JIG
TECHNOLOGIES
Simplifying Technology For Business

SOFTWARE DEVELOPMENT
CASE STUDIES

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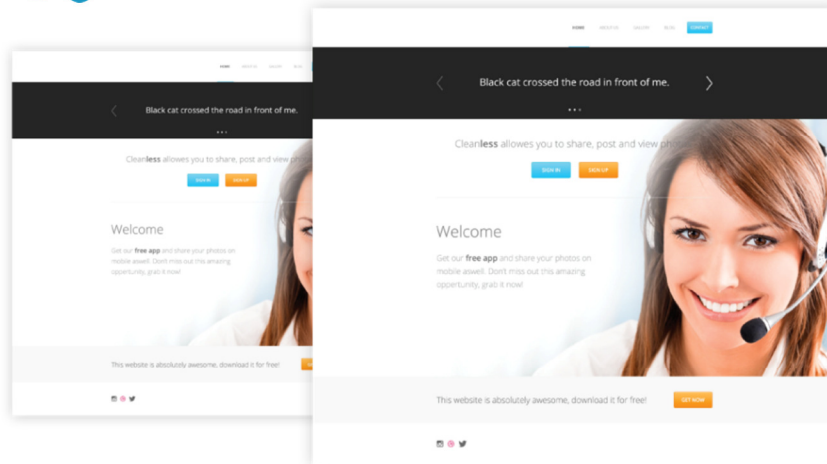
CASE STUDY:

Alliance Franciase: Student Registration System

CHALLENGE

Alliance Française de Toronto (AFT) is an educational and charitable organization dedicated to promoting the appreciation and use of the French language. Recently AFT was experience growing pains as they added locations and increased enrollment. Despite increasing enrollment, AFT's growth was limited by the increasing costs of managing and reconciling data from various locations since each location's data was in a different format. This also made transferring students to new locations very challenging.

SOLUTION

JIG Technologies' initial technology audit quickly identified issues with the isolated systems. We were able to transform the stand-alone locations into a multi-office shared network using a single accounting system and student management system. JIG also developed an online course registration system which would be linked to AFT's database of courses and students. A separate backend system allowed for administrative staff to dynamically update courses online.

SOLUTIONS

AFT was able to increase enrollment without adding administrative staff. Instead, they were able to go from a dedicated member at each site to a single full-time and one part-time staff to manage their finances. The centralized student management system has allowed AFT to transfer students easily and support online registration. Updating course information and status became a straight-forward process to ensure staff and students were informed of any last-minute changes. AFT was allowed to focus on providing services rather than following up on administrative tasks.

CASE STUDY:

Bell Media Digital Rights Management
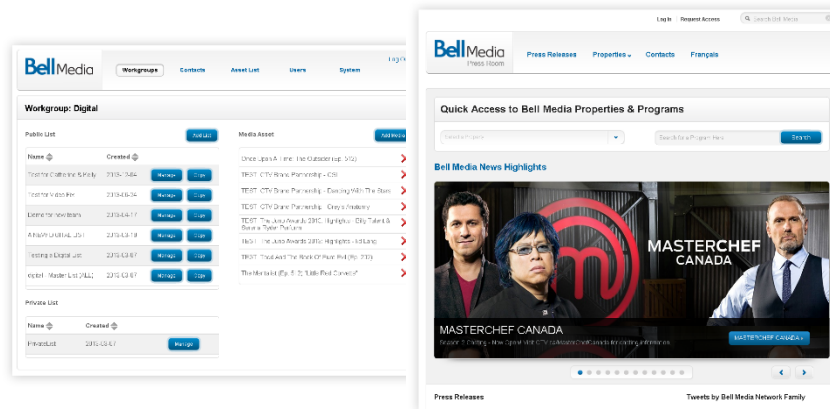
CLIENT CHALLENGE

Bell Media created a press release media site to serve images and videos to the press. They wanted to integrate this media site with the Bell video streaming server and Digital Rights Management (DRM) mechanism to prevent unauthorized access. Since their media contacts were in a separate database, there were information islands causing duplication of data entry.   They wanted a unified system integrating all these different sub-systems together.   Bell attempted to integrate their systems using the current vendor for the portal without success and needed a solution to this challenge.

SOLUTION

JIG reviewed the architecture of the 4 sub-systems and created custom integration modules that would read and write to all these sub-systems.   All the data was stored in a centralized database, so all lists, permissions and data could be managed from a single location.   In addition, JIG built a web portal front-end to this database allowing easy access for the entire PR team, regardless of their location.

RESULTS

Though Bell Media previously determined it wasn't possible to integrate these sub-systems, JIG was able to link these sub-systems together seamlessly. This new system allowed Bell Media to contacts their constituents faster with highly engaging videos and images in a controlled manner. The promotions department could more effectively create the desired buzz around new Bell Media shows and events. In addition, the list and contact management allowed for a streamlined way to share and manage their relationships amongst the group.

CASE STUDY:

Crohn's and Colitis Canada: Mobile Go Here App
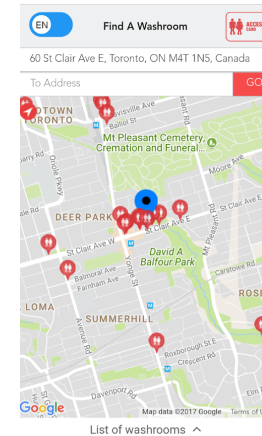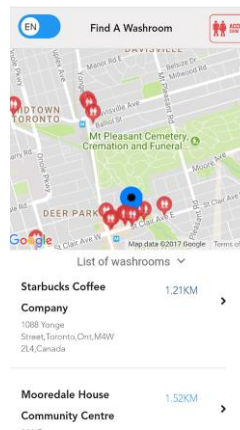
CLIENT OBJECTIVE

Crohn's and Colitis Canada (CCC) is the only national, volunteer-based charity focused on finding the cures for Crohn's disease and ulcerative colitis and improving the lives of children and adults affected by these diseases. In the effort to assist individuals with incontinence issues, CCC wanted to provide a service to find the closest available washroom, anywhere in Canada. Users can plan for washroom access en route to their destination or in advance by using the GoHere app.

The intention was to provide this system to work on all 3 major mobile platforms (iOS, Android and BlackBerry), but didn't want to embark on an expensive endeavor of building 3 different applications.

SOLUTION

JIG Technologies did a complete review of all the needs of CCC and researched what was available on the market to meet their requirements. With the need to offer the application on both the App Store and Play Store using a single codebase, JIG leveraged Cordova to design a cross-platform mobile application to meet the needs of CCC. With this solution, a single application can extend across multiple mobile platforms to ensure that all three targeted platforms consistently have the exact same features that can be released at the exact same time.

RESULTS

Jig Technologies successfully created a system that took a fraction of the time and cost to implement compared to other solutions that require creating a separate application for each mobile platform. Additionally, it gave a useful service for those seeking a restroom nearby, regardless of which of the three major mobile platforms they use. Updates were easily dispatched to users of all three platforms and the single codebase is more easily maintainable than having three separate ones.

CASE STUDY:

Deloitte: Compliance Assurance System
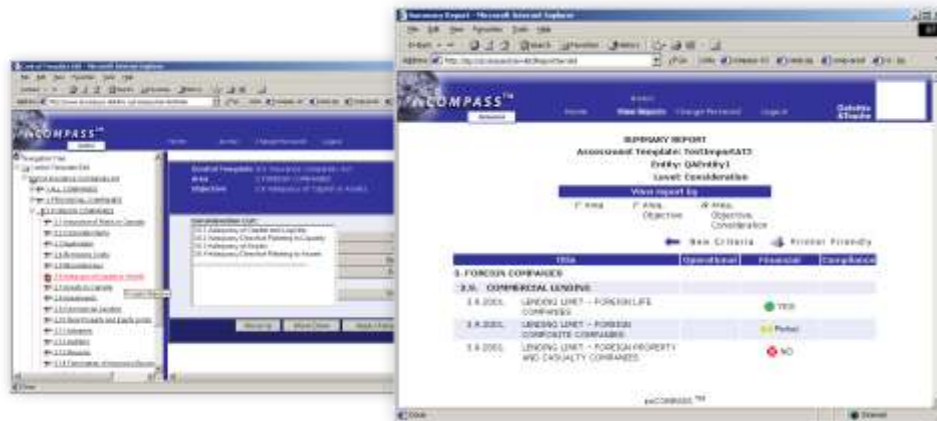
CHALLENGE

Deloitte, a leading consulting firm, required a distributed compliance assurance system. The new system would replace an existing PC-based application that no longer met their clients' needs. In addition to functional requirements, clients required a low-cost solution.

The system requirements were very sophisticated. In addition to a multiple platform, the application had to be robust, responsive, scalable, and distributed. The capital investment for the project was limited in relation to the project requirements. Due to the complexity of the application, senior designers and programmers were required. The requirement for senior resources added additional complexity to the project budget.

SOLUTION

Since the project had a limited budget for the specifications provided, proven open-source technologies were used for cost effectiveness. Java was chosen as the ideal framework to meet the project's requirements. Professional engineers were employed to build the system, and highly regarded corporate designers and usability analysts created a compelling and easy-to-use interface. Using proven software-design methodology, JIG Technologies was able to determine and meet desired system requirements. JIG engineers developed the software necessary to import data to the new system. As well, project management ensured that budget and all requirements were met.

Although a large initial investment could not be made for security and scalability, JIG Technologies was able to incorporate a framework that would not need costly redevelopment to deploy in a larger commercial framework. This was achieved by developing to open source standards that would allow the system to be ported between different application servers.

CASE STUDY:

Deloitte: Online Compliance Assurance

TECHNOLOGY

- Java Servlet/JSP
- Java Internalization Support   (multi-language)
- Jakarta Tomcat v4.1.x
- MySQL (Ported to Oracle)
- XML based PDF Report Generation
- DHTML controls

TECHNOLOGY USED

Despite sophisticated requirements and a limited budget, Jig was able to fulfill client expectations by maintaining low overhead and using a highly skilled network of talent. Jig Technologies delivered a Compliance Assurance system within the prescribed budget. Due to the lower development costs, Deloitte realized its return on investment and, in turn, met their clients' expectations.

Originally developed in 2005, this system is still in operation today without any major rewrites. This longevity is a result of building solutions right the first time and the great quality JIG is able to deliver.

OUTCOME

Jig Technology successfully created a professional online presence for a fraction of the price any other vendor could offer. The students obtain the valuable experience of building and deploying as production level website under a senior designer and architect.

CASE STUDY:

Direct Engagement: Social Media Portal

CLIENT OBJECTIVE

Direct Engagement is a third-party company which manages roundtable events for businesses and organizations featuring keynote speakers from business specialists, ministers and government representatives. Their current workflow was paper-based which stymied Direct Engagement's reach beyond the Greater Toronto Area.   Their website posted information for upcoming events however the registration process required phone contact and payment by cheques only. Event details on the web could only be changed by designated technical staff, which created unnecessarily longer lines of communication to ensure updates were done. Keeping track of registration and payment was also administratively cumbersome as everything was done via manual processes.

CHALLENGE

Direct Engagement's main issue was their paper-based workflow. JIG looked into methods which would encourage online registration, track and store registrant information and have the information easily accessible to better promote future events. An online store was created to ease the registration process and receive payments quicker via Paypal or credit card. A web-based solution was used to allow Direct Engagement access to any and all information from any computer through any web browser. All information was tracked and stored on a MySQL database which was linked to the marketing department for mass-targeted email promotion and reminders.

To maintain the quality of these streamlined processes, JIG reconstructed the website to structurally unite with a graphical interactive editor. This removed the requirement for technical staff to complete content updates and simplify the process for the Event Management department.

CASE STUDY:

Direct Engagement: Social Media Portal

RESULTS

Direct Engagement was able to increase their registration for events due to the ease of online registration for attendees and by having attendee information stored in a database enabling tracking and targeted promotion tailored to interested registrants. Web accessibility to registration database gave Direct Engagement the freedom to focus their administrative and marketing efforts more effectively, as did the flexibility of using a WYSIWYG editor instead of directly editing the HTML.

As well as reconstructing their website and setting up their web-accessible database, JIG enabled their website to support live streaming of their events for registrants to attend seminars online, thus allowing Direct Engagement to market roundtable events from coast to coast. JIG also created a networking system for registrants to interact with each other before and during their respective roundtable events to encourage business networking.

SERVICES

- Construct an interactive website with an online store – event manager.
- Link online registration to merchant accounts for instant payment.
- Update work processes from paper to digital.
- Manage and store digital information with web accessibility.
- Incorporate live web-streaming for events.
- Incorporate promotional networking amongst event registrants.
- Increase size of potential audience and reach to clients.

CASE STUDY:

Great Lakes Power: Online Asset Management System
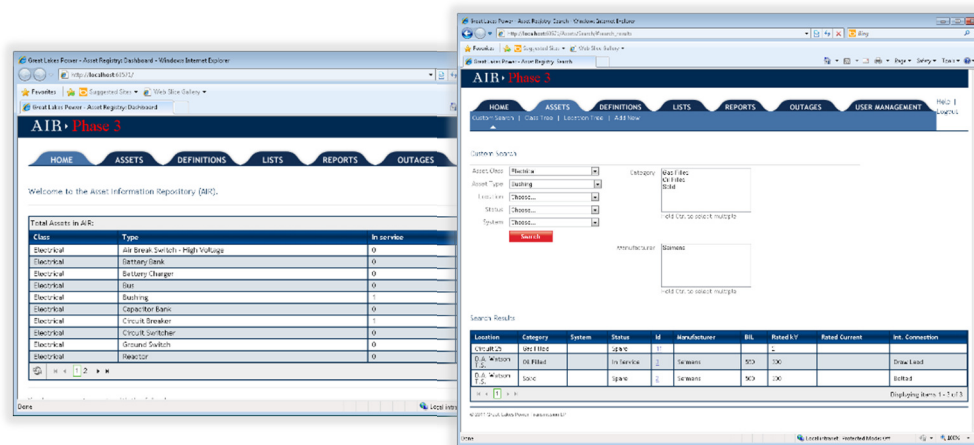
CHALLENGE

Great Lakes Power is a subsidiary of Brookfield Management, a power distribution company in Northern Ontario. Core to their business is the management of assets such as wire, poles, transformers and other electrical equipment. Great Lakes tried to find a solution to manage this system without success despite many months of looking.

SOLUTION

JIG Technologies was able to take Great Lakes through our time tested software development process to specify exactly what was needed.   Through this process JIG was able to design, build, and deploy a software solution that succeeded where other systems failed to deliver.   Using this process a system was created with only the asset type fields and qualities desired. In addition ALL of the critical functionality and workflows were present There was no additional unused functionality making the system far easier to use than any of the pre-built solutions.

With this system the following reports were possible:

- List all assets of a particular type, location, manufacture etc.
- See all changes for a particular asset by whom and when
- Track the location moment of an asset
- Complete outage logs

We did this for a lower cost than previous pre-built solutions were being sold for.

RESULTS

For less than the price of many of the pre-packaged solutions looked at by Great Lakes Jig Technologies was able to develop an asset management system that met all their needs. With this system Great Lakes is able to run reports on asset conditions and other added details in minutes when it previously took days to research and collate all the information to create.   This allows management to make better decisions on asset maintenance saving the company on expensive emergency fixes.

CASE STUDY:

Inapak: Mobile Pick Pack System
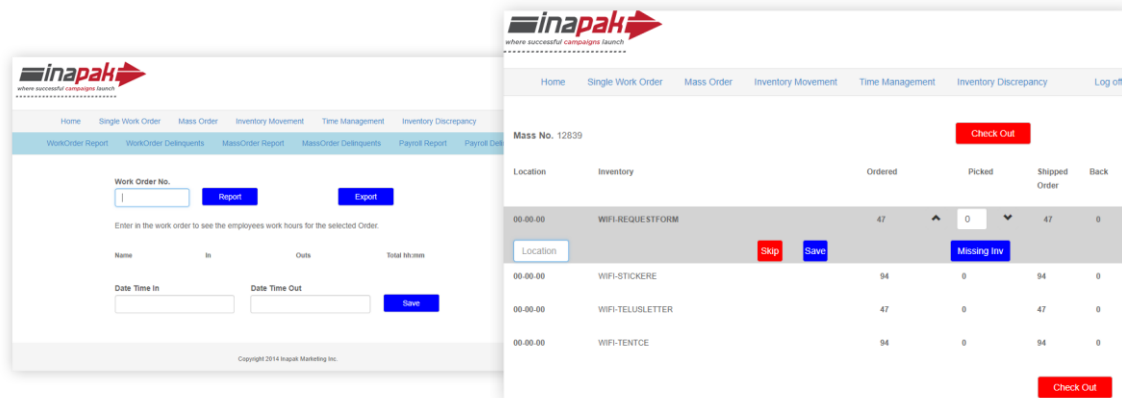
CLIENT OBJECTIVE

As a long time successful warehouse and distribution company Inapak had built out a set of systems to support the business operations. Inapak needed a cost-effective picking system that could scan and track inventory as it is picked from the warehouse. Although there are many solutions on the market they were either too expensive or did not integrate with the custom WMS system that Inapak was using.

Inapak required a solution that would be cost effective to deploy and no need expensive hardware to run. Many of the systems on the market require thousands for each scanning device.

SOLUTION

JIG Technologies did a complete review of all Inapaks needs and researched was available on the market and provided details about a system that would meet the needs of Inapak. These options were reviewed with Inapak to determine what would best meet the business needs. It was found that a mobile application that could run on a variety of low-cost devices connected to a barcode scanner would provide the entire set of functionality needed and the best price point.

RESULTS

Jig Technology successfully created a system that was a fraction of the costs that other solutions by leveraging mobile technologies to work on popular mobile devices. This allowed Inapak to track picking in a real-time and accurate way. Additionally, it gave Inapak the ability to increase functionality and flow without costly hardware updates.

CASE STUDY:

Inapak: Integrated Webstore
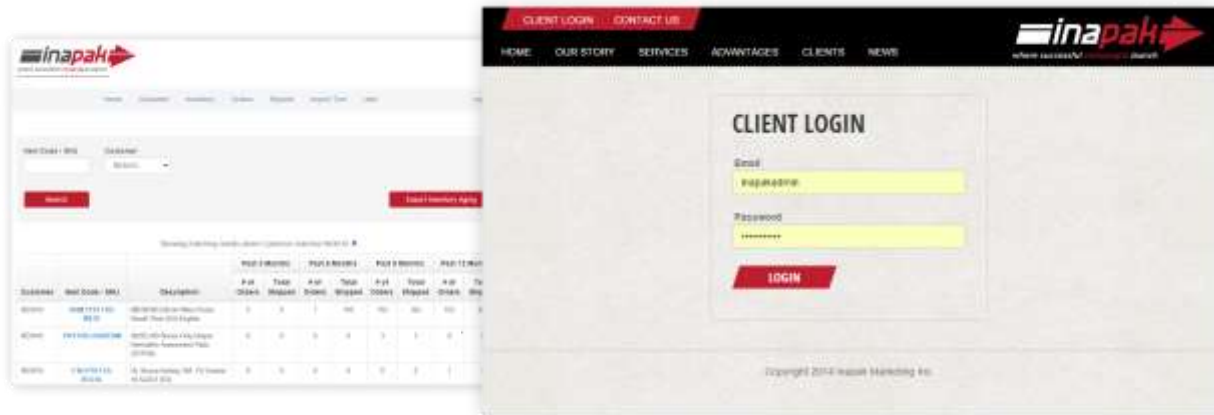
CLIENT OBJECTIVE

As a long time successful warehouse and distribution company Inapak had built out a large set of systems to support the various business operations. Many of these systems were loosely connected by replication or manual migrations. As such data updates would be delayed and at times inaccurate.   As well, for each client a new webstore and reporting portal would need to be setup. This would involve several developer days of work.

The objective was to have 100% up to date and accurate reporting along with steamlined customer setup. This would provide better information to clients and allow Inpak to scale their business more effectively.

SOLUTION

JIG Technologies did a complete review of all Inapaks systems to identify inefficiencies in setup and determine where data reporting issues appeared. Through this analysis the customer portal and webtore was found to have significant labor challenges for each new customer. Additionally the webstore had a separate database that replicated data to the main inventory database causing delays.

JIG Technologies through their understanding of the environment was able to create a unified reporting and webstore portal that would read directly from the inventory databases directly.

RESULTS

Jig Technology successfully created a system that reduced the customer onboarding process from several days of developer hours to a few minutes of less expensive administrative time. This resulted in a more efficient customer startup allowing Inapak to scale their business without large investments.

In addition, customer reporting for inventory, delivery, statistics and other critical information was pulled directly from the main inventory database ensuring accuracy and better customer satisfaction.

CASE STUDY:

MetaFLO: SoilFLO App
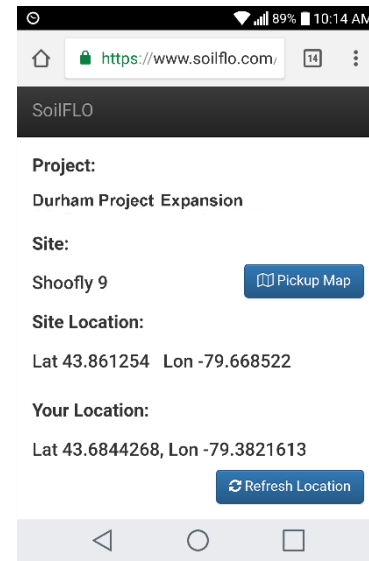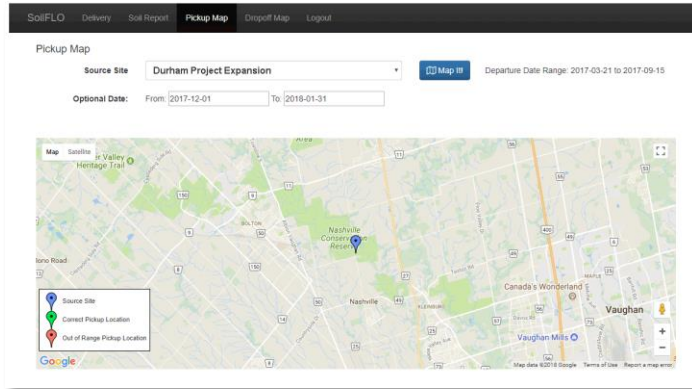
CLIENT OBJECTIVE

MetaFLO is the leading provider of turning liquid waste into a manageable solid at the site of the fluid generation. Part of their business is to help land developers manage the disposal of this waste in a documented and accountable way. The current systems available were based upon paper tickets and were error prone and required many hours of labour to report on.

The intention was to provide a system can be used on a mobile device for ticket assignments as well as a browser for running more complex reporting and mapping.

SOLUTION

JIG Technologies did a complete review of all the needs of MetaFLO and researched what was available on the market to meet their requirements. With the need to offer the application on both mobile and web platforms JIG leveraged a cross platform technology that would allow all devices to operate in a single code page. With this solution, a single application can extend across multiple mobile and computer based platforms to ensure that both the robustness of a large screen and well as the portability of a small screen could be used.

RESULTS

Jig Technologies successfully created a system that took a fraction of the time and cost to implement compared to other solutions that require creating a separate application for each platform. Additionally, it saved hours of reporting labour to collect and create statistics and tracking.

CASE STUDY:

Money Pros: Online Money Lending System
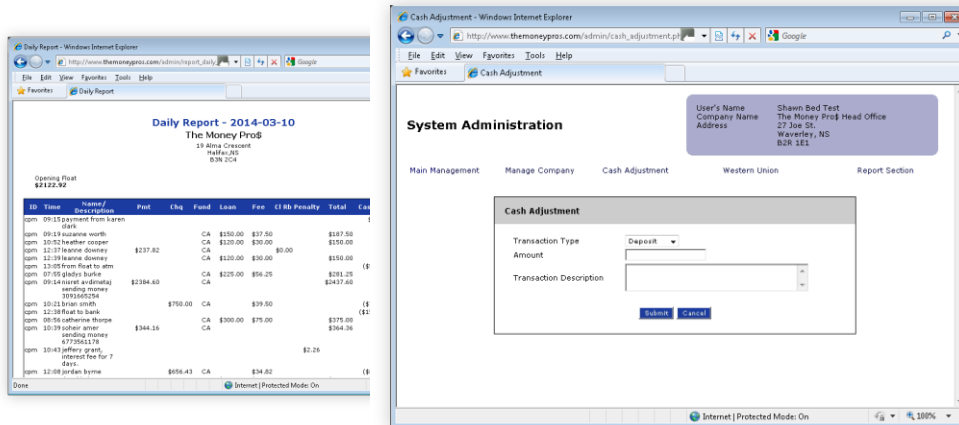
CLIENT OBJECTIVE

The Money Pros are a financial institution which assist customers in getting money faster and easier through cash advances, transfers, money orders and collecting bill payments. Such a service would be in high demand and dealing with money requires a very meticulous monitoring system, a factor which is magnified when several stores across Canada are involved.

SOLUTION

JIG set up The Money Pros with an online lending system. To assist with their workflow, trackers were sincorporated to help Money Pros monitor all client loans and payments. This system was networked between several stores across the country, allowing for sharing of information and greater assistance to clients as well. JIG also had to architecture a system for gathering the vast amount of data from all stores and create a database to store, organize and manage the data collected.

RESULTS

The Money Pros were able to keep a trace on all ongoing transactions throughout their stores with a system which coordinates with the information gathered nation-wide. They could offer quick and reliable service to a national market, expanding their customer base as they increased their efficiency and brought their business to a greater professional level.

This system was developed in 2003 and continues to run to this day with no major upgrades.   In addition, ongoing support has remained under $500 a year despite processing seven figures annually worth of volume.

CASE STUDY:

Optimum Talent - Pathfinder: PDF Report Generator

CHALLENGE

Pathfinder is a career assessment tool owned by Optimum Talent – A career management, coaching and transition consulting group serving many locations within Canada. The Pathfinder system required PDF reports, rich in coloured graphs, high resolution images and career assessment data specific for each of their users. The PDFs would need to be generated and delivered to end-users in a timely manner.

SOLUTION

The breadth of technical expertise at JIG Technologies gave Optimum Talent the confidence to review all areas of their desired solution and even consider routes not initially entertained. Such as:

- PDF generation on-demand rather than in a background process.
- Construct the PDF in system memory rather than storing PDF reports in a file system.
- Dynamic PDF construction using a data stream to the end-user's web browser.

Using JIG's in-depth knowledge of internet technologies, the following performance hurdles were cleared and these features were provided:

- Analyzing and processing of results from questionnaires (totaling 300+ answers) within 2 seconds.
- Construction of PDF report (including data and all graphs and images) in memory within 2 seconds.
- PDF content including 10 diagrams and charts in a print-quality format approximately 5MB in size.

RESULTS

The questionnaire and PDF reporting system provided Optimum Talent with a version of Pathfinder that was not only accessible for many users (PC, Mac and tablets) but also was quick to process and provide results in a tangible manner in PDF report of quality for viewing online and for printing. This solution was a large upgrade from the basic web-viewable-only system originally built in the late 1990's and provided Pathfinder's end users and consultants with a great software tool for all their career coaching sessions.

Jig Technologies develops customized technology solutions for our clients. No more inefficient tools. No more ramping product costs. Just IT services that do what you need them to right away.

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