

Diabetic Patient Enrollment System

CLIENT



BACKGROUND

Hygieia, a specialized healthcare service company, has developed a solution, d-Nav Insurance Guidance Service, for diabetes care. They wanted a patient enrollment system to avoid using paper forms and automate the process.

CHALLENGE

Hygieia was considering a costly EMR system. While they were in the decision making phase, they needed a quick solution to meet the current demand for their newly launched product. They also wanted the site to be a mobile friendly responsive web application, and they needed it within six weeks.

WHY TELERIK

Telerik provides a feature rich set of browser based HTML 5 controls that are easy to use and work seamlessly in cross platform browsers. Kendo UI controls help to create responsive applications for mobile browsers.

CHALLENGES AND OBJECTIVES

Hygieia is an emerging specialized health service company whose solution is used by healthcare systems to transform diabetes care. Their solution, d-Nav Insulin Guidance Service, is currently being sold and used in the United Kingdom.

To keep in pace with their demand of the product, their paper based system and excel based data tracking was neither efficient nor sufficient to meet their needs as a start-up company, and having a full scale EMR was not practical to quickly implement.

Hygieia wanted to build a quick web based solution that was as close to their paper-based form as possible, but still allowed for a user-friendly data entry system for their internal staff and external service providers. They wanted a touch friendly responsive web application for use on tablet devices.

AI Software proposed to build first phase of the application within six weeks to provide the minimum required components. It was agreed that AI would continue building other components in successive phases. The requirements were: to provide patient demographics, appointment scheduling, and enrollment components as early as possible.

THE SOLUTION

As we have been developing web based applications with Telerik controls for more than five years, and have a substantial amount of experience with the healthcare industry, we were confident that we could build a web application for Hygieia, though their timeline seemed ambitious. It was going depend solely on the technology stack we chose to meet client's deadline as well as requirements of creating modern, responsive and mobile friendly web application.

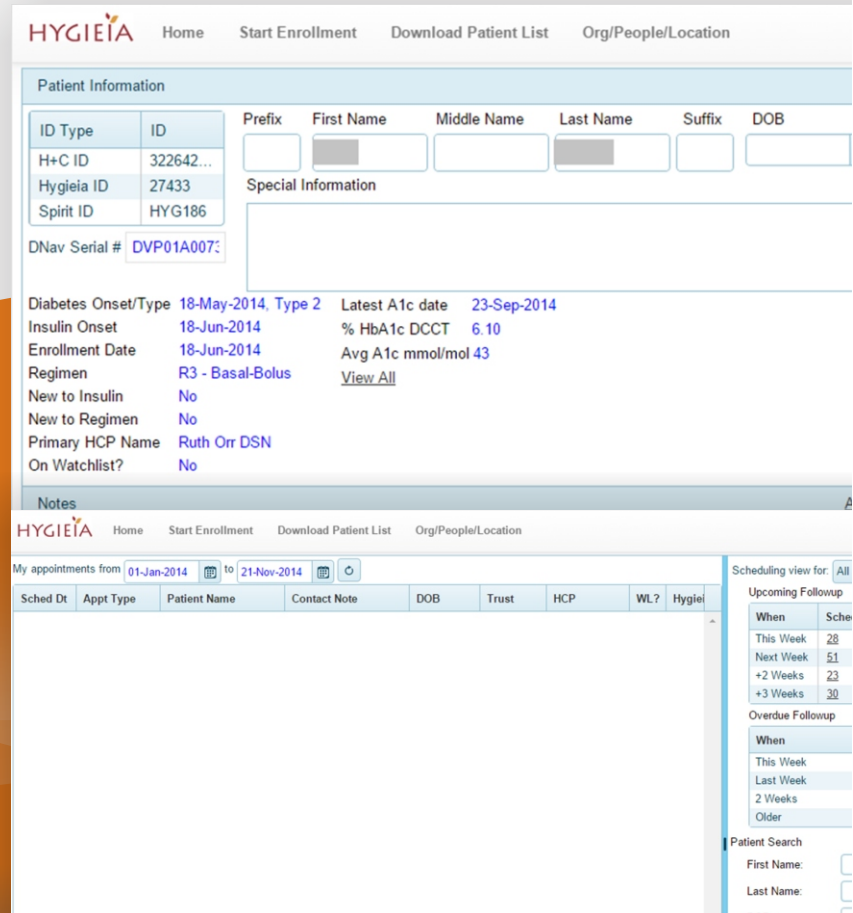
As such, our development team chose to build the application using MVC and Kendo UI, as Kendo already integrates with Bootstrap to create responsive applications. We used Microsoft Entity Framework (EF) as the Object Relational Mapper (ORM). The development team noted that it was easy to read/bind the Kendo controls to result sets from the EF. Our team developed the first scheduling and demographics module within six weeks, later implementing an enrollment module in an advanced phase of the project.

THE RESULTS

The web application has main three modules: patient demographics, appointment scheduling, and patient enrollment. The application uses the kendo grid control to display records - we firmly believe that Kendo Grid is the most advanced control in the entire kendo toolset. Other controls, like the splitter control, allowed use to create auto-resize areas within the application. The accordion panel bar control was used to display long enrollment forms that can closely relate to existing paper based forms within web interface.

The completed application was developed and deployed within three months. The team consisted of a senior developer, a UI designer, and a database developer. Our team was familiar with using Kendo tools. The real challenge was to meet the requirements and complete the project in the allotted time.

With the Kendo toolset, our team managed to race against time to put the project in production to save Hygieia from investing into a full scale EMR system. It was estimated that the web application project saved the client's customers more than three hundred thousand dollars year. In the future, the application may be integrated into other system or evolve into their core business application.



TECHNICAL DETAILS

Please include information about the following, where applicable

- Operating System : **Windows Server 2012**
- Database Platform : **Microsoft SQL Server**
- Number of Developers : **3**
- Development Time : **3 Months**
- Deployment Highlights : **Deployed on Amazon cloud on IIS 8 using ASP.net 4.5.**

RESULTS

By using Kendo UI we quickly developed a high performance application that is user-friendly and still mimics paper-based form layouts. It would not be possible to support multiple cross platform browsers without using a solid library like Kendo. Telerik's toolset saved us a great deal of development time.