



Benchmarking product development enhances innovation and adds business value





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Client

Our client is a global leader in precision technology, designing and delivering advanced solutions in healthcare and consumer electronics. Research and development in precision technology and manufacturing processes has enabled our client to make innovative offerings across different lines of businesses. Their offerings include medical, surgical, and scientific services and solutions, in addition to audio and visual equipment. As a leading provider of gastrointestinal (GI) solutions, the client has been offering complete GI solutions and services over the last fifty years. Their GI specific consulting services focus on GI procedure management and productivity.

Challenge

Various GI endoscopy units today are under pressure to deliver superior results within short timeframes, reduce operating costs, and meet procedural demands efficiently. GI facilities are therefore focusing on implementing industry best practices to meet these challenges. Our client is a major player in the GI endoscope market with approximately 70% of the global market share. Their comprehensive consulting services assist their customers by outlining their focus and formulating viable solutions for increasing the adoption of best practices.

Our client is focused on improving operational and quality parameters of the business as well as increasing corporate intelligence. They wanted to re-develop their existing GI-focused benchmarking software product for use by their external customers and internal analysts. While turning data into valuable information is crucial for the effective management of any GI facility, many facilities are still unable to understand and interpret the rich data they have accumulated to their advantage. While many GI facilities engage in benchmarking activities, they are often limited to patient satisfaction surveys and comparing the results to other facilities. However, accreditation may also require clinical and financial benchmarking in addition to patient satisfaction activities. Client wanted to offer GI facilities an ideal opportunity to optimize patient care and financial performance.

They wanted to develop the product into the largest GI-dedicated database with services to be sold as a subscription. They wanted to make this product available to any hospital GI lab, endoscopic ambulatory surgery center (EASC), or multi-specialty ASC with endoscopy.

Their benchmarking software was required to incorporate the following features:

- Areas crucial to operational efficiency such as staffing, scheduling, equipment, and anesthesia
- Ability to provide customized, facility-specific reports
- Dashboard function to compare the facility with similar facilities
- Site-specific issues to be considered in data analysis.

The results can significantly improve the outcomes for their customers when making strategic plans.

Marlabs Solution

The main part of our engagement involved the development of the GI-focused benchmarking software product. Marlabs was responsible for the complete application development life cycle activities including requirements gathering, analysis, development, testing, and deployment. Our team studied the client's requirements and designed the software to ensure that the specified functionalities, guidelines, and standards are met.

Marlabs designed and developed the product using Team Foundation Server (TFS) 2012 utilizing a hybrid Agile project management methodology based on Microsoft .NET as the technology platform leveraging an MS SQL backend. TFS 2012 managed source code, automated builds, testing, reporting, and release across the entire application lifecycle. The hybrid agile process offered multiple design and development tracks to ensure swift development and deployment processes and streamline project management.

Features and functionalities of the software included the following:

- Option to benchmark customers by soliciting responses from clients in an easy, user friendly, flexible and dynamic approach using multiple time-bound surveys and cumulating the data for further in-depth analysis
- Multi-tier subscription model built into the product
- Ability to efficiently manage client and organization information
- Manage multiple/single user and user roles through a user friendly and efficient interface
- Easy sorting and filtering options to manage large user data easily and efficiently
- Client facilities configuration to capture details of all locations
- Survey/benchmarking designer tool with a dynamic and flexible user friendly interface to create and manage benchmarking surveys
- Option to edit all the aspects of the survey through a business user friendly interface

- Customized and comprehensive reporting module to enable business users to create, edit and manage benchmarking reports on the fly
- Data Scrubbing features to automatically scrub data (survey data/reports) and make it visible to business users for further action (edit/delete/exclude).

Benefits

Our solution encompasses a dynamic, responsive, user friendly and optimized interface, with greater flexibility for business users to change and control surveys and associated data within the system. It provided in-depth analysis and business visibility that helps in improved customer service levels. Marlabs' custom web application framework for server side reduced the technical design time by 80% and increased the quality, performance, and accuracy of the product/software. We also used an innovative application User Interface (UI) design methodology that reduced the UI design time and helped quicker review and refinement of the requirements.

The product has the potential to help GI facilities improve the quality of care delivered and benefit from operational efficiencies, reduced legal liabilities and healthy financial performance. Our client's customers can derive value from the ability to compare their outcomes with their peers. The software will help them uncover key areas that were not consistent with national benchmarks. As an important addition to the client's services and solutions, the product is expected to improve the quality of their business and provide a competitive edge.

Technologies

TFS 2012, Microsoft .NET Framework 4.5, C# 5.0, LINQ, ASP.NET MVC 5.0, Razor 2.0, Autofac.MVC, AutoMapper, JavaScript, HTML, CSS 3, Twitter Bootstrap, JQuery Reports, IIS7 Web server, MS SQL Server DB.

Marlabs is a USA headquartered award winning provider of innovative Information Technology and Knowledge Process Outsourcing services. Founded in 1996 and headquartered in Piscataway, New Jersey (USA), Marlabs has a culture of success balanced between consistent year-on-year revenue growth and excelling employees. Marlabs also has a strong and dedicated human capital strength of over 2100 and a network of delivery centers in USA, Canada, Mexico and India. Marlabs follows a unique multishore model utilizing Global Technology Centers of Excellence. Marlabs has assisted hundreds of blue chip customers across different verticals to achieve success through both business and operational excellence.

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