

Best-in-class Customer Experience (CX) and Employee Experience (EX)



Through a Rich, Single-page Web Application

At a Glance

Industry

E-commerce, Pet Store

Business Problem

Needed a new web solution that load faster and handle more visitors, optimize hosting and maintenance costs.

Expected Goals

Improve website experience, reduce operational costs, optimize ad revenue

Solution

A rich, scalable single-page web application with fast loading time and optimized hosting and maintenance costs that can improve employee and customer experience by handling high user volume.

Context

The client is a leading Pet Products and Services provider in North America. They required support to launch a new web solution with a significant increase in the number of visitors, while not compromising loading time and also optimizing hosting and maintenance costs.





Business Problem

The client's existing website was underperforming, negatively impacting revenue growth and causing delays in time-to-market for new launches.

Key areas contributing to the sub-optimal EX and CX were:

- Cumbersome navigation
- Complex administration interface
- Inefficient publishing process
- Content not optimized for SEO
- Lack of business scalability
- Slow Website Loading

Expected Goals

The client's expectations from this engagement were:

- A rich, single-page web application with high page load speed deploying commonly used technology
- Optimized cost of hosting, scaling, and maintaining the website
- Best-in-class Employee Experience (EX) and Customer Experience (CX)
- Ease of publishing on the application
- Ability to handle a high volume of users without impacting performance
- Efficient content delivery platform to the users

Solution Delivered

Boyle Software recommended a single-page application based on a scalable, future-proof, and easy-to-maintain architecture for the client.

- Multiple technologies were leveraged across the front-end and back-end, for API building, and reporting
- A storefront was implemented to recommend the right products to pet owners by using the data provided about their pets
- The deployed web application also upsold classes and training programs for the pets to the customers



Solution Highlights

- We used JAMstack technologies on the front-end for a welcoming interface with myriad bespoke functionalities
- We configured various JavaScript and AWS technologies for an ultra-optimized and scalable back-end
- These were supported by Swagger tools to build APIs for simple, fast, and secure communication between the front-end and back-end; NewRelic for instrumentation and reporting; and Dependabot to ensure an up-to-date technology stack
- The first version was rolled out within four months with minimum iteration and back-and-forth between the development team and client

Technology Stack Deployed:

- Front-end: JAMstack technologies like Gatsby.js
- Back-end: JavaScript technologies like ECMAScript 6, Express.js, Node.js and AWS technologies like ECS, SQS, Cognito, and S3
- For APIs: Swagger tools like Swagger UI, Validator, and Router
- Instrumentation and Reporting: NewRelic
- Technology Updation: Dependabot

Outcomes of the Engagement

The key outcomes of the project were:

- The web application acquired 12,000 users within the first four weeks
- User enjoyed a high-speed, rich web application with content pages loading in just 100 milliseconds
- Smooth sign-up and login processes that allowed for painless user onboarding

Key Project Outcome Metrics:



100

ms content page
load time



27%

Improvement in
hosting cost



4

Months delivery



Boyle Software brainstormed with us to identify top-grade technologies that could be scaled, were future-proof, and had a relatively large developer base. They deployed the first version within a matter of four months – getting most of the pieces right the first time! We hope to add further value as they continue to add features to the site and monitor and optimize it for key metrics.

CTO



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Since our founding 35 years ago, Boyle Software has been a company that is far more than the sum of its parts.

A subsidiary of global consultancy Beyondsoft since 2020, we pride ourselves on our highly skilled team, full of passion and knowledge for the latest design concepts and technologies.

Headquartered in New York City since 1995, we have operations in Europe and resources all around the globe - from Uruguay to Costa Rica, from Singapore to Thailand.