



## CASE STUDY

# Big Data in Sales & Marketing

## Leading Online Marketing Company Gains Deep Customer Insights with Big Data and a Shift to Targeted Online Sales

### The Challenge

Search engine marketing and online display advertising has forever changed the way businesses reach consumers in local markets around the world. The rapid growth in this competitive industry has challenged Internet marketing companies to keep pace with their systems to support new services and offer deeper insights.

The client, a leading global online marketing firm, was quickly approaching an inflection point where structured database environments were becoming too slow and too limiting to serve the expanding analytical needs of the business. This particular client develops models of customer behavior based on search engine ad placement, keyword string queries, and customer link-through behavior. More and more data must be analyzed in ever-shrinking time windows to create richer and more valuable reports for its customers. The constantly expanding machine-learning system used a combination of historical reporting in various legacy MySQL databases and other log collection systems that could not provide the scalability and performance that data analytics teams required. To remain competitive, the firm needed to expand its analytics capabilities and move from a structured database environment to a Big Data architecture that returned results quickly and scaled as needed.

### The Solution

cStor's Big Data team showed the online marketing firm how technology could provide a competitive advantage instead of being a limiting factor, recommending a "Data Lake" architecture based on the Apache Hadoop platform. A Data Lake is a massive, easily accessible repository for storing Big Data that retains all data attributes for maximum flexibility in the nature and scope of subsequent analysis.

#### Overview

- Industry: Online Marketing Firm

#### Challenges

- Slow Database Performance
- Limited Capacity
- Increasing Workloads

#### Solution

- Consulting and Optimization Services
- Enterprise Data Lake
- Hadoop 10-Node Cluster
- Cloudera Manager

#### Business Benefits

- Deeper Insight Into Customer Behavior and Campaign Effectiveness
- Improved Accuracy and Analysis Options
- Faster, Scalable Data Processing
- Centralized Data Collection and Processing Into a Single Platform

*With an infinitely scalable Big Data deployment based on an Enterprise Data Hub architecture, the global online marketing firm can now centralize all data collection and processing onto a single platform that can be used by anyone in the company.*

### The Results

Leveraging technical and architectural guidance from Xentauris, the client developed a platform for Big Data storage and large in memory processing in an extremely high-density environment. cStor's recommendation of a 10-node "starter" cluster provided the client with more than 100TB of storage capacity in less than 12U of rack space. The client used the Apache Kafka messaging broker to support event streaming into its Hadoop cluster, and has added many more nodes and cross-replication capabilities to a second cluster in Europe using Cloudera Manager.

With an infinitely scalable Hadoop deployment based on a Data Lake architecture, the client can now centralize all data collection and processing onto a single platform that can be used by anyone in the company. With data replication between international boundaries, the client can ingest data and process results closer to its customers with increased redundancy and visibility. This is a game-changing advancement of Big Data analytics, providing deeper insights into making its customers' digital presence more effective.



### Let's Get Started

Learn more about how cStor can work with your team to capitalize on today's leading technologies and maximize your IT investments. Contact cStor to schedule an appointment today.

### About cStor

cStor helps companies strategize, create and implement data center, digital transformation and cybersecurity solutions that help clients leverage IT to enable business transformation, reduce costs, minimize risk and gain competitive advantage.



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