



## CASE STUDY

# Eliminating paper testing and bubble cards to create an online platform with workflow intelligence



A custom solution was needed — one that would incorporate all existing workflows into a cohesive framework.

The team at MXOtech used a real-world perspective when considering what functionality to design.

### Background

Stanard & Associates is a Chicago-based human resource consulting firm that specializes in testing and assessment systems. Their services have been utilized for police and fire department evaluations for clients all over the world since 1976. Until recently, most of these assessments were conducted on and by paper — everything from client applications and proctored examinations, to applicant profiles, scoring, and reporting.

At first, the company had adopted an off-the-shelf software product to conduct some electronic testing. Unfortunately, it was limited in its capabilities which meant that paper examinations remained at the core of their business. Creation and processing of the tests were extremely time-consuming and expensive. The off-the-shelf customization did not provide adequate functionality, scale, and stability for online examinations of prospective candidates.

Stanard soon realized their options were either to struggle and fit this square peg into a round hole; or seek assistance to design a custom solution that would serve their clients effectively, reduce long-term costs and overhead, and enhance their existing workflows for minimal disruptions.

### Approach

MXOtech leveraged their expertise to perform a Business Process Improvement analysis of current practices and tools, documenting several manual procedures that were creating inefficiencies. The team envisioned each step in the overall examination process, beginning with a client engaging with Stanard and continuing through to the administration and scoring of tests.

Developing an understanding of how each workflow individually contributes to Stanard's real-world business operations allowed MXOtech to detail the itemized functionality they needed, broken down into very specific application components.

The MXOtech investigative analysis identified the solution as one that would take all the workflows Stanard had built and synthesize them into a seamless platform.

The team determined how each part of Stanard's mostly manual, paper processes would fit into the new vision for a comprehensive platform with high business value. Further, the analysis outlined how it would allow Stanard's future expansion into other services and products.



## CASE STUDY

## Eliminating outdated methods and integrating real-world workflows to create a custom platform



*Data for Decisions in Management*

Not only did MXOtech create a solution to meet a set of extremely complex needs, but the solution opened up possibilities for business growth that had not previously been available.

After the user requirements and scope of the project were defined, MXOtech offered a fixed bid to design the new web platform.

### Results

An all-inclusive web portal that integrated all of Stanard's critical business elements for practice and live examination — purchasing, test registration, and reporting — resulted in a reduction of hundreds of human man-hours. Plus, it opened doors for new revenue generation opportunities.

Additional results included:

- ⊗ Dramatically increased efficiency through a custom online framework whose functionality eliminated outdated tools like paper Scantron test forms
- ⊗ Improved usability for all parties involved (Stanard employees, client agencies, program applicants, and test proctors)
- ⊗ Enhanced communication and speed for many existing procedures using tools like automatic notification emails or a scheduling feature
- ⊗ Ability for data analysis that was not previously possible, such as reporting on demographics of fire or police program applicants
- ⊗ Allowed for product expansion and new revenue streams through sales of test study guides, etc.
- ⊗ Clarity and consistency of necessary workflows, plus standards on how each workflow should be used
- ⊗ Opportunity for candidates to quickly apply for posted employment positions using the information in their existing user profile
- ⊗ Confidence in the new system resulted in empowered personnel and career development

### Technology Utilized

- ⊗ **Microsoft ASP.NET MVC:** Web application development according to industry standards to allow for straightforward future updates
- ⊗ **Microsoft SQL Server:** Data was stored in relational tables for dynamic online exams and report generation
- ⊗ **Syncfusion:** Applied to provide a more application user-friendly interface and experience
- ⊗ **PayPal API:** Integrated to process online financial transactions