Virginia Information Technologies Agency

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**Enhancing Customer Service
through the Mobile Collectors Application**

**CATEGORY: Digital Government –
Government to Business**

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Executive Summary

The Virginia Department of Taxation (TAX) field collection representatives work out of their homes across the state. They visit businesses to resolve delinquent debt cases that are complex and often involve large dollar amounts. They spent several hours a day preparing paperwork to be processed at TAX headquarters in Richmond. TAX strives to get tax payments into the bank as quickly as possible, but it was taking 10-14 days from the time a check was received for the check to be deposited and posted to a taxpayer's account.

TAX developed a new mobile collectors application that has significantly changed the way staff interacts with businesses that owe money to the commonwealth. It is cutting-edge technology that quickly proved to be a positive tool for the state and the business community. The application enables field collectors to work smarter and save thousands of hours each year by:

- Giving field collectors easy, real-time access to business accounts
- Enabling collectors to receive tax payments on site by electronic funds transfer (EFT) payment, credit or debit card
- Permitting collectors to quickly update customer accounts
- Allowing collectors to eliminate time-consuming paper requirements

Best practices in state tax collecting as reported by Governing magazine and Dun & Bradstreet call for improving tax revenues, particularly delinquent taxes; eliminating manual tasks and reliance on paper; enhancing efficiencies in outreach and communication with business taxpayers; integrating multi-channel delivery; and, optimizing human resources. This new program accomplished all of these best practices, plus NASCIO CIO, state and governor priorities.

The new application has greatly improved the collector-taxpayer experience. Since implementation in June 2014, more than 2,000 payments, ranging from as small as $1.34 to more $70,000 and totaling more than $2.7 million, have been processed on the spot and deposited within one day.

Along with accepting and posting payments immediately, the iPads are equipped with a GPS feature that helps agents locate addresses and businesses faster than mapping out their routes manually, as they did before. Although working in the field, collectors can now stay in close contact with the office. They can use a remote video conferencing feature with supervisors and colleagues, do not require personal cell phones and can easily access their Outlook email accounts.

The new technology has gone a long way in improving job satisfaction for both the collectors and the development team that entered uncharted territory and met the challenge. The new cutting-edge technology has been an unequivocal home run for all concerned.

Description of the Business Problem

The Virginia Department of Taxation (TAX) employs 45 field collection representatives who work out of their homes across the state. They make phone calls, write letters and visit businesses to resolve delinquent debt cases that are complex and often involve large dollar amounts.

During face-to-face meetings, field agents collect what payments they can from businesses and, if needed, help businesses set up payment plans to resolve the remaining debts owed.

Several years ago, the agency implemented the Computer Assisted Collections System for Government (CACSG), an efficient case-assignment system. But when cases were assigned, field agents had to wade through time-consuming paperwork to complete the task.

A tax field collector spent several hours a day preparing paperwork to be processed at TAX headquarters in Richmond. Agents had to:

- Pull the taxpayers' accounts in CACSG
- Print account information for each business visited
- Complete and print payment vouchers for each bill, account and check received
- Send the postmarked envelopes with the checks to provide accurate date information (This is critical for the system to calculate the appropriate penalty and interest to be charged.)
- Enter vouchers and checks into a paper transmittal record once they were prepared for sending
- Mail the vouchers and checks to the TAX processing operations facility in Richmond (This required field agents to take transmittals to the post office.)

TAX strives to get tax payments into the bank as quickly as possible, but it was taking 10-14 days from the time a check was received for the check to be deposited and posted to a taxpayer's account.

Solution

The idea that revolutionized how field collectors conduct their daily affairs was born at a craft show, grew legs at a NASCAR race, and began taking strides at a fast food restaurant as a collections supervisor observed how businesses are handling transactions with card-readers on smart phones and tablets. He questioned whether the same method could work for TAX collectors.

The TAX leadership team was confident that the agency could develop a solution. The technology team at TAX was experienced in developing and maintaining Web-based applications, but had not created a Web application for a mobile device. When presented with the challenge in spring of 2013, the development team was energized to develop a solution to better serve the agency's collectors and their business clients.

As is best practice, the developers met with the field collectors to understand the business requirements, needed functionality and the ultimate goals. After several productive sessions, they built a development plan that would employ a Web-based application used by collectors in the field on Apple iPad Air tablets. They focused on new Web-service concepts, device compatibility, and creating a responsive design for the visual front-end of the application.

The basic goals of the new mobile collectors' application were:

- Giving field collectors easy, real-time access to business accounts
- Enabling collectors to receive tax payments on site by electronic funds transfer (EFT) payment, credit or debit card
- Permitting collectors to quickly update customer accounts
- Allowing collectors to eliminate time-consuming paper requirements

JAVA language, JBoss application server and Oracle database were selected as the application platform. The development team integrated the newer technology with the agency's existing data and services to automate the business processes. The team used the latest versions of HTML, cascading style sheets, JavaScript and the Bootstrap styling framework to build a responsive user interface targeted to the iPad screen.

Developers acquired the latest version of Eclipse to serve as their code-developing tool. They then procured several iPads for the developers and testers to ensure the application worked well on the intended platform.

A critical element of the new project was ensuring the security of taxpayer information. The solution was a two-factor authentication process for accessing the application on an iPad. Collectors enter both a PIN and a password to the agency's integrated revenue management system to access the iPad application.

One hurdle was selecting a credit card vendor. After researching several, a vendor was selected that designed a new Web application for accepting credit cards on iPads. This took considerable time and coordination.

The design and development phase of the application took about nine months. This included designing the prototypes and mock-ups of the application's screens to ensure all of the necessary features were incorporated and to show the look and feel of the application. As a proof of concept, the development team also researched the use of Web services and their interactions with tablets. The application also had to

communicate with the back-end tax system while being able to launch an application designed for the iPad from within the Web application.

Once the system design and prototype were completed, developers worked closely with collections staff to ensure all the needed functionality was included. Some of the collectors were trained on the new device and then were involved in the comprehensive testing that took place.

The first iPads were distributed to 15 collectors in June 2014 for a controlled production phase. These collectors visited businesses and processed EFT payments from checking accounts. The transactions were monitored closely by the team to ensure there were no issues. The credit card option was added in August 2014 and debit cards followed. Collectors plug a card-reader into the iPad's audio port to process payments.

Today, all 40 field collectors and their five supervisors are using the new application.

Significance of the Project

The new mobile collectors application has significantly changed the way the TAX staff interacts with businesses that owe money to the commonwealth. Its cutting-edge technology quickly proved to be a positive tool for the state and the business community.

The application enables field collectors to work smarter and save thousands of hours each year in preparing for business meetings, and then documenting and logging payments and transactions after the meetings. The field reps now carry real-time account information with them and when payments are made they process overnight and show on the taxpayer accounts the next day.

The application was created entirely by TAX developers. The idea was derived from an employee's observations of how some businesses processed payments at various events, got traction with leadership, became the mindset of a multi-functional team, was tested, piloted and then deployed.

TAX won a national award for the application earlier this year for its unique collection tool. Nominated for the Federation of Tax Administrators (FTA) Taxpayer Service and Education Award, the mobile collectors application tied for the award with New York.

The judges praised Virginia for its initiative and creativity, saying: "It's good customer service. This wasn't driven by legislation. They came up with it on their own."

The Mobile Collectors Application meets TAX's combined goals of serving the public with customer-focused services that are more efficient and productive using innovative technology. It also aligns with several of the governor's priorities including:

- Innovation
- Fiscal stewardship
- Upgraded technology
- Customer service
- Accessibility

In addition, this project meets enterprise goals, as noted in the [Commonwealth of Virginia Strategic Plan for IT 2012-18,](#) which states the importance of mobility, consolidation and optimization.

Virginia will give a presentation on the highly successful project to other states' tax agencies at FTA's Annual Meeting in June in Minneapolis.

Benefits of the Project

The new mobile collectors application met all of the goals of the field collection agents. Two of the important benefits are eliminating hours of paperwork at the beginning and end of the day enabling them to spend more time in the field working with taxpayers and depositing funds into commonwealth's accounts nearly two weeks faster.

Today, when a collector from TAX arrives at a business to discuss past-due taxes, the collector is more prepared to do the job than before the application was deployed. The collector pulls out an iPad Air, connects to a secure connection and accesses the business account. The collector can take payments immediately via electronic check payments, credit cards or debit cards. When a payment is made, it processes overnight and is posted to the taxpayer's account the next day. In addition, the application significantly reduces the volume of calls to the contact center, the risk of mistakes and the processing time for viewing accurate data in the system.

Collectors save hours and hours of work by not having to print spreadsheets and other account information before leaving home en route to business locations. At the end of the day, the collectors are no longer filling out paperwork to have payments processed and accounts updated.

The collections supervisor whose brainstorm got the ball rolling after an observation at a large craft show and other events, said the amount of time he saves by eliminating paper processing allows him to spend more time reviewing accounts and calling on more taxpayers, "which has increased collections and the clearing of accounts."

Instead of completing paperwork, collectors now are freed to work on other, less menial tasks adding to the overall efficiency of the agency.

The new application has greatly improved the collector-taxpayer experience. Since implementation in June 2014, more than 2,000 payments, ranging from as small as

$1.34 to more $70,000 and totaling more than $2.7 million, have been processed on the spot and deposited within one day.

It has improved the collector-taxpayer experience, and the business community has provided very positive feedback. One said, "Doing EFT payments right then is convenient. Any time I can avoid writing a check is great."

One collector said her business clients "are very excited. They'd much rather do it the new way. They can see their payment on the system the next day."

Along with accepting and posting payments immediately, the iPads are equipped with a GPS feature that helps agents locate addresses and businesses faster than mapping out their routes manually, as they did before. Although working in the field, collectors can now stay in close contact with the office. They can use a remote video conferencing feature with supervisors and colleagues, do not require personal cell phones and can easily access their Outlook email accounts.

The new technology has gone a long way in improving job satisfaction for both the collectors and the development team that entered uncharted territory and met the challenge.

"It is very popular and lends an air of professionalism to the important work our field collectors do every day," said one collections director.

The collections supervisor said the mobile collectors application is in a class by itself: "It is going extremely well! This is the best collection tool we have developed in my 25-plus years of field collections."

Another agreed, "This is the first time in the 31 years I've been at TAX that collections has been on the cutting edge of technology."

The new cutting-edge technology has been an unequivocal home run for all concerned.