2011 NASCIO RECOGNITION AWARDS NOMINATION

CATEGORY:

IMPROVING STATE OPERATIONS

Call Center Network Platform Application Upgrade Project (CCNPAU)

State of California
Employment Development Department
And
Office of Systems Integration

B. Executive Summary

Even before the current economic crisis brought an unprecedented level of unemployment to California, the Employment Development Department (EDD) knew that the call center platforms in each of its regional call centers and adjudication centers were outdated and did not allow the department to adequately serve its customers. The system had been created incrementally as EDD moved from serving customers in person to providing more services over the phone. As the demand for these services grew, EDD simply added capacity and features. Eventually, the outdated legacy system could not keep up with the demand nor did it allow EDD to customize the system with improved features.

EDD conceived the Call Center Network Platform and Application Upgrade (CCNPAU) as a subproject of the much larger Unemployment Insurance Modernization Project (UIMOD). The UIMOD had been envisioned as a single integrated solution to modernize the entire unemployment insurance benefits delivery system. However, this project was not scheduled for completion until Spring 2012.

As the Unemployment Rate continued to rise to historic levels, the call attempts into the call centers increased from 66.6 million in Fiscal Year 2007-2008 to 223.3 million the following fiscal year. Many of these unemployed workers that were trying to get information or file for benefits could not get into the automated system, let alone speak with a representative. The economic crisis, the record high unemployment rate and the sudden and unprecedented increase in calls to EDD's call centers created the immediate need to address the phone system's capacity to serve the claimants. By separating the CCNPAU component from the bigger UIMOD project, EDD was able to implement a new and improved call center capacity much more quickly.

The CCNPAU project consolidated the 7 Call Centers and 9 adjudication centers into one "virtual call center" in the cloud. This pioneering approach to a call center platform is the first of its kind and size in the state. The new system allows claimants to use the phone to certify for continued benefits instead of completing and mailing paperwork. EDD added needed features that enhance services, allow for better fraud detection, gather data and generally provide an overall better experience for the unemployed worker.

Not only is the CCNPAU project an innovative approach to a call center platform, the project management approach demonstrates innovative and outstanding cross-boundary collaboration. The project was managed by the Office of Systems Integration (OSI) on behalf of EDD with telecommunications services and hardware managed by California's Office of Technology Services. Through this partnership and the use of an innovative "iterative and incremental" approach to application development in large-scale state and government projects, the CCNPAU was fully implemented by November 2010.

C. Description of the business problem and solution

EDD's previous call center platform was an analog system that was created in increments as the Unemployment Insurance (UI) program converted from providing services in person to providing services in a call center environment. Systems were not replaced but were simply added onto to provide additional capacity and functionality. The system was not scalable and could not be expanded throughout the state. Even before the economic downturn and the jump in the UI rate, EDD's call center phone system was outdated and unable to handle the volume of calls received. The economic crisis made a quick implementation even more necessary. Specific problems with the system were:

- The Interactive Voice Response (IVR) systems were built in regional silos, meaning the system could not reroute a call to another region if a UI Representative with the appropriate skills to handle the call was available.

- The public experienced periodic call blockages or extended wait times when calling to file UI claims or receive claim information. Additionally, when the calls were blocked, each caller received a Custom Message Announcement (CMA). EDD was charged for $0.05 each time the CMA was played. Callers would attempt calls repeatedly, trying to get into the system. In January 2010, when the unemployment rate hit its highest levels, 41,159,283 CMAs were played to callers at a cost of over $2 million in that month alone.

- The system was an Automated Call Distribution (ACD) configuration installed at each call center and was not networked with other call centers which limited capacity to answer the call in the least amount of time.

- The system did not allow features to be added, such as "screen pops" of key data to the UI Representative's desk that would reduce cost associated with the length of each call.

- When a caller first contacted EDD, the department had limited information to validate the caller's identity in order to protect the program from identity theft and fraud.

- The system could not collect enterprise data needed to increase fraud detection and improve program processes to reduce costs.

Solution:

The CCNPAU project built a Voice over Internet Protocol (VoIP) infrastructure for the UI call centers so that workload can be better managed with more flexibility while reducing costs associated with the previous analog telecommunications infrastructure. By using a Hosted Interactive Call Routing (HICR) and Hosted Interactive Voice Response (HIVR) system, the EDD has consolidated its 7 call centers and 9 adjudication centers into one "virtual call center" in the cloud. To increase the speed of implementation, the solution includes a Modified-Off-The-Shelf (MOTS) application with custom modules to automate the continued

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claims certification process using the telephone system. To streamline procurement, the integrated solution also leveraged an existing statewide contract that was a pre-negotiated comprehensive array of telecommunications services. Telecommunications are managed by California's Office of Technology Services (OTech).

The system uses an innovative new Identity Management (IdM) system that requires callers to authenticate and log onto in order to reach the HICR. The new IdM system is extensible to the EDD enterprise and serves as the enterprise IdM solution. Additionally, the IdM solution and architecture are part of the state's larger effort to develop an IdM system for all of state government.

Project Management Innovations:
The project management of the CCNPAU project was run entirely by the state using the state's California Project Management Methodology (CA-PMM) and handled by OSI. The CCNPAU project was organized around an independent "Project Office" that orchestrates the various vendor, state partner and control agency activities on behalf of the state. In developing the solution, an innovative "iterative/incremental" approach was used that allowed EDD and the Project Office to see and test various components of the application prior to completion of the Design phase.

Bounded by clear parameters, the iterative increments allowed EDD to see and interact with working modules before locking down Design. The vendor was then able to deliver a solution that met EDD's needs in a shorter timeframe. The iterative/incremental approach also allowed the Project Office to assess the vendor's ability to design, code, test and deliver to various environments earlier in the implementation process. This approach also allowed adjustments in the process to be made sooner and implementation to be done smoothly.

Production and implementation of the solution was staged over several phases to accommodate the annual UI business activities that occur on a cyclical basis. The full system solution has been implemented since November 17, 2010. Project management included an integrated communication plan with regular updates and robust rollout to critical field offices. The communication plan included an innovative organizational change management component that encouraged the EDD call centers to create a "Club CCNPAU" to commemorate the rollout of the new technology. The creative campaign achieved complete acceptance of the new technology by the UI Representatives in the call centers.

D. Significance:

The CCNPAU Project is significant in four key ways:

- The CCNPAU project is the first of its size and type in California State government to use "cloud" technology in a call center.

- The CCNPAU project is the first EDD call center application that uses an IdM layer for authentication. EDD is re-using this technology for its Continued Claims Redesign Project, which is the other half of the UIMOD project, as well as the Disability Insurance Automation Project. The IdM also populates the UI Representative's screen with data to reduce fraud. The U.S. government is looking at California's IdM solution, of which EDD is a key part, as a potential model for a federal solution.

- Using an independent, state-run Project Management Office, such as OSI's, is an innovation for EDD and unusual in California state government. OSI manages various Department of Social Services projects, but the UIMOD is the first project managed for an agency other than Health and Human Services. By functioning as an "independent" project management team, OSI can make and implement objective recommendations to keep the project moving on time, within budget and scope. This direction is in line with California's efforts to professionalize project management in state government.

- The CCNPAU project pioneered the use of the "iterative/incremental" approach to application development in large-scale state government projects. In contrast to the "waterfall" development process, iterative and incremental development promotes learning from earlier activities ("builds") of the same project to refine design with user feedback.

This project supports all three of the goals identified in California's Statewide IT Strategic Plan.

- **Make Government Transparent, Accessible and Secure**: The CCNPAU provides better and more secure access to EDD services.
- **Drive Innovation and Collaboration:** The CCNPAU is an innovative approach to a call center environment. Additionally, the project management was a collaborative process between partner agencies.
- **Make Information Technology Reliable and Sustainable Through Consolidated Platforms and Shared Services:** The CCNPAU consolidates 16 call center and program offices into one "virtual call center in the cloud". It also creates an IdM enterprise solution in the state.

Further it supports the Governor's priorities of consolidation and cutting costs in government while providing improved services.

The CCNPAU Project also supports the following NASCIO State CIO Priorities:

- **Consolidation / Optimization and Legacy Modernization:** The CCNPAU solution replaces a piece-meal legacy system while centralizing and consolidating EDD call center operations from 16 locations to 1

central operation that provides an enterprise view. The solution set also provides enhanced reporting for business intelligence and an IdM tool that consolidates security authentication within the EDD enterprise and is extensible to the state enterprise.

- **Budget and Cost Control:** Centralizing call center operations facilitates enterprise level management of call center budgeting. The CCNPAU solution also saves costs associated with toll-free charges and custom message announcements.
- **Cloud Computing:** The CCNPAU solution uses cloud computing as a service delivery strategy, the first State of California call center project to do so.
- **Security:** The solution developed an innovative IdM solution for the state enterprise in general and EDD specifically. The improved security and authentication capability is expected to reduce the fraud while facilitating additional channels of customer service (web) with the same level of security.

E. Benefit of the Project:

The CCPNAU project has many benefits to EDD, the recipients of UI benefits, and the State of California. The project's most significant benefit is that it allows EDD to better assist Californians who have lost their jobs through no fault of their own. The project allows these unemployed workers to get their benefits more quickly, to help their families and to keep California's economy going. The improvements made to EDD's call center platform allow the department to provide answers and assistance to these already frustrated residents in a more expedient and cost effective manner.

Benefits to the claimants:

- With the new HIVR, a claimant can get into the automated system rather than being blocked. The CCNPAU solution allows EDD to redirect calls to staff throughout the state as needed on busy days and peak periods.

- The enhanced self-service features of the HIVR allow a caller to find more information and answers to commonly-asked questions so they do not have to wait to speak with a representative. For example, a claimant can use the automated features to find out if and when UI benefits were paid. These self-service features are available 24 hours a day, 7 days a week.

- Claimants can use Tele-Cert, EDD's telephone certification system, to certify for continued benefits more quickly by using the phone system. Claimants that chose this option eliminate the possibility of mistakes that can occur when using the paper forms such as forgetting to sign the document or checking the wrong answer.

- Minimize wait times. At least 99.9 percent of the calls are delivered via the Unified Call Distribution service, which allows calls to be routed to any representative in the state based on how many staff log on to the system, their skill level and readiness to receive calls. With information about the caller gathered up front, the system routes calls to any available representative with the right skills to assist the claimant. For example, if a claimant only speaks Vietnamese, the call would automatically be routed to a representative who speaks the language.

Benefits to EDD:

- Since the use of VoIP does not incur toll charges for long distance calls, EDD is expected to save approximately $3 million on long distance charges in the first year compared to the old analog system.

- EDD realized a savings of $2 million in January 2011 with the elimination of the CMA. Additional savings related to the CMAs are expected in the following months.

- A secure (authenticated) "self service" capability eliminates the need to speak with a UI Representative in most cases, providing faster service; a corresponding increased efficiency in call handling should also reduce costs.

- A networked, scalable system that provides features such as "screen pops" of key data to the UI Representative's desk that will reduce cost associated with the length of each call.

- The system collects enterprise data so EDD can make timely decisions to improve processes to reduce costs. All calls are tracked end-to-end, providing important data so that the system can provide management information. Not only can EDD track the call by social security number when the claimant enters a PIN, but the system also tracks how many calls are received, answered, abandoned and deflected for each 800 number.

- The system provides information that helps detect fraud. A fraud detection/deterrent capability (IdM) has been added so that EDD can identify the origin of the call and the identity associated with the point of origin for claim filing and claim specific calls.

- Call wait times for claimants will be reduced to no longer than the EDD service level objectives of 5 minutes for claim-filing calls and 4 minutes for information calls.