

## Case Study: PHP based e-commerce platform for an online retailer

### Client

Based in New York, the client is an online retail store offering baby products across the country.

### Challenges

The client was using the Magento platform for its e-commerce website and had installed more than 50 extensions for added functionalities. However, there were several major configuration issues, bugs and performance issues with their website. They sought a quick resolution for all the issues with their website before an upcoming sales promotion.

Some of the challenges have been captured below:

- There was no dedicated development server, therefore testing real time behavior of paid extensions was an issue
- Standard search solution of Magento had limitation like inability to find products if they were misspelled by the user or suggest synonyms to the user. Filtering and sorting product categories (by most popular or most viewed item) was not possible
- The existing application was not able to perform single page checkout, thus adding to more time and complexity for the customers
- Secure transactions were a concern
- There were more than 50 extensions that were creating conflict with each other and had lot of bugs
- There were issues such as random logouts, delayed e-mail confirmations, mismanagement of order cancellations and improper updating business rules and validations

### Solution

Given the stringent timelines to run the sales promotion, ISHIR team developed a strategy to address the issues of the client within the shortest time.

- Resolved all configuration issues and fixed bugs before client's sales promotion and also designed a special homepage banner and online marketing for new product launches
- Integrated credit card transaction fraud scoring system that required in-depth study and resulted into making the website more robust against any credit card fraud by scoring all transaction based on a series of checks and cross checks
- Programmatically managed and updated Google Merchant Center product information
- Improved social span of website by letting people to comment on each product and share with friends via email and/or social media
- Reduced initial learning time by quickly grasping issues and testing product time to time in real environment
- Created staging development server replicating real time environment for testing paid extensions on local machine
- Optimized performance by making load times under one second

- Enabled the right extension among many alternatives that were available in market and integrated with current website resulting in advanced search functionality that included:
  - Spell correction
  - Partial term matching
  - Error-tolerant fuzzy matching
  - 'Sounds like' matching
  - Singular and plural variations
  - Filtering and sorting of search results by most popular or most viewed item
  - Price, brand and color rating
- Automatically uploads product listings to Google by Google cron job (It is an automated script, which fetches the products from a feed file hosted on the server. This feed file is scheduled to be updated on weekly or monthly basis, using Magento third party extension). With this feature, the client does not need to upload the products manually on the Google Merchant Center. It is done automatically using Google cron, which saves lot of time and effort of the client
- Seamless single page checkout leading to quicker payments and user-friendly experience
- Foolproof security by a separate Order History web page tracking orders based on email id, phone, IP address and other orders placed by customer all at one place giving a complete picture of the online customer and reducing the scope of defaulters
- Maintained a smooth workflow and conducted testing for multiple times in real time environment to fix all kinds of bugs
- Extended support for inter-vendor communication and interaction with any third parties

**Technologies:** PHP, MYSQL and Magento