



Sales Force Management Application

Helping Sales Managers achieve their goals.

Executive Summary

The application is specifically designed for B2B managers to manage their sales team. It allows for tracking of sales force activity and performance and provides directional input to managers via complex algorithms to help them identify weaknesses and key points to enhance their sales force performance. It objectively analyzes sales activities and identifies key steps required to close individual sales opportunities. It helps increase market share through a more productive sales force.



The client wanted Mindfire to provide solutions to optimize and rewrite modules for the application. The code base for the project was around 5 year old and lacked documentation. Further, the original developers had not anticipated the growth that the system had undergone over the years which was resulting in overall performance degradation. Communication and development was started concurrently with the client to enhance the current system and add new features to save the product and client's customers. This required Mindfire to rewrite the logic and restructure the existing framework. Mindfire handled the challenges and played an important role in taking decisions and delivered the product with required features and changes on time. The client was very happy with the resulting product and the expertise and skills Mindfire provided and decided to continue work with Mindfire towards the development of a new CRM system from scratch. The client increased the team size from 1 to 6 resources.

About our Client

Client Sales & Management Company | **Location** Chicago, USA | **Industry** Sales Management



Business Situation

The application was designed to be completely JavaScript driven. Most of the data in the system gets loaded into the JavaScript pages as a collection of Objects. This includes user data and all opportunities in the system. The logic was implemented in JavaScript pages to render the HTML pages for the user interface. This makes the system very responsive to the user's requests, since the data and logic are available for execution on the user's web browser to draw out the content.

The system performance was impressive for a start up organization with little data. But as larger organizations were added and used the application, it got slower by the day. The progressive delay was very annoying for the users and the client's customers started to complain.

Following are the noted issues of the system:

- Lots of data gets loaded to the user machine as a result the machine slows down.
- The application dashboard page started to take longer and longer to load.
- There was a need to provide better user interface to the users.

Solution Details

The Mindfire Solution

The client contacted Mindfire for providing a quick solution. The process started with an initial discussion with the client's technical lead and Mindfire's Project manager and lead developer to understand the system and come up with a better solution.

Mindfire quickly determined that the best way was to move the page rendering logic from JavaScript to PHP. Ajax could also be used for progressive download of data without performance loss. Caching can be used to improve the user experience when interacting with the system. The challenge was to maintain the equivalent responsiveness of the system.

The development started and Mindfire found the code was well written but the problem with the code was it is not documented and lots of main logic was present in the JavaScript pages. It was difficult to understand the logic since the code was distributed in several pages and further used complex algorithms. The original



developers who had designed the system were not available and no technical support was available to Mindfire. The communication started between Mindfire and the client's tech lead and things were slow during the first week. Mindfire's engineer dedicatedly worked with the code and spent extra hours to get a grasp of the framework and logic. Slowly but surely Mindfire was able to understand the code and started development by the second week.

Mindfire's engineer worked aggressively and delivered the system within the estimated time. The idea was to load the data on demand rather than pre-fetch the data like the original application was doing. The importance was given to move the logic to PHP code and render most of the content from the PHP page.

Achievements

The very first thing which Mindfire did was code optimization. JavaScript minification was then done to improve load time of the pages. To maintain high security throughout the application Mindfire's engineer implemented authentication classes. For improvement in performance and ease of use Ajax was used. Complex logics were replicated from their existing application and new modules were implemented to help client's Sales Managers to derive the required data quickly. Caching was also provided for higher performance. Lastly, a forecast assistant module was implemented to support Sales Manager's decision making process for future planning.

Technologies

PHP, MS SQL, jQuery, memcache & APC Cache

Final Results

Software System

The following is the dashboard screenshot for a demo organization.

