Michigan Department of Licensing and Regulatory Affairs

Unemployment Insurance Agency

Michigan Integrated Data Automated System & Unemployment Insurance Modernization Project

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Nomination Category: Improving State Operations

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Executive Summary

The reinvention of government began in the 1980s as a way to direct government operations from an inward-looking approach to an outward-looking one by focusing on the end users of government services. As time progressed, information technology (IT) emerged as a predominant avenue of linking government services and improving services to end users while also providing operational benefits. The vision of the Department of Licensing and Regulatory Affairs (LARA), as tasked by Governor Snyder, is to reinvent government as "customer driven and business minded." Therefore, to align with this vision, the Unemployment Insurance Agency (UIA) pursued technology modernization solutions with the goal of creating operational efficiencies and improved customer service, especially with increased demand for unemployment services.

Business Problem

The UIA's primary responsibility is to collect unemployment taxes from employers and pay unemployment insurance benefits to eligible claimants. The backbone of the unemployment system was a 30 year old mainframe system, hosted by IBM in their Boulder, Colorado datacenter at an annual cost of about $10 million. The UIA required modernization to house all UI related data and functions under one system. Previously, the IT systems used to administer the UI program were spread over several systems and platforms of varying ages. Development, maintenance, and control were becoming more challenging as each new application added a layer of complexity in interacting with an aged system architecture. Moreover, Agency work was manual and increasingly paper intensive. As a result, customer service was negatively impacted in key areas, such as Federal standards for program performance and long wait times at the call centers and Problem Resolution Offices. Ultimately, the UIA needed its core business – benefits, tax, and adjudication – along with several secondary systems to data share in real-time across functions. It became imperative to have intelligent interfaces to enhance customer service to create an efficient system that would reduce paperwork, provide real time data verifications, eliminate duplicate work, automate processes, and create flexibility in complying with ever changing federal and state regulation.

Solution & Results

A team of UIA subject matters experts, DTMB, a vendor with a commercial off-the-shelf application, and project management office (PMO) staff were tasked with launching the integrated system in record-breaking time. The UIA integrated system, re-branded the Michigan Integrated Data Automated System (MiDAS), replaced a 30 year old mainframe system. Using agile project development practices and a hybrid project management methodology, the project team was able to deploy the system on time (26 months) and on budget ($44,400,558), making this the fastest integrated unemployment system modernization in history. Some of the significant improvements include better scores on Federal standards, operational cost savings, improved customer service, and a reduction in paperwork. Furthermore, the Agency no longer remains constricted by operational tasks such as keeping the legacy mainframe in sync with web-based, public facing applications. Most importantly, the Agency is now more responsive and efficient with its customers, thus, creating a greater sense of service-level trust.

Project Description

Problem Statement

In April 2010, the UIA in collaboration with the Department of Technology, Management, and Budget (DTMB) posted a request for information (RFI) to identify technology that may provide new or improved system benefits. At the time, the UIA operated with five Information Management System (IMS) databases connected to an IBM mainframe, several Oracle databases (both physical and virtual) connected to various Windows servers, and an Oracle database connected to a Unisys mainframe. The majority of the core UIA functions resided in a mainframe environment; however, the UIA implemented several remote, self-service applications for use by its external customers to enhance quality service. Remote applications utilized server-based applications to access Oracle databases, which in turn used WebSphere MQ messaging or File Transfer Protocol (FTP) to transfer and update the mainframe database. Additionally, the UIA utilized two separate Interactive Voice Response (IVR) systems: one connected to the mainframe IMS and one to Oracle databases. The primary function of the two IVRs was to gather unemployment claims data and one IVR to pass claimant calls to a Private Branch Exchange (PBX) and Automatic Call Distributor (ACD) system relying on intelligent routing. While the majority of the data processing transactions occurred in the mainframe environment, the data entry points increasingly relied on new technologies causing support and maintenance challenges.

In addition to the patchwork of applications tethered to aged application system architecture, the UIA had major operational issues. These included:
- The Agency provided self-service options, but they were limited. Some UI services or programs were not supported by current systems. A more robust service offering was targeted including sustainable "go green" efforts.
- Ongoing maintenance costs were burdening the UIA's financial health.
- Manual and paper intensive work processes for the tax field audit, benefit payment control, fraud investigation, and other departments were time consuming.
- High call volumes and limited telephone self-service options made the customer experience an arduous task with a many callers being unable to reach a customer service agent. Consequently, customer service was not optimal given staffing levels.
- Failing scores with the USDOL mandated quarterly evaluation for unemployment payment timeliness and quality of non-monetary issues. This problem received further emphasis upon release of an Auditor General report in March of 2011. The auditor estimated the UIA may have made improper benefit payments totaling $26.0 million from October 1, 2007 through August 21, 2010. It is also noteworthy that untimely determinations were a persistent problem as a June 18, 1992 audit noted similar problems with the timely issuance of determinations.

The magnitude of the Agency's problems was further intensified by an increasing demand for service. All of the above problems existed during the Great Recession and the subsequent fallout of one of the state's largest industries, the automobile industry, causing droves of citizens to become unemployed. In addition to unemployment rates not seen in nearly 30 years, the Great Recession produced an unprecedented number

of federal unemployment extensions, which extended eligibility dates and added weeks of federal and state unemployment extensions. Consequently, an unmanageable amount of work became another insurmountable barrier to quality customer service.

Solution

Through reserved REED Act funding and the American Recovery and Reinvestment Act (ARRA), the UIA received monies for financing this project up to $69.5 million. In order to improve operations and customer service, the UIA procured a vendor with experience in tax/revenue systems with other government agencies. The UIA also contracted with an organization experienced in planning and managing the implementation of innovative unemployment insurance modernization efforts. Prior to selection of the COTS vendor, the Agency gathered the functional requirements and business rules that would serve as the system's new foundation. Some 1,558 functional requirements and 6,979 business rules were incorporated into the system. Throughout the life of the project, there were up to 100 full-time project staff member dedicated to the project. The design, development, and implementation was divided into a tax phase and a benefits phase. The back bridging to legacy applications not replaced in the tax rollout was accomplished through interfaces to those surviving applications. Scheduled and real time interfaces were implemented as appropriate using the interfacing capabilities of the solution architecture to maintain service levels and provide no disruption in service. Project managers used a methodology that includes aspects of both project management and systems engineering. This approach facilitated work by providing a common language, leveraging existing examples of work products and artifacts, and building on a repository of best practices and lessons learned. Additionally, to comply with the requirement that the project adhere to the State's Project Management Methodology (PMM) and Systems Engineering Methodology (SEM), the COTS vendor "layered" the PMM and SEM over their own methodology. Under this hybrid approach, implementation consultants and UIA staff used joint application design (JAD) style working sessions to understand and refine requirements.

The replacement of the legacy mainframe included an architecture that was radically different than the legacy system and provided the Agency with the modern and flexible solution it desperately needed. The solution is deployed on a SQL Server and data is stored at the data layer of the architecture, using a relational database management system (RDBMS). Gone were the days of Common Business Orientated Language (COBOL) programming language as the new solution used VB.Net developer language ringing in a new programming era for the Agency. Additionally, the e-services module of the solution provides customers with secure 24/7 access to relevant tax and benefits information and minimizes reporting errors by alerting customers to inconsistent or erroneous entries. The e-services module increases operational efficiency for staff by minimizing or eliminating many manual, labor-intensive, customer-information-based processes that are instead completed online by employers and claimants. Secondary systems were on the peripheral from the mainframe reinvention; however, they were set to play an integral role in the Agency's future. The UIA replaced and upgraded two IVR systems. Combined, the two IVR systems provided more self-service options and

enhanced detection of eligibility and disqualification issues. Moreover, the TFC IVR included a complimentary application called Virtual Hold Technology (VHT) that offers the option to receive a call back in lieu of waiting long time periods on hold to speak to a customer service agent.

Project Significance

The project took the uncommon path deviating from a standard approach and timeline. The standard approach for UI modernization projects includes a waterfall project methodology and a more lengthy completion time frame. This accelerated project schedule was possible due to the true COTS nature and highly configurable architecture of the product suite. Driven by a relational database with over 1,700 reference tables, almost every aspect of the system was flexibly configured. The aggressive pace and unprecedented success is being viewed as a model for future UI modernization efforts nation-wide. During the transition, Michigan employers and claimants experienced no significant delays or inabilities to receive UI services. This success is in stark contrast to the adverse public effects of recent UI modernization efforts in other states.

Stakeholders positively impacted include external and internal customers as well as other state agencies. **Business Community:** The public facing component – Michigan Web Account Manager (MiWAM) – now has over 98,082 employers utilizing the on-line application. In compliance with state legislation requiring all employers to file their UI Quarter Tax and Wage information electronically by January 2014, the MiWAM application was developed to allow employers to interact with UIA electronically and to make the two required quarterly reports a single transaction. **Citizens:** As part of the Agency efforts to provide access to more information that is available 24/7, MIWAM now totals over 478,189 claimant accounts where claimants can receive current information on their claims status, interact with UIA staff via a virtual problem resolution center, receive Agency correspondence, and pay any Agency owed debt via a secure online payment system. **Staff:** Agency staff no longer needs to manually calculate restitution (debt) owed when there is an overpayment occurrence. This manually intensive process took a prolonged period of time and played a role in untimely non-monetary determinations. The content of administrative decisions is preformatted to reduce staff composition time. The projected reduced the Agency form inventory by several hundred, utilizing the system's ability to make forms content dynamic and situation specific. **Other State Agencies:** The new system captures additional client information that helps partner agencies better report on key metrics. For example, beneficiaries use an expanded occupational code that allows leadership to have more detail on the type of job they have held. This data is shared with the state's workforce development agency to assist unemployed clients in better targeting job searches aligned with existing skills. MiDAS also provides accurate quarterly wage record data to the Department of Human Services (DHS) for verification of income when determining eligibility for income based assistance programs.

The project also aligns with some of NASCIO priorities.
Consolidation/Optimization: Call Center efficiency via "screen-pop" functionality, a

forms consolidation, and an enhanced call center call back feature allows the UIA to optimize its workforce. **Strategic IT Planning**: This project meets the governor's strategic vision to be customer driven and business minded. **Project and Portfolio Management**: The collaborative approach of utilizing state project managers and methodologies coupled with contracted experts in the UI program is an innovative approach that ensured project success.

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Project Benefits
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The following are just some of the many benefits of the UIA's modernization effort.

Operational Efficiencies & Automated Processes: As mentioned earlier, the Agency had a persistent problem with the issuance of timely eligibility determinations. With MIDAS, an increased number of determinations are now resolved by the system, without staff intervention using a logic based evaluation built into the system. Since deployment, improvements have been significant:

- **Separation determinations issued within 21 days**: 68.1% for first quarter using MIDAS vs. 40.7% in 3 quarters prior to MIDAS
- **Non-separation determinations issued within 21 days**: 85.8%. This is the highest since January 2001 and only the second time Michigan UIA has exceeded 85% since January, 1997.
- **Cases Closed**: 24,800 average cases per month vs. 58,800 per month after implementation
- **First payment timeliness**: 86% (pay claimants within 21 days claim filing). This is similar to pre-MIDAS timeliness; however, other states with new benefit systems have experienced great difficulty issuing payments and also experience a steep decline in first payment timeliness with a new system.

Pre-modernization, the tax Field Audit department tracked cases and related documentation manually and had to enter much of their data into the mainframe application manually.   Now, that the Field Audit work is integrated into MiDAS, case files are tracked automatically and there is minimal data entry. The duplicate data entry that was required in the mainframe application has been eliminated and paper files have been replaced with electronic ones. Additionally, the UIA re-engineered their business processes to more efficiently interact with the business community. The new process incorporated two forms – the tax and wage reports – into a single combined tax/wage Report. The consolidation of these two documents into a single form is providing employers with less paperwork, an improved quarterly filing process and increased program integrity. Overall, the Agency reduced the number of forms it produces by almost 300 forms. Next, the Treasury Offset Program (TOP) process was automated so the Agency no longer needs to manually process TOP requests to intercept state and federal income tax returns to satisfy a collectible Agency debt. Claimants eligible to have their federal income taxes intercepted are automatically selected by the system based on built in logic and federal criteria for the TOP program. Staff no longer is tasked with creating manual queries for eligible debtors and manually generating correspondence to initiate the TOP process. Lastly, the UIA now accepts more claim types via online filing such as interstate/combined wage and Trade Readjustment

Allowance (TRA) claims. Previously, these claims required some type of staff intervention in order to process, and additional staff intervention to process weekly benefit claims.

Technology Improving Customer Service & Trust: First, there is an improved ability for claimants and employers to communicate with the Agency electronically via MiWAM. The Agency now accepts electronic documents via the secure MIWAM web portal. Submitting information electronically speeds the agency's ability to act upon those documents and eliminates routing errors. Secondly, increased number of employer and claimants using online services allows for more electronic "green" correspondence to be issued over traditional mail, reducing mail costs and eliminating the chance for manual processing errors to impact service delivery. Third, at the call center, the modernization effort is making life easier for both staff and claimants. New services to assist callers via self-service options include a FAQ menu to answer common inquiries, additional language support, and enhanced security through improved caller authentication. Caller information is also immediately populated upon acceptance of a call via a "screen-pop" functionality called Interaction Workspace (IWS), which reduces the time call center agents spend data-entering information to locate a claimant's unemployment account. Moreover, Virtual Hold Technology is wowing customers and Agency executives alike. During peak times, the call center can experience 250,000+ phone call attempts a day. Since VHT's deployment UIA has seen the following improvements:

- **Cost Savings**: Average daily savings of $1,609.11 from overflow charges.
- **Improved Customer Service & Call Center Efficiency**: With VHT, 78,825 hold minutes are saved per day with a daily average of 73.2% of claimants accepting to receive a call back. Prior to VHT, the average number of calls answered was 2,894. Post deployment, the call center averages 3,335 calls answered per day, which equates to a 15.24% increase in service. Hold times while waiting to speak with an agent are also dramatically decreasing. Average wait time prior to VHT was 16:13 (minutes & seconds); while post-VHT times are averaging 8:30 (minutes & seconds).
- **Reduction in Handle Time:** Two minute reduction in average handle time from 13:09 (minutes & seconds) to 11:21 (minutes & seconds)

One of the most important qualitative effects of investing in technology in the government sectors is delivering greater transparency and accountability. Because of the Agency's technology improvements, a greater sense of accountability and transparency has slowly resulted in increased citizen "trust" of the UIA. The prevailing thought is that increased trust is correlated to the fact that technology makes the Agency more responsive and efficient. Because of this, citizens have become increasingly confident and engaged with the Agency. The impact of technology on the UIA's service delivery is systematically eroding public cynicism about Agency responsiveness.

Cost Savings: Via decommissioning of legacy servers, high support costs of maintaining an aged mainframe system, and other support costs, the UIA is estimated to receive a cost savings around $2 million in 2014. In subsequent years through 2020, the Agency is estimated to receive anywhere from $2 to $4 million in annual savings.