CLIENT

In order to improve working conditions of factory workers, Good World Solutions (GWS), introduced Laborlink, a tool establishing two-way communication between companies and workers. Laborlink enables workers to report on conditions anonymously, without fear of retaliation, and for companies to receive real-time data directly from workers 365 days a year. Since 2010, Laborlink have given voice to over 600,000 workers in more than 16 countries and it aims to reach 1 million workers by 2018.

Delivering real-time data requires building a robust and reliable system for processing and managing incoming data. SolDevelo had the necessary technology skills and backgrounds to augment the GWS engineering team, to deliver on a custom built solution to automate key LaborLink processes. Without the help and experience that SolDevelo brought to the table, GWS and LaborLink would not be where they are today.

Duration	Start – March 2015 The project is still in progress.
Type of the project	Data processing, data management, operational process management, and operational monitoring tools.
Technologies & Frameworks	PostgreSQL, Ruby, Ruby on Rails, Rspec and Capybara, Nginx and Unicorn, Vagrant, Linux VM from VirtualBox, Bootstrap, JavaScript and JQuery
Resources	2 developers, 1 tester

CHALLENGE

Laborlink originally piloted and perfected their analysis and survey validation process through the use of strong manual processes, focused on leveraging excel functionality. While successful, this process proved to be time intensive, difficult to scale, and nearly impossible to conduct analysis across their entire dataset.

With an eye toward the future, GWS started down the path of building an internal data management tool, LaborIQ, to not only help in handling the large amount of incoming data, but to start down the path of automating their proven processes in order to scale.

Version 1 of LaborIQ data was focused on collating all data into an internal data warehouse. This helped GWS staff in not only managing their entire dataset, but opened up new insights to be drawn across all surveys. However, there were still a large number of manual steps in the process from collection to final analysis. The next step in the process was to automate one of the most time consuming activities for every survey – the review and validation of survey responses. Additionally, GWS leveraged data collection through multiple sources, which mean data was coming in, in different formats and filetypes.

Another challenge for GWS was monitoring the performance of their data collection efforts in their global operations. To avoid disruptions to their service and improve uptime, the GWS team had to spend considerable time manually monitoring their technical operations, including keeping staff on a 24/7 rotation. To resolve this issue, GWS designed an operational monitoring tool, LaborPulse. Laborpulse monitors all survey activity, across GWS's entire network, 24/7 and raises the alarm when issues arise, like high rates of DTMF errors or high number of dropped calls. Laborpulse is key in reducing staff workload, while reducing downtime and decreasing GWS staff's time to respond to issues.

SOLUTION

After developing the first workable version of LaborIQ in house, GWS started looking for a technology partner to help accelerate development. SolDevelo joined the project during the earlier versions of both LaborIQ and LaborPulse.
The first initiative was to automate the process of validating responses and building a visual tool for GWS staff to review and monitor the import process.

Additionally, SolDevelo worked to further streamline the data import process by increasing the different data formats LaborIQ could manage, building a process queue, and drastically improving the processing time per import.

Ruby on Rails, the framework used to build the GWS tools, is not designed for applications that have to process a large amount of data quickly. In response, the SolDevelo team focused on how to leverage the still useful parts of the framework and integrate their own solutions to speed up processing and application performance.

SolDevelo was also key in contributing to the development of the first version of LaborPulse and contributed to key underlying frameworks for managing data and communication across all GWS tools.

RESULTS

After automating the survey processing, GWS observed a 47% decrease in time spent on reviewing and validating incoming data. They have also significantly reduced the number of errors found during data processing.

SolDevelo proved itself to be a reliable partner for GWS and has become the vendor of choice to augment the development team. Collaboration with SolDevelo has accelerated GWS development cycle and allowed the client to move faster and accomplish more. The addition of a QA resource has proven instrumental in streamlining GWS production deployments, reducing the number of bugs found post release.

Future work with GWS will focus on the continued improvement of both platforms, LaborIQ and LaborPulse. SolDevelo will also be contributing to the development of the next generation of the LaborLink customer portal, MyLaborLink.

Good World Solutions

CLIENT'S TESTIMONIAL

Honestly, the value per dollar spent with SolDevelo is incomparable. They deliver top-notch code, move quickly, are key contributors to our code and design, and are quite adaptable to a changing product landscape. Additionally, despite potential time-zone, language, and cultural barriers, both teams have bonded and built a strong working relationship.

We don't just consider our counterparts at SolDevelo as contractors, we consider them as part of the Good World team and LaborLink wouldn't be where it is today without the outstanding work from SolDevelo.

It also helps that the team is hilarious and a lot of fun to work with.

Ryan Whitney, Head of Product Development, Good World Solutions