers are empowered by data and mobility, with access to competitive prices and information while visiting stores, retailers' capacity to integrate data from online and in-store customer experience and be able to react in real time is key.

Key Topics



Retail Sector

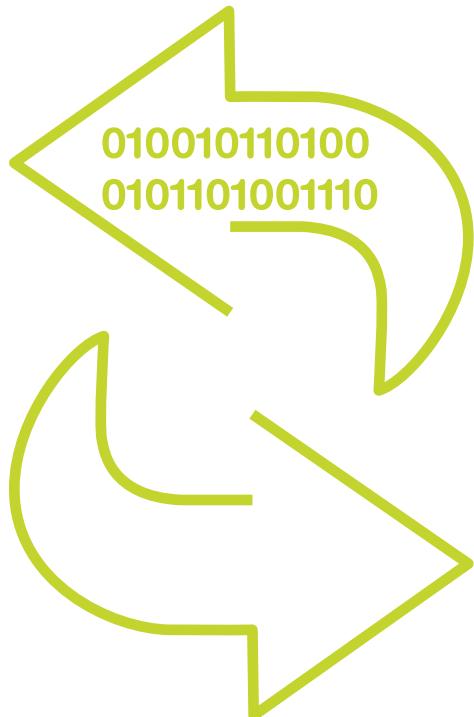
Introduction

Enterprise Data Hub Accelerator

Retail Sector

Use Cases

Capabilities



BUSINESS DRIVERS FOR RETAIL TRANSFORMATION

- Deliver a consistent, personalized product mix to customers across all channels
- Offer a differentiating customer experience
- Obtain a deep understanding of customer behavior to increase loyalty
- Increase conversion rate and average basket value due to efficient and targeted marketing campaigns
- Reduce cost by optimizing inventory, planogram and supply chain management.

DATA ELEMENTS IN RETAIL

- Customer transactions, including point-of-sale, ecommerce and mobile sales, in-store ordering
- Membership, loyalty schemes
- Shopper behavior
- Merchandising including planograms, store layouts and store and product characteristics
- Customer Relationship Management
- Transportation and logistics
- External sources such as social media, blogs, online forums
- Marketing and trade data around promotions and campaigns, and from sources such as SEO and affiliates
- Third-party warranties
- Competitive intelligence
- Public and macroeconomic data such as census data, pricing and inflation data, economic output and labor statistics, weather forecasts and news events.



Use Cases

- » Personalized Offers
- » Integrated Demand Planning
- » Supply Chain Optimization
- » Planogram Optimization
- » Web Clickstream Analytics
- » Key Purchase Influencers Targeting



Use Cases

Introduction

Enterprise Data Hub Accelerator

Retail Sector

Use Cases

Capabilities



[Personalized Offers](#) » Integrated Demand Planning » Supply Chain Optimization » Planogram Optimization » Web Clickstream Analytics » Key Purchase Influencers Targeting



Getting to Know Your Customers: Personalized Offers and Promotions

Retailers are using Big Data solutions to deliver more personalized communications and offers in real-time based on their interactions with customers across all channels.

Retailers sell thousands of products across multiple store formats, websites, and even directly from their vendors. This generates hundreds of millions of interactions between retailers and their customers. Correlating all the data from these disparate sources has previously been challenging, and utilizing that data in real-time has proved next to impossible.

But, in a world where customers can decide between buying the product in front of them in store, or comparing prices online and buying it on a competitors' website, having historical analysis of customer purchase behavior is not enough. Tracking events in your customers' lives that could potentially trigger a purchase, knowing their network of influence, and using these dynamic and contextual insights to increase the accuracy of your interactions is key.

Using an enterprise data hub to store all customer data, including all customer interactions, and progressively adding social media and social network analysis will help you optimize customer experience on all channels and improve sentiment towards the brand. For your marketing teams, it means finally being able to engage your end consumer at a more personal level, effectively pushing the right product or promotion recommendation at the right time.



Use Cases

Introduction

Enterprise Data Hub Accelerator

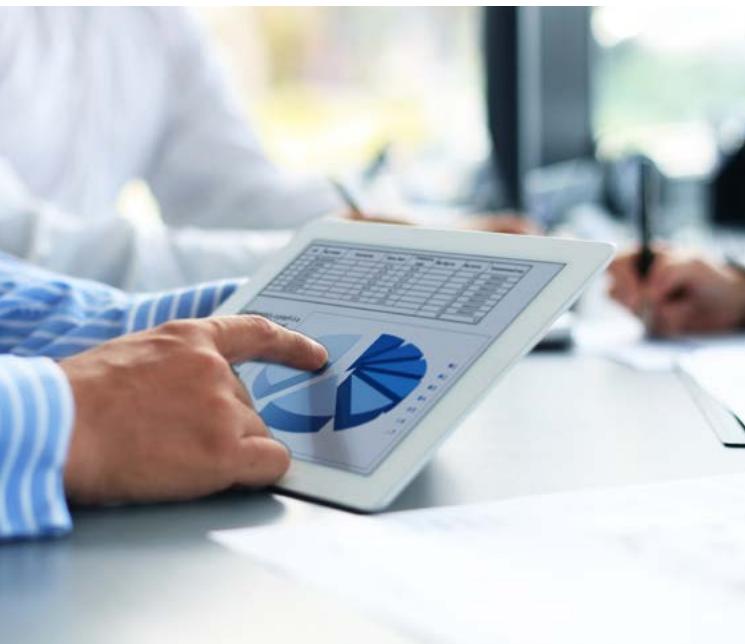
Retail Sector

Use Cases

Capabilities



Personalized Offers » **Integrated Demand Planning** » Supply Chain Optimization » Planogram Optimization » Web Clickstream Analytics » Key Purchase Influencers Targeting

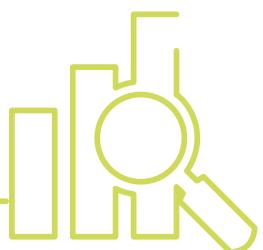


Enhanced Demand Planning across All Channels

Retail companies are using Big Data techniques to analyze point-of-sale (POS) data and gain just-in-time visibility into the purchase patterns of customers. Additionally, by analyzing data from social media and other communications channels, retailers can gain vital insight into the brand and sales trends, predicting future behavior rather than reacting to past behavior.

By consolidating into a single data platform and migrating existing data mining algorithms to this new platform, retailers can run these algorithms on a broader and more detailed dataset than just point of sales data and so derive more accurate predictions at scale. Once derived, further analytics can explore how new variables from new data sets (social media, competitive data, local events, competitor offers, weather data, etc.) could be utilized to respond to trends more quickly through the use of leading rather than lagging indicators of future sales.

Additionally, getting these new insights at the heart of your demand planning and inventory management processes will have a direct impact on your financial performance. It will allow you to more accurately forecast inventory requirements, allowing for better predictions of demand which will in turn result in more efficient replenishment and allocation of product as well as better, more targeted assortment plans. Utilizing this data to enhance demand planning can result in fewer out of stocks, and improved sales and margin.



Use Cases

Introduction

Enterprise Data Hub Accelerator

Retail Sector

Use Cases

Capabilities



Personalized Offers » Integrated Demand Planning » **Supply Chain Optimization** » Planogram Optimization » Web Clickstream Analytics » Key Purchase Influencers Targeting



Supply Chain Optimization with Big Data

Big Data solutions help retailers optimize supply chains to reduce cost, improve service, and gain vital insight. Big Data analytics are used to predict inventory positions in stores and distribution channels. This is achieved by utilizing demand plans and forecasts, sales history, external predictors of future performance such as category trends, weather patterns, local events and so on, enabling retailers to reduce both out-of-stocks and over-stocks.

Big Data analytics can also deliver full supply chain visibility by capturing real-time inventory positions across the enterprise and through the extended supply chain. Data to be leveraged include open purchase orders, in-transit inventory, or vendor and distributor inventory. This information is critical for retailers looking to deliver an omni-channel shopping experience to their customers.

Insight into channel behaviors are also used to identify replenishment needs, by analyzing customer sentiment, abandoned baskets, click throughs, time on page, etc.



Use Cases

Introduction

Enterprise Data Hub Accelerator

Retail Sector

Use Cases

Capabilities



Personalized Offers » Integrated Demand Planning » Supply Chain Optimization » **Planogram Optimization** » Web Clickstream Analytics » Key Purchase Influencers Targeting



Smarter Planogram and Layouts for a Better In-Store Experience

By analyzing data around store usage and customer behaviors, retailers improve layouts to increase sales.

Big Data techniques allow the capturing of geo-spatial data to drive insight into customers' movements within stores. This enables the mapping of hot and cold spots. With this insight, a retailer can improve floor layouts by enticing customers into cold spots or moving high revenue generating products into hot spots.

Retailers can use this space and floor planning information to drive more impactful, more efficient category management. Data around floor plans can also be combined with information on past sales behavior (shopping history, online activity, etc) to create tailored navigation path and shopping lists for customers, which lead them through a store in the most efficient manner.

In-store navigation technologies such as iBeacons enable retailers to build mobile applications that significantly improve the in-store customer experience. They do this by offering customers the most optimal way to purchase items on their shopping list, and highlighting appropriate complementary products or promotions along the way.



Use Cases

Introduction

Enterprise Data Hub Accelerator

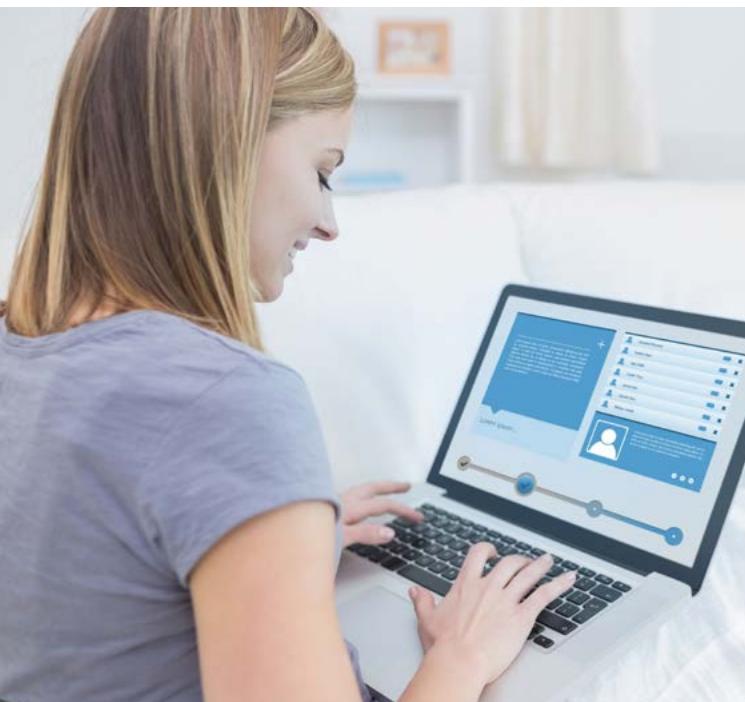
Retail Sector

Use Cases

Capabilities



Personalized Offers » Integrated Demand Planning » Supply Chain Optimization » Planogram Optimization » **Web Clickstream Analytics** » Key Purchase Influencers Targeting



Increase Customer Loyalty and Basket Value through Effective Digital Marketing

Retailers naturally want to make the online experience as rich and distinctive as possible for their customers. In particular, they need to extend their brand differentiators - such as tailored customer service and help with product selection - into their websites, their mobile apps and their email communications. However, existing IT infrastructures struggle to capture and analyze the unstructured clickstream data at the necessary speed and scale to be able to propose a real personalized experience online.

Cloudera Enterprise is an open platform that can integrate with traditional data sources such as ERP and enterprise data warehouse, as well as clickstream or external data (social media ads, for example) to deliver insights into customer behavior across online channels. This improves segmentation of customers and enables a retailer to send fewer but more specific communications. New types of analytics drive less frequent but more impactful communications, while algorithms guide cross-sell and up-sell offers (Next Best Action) on the website or the app while customers are visiting.

A premier North American retailer used these techniques to reduce email subscription churn by 20% while also achieving more effective measurement of online marketing and generating a 360-degree view of the customer.

Finally, retailers use Cloudera Enterprise with tools such as SAS Enterprise Miner to integrate online and offline data for a better understanding of the customer lifetime value.



Use Cases

Introduction

Enterprise Data Hub Accelerator

Retail Sector

Use Cases

Capabilities



Personalized Offers » Integrated Demand Planning » Supply Chain Optimization » Planogram Optimization » Web Clickstream Analytics » **Key Purchase Influencers Targeting**



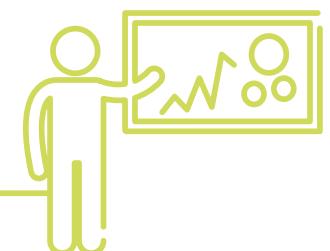
Key Purchase Influencers Identification and Targeting

Retailers develop insight into whom and what is influencing purchasing patterns and customer behavior, to improve planning and forecasting. It also allows retailers to reach out to and influence the influencers.

Big Data analytics are used to identify key influencers for individual markets and stores through measurements such as:

- **Purchasing behavior** — for example being an early adopter of fashion or new products
- **Online activities** — such as Klout, Topsy, Kred, and re-tweets of specific content.

Once this core group of key influencers has been identified, their preferences can be measured and assortments and offers can be tailored for these customers to influence positive sentiment towards the retailer.





Capabilities

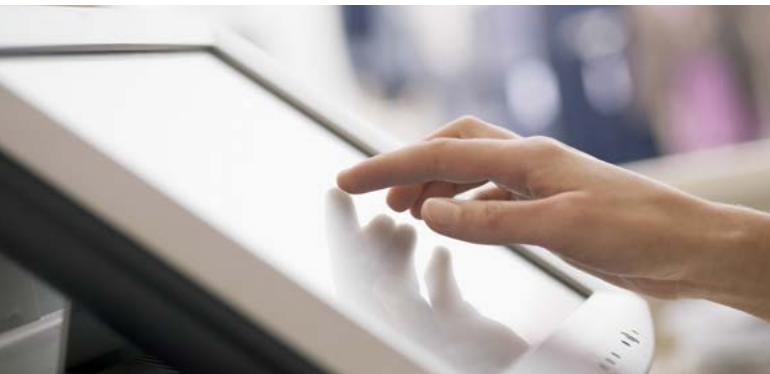
Capabilities

[Introduction](#)[Enterprise Data Hub Accelerator](#)[Retail Sector](#)[Use Cases](#)[Capabilities](#)

Capgemini's & Cloudera's Retail Sector Experience

CAPGEMINI INDUSTRY EXPERTISE FOR RETAIL

Capgemini has worked with many of the leading retailers in the world. Our experience includes developing retail transformation strategies, enabling omni-channel capabilities, optimizing retail business processes and systems, developing and implementing integrated planning and execution solutions, and managing and leveraging retail business information to drive value. Capgemini's Consumer Products and Retail Solutions Center (CRESCENT) offers tools that equip clients to reach their objectives more quickly, with less risk and lower cost. CRESCENT, in collaboration with global industry practitioners, has industrialized leading practices in consumer products and retail. Capgemini leverages its accelerators, KPI's, thought leadership, and in-depth industry experience to drive value for its Retail Clients.



Capabilities

Introduction

Enterprise Data Hub Accelerator

Retail Sector

Use Cases

Capabilities



cloudera®

CLOUDERA IN THE RETAIL SECTOR

Retailers have more diverse transactional data than ever, which holds opportunity for deeper customer insights when synchronized with online and offline behavior data, but also poses a threat from cyber-attackers that threaten privacy, denial of service, and theft. Moreover, data silos keep data scientists from identifying new business opportunities and prevent the just-in-time analyses that are required for fraud detection. The enterprise data hub centralizes all your data so that it is available not only for traditional reporting, but also for ad hoc projects and strategic initiatives that drive revenue.

Cloudera has helped leading retailers optimize key processes like:

- Multi-channel loyalty analytics and personal pricing
- Supply chain optimization
- Marketing and promotions efficiency
- Locating/pricing overstocked items for clearance
- Abandoned cart recapture
- Consumer driven assortment optimization
- Unified customer identity across channel
- Improved model scoring

What can we do to optimize key metrics like same-store-sales and promotion efficacy by combining our online and offline data from social, surveillance, point-of-sale, marketing, etc.?

Can we model predictive indicators that identify anomalies and help prevent the massive security attacks that cost us billions every year and dilute customer sentiment?

Capabilities

Introduction

Enterprise Data Hub Accelerator

Retail Sector

Use Cases

Capabilities



CLUDERA ENTERPRISE DATA HUB

An Enterprise Data Hub securely and cost effectively stores any amount and any type of data, in its original form, for as long as you need. It lets you access all your data in multiples ways while providing the robust management and governance required by enterprises.

Using an enterprise data hub, retailers can spend less time in data integration processes of point-of-sales data (POS), and focus more on improving analytics. While current architectures would struggle with the increasing volume of POS data, Big Data solutions such as an Enterprise Data Hub allow you to get more flexible when you need to bring in new data sets.



[Introduction](#)[Enterprise Data Hub Accelerator](#)[Retail Sector](#)[Use Cases](#)[Capabilities](#)

About Capgemini

With more than 130,000 people in over 40 countries, Capgemini is one of the world's foremost providers of consulting, technology and outsourcing services. The Group reported 2013 global revenues of EUR 10.1 billion.

Together with its clients, Capgemini creates and delivers business and technology solutions that fit their needs and drive the results they want. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

Learn more about us at

www.capgemini.com/bim

or contact us at

bim@capgemini.com

The information contained in this document is proprietary. ©2014 Capgemini.
All rights reserved. Rightshore® is a trademark belonging to Capgemini.

About Cloudera

Cloudera is revolutionizing enterprise data management by offering the first unified Platform for Big Data, an enterprise data hub built on Apache Hadoop™. Cloudera offers enterprises one place to store, process and analyze all their data, empowering them to extend the value of existing investments while enabling fundamental new ways to derive value from their data. Only Cloudera offers everything needed on a journey to an enterprise data hub, including software for business critical data challenges such as storage, access, management, analysis, security and search. As the leading educator of Hadoop professionals, Cloudera has trained over 20,000 individuals worldwide. Over 1,000 partners and a seasoned professional services team help deliver greater time to value. Finally, only Cloudera provides proactive and predictive support to run an enterprise data hub with confidence. Leading organizations in every industry plus top public sector organizations globally run Cloudera in production.

More information is available at:

www.cloudera.com