Workforce One Re-write

Category: Information Communications Technology Innovations
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Executive Summary

MN.IT Services, led by Minnesota's Chief Information Officer, is the Information Technology (IT) agency for Minnesota's executive branch. Our staff of nearly 2,100 dedicated and innovative IT professionals work in over 90 physical locations, including 22 agency-based offices.

One of our offices, MN.IT @ DEED, is embedded within the Minnesota Department of Employment and Economic Development (DEED) and exclusively serves that agency business.

From January 2011 until December 2014, MN.IT @ DEED staff engaged in a collaborative project with business partners and users from DEED and the Minnesota Department of Human Services (DHS), and employment and training service providers across the state to improve Workforce One (WF1).

WF1 is an existing web-based case management application that provides job search and training services for more than 100,000 eligible Minnesotans, and tracks required data for state and federal compliance. WF1 is used daily by approximately 2,000 job counselors in DEED Workforce Service Areas, counties and independent non-profit employment service providers located throughout the state.

Several factors drove the need for this project, including:

- The programming language used to develop the aging WF1 application was no longer supported by the vendor, and required significant reprogramming.

- WF1 had limited reporting capabilities. That meant that many data inquiries were fulfilled by manually counting paper files. More robust search and report features were desperately needed to reduce drains on resources needed to fulfill growing demand for employment data.

- Job counselors were located across the state, and needed instant, secure access to job search information and client files anytime, from anywhere.

- WF1 was cumbersome and lacked usability, so job counselors often spent valuable time entering required data, limiting time spent helping clients find jobs and training.

This project was the first time MN.IT @ DEED had used Scrum, an agile methodology, to manage a project to build an application. The Workforce One team credits the methodology for helping them complete the project on time and under budget by $1 Million. With improved stakeholder and customer satisfaction, MN.IT @ DEED plans to use agile methodology to manage future IT projects.

The WF1 project improved access to job searches, training and reports, increasing job counselors' ability to help unemployed Minnesota citizens find better jobs more quickly.

Business Problem and Solution Description

The problem

Several urgent factors drove the need for this project:

- Within a very short timeframe, the programming language in which WF1 was written would no longer be supported by the vendor.

- The economic and political concerns around rising unemployment rates created a high priority and added urgency to the need for report data. When Minnesota's rapidly rising unemployment rate topped out at 8.1 percent in 2009*, Workforce staff suddenly became inundated with immediate demand for real-time statistical reports from the Governor's Office, Minnesota legislators, U.S. Department of Labor, county boards and the media. Although the unemployment rate has to 3.7 percent in December 2014, the demand for reports has not dwindled. *Source: US Department of Labor, Bureau of Labor Statistics:* http://data.bls.gov/timeseries/LASST270000000000003?data_tool=XGtable

  These demands highlighted the woeful inadequacies of the reporting features of the WF1 application. In some cases, Workforce staff were manually counting paper files to create reports. This created a time-consuming drain on staff resources and lengthy wait times for reports.

- Counselors across the state needed instant, secure access to comprehensive, up-to-date job and training information from anywhere, anytime to meet the growing needs of clients.

- Job counselors were required to enter data into WF1 for compliance. Using the application was inefficient and time-consuming. The result was that job counselors often found themselves spending more time entering data, leaving little time to help clients locate and secure employment.

The solution

MN.IT @ DEED ensured long-term support from the vendor (Microsoft) by rewriting the web application with updated technology. Developers used requirements gathered from stakeholders and users to improve the application usability. They focused on streamlined data entry to improve efficiency, restructuring security to maintain data integrity and improving accessibility features for screen readers and dictation software.

The project team used Scrum methodology, a form of agile project management. Scrum consistently engages users and stakeholders throughout the life of the project, responding to their requests and to changing laws and policies by making modifications to the application before the final release. This ensures continuous improvement in the quality of the final deliverable.

Significance

Stakeholder groups included:

- o Department of Employment and Economic Development Workforce Development Division staff
- o Department of Human Services staff involved in job placement and training activities
- o Minnesota citizens in need of employment and training services
- o Agency leadership, managers, the Minnesota Governor and State Legislature

This project was the first time MN.IT @ DEED used agile methodology to manage a project to build an application. The project team credits the methodology for helping them complete the project on time and under budget. With imp roved stakeholder and customer satisfaction, MN.IT @ DEED plans to use agile methodology to manage future IT projects.

The Workforce One Team engaged stakeholders throughout the redesign process using Scrum methodology, a form of agile project management. Scrum methodology consistently engages users and stakeholders throughout the life of the project, responding to their requests and to changing laws and policies by making modifications to the application before it goes live. This ensures continuous improvement in the quality of the ultimate deliverable. Stakeholder satisfaction has been measured throughout the project. Both users and stakeholders report increased satisfaction with the project because they feel the development team is responsive to their needs.

How the project improves the operation of government

- This project exemplifies continuous improvement, transparency and accountability in delivering IT projects and supporting the State's online services for Minnesota's citizens. All of these are goals and initiatives of MN.IT's strategic plan and the strategic direction of the Governor of Minnesota.

- The Agile-Scrum methodology required the team to be flexible and remain responsive to users' and stakeholders' changing needs. At any time on throughout the project, the team and stakeholders new exactly how much work was completed and how much work remained. This transparency created accountability for both the project team and the stakeholders and fostered a shared ownership of the final product.

Benefits of the Project

- WF1 is used by staff who provide job search and training services to eligible Minnesotans. Many of the enhancements included in the WF1 rebuild focused on making case management processes more efficient, so that job counselors now spend less time on data entry and more time serving their clients.

- One of the major improvements to WF1 included a complete overhaul of reporting. WF1 now includes a wide variety of new and/or enhanced pre-built reports and robust ad-hoc reporting capability, allowing for more efficient data extraction and improving transparency to stakeholders, governing bodies and taxpayers.

- As a web application, WF1 is accessible to authenticated users anytime, anywhere with an Internet connection.

- Navigation and "findability" was improved exponentially, reduced from an average of three to five clicks per task to just one click from each main client record.

- The application was built to be intuitive with high usability to eliminate the need for extensive user training to use the application. While there has not been sufficient time to gather metrics, it is anticipated that users will need far less help in learning to use the new WF1 application. The team is planning to provide help in short training videos, a big difference from previous user training needed.

- Managing cases electronically reduced costs for providers because it reduces paper storage requirements and they can easily access customer information between locations without having to mail documents back and forth.

- Case managers are able to view enrollments and services in programs beyond what they work on, allowing them to target precious resources where customers need them most.

- For several programs, WF1 links financials to program services, allowing for better fiscal oversight.

- Tracking customer services for all employment and training programs in a single system helps to ensure consistency in service delivery and data collection.

- Providers are able to closely monitor their customer's outcomes and deliver additional services when necessary to ensure the best outcome.

- WF1's flexibility allows providers to track special grants without having to pay for special programming.

- Meeting federal and state employment and training reporting requirements is more efficient and less expensive because of standardized data collection and reporting within WF1. .

Description of impact of the project

- Improving project and portfolio management through the use of standard methodologies and disciplines is one of the top 10 priorities of NASCIO State CIOs.

- The Workforce One Team engaged stakeholders throughout the redesign process using Scrum methodology, a form of agile project management. Using Scrum methodology we were able to consistently engage users and stakeholders throughout the life of the project, responding to their requests and to changing laws and policies by making modifications to the application before the final release.

- Stakeholder satisfaction has been measured throughout the project. Both users and stakeholders report increased satisfaction with the project because they feel the development team is responsive to their needs.

Financial Return on Investment

Project cost was $5.6 Million, which was $1 Million under budget. Cost savings were not immediately realized, but come in the form of increased efficiency and reduced time and labor costs for job counselors using the system.

Using agile project management resulted in reduced completion or resolution time and a $1 Million cost avoidance. The project team credits the methodology for helping them complete the project on time and under budget. .

Non-Financial Return on Investment

There were several intangible benefits of the project, most around improved relationships and increased customer satisfaction.

Improved relationships: The team that built and maintains WF1 is housed within Minnesota's Department of Employment and Economic Development, the state agency that oversees most of the programs listed above. The WF1 Team's proximity to and close collaboration with program staff and providers increases their knowledge of program requirements and allows them to be responsive to policy and law changes in a cost effective manner.

Customer satisfaction: The following three examples were ranked extremely low on the satisfaction scale during the pre-project discovery sessions. A post-project survey gave the same three items high satisfaction ratings after the project launch.

- Credential capture: Counselors are required to track any credentials (diploma, certificates etc.) that the client receives while participating in employment and training services. In the old system, there were three places where users could capture those credentials, making it confusing to know whether or not the credential was attained. In the new system, credentials are captured and tracked in one place, which users have identified as a data entry time savings.

- Employment Plans: Counselors are required to track a client's employment plan in the system. Sometimes these employment plans need to be updated, but most of the information stays the same. In the old system, the counselor could copy an old employment plan and add to it, but could not delete information that was no longer relevant. They now have that ability in the new system, and have ranked this highly among the new features in the system.

- Perhaps the biggest intangible improvement during this project was communication with users and stakeholders. In the pre-project feedback survey, dissatisfaction with the communication efforts from the WF1 team was a "four star" item. That meant that the consultant who conducted these feedback sessions heard it multiple times, from multiple users in multiple areas of the state. In our most recent 2015 satisfaction survey, when asked "What did you like about the WF1 project?", the number one answer was the communication efforts of the WF1 project team.

  95% of respondents were very satisfied or somewhat satisfied with the information that they received about the WF1 project. 82% of respondents were very satisfied or somewhat satisfied with the opportunities to provide input on the project.

  This was a huge positive shift in the relationship between IT and business users and has resulted in a much more collaborative and effective partnership that benefits everyone.

Measurement

- The team created a product backlog, a list of items to be completed before the system launch, early in the project. This list of items changed overtime depending on business priorities, but served as a constant guide for project work efforts. The team measured their success by the number of product backlog items completed each month and reported team progress to users and stakeholders through monthly review meetings.

- The team also measured stakeholder satisfaction throughout the project using surveys. The most recent stakeholder satisfaction survey indicates that 86 percent of respondents feel that the WF1 system greatly enhances or somewhat enhances how efficiently they can do their job. Also, 86 percent of respondents feel that the WF1 rewrite is greatly improved or somewhat improved compared to the old WF1 system.