



E-COMMERCE SYSTEM RENEWAL

Revitalizing E-commerce Through Efficient Price Optimization

HIGHLIGHTS

The customer desires to make their e-commerce platform the most competitively priced e-commerce platform in the market. Our mission is to create a system that automatically updates the market price of each product and offers the most competitive prices every day.

01

Working with Big Data

In order to offer a competitive price in the market, our client's strategy is to scan the entire range of prices on the Internet and adjust the selling price on a daily basis. As a result, there is a vast amount of data that needs to be processed.

02

Agile methodology

Our project was executed using agile methodology, with each cycle lasting a month.

ABOUT CLIENT

Our client, a dynamic company in the electronic components industry that sells computer chips and screws, has faced an increasing challenge in remaining competitive in the bustling electronics commercial landscape.

They recognize the need to innovate their operations and embrace modern technology to thrive in a market subject to rapid price fluctuations.

OVERVIEW

- **Country:** Japan
- **Service:** Software Development
- **Solution:** Big Data solution
- **Industry:** E-commerce
- **Technology:** JEE7:JSF, CDI, EJB, JPA, JAX-JS, Elastic Search, MapR-Hbase, Oracle
- **Duration:** Since 2017
- **Team size:** 20 engineers

CASE STUDY

CHALLENGES

Developing a Competitive Edge with a Dynamic E-commerce Pricing System

In an effort to stay ahead of the game, the client sought to create a system that could analyze pricing data across the entire market and adjust their e-commerce product prices dynamically. Their top priority was to design a state-of-the-art solution that could independently scan market prices on a daily basis and determine the most competitive price for each product. This would ensure that prices were updated regularly and kept current with the market.

SOLUTIONS

Create Robot scans data and collects information

To directly address our customer's challenge, we set out to create an advanced scanning robot.

This robot will perform the important task of analyzing large amounts of market data to offer competitive prices for products provided by customers. The robot's robustness and autonomy are important considerations in designing an effective solution.

Technologies

Elastic search has strengthened the system's ability to efficiently search and retrieve data, ensuring seamless product pricing optimization.

Choosing **MapR-Hbase** over a traditional database like Oracle solves the challenge of handling huge volumes of data. By using Hbase's distributed storage and column-oriented architecture, we have optimized the speed of data retrieval and facilitated efficient management of large-scale data.

Big Data Handling

With the huge volume of data involved in market price analysis, we recognize the need for high-performance and scalable data processing infrastructure. Our team took on this challenge using **MapR-Hbase**, an industry-proven solution for managing large data sets, ensuring efficient data storage and retrieval.

ACHIEVEMENTS

Through our strategic partnership and innovative solutions, the client achieved remarkable outcomes:

Autonomous Market Price Optimization: The advanced scanning robot revolutionized the client's operations. By continuously scanning market prices and updating product prices overnight, they could consistently offer competitive pricing that attracted customers and boosted sales.

Efficient Big Data Handling: Efficient Big Data Handling: Our use of MapR-Hbase ensured that the system could handle vast amounts of data without affecting performance. This scalability allowed the client to maintain a competitive advantage even as data volumes increased.

