NASCIO 2015 Recognition Awards Nomination

The State of Missouri

Unemployment Insurance Auditor Mobile Toolbox

Project Initiation and Completion Dates: 10/24/2013 to 3/09/2015

Category:

Emerging and Innovative Technologies

Nomination Submitted by
Tim Robyn
Chief Information Officer
Office of Administration
Information Technology Services Division
Tim.Robyn@oa.mo.gov
(573) 751-1504

Executive Summary:

On March 9, 2015, Missouri Division of Employment Security (DES) and Office of Administration – Information Technology Services Division, in collaboration with Rose International and CapTech Ventures, Inc., deployed the first of its kind, Unemployment Insurance Auditor Mobile Toolbox (AMT). DES maintains approximately 40 audit staff that is charged with conducting more than 1,700 audits of Missouri employers each year. This staff also conducts field investigations and collections activities.

Prior to implementation, the audit staff was equipped with an Access database that was functional yet severely lacking in the kind of automation that drives efficiencies and improved service. The Access system drove a paper process for review and approval and ultimately reentry (duplication of effort) to make the necessary adjustments and determinations in the agency's mainframe system. Time for manual reviews and paper driven approval processes, duplication of efforts for the completion of processing audits, substantial paper and postage costs, and insufficient checks and balances for error avoidance/compliance made the legacy application a less than ideal solution for the audit staff.

The Auditor Mobile Toolbox (AMT) provides a robust auditor solution that addresses these needs. The components to conduct audits, assignments and collections are built using a hybridized mobile application approach that allowed for unified development of mobile and web applications. AMT provides an innovative solution utilizing OCR capability that allows auditors to take photos of 1099s and other documents, capture text data and archive the images. While AMT interfaces to a backend mainframe system, it was designed with an MQ component for delivering the data message, mindful that it will be modified to interface with Missouri's modernized Unemployment Insurance system, which is scheduled to be complete in mid-2016.

AMT provides completely automated audit submission, review and approval eliminating the need for the paper driven processes of the past and resulting in savings in time as well as paper and postage costs. Findings of the audit are ingested into the mainframe solution and the necessary adjustments and determinations can be made automatically with a minimal review. This can be achieved with or without connectivity; through the ability to sync data once a connection is restored. This has eliminated the need for the duplication of effort that was occurring with the legacy audit application to enter audit findings, and also allows the auditor to trust use of the application in even the most remote areas of the state where network and/or cell connection may be unreliable.

This is all accomplished in an application that employs responsive design techniques to increase the auditors' available toolset to account for audit conduction on either a laptop or a tablet. Such technology and functionality will not only impact processes immediately, but will drive future processes as greater efficiencies become apparent.

Business Problem and Solution

Missouri's Division of Employment Security (DES) is required to maintain an employer audit function for employers in the state that are liable for reporting quarterly wage information and for issuing payment of Unemployment Insurance taxes. Staff's ability to conduct audits efficiently was hindered by manual redundant tasks.

Until recently, the audit staff has been using the Field Audit Computer Tax System (F.A.C.T.S.). F.A.C.T.S. is a stand-alone Access database that allows the auditor to download information from the agency's mainframe system for use to conduct the audit/investigation. Once the audit was completed, it was printed and routed for approvals and processing. This required paper audit packets, (sometimes in excess of 100 pages), to be mailed/routed from our various regional locations to our central office. In the event the audit was not approved, changes were requested and the corrected audit/pages were mailed in for review. Any data entry work performed in F.A.C.T.S. to update wages or to indicate the need for a new legal determination had to be reentered into the agency's mainframe for processing in central office requiring a substantial amount of duplication of efforts. F.A.C.T.S. lacked the programmatic ability to prevent audit staff from making certain errors that could cost the agency a passing score for the Audit function when reviewed. This has resulted in several redundant processes to eliminate errors prior to final approval. It also lacked the necessary reporting features to better support prudent and timely strategic decision making.

A desire to equip the agency's audit staff with a solution that would meet the needs of the auditor, reduce costs associated to manual paper driven processes and approvals, improve staff efficiency through the elimination of duplicated efforts, provide programmatic constraints for error avoidance and greatly improved management reporting was coupled with a desire to give the audit staff a solution that could also meet the needs associated to their additional duties and to provide it in a manner that would lend itself well to the various unconventional work environments that the Unemployment Insurance Auditor is often faced with.

The audits application is a mobile and desktop app that facilitates the auditing of business to measure compliance with unemployment insurance reporting requirements. The application will allow auditors to perform audits when not connected to any network while on an iPad. The desktop presentation of the app will allow supervisors to manage the assignments of audits, and other investigations to specific auditors. IBM WorkLight mobile application platform was used to develop the remote application. The On Device OCR capability is a custom developed native iOS component that allows auditors to take photos of 1099s and capture text data and archive the images and metadata. This saves auditors manual effort of entering the 1099 data.

Significance

The Auditor Mobile Toolbox (AMT) is the first truly mobile Unemployment Insurance Auditor application in the nation. Furthermore, this project represents collaboration between multiple parties, (Division of Employment Security, Information Technology Services Division and a contract partner) and a common vision to deploy modern technologies and solutions despite legacy mainframe hurdles/challenges. AMT provides a truly one-of-a-kind mobile platform for conducting the various functions of the DES audit staff. The solution greatly improves efficiency by providing the means to sync data from conducted audits to the agency's mainframe eliminating the need for additional agency staff to reenter the information for further processing. AMT also serves as more of a one-stop-shop for audit staff. Not only can they access their audit assignments but they can also see the collections activities that need to be performed and use enhanced Google mapping functionalities to plan the work for each day and to ensure they have chosen an efficient route. The primary beneficiary of the solution is the 40+ Field Auditor staff maintained by DES. Greater efficiency in performance of the audit/investigation and collections functions will result in improved audit accuracy, more time for improved collections efforts and identification of worker misclassification, and greater availability for assisting with the needs of the public. The audit function is critical to the overall performance of the Unemployment Insurance program and is required by the United States Department of Labor. Significant benefits are also realized through the reduction of duplicated efforts in other supporting units. This reduction frees up staff across the tax side of the Division to attend to other needs of the agency and/or public. The improved real-time management reporting benefits agency decision-makers and executive management in future strategic decisions not just in regard to the audit function, but in regards to observed trends in business practices that may warrant increased focus and attention.

Benefits of the Project

Based upon analysis performed on current versus future work processes, efficiency improvements are conservatively estimated at 25%. Monthly, this equates to $49,955 in improved collections, $12,231 in increased liabilities, $2,500 in paper and printing reduction and $2,435 in savings from eliminated duplication of effort. With a project cost of $1.8 million, the payback period is 1.86 years.

Improved functionalities and efficiencies will allow for improved focus on the unit's most productive activities. This solution provides innovative use of iPads allowing Auditors to take pictures of 1099 Wage forms with their mobile device where the information is

captured via Optical Character Read(OCR) saving time from making copies, data entry and provides more accurate information. A 5% reduction in audit processing, 16% reduction in administrative tasks, (including elimination of a need for peer reviews), equates to a 5% increase in effort for assignments/investigations, a 8% increase in effort for monetary collections and a 10% increase in effort for contributions and wage report collections. Innovative use of Google Maps chart delinquent employers across the State allowing auditors to effectively plan stops along their route providing increased opportunities in monetary collections.   Parameters and constraints built into the new solution will eliminate inconsistencies in usage and will significantly reduce errors in completed audits, placing the agency in a good position to pass the annual Tax Performance System review for the Audit function.