DEVELOPMENT AND UPGRADATION OF ANALYTICS AND SOCIAL PROOF MESSAGING PLATFORM

Client Overview

In the recent times online shopping platforms have taken over the actual in-store shopping experiences. Online shopping provides user with zillions of product choices at better prices and convenience of shopping at users fingertips. While online shopping has many advantages, the variety and range of products available online confuses people in deciding what to buy! This dilemma results in more visits to shopping website but very few actual sales conversions. There has to be some way to convert your visitors to buyers!

Our client provides a solution in this problem area by providing an analytics platform that harvests and interrogates website data in real-time, combining this platform with a messaging delivery system which allows the retailer, to push the right messages, to the right customers, at the right time in their online journey resulting in increase in sales.

Engagement Situation

Our client, a social proof messaging platform provider, already had their Java script based plugin for the browsers that allowed the websites to up sell their products by displaying real time social proof messaging. However, they wanted to upgrade the existing platform to provide their clients with a better reporting system, an easy to analyze dashboard and scalable architecture.

Xoriant had the right skills, experience and technology expertise which made it easy for the client to engage with Xoriant on this project.

Key Requirements :

- Design and develop a dashboard, which allows client's customer to control and set the experiment [A/B testing] to monitor effect on their sales
- Develop better reporting system to advise the shopping sites, which items to stock, which items are trending and which items are selling fast
- Adopt a better and scalable architecture with cleaner responsibilities among various server side components to counter growing customer base
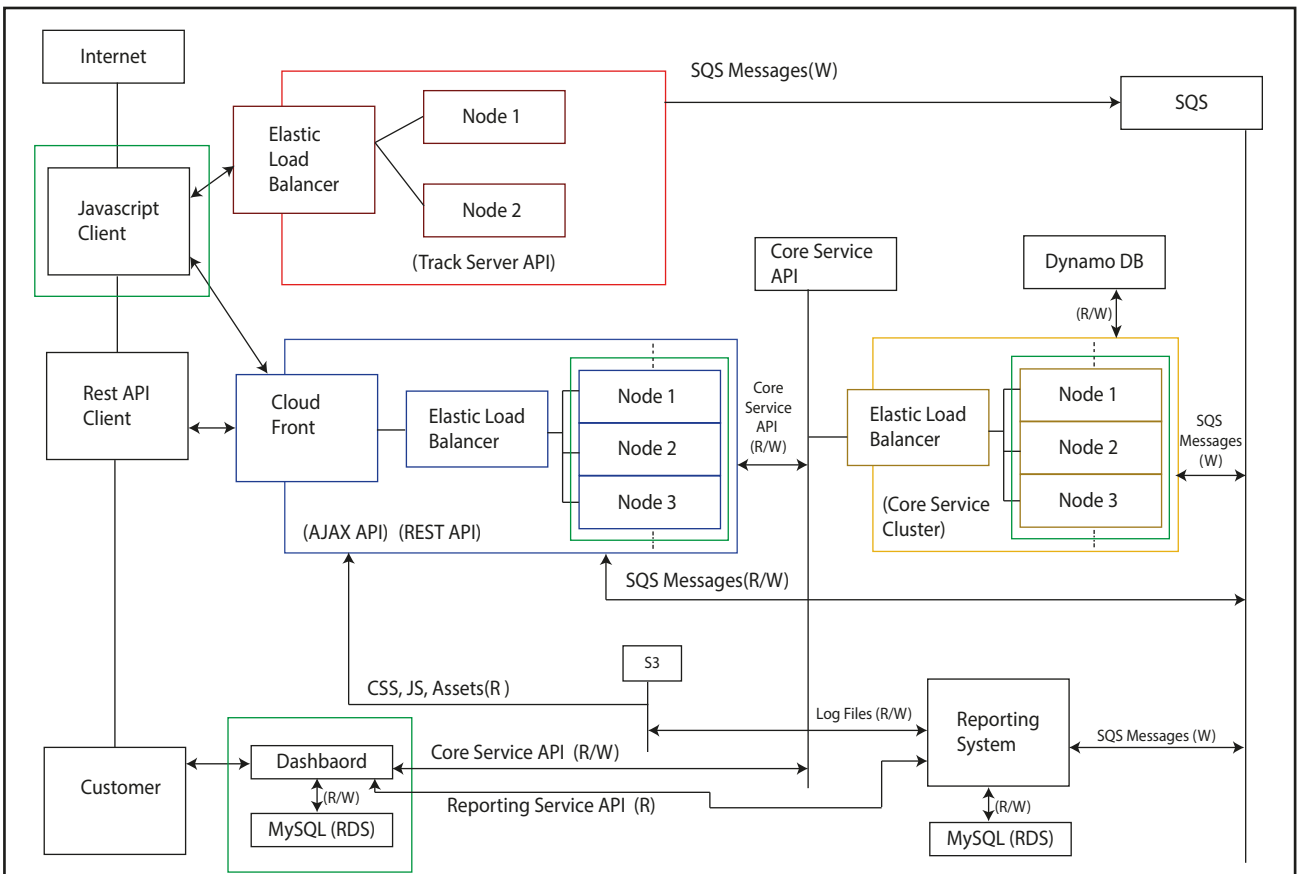
Xoriant Solution

Our client was looking for a technology partner having good experience not only in server side technology but also in architecture designing, experience in executing in agile environment with strict time lines and UI skills to build rich graphs and charts to develop the platform. Client also wanted production support to on-board many shopping websites to their platform. Xoriant with its expertise provided quick development and deployment of the application by using readily available Amazon web services components like EC2, SQS, SNS, AWS cloud watch and Amazon DB. Xoriant also leveraged the latest Java features like try with resource, lambda expression and concurrent collections to reduce the code complexity and made the code compact.

Xoriant offered its technical and project management expertise to the client and provided a technical team, who worked as an extended arm of client's own development team.

Xoriant Key Contribution

- Migrated the Ajax based V1 API server to Rest Based V2 API server for improved system scalability
- Implemented command line utilities using Java and Bash scripting to import existing customer data in to client's platform
- Defined Sprint based project process and used Jira to track the progress and feedback of the customer and developer to keep up the expectations
- Extensive unit test coverage was provided to ensure code coverage and quality assurance in absence of QA team
- Implemented REST API using JAX-RS / Jersey framework
- Reduced code complexity and made the code compact by using Java 8.0
- Implemented Redis as a caching mechanism to avoid going to DB layer or calling web services

Architecture Diagram

Internet

Elastic Load Balancer

Node 1

Node 2

(Track Server API)

SQS Messages(W)

SQS

Javascript Client

Core Service API

Dynamo DB

(R/W)

Rest API Client

Cloud Front

Elastic Load Balancer

Node 1

Node 2

Node 3

Core Service API (R/W)

Elastic Load Balancer

Node 1

Node 2

Node 3

(Core Service Cluster)

SQS Messages (W)

(AJAX API)   (REST API)

SQS Messages(R/W)

S3

CSS, JS, Assets(R)

Log Files (R/W)

Reporting System

SQS Messages (W)

Customer

Dashbaord

Core Service API (R/W)

(R/W)

MySQL (RDS)

Reporting Service API (R)

(R/W)

MySQL (RDS)

Tools & Technologies

- Java 8.0
- JAX-RS
- Jersey
- Redis
- JIRA
- AWS stack (EC2, SQS, SNS, AmazonDB, AWSCloud etc.)

- GIT
- Maven
- Crontab
- Elastic cache
- Node JS

Business Benefits

- Increased customer engagement levels and reach by displaying social proof messages
- Instant conversion uplift by reducing cart adornment, reduce bounce rates by 40%
- Provided insights in to data analytics to client's customers like conversion uplift rates, device types, purchase revenue and buying trends according to A/B product messaging that helped them in monitoring and optimizing the business strategy
- Built site credibility by displaying total visitor and order numbers on homepage