



CASE STUDY

Improving efficiency for a Health Care Insurer through creation of a custom Web Portal

A custom solution was needed — one that would enhance communication and increase efficiency, while decreasing security risks.

MXOtech's team worked together to understand the clients' user process and design a unique, organized web portal.

Background

MXOtech was hired by one of the nation's largest health insurance companies to provide a solution for improving the way patient information is stored and communicated to the independent practices with whom they work. The platform they were using was a version from 2010, which meant it wasn't built to handle thousands of libraries with thousands of records. As a result, the system performance was slow.

The client prides themselves on taking a patient care centered approach; therefore, they are always open to innovative initiatives allowing themselves and their partners to operate efficiently and provide timely services.

Approach

MXOtech took advantage of their full team of experts to craft a unique set of solutions. The team discussed their analysis of the clients' current processes and tools, noticing a clear opportunity to improve the user experience by designing a new, comprehensive web portal.

MXOtech also considered current industry needs and how they affect the client. For example, the healthcare industry must abide by strict regulatory standards that limit access to Protected Health Information (PHI). In this case, the client works with an independent practice association (IPA) that is made up of several departments, each one of which needs specific categories of PHI to operate. Therefore, the first step in accomplishing this project was for MXOtech to restructure how the data was stored, while keeping security needs in the forefront.

MXOtech reorganized the massive amounts of data to design a portal composed of several sub-sites, each with appropriate security permissions.

Method

MXOtech managed and executed the entire project from start to finish which included all infrastructure; software installations; building of test and production environments; management of requirements gathering processes; and designing, developing and performing quality assurance testing for the .NET application and SharePoint portal.



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From one of our long-time clients:

“While there were several other application development companies we could have gone with, we chose to work with MXOtech because we had the utmost confidence in your abilities. Based on our past experience with your team, we knew we could count on MXO to get this job completed on time and on budget with zero fuss.

Method (continued)

Along the way, MXOtech utilized the Scrum Process which provides the flexibility to adapt to the client's changing needs and still produce deliverables on-time. The Scrum framework begins with reviewing a priority list of the smaller tasks needed to achieve an overall desired outcome. A timeline is then created for each.

After work begins, the client periodically receives samples of deliverables and provides feedback along the way to ensure the development team is on the right track.

Results

- Created an organizational structure for thousands of documents spread across thousands of document libraries
- Translated more than 6 million patient records into a version that would work cohesively with the new portal
- Built several subsites and configured appropriate site permissions
- Large amount of customization to ensure usability, such as creation of a variety of views and lists
- Implementation of multiple reporting service applications to produce templated reports
- Selection of several web applications hosted inside SharePoint (custom developed ASP.NET MVC applications)
- Designed a complex security system locking down all of the elements mentioned above, in order to protect against PHI exposure

Technology

- Unifying Portal Website:** Built on a SharePoint Server, with significant enhancements via C# Web Parts and Custom Event Handlers taking advantage of custom lists and seamless integration of custom forms.
- Central Data System:** A Microsoft SQL 2016 R2 hosted database.
- Reporting System:** A series of .NET web applications built on SQL Reporting Services, allowing multiple-format report delivery.
- HIPAA Compliance:** Met by securing the report website through Windows(c) authentication. Hard-copy format reports are downloaded through SSL encryption.