Volume 1 – Cover Sheet

Detroit Electronic Absentee System for Elections (EASE)

1) Catalog of Federal Domestic Assistance Number: 12.217

2) **BAA number: HQ0034-FVAP-11-BAA-0001**

3) **Title of Proposal: Detroit Electronic Absentee System for Elections (EASE)**

4) **CAGE Code**: [redacted] **and DUNs Number:** [redacted]

5) **Applicant:**
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8) Proposed period of performance
From September 1, 2011 to November 31, 2012

Table of Contents

1. Executive Summary

This is an application for funds to build an Electronic Absentee System for Elections (EASE) for the City of Detroit UOCAVA voters, based on the electronic voting support wizard (EVSW) pioneered by FVAP in 2010.

The contractor will be Konnech, Inc. This company has successfully provided Detroit with their PollChief poll worker and poll location management modules for the past 3 years, and last year successfully provided the EVSW for New Jersey, Montana and Nevada. We have confidence in Konnech as a technology partner.

Michigan may have more ballot delivery and return challenges for our UOCAVA voters than other States. Many of our overseas voters are giving up trying to apply for their ballot since most of their past efforts failed, so there is a defeatist impression with the election service of Michigan. Now, Michigan has moved the presidential primary Election Day tentatively to February 28, 2012. The earlier election will bring additional challenges to our department. Additional communications with our UOCAVA voters are urgently needed.

The EASE will help us to generate additional interest from our UOCAVA voters. Our qualified voters can use EASE to confirm their registration and apply for ballots using the FPCA and submit their write-in FWAB ballot, which can be downloaded from EASE. They will also be able to check their application and full ballot delivery status using EASE. By using EASE, Detroit will be able to deliver the blank ballot online which will be a first in Michigan elections. We anticipate that our applications from UOCAVA voters for 2012 will increase 50% or more over the 2008 elections, which would be nearly 1,000 more UOCAVA voters for the City of Detroit alone.

Currently, we are using a Microsoft Excel spreadsheet to keep track of UOCAVA voters. There is no system to communicate with our thousands of UOCAVA voters effectively. Our UOCAVA voters cannot check if their application was received, their paper ballot was sent, or if their marked ballot was successfully recorded. The new EASE will dramatically improve our internal operation, and our voter service for our UOCAVA voters.

Since Michigan requests our UOCAVA voters to have their signatures on all of their submissions, the voters still have to print the web downloaded forms, sign them, scan them, and mail or email them back. For most of our UOCAVA voters, this is a major challenges. Detroit plans to use the EASE add-on of Konnech's Mobile App to overcome this problem. Our proposed Mobile App will allow voters who have a Smartphone like an iPhone or Android powered phone, to mark, sign, and return the documents on their Smartphones instead of using EASE voter interfaces through their computers. Our city staff will use the same EASE login to manage the Smartphone users as well as the online users. The Mobile App grant application is an addition to this EASE application-- we separated our Mobile App into a separate grant application. If there is not enough funding from the FVAP for the EASE project, the Mobile App project, and a Mobile App Risk Assessment project, we at least hope that we will be funded for this EASE project.

2. Goals and objectives

2.1. Our Goals or Objectives

- Goal One: 50% or more participation of our UOCAVA voters.
- Goal Two: raise the perception of our UOCAVA voters about their importance the Detroit Department of Elections places on their voting participation and about our treatment of processing their votes.
- Goal Three: model a ground-breaking new election tool for all States and jurisdictions across the country.

2.2. Establish and Operate As a Successful Electronic Tool

Michigan expects to hold the 2012 presidential Primary in February. We look for this new EASE to help us overcome this additional challenge and to launch one of the most successful election tools in the city's election management history. Online access is becoming more and more reliable and secure, which can overcome the bottleneck issue of voter and city communications, ballot application, write-in ballot application, blank ballot delivery and much more, and eventually change the image of our UOCAVA voter service.

2.2.1. A Daily Communications Platform

Currently, we are not able to communicate with our UOCAVA votesr effectively since we do not have any useful tool or database to deal with this problem. The city budget issue has created an additional funding problem for keeping our current experienced staff. It is urgent to have a tool like EASE to help us cope with these tough times.

It is planned to use the coming EASE program to send out massive emails and merged letters to alert our UOCAVA voters for the coming elections.

In the past 3 years, we have been using Konnech's communications platform integrated into our city poll worker and poll location management system. We have used the system to send out massive emails, phone calls and letters to our 10,000 plus poll workers in the database, and the one hundred different organizations for our 500 plus potential polling locations for each of our elections. The communications have made a big difference in our city's relationship with our voters. We will ask Konnech to provide us a communication enhanced EASE for our communications needs with our UOCAVA voters.

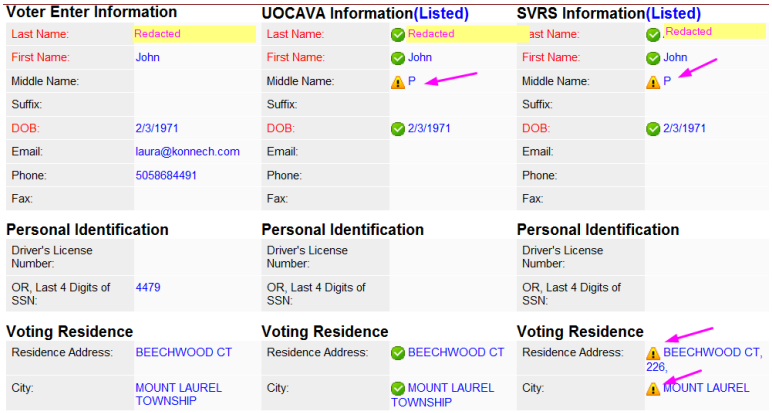
2.2.2. A Tool to Speed up Our Approval for UOCAVA Applications

Currently, we have to go to the State Qualified Voter File (QVF) to search for the voter's state registration record, and have to manually search the voter's city UOCAVA record and history of voting records to determine the qualification status of the applicant. It takes a lot of time and effort for our few staff members to deal with the large amount of absentee voters along with our general population of voters (81,396 total absentee voters for 2008, which included 1,836 UOCAVA voters).

Konnech currently has our Michigan QVF and Street Index, which link voters' resident addresses with their polling locations or ballot styles, integrated with our poll

worker and location management system. Since the databse integration is already written, we can complete the additional interpretation done quicker and more economically than any city or township in Michigan. Attached here, please see the image of the staff's approval interfaces, which will save us hundreds of hours for each election. When our staff clicks to enter the administrator web site, they can view the UOCAVA voter's registration information, the voter's FPCA information, the voter's status, and the information the voter keyed in when submitting this request all within this one place. Mismatches are highlighted. It turns our hour long search into just a few clicks of the mouse.

Once the voter is approved, the system will automatically match the voter to their precinct's ballot. If the voter is already registered or if this is their first time registering, a drop-down list is available with various precincts to choose from. As soon as the staff user approves the request, the system sends an approval email to the voter with access to the ballot.



Voter Enter Information		UOCAVA Information(Listed)		SVRS Information(Listed)	
Last Name:	Redacted	Last Name:	Redacted	ast Name:	Redacted
First Name:	John	First Name:	John	First Name:	John
Middle Name:		Middle Name:	P	Middle Name:	P
Suffix:		Suffix:		Suffix:	
DOB:	2/3/1971	DOB:	2/3/1971	DOB:	2/3/1971
Email:	laura@konnech.com	Email:		Email:	
Phone:	5058684491	Phone:		Phone:	
Fax:		Fax:		Fax:	
Personal Identification		**Personal Identification**		**Personal Identification**	
Driver's License Number:		Driver's License Number:		Driver's License Number:	
OR, Last 4 Digits of SSN:	4479	OR, Last 4 Digits of SSN:		OR, Last 4 Digits of SSN:	
Voting Residence		**Voting Residence**		**Voting Residence**	
Residence Address:	BEECHWOOD CT	Residence Address:	BEECHWOOD CT	Residence Address:	BEECHWOOD CT, 226,
City:	MOUNT LAUREL TOWNSHIP	City:	MOUNT LAUREL TOWNSHIP	City:	MOUNT LAUREL

2.2.3. Better Reporting

We currently cannot track if the paper ballots were returned from our UOCAVA voters. This EASE will provide us the tool to change that and much more. We will be able to provide real-time voter access, application, blank ballot delivery, ballots received, and more.

2.2.4. Easier Submission of FPCA & FWAB

The program provides an entry page where the UOCAVA voter enters personal identifying information, fills out a Federal Post Card Application for the requestors who were not registered or were not on the Yearlong UOCAVA FPCA File (YUFF), and transmits an email to the county clerk's office notifying them of a UOCAVA request requiring action. The email sent to the county clerk's office would include a link to click to access the voter's request. It simultaneously sends an email to the voter notifying them that their request has been sent to the appropriate office, and that they will receive an email shortly from the county clerk.

2.2.5. Voter Centered System

The system provides a ballot and the state specific instructions to the voter. The system enables on-screen marking, warns the user of under-voting, and prevents over-voting. When the voter finishes the ballot, instructions appear for preparing and

returning the vote in a manner specified by the State of Michigan. Then the voter has the opportunity to fill out a voluntary survey.

2.2.6. A Tool to Save Voter's Time

It guarantees the streamlining of voting processes and the voter has the voting process done within 15 minutes. It can automatically populate the FWAB candidate data.

First, it will automatically link online to a Federal Post Card Application (FPCA) for the voters who are not already registered, saving them the process of going to the FVAP website, filling in the FPCA, then searching to find the State's return instructions. Making it faster and easier will result in higher rates of registration for our UOCAVA voters.

Second, it will populate the FPCA automatically for the voter from the information he/she entered at the initial login screen, saving them the trouble of entering the information twice. Making it faster and easier will result in higher rates of registration for our UOCAVA voters.

Third, it also will send that information digitally back to the city, so that after the form is received and reviewed by the city, it can be uploaded into the city's UOCAVA database and the Statewide Qualified Voter File (QVF) database when the City staff clicks on "Approve"; the earlier upload, replacing the current laborious process of keying in the FPCA information manually, will result in the voter getting registered almost instantly, rather than waiting several days to get registered. This speed will garner higher registration rates for our UOCAVA voters.

Fourth, it will automatically generate a fresh FPCA if the requestor's Yearlong UOCAVA FPCA File (YUFF) has expired at the end of a year, saving the voter the problem of taking multiple steps to renew his/her registration. Keeping the UOCAVA voter's QVF and YUFF enrollment updated will keep the process streamlined and easy for the UOCAVA voter.

2.3. Establish and Operate Sustainable & Affordable Electronic Tool

We know that the new EASE will bring savings to our current operation. The improvement in technologies can also be enhanced later on to be used mostly by our general population, which will bring in additional savings. The extra savings will enable us to maintain this tool in the coming years even without further funding from the FVAP.

2.4. An Estimation of the Reduction of the Failure Rates

Based on this table presented by FVAP (www.nist.gov/itl/vote/upload/FVAP-2010-initiatives.ppt), there were four main stages of voting process.

2008 General Election Results Military Voters Nationwide			Detroit Using EASE In 2012 Elections	
Stage of voting process	Number of additional failures over general voting population	% of total failure	Estimated Future Failure Rate	Improvement Ratio
Registration Failure	3,936	1.4%	1%	29%
Ballot Delivery Failure	20,064	6.9%	3.4%	50%
Ballot Return Failure	213,779	74.0%	37%	50%
Ballot Casting Failure	51,283	17.7%	8.8%	50%

Our EASE will enhance UOCAVA voter participation rates and reduce failure at every stage of the voting process.

2.4.1. Reduction of Registration Failure

According to a study done by The Pew Center on The States, Michigan is one of 16 states that doesn't give residents who are overseas in the military enough time to vote (https://military.overseasvotefoundation.org/overseas/cms.htm?uri=%2Fhot-topics-complete-listing).

Based on an article titled "Michigan Considers E-Mailing Absentee Ballots Overseas" published by The Detroit News on October 15, 2009, "Chances of getting their votes counted are so slim for U.S. military personnel overseas, many servicemen and women don't bother to vote, according to testimony today on a bill to allow e-ballots in the state."

The FVAP grant will give us a chance to change our processes and our image. The EASE presents a much easier process to access the FPCA and FWAB. The convenience, speed, and changed perception that their ballots will be counted in time will lead to more UOCAVA voters registering via the EASE.

In the 2008 general election, we had 1,250 overseas military voters registered as absentee voters out of total 81,396 citywide. Once the EASE is implemented, we are confident we will increase our UOCAVA voter registration 50%. Therefore, we can increase to several hundred more UOCAVA voters.

Communications are the key for our future success. Firstly the EASE will find, gather, and organize the contact list and send a timely email to remind the coming election and his or her status of registration with extensive help and directions in the body of the emails.

Once the voter has updated his or her registration, ballot request application, or write-in FWAB, the EASE will automatically inform the voter of each stage of the process.

The EASE will allow the city to send an email to the voter asking for more information, or informing him/her if the application has been rejected and why.

Fourth, our EASE will intelligently link to the FVAP, State and City websites if there is additional helpful information for this voter.

Fifth, the system can send out mass emails to the voters from particular districts in advance notifying them of upcoming urgent changes. This will be particularly useful in the case of smaller, local elections; without an email from the local elections jurisdiction, the UOCAVA citizen wouldn't even know the election had been called.

We anticipate at least 29% reduction in the failure rate compared to the national UOCAVA failure rate.

2.4.2. Reduction of Ballot Delivery Failure

The program will provide a blank ballot to the UOCAVA voters online. If the voter is already in the QVF and hasn't changed their Michigan address, then they don't even have to wait for the Clerk to look up their precinct. If the voter is not already registered, the program will automatically provide the FPCA so the clerk can quickly register them and dispatch their un-voted ballot.

We anticipate at least 50% reduction in the failure rate compared to the national UOCAVA failure rate.

2.4.3. Reduction of Ballot Return Failure

The EASE will enhance ballot return by making it easier for voters to access, mark and learn the instructions for ballot returning. The FPCA can be returned online. The marked ballot for 2012 elections still has to be mailed by the voter. Due to proper communications and speedy deliveries of blank ballots, we believe that the failure rate of ballots returned will be reduced 50% from the 2008 national rate.

2.4.4. Reduction of Ballot Cast Failure

The EASE will reduce voting failures by making it much harder to make mistakes that invalidate a vote; many UOCAVA voters submit ballots that can't be counted. The program reduces mistakes by implementing on-screen marking, unified return format, and overvoting notices.

Our EASE will allow us to scan in the receipt of the ballot packet. The scanning speeds the verification process.

2.5. Detroit EASE Benefits Other Jurisdictions

Firstly we will provide a model of a successful electronic voting program for hundreds of jurisdictions in Michigan. Michigan's elections are administered by municipalities, not counties, so there are hundreds of jurisdictions, hence many more opportunities for the

administrator to make a mistake, or to misunderstand a directive. Not one of these jurisdictions currently has an electronic voting support wizard. When Detroit successfully launches this program, most of the other jurisdictions can soon piggy-back onto our program.

Secondly we are submitting another application for building a Smartphone mobile voting application, and a third grant is being submitted to have a third party to do a Risk Assessment. If the second and third grant applications are approved, successful launch of the Smartphone will immediately assist UOCAVA voters from other states, and will further benefit them once their states see the successful use of the smart phone voting and the controllable risk.

We have contacted the main counties in Michigan and brought in a lot of interest for this FVAP grant and future success of our projects. We will showcase our EASE experience in the coming 2012 conference so everyone can learn our ups and downs.

2.6. Security Measures to Protect Users' Data

Using EASE, we will install the following security measures to protect users' personal identifying information:

1. Encrypted data both at Servers and in transmission between server and user terminals.
2. Create web SSL layers to encrypt the web traffic further.
3. Use the encryption, which is compliant with the NIST FIPS certification
4. Enhance the city user password policy
5. Limit only certain city IP addresses to access the EASE administration console
6. Enhance the vendor service and maintenance plan to prevent un-authorized access
7. Build up extensive log recording for any user data access

2.7. Security Measures to Protect Transmitted Election Material

We focused our service and have confidence within the privacy, the confidentiality, and in the identity protection, which are critical elements of the American election process. Accordingly, our EASE:

1. Uses 256 bit encryption (the same encryption level for banking processes.)
2. Wipes the server memory of the voter's marks the instant the ballot PDF is generated.
3. Voting choices can't be hacked from the server. No voting occurs on the EASE server. This is recommended by the EAC and NIST in their security draft.
4. Voting choices can't be hacked from the voter's PC. The program scrubs the markings from the RAM of the voter's PC when the voter closes the program, so no hacker can discover how it was marked from the voter's own computer.
5. Ballots returned are safe. No votes can be hacked or subverted from Konnech's EASE because the program isn't an online voting system—it simply delivers the ballots electronically. If the State allows emailed returns, the voter would scan and sign, then accomplish the emailing of the packet him/herself—the program doesn't perform the emailing. Thus, the absentee ballot packet never resides on the program's server.
6. The EASE informs the administrator of each time the voter generated a ballot, as recommended by the EAC/NIST security draft, to prevent "copying, detect fraud, and assist in the ballot reconciliation process."

7. The Federal Voter Assistance Program (FVAP) commissioned security testing of Konnech's EVSW by two independent testing labs, SLI Global Solutions and Wyle Labs. These input from the tests will be integrated into our EASE.

Also, these are our standard security measures:

Facility Security

- Double hulled datacenter core
- Manned 24 X 7 X 365
- Biometric security scanner
- IPTV camera system with full recording
- Secured entrances from lobby
- 24 X 7 collocation access
- Large redundant Internet backbones including AT&T, Level 3 &UUnet).
- High Tech Datacenter

- Out of 500 year flood plain
- 2.0 Miles from CC Airport, not on landing patterns
- Exterior walls and floor poured concrete

Data Center Core

- Phase I = 5K sq ft, Phase II = 10K sq ft
- Double walled & roofed exterior & interior
- Primary power
- Backup generator
- Redundant battery array
- Redundant backbone Internet connections

DATA SECURITY

- Multi-Level roles
- Password Protection
- 30 minute (or other interval selected) time out
- Back-up server at a separate location

OPERATONAL SECURITY

- Firewall between testing data and actual data.
- A challenge-response test.
- Comparison to established state and local databases.
- Email notifications to voters and to election administrators.
- Email addresses comparison and confirmation.

2.8. Collaborative

We have contacted most cities in Michigan found that the collaborative interest is there. Due to Michigan's projected primary election in February 2012, the cities will be busy in September 2011 preparing for the primary. The time issue prevents many of them from applying for this grant. In addition, most are quite small, with few human resources and no IT professional on staff. As soon as our EASE proves to be successful, we should be able to assist any city or township if they want to use the modified EASE based on Michigan voting environment.

2.9. Cost Benefit Analysis

For proposed $100,000 grant, we should deliver nearly 1,800 more UOCAVA ballots for the coming 2012 elections. The successful test and risk assessment of EASE and its add-on, Mobile Apps for iPhone or Android phone, will bring more meaningful benefits than most of other ideas and projects. The potential nationwide pool is 300,000 UOCAVA voters. It has the potential to change the UOCAVA voting totally and fundamentally forever.

3. Schedule and Milestones:

3.1. Summary of the Schedule

We plan to start the project as soon as the contract is awarded and to run it all the way through and after Michigan's General Election.

Task	Duration	Start	Finish
FVAP EASE Project	314 days	9/1/11	12/31/12
Project Initial Planning	2.88 days	9/1/11	9/5/11
Meet Initial Requirements	16.5 days	9/5/11	9/28/11
Research, Design	17 days	9/28/11	10/21/11
Development	30 days	10/11/11	11/22/11
Field Test & Risk Assessment	34 days	11/22/11	1/9/12
Documentation	26 days	1/9/12	2/14/12
2012 Primary Election 1	64 days	1/3/12	3/6/12
2012 Primary Election 2	92 days	6/1/12	8/31/12
2012 General Election	87 days	9/4/12	12/31/12

3.2. The Intervals in Which Milestones Are Assessed for Progress

a. EASE Initial Planning 2.88 Working Days 9/1/11-- 9/5/11

We will determine project final scope, and organize project teams with focus in communications platform, State QVF and existing UOCAVA process integration. The preliminary resources will be further reviewed and secured. An FVAP Post-Award Conference will be conducted before September 5th.

b. Team Requirements 16.5 days 9/5/11-- 9/28/11

We will have our final project management plan not later than (NLT) Sept 12.

Feedback will be incorporated into the software plans once reviewed and approved by the FVAP. A more detailed delivery timeline may also be developed with the FVAP.

c. Design & Redesign 9/28/11--10/21/11

Based on the feedback from the city users, the preliminary software specifications and functional specifications will be further developed. The prototype based on functional specifications will be programmed. Demo to FVAP and other interested parties will be conducted before October 21, 2011.

d. Development 10/11/11--11/22/11

We will further review the functional specifications based on the feedback from the field and initial testing from the city users. It will be a continuing process of identifying modular/tiered design parameters, adjusting development staff workload, further developing and testing code (primary debugging). We plan to start the programming as soon as possible with the modification of our existing tools and to finish the programming before November 22, 2011.

e. Internal and Field Test 11/22/11 -- Tue 1/9/12

Internal and field tests will start as soon as the team is in place. As soon as the field test finished, the EASE will be ready to load the precinct and real database into the real site for the Primary Election on February 28, 2012.

f. Documentation 01/09/11 -- 02/14/12
We will finalize Users and Operations Manuals before February 14, 2011.

g. Primary Election 1 01/03/12-- 06/06/12
Michigan anticipates a Feb 28, 2012 primary for presidential race, and August 7 for the rest. We will make our EASE available on January 14, so voters will have 45 days to access their full ballots via Mobile App.

h. Primary Election 2 06/01/12-- 08/31/12
We will have another Primary Election for candidates except presidential race. Our mobile app will be available on June 1, so voters will have more than 45 days to access their EASE. We will try to make full ballot available on June 23 so it is 45 calendar days in advance of election

i. General Election 09/04/11-- 12/31/12
The Election Day is on November 6, 2012. We will make our EASE available to download continuously from the Primary Election for voters' submission of FPCA and FWAB in September 1. On September 26th, full blank ballot will be online. Therefore, our UOCAVA voters will have 45calendar days to access their full ballot via Mobile App.

We will closely communicate with the FVAP and wait for an approval if there are any planned change(s) in the above schedule.

4. Reports:

We will provide the following live, weekly, monthly and closing reports.

4.1. Live On-Demand Reports and Statistics

- Number of new requests for ballots pending
- Number of requests for ballots that have so far been approved
- Number of requests for ballots that have been rejected
- Total Number of requests for ballots that have been received, approved, rejected, or pending.
- Number of voters on the UOCAVA lists
- Voter Request Events
- Voter Access Ballot Events
- Voter Download Ballot Events
- Number of entrees on the UOCAVA list

From the voluntary voter Satisfaction Survey:

- Number of Satisfaction Surveys submitted
- Number and percentage of survey responders who reply that they are casting an absentee ballot for the first time
- Number and percentage of survey responders who reply that they found it convenient to obtain their ballots online
- Number and percentage of survey responders who reply that they would or would not like to obtain their ballots online in the future
- Number and percentage of survey responders who reply that this method of absentee voting was Very Satisfactory, OK, Somewhat Satisfactory, or Not Satisfactory

4.2. Weekly Report

Weekly report of Traffic Analytic related to Site Usage, Bounce Rate, Page Views, Direct Traffic, Referring Sites, Search Engines, Pages per visit, Average Time on site, New Visits, Countries (name & number and percentage of users), Average Time on Page, Exit percentage.

4.3. Monthly Report

Each month, the Project Managers will prepare a programmatic and financial progress report. Within two weeks after the end of the reporting period, the report will be delivered in hard copy or electronically by email. The report will be substantially in the following format:

(1) Executive Summary

(2) Project plan status and variance

(3) Budget status and variance

(4) Issues/risks identifying concerns that could impact completion of significant tasks or which might have material budget or timeline implications for any issues/risks identified, recommendations to resolve or mitigate the concern will be presented

Each month, the Project Managers will also prepare a status report. The status report will be delivered in hard copy or electronically by email. The report will be substantially in the following format:

(1) Executive Summary

(2) Summary of accomplishments from the preceding period

(3) Summary of activity planned for the upcoming period

(4) Issues/risks identifying concerns that could impact completion of significant tasks or which might have material budget or timeline implications for any issues/risks identified, recommendations to resolve or mitigate the concern will be presented

4.4. Final Report at Completion

- Total number of ballots requested on-line
- Total Help-desk requests
- Countries accessed
- Satisfaction levels
- Voter status
- Voter types
- Ballots mailed
- Ballots faxed
- Ballots emailed
- Ballots approved
- Ballots returned

5. Management Approach

We, the Department of Elections, City of Detroit, have decided to work with our contractor, Konnech Inc., to develop an Electronic Absentee System for Elections (EASE) for our UOCAVA voters.

5.1. Definition and Formalization of Our Strategic Goals

As the largest city in Michigan, our strategic goal is to use the EASE to change the image of Detroit's service to UOCAVA voters. The existing image is that the delay of ballot delivery and return causes most of the UOCAVA ballots to go uncounted. Many of our UOCAVA citizens are not even trying to register and to apply for ballots due to the poor image of Michigan and Detroit with late ballot delivery and with many uncounted ballots due to the missing of the deadline.

Using the technologies of the EASE, we aim to increase our registration and ballot requests (FPCAs) 29% from the general UOCAVA request rate, as well as provisional FWABs as hedges against return of full ballots. These goals are targeted for the 2012 General Election. We also aim to reduce both our ballot delivery and return failure rates 50% from the general UOCAVA failure rate. We design our goal with these facts in mind. The first is the high percentage of our UOCAVA voters who historically are not participating in voting. The initial stage funding from the FVAP will help us to communicate with our voters better.

Michigan requires absentee voters to have their signatures on all stages of their registration, ballot requests, and ballot returns. It creates a bottleneck for our UOCAVA voters since a printer and scanner is required for signing their signature onto the form and then returning by email. In addition, many of our warriors do not have regular access to Internet connected computers. We wish to test Konnech's Mobile App as an alternative access interface for our voters. The Mobile App should enhance our registration and ballot request another 50%, and reduce our failure rate of ballot delivery and return 100%. Since wireless phone voting is a totally new concept, risk and reliability are main concerns. We will organize a Risk Assessment project with the University of South Alabama. Therefore, this grant is to build up the database and basic applications for both the city administration and UOCAVA voters. The Mobile App is strictly an add-on to provide Smartphone access to the EASE using iPhone or Android powered phone sets.

In the final stage, we will present our experience as a showcase; presenting our testing results to the cities and townships in Michigan so all jurisdictions can benefit. Once all jurisdictions see the positive results from Detroit, more jurisdictions will use the EASE. Once there are a group of EASE using jurisdictions and UOCAVA users, there will be an unstoppable trend to improve the UOCAVA voting in Michigan and even the whole nation.

5.2. Analysis and Measurement of Current Processes;

5.2.1. Detroit Image Change Related to UOCAVA Ballot Service

One method is to use the technologies to make some changes in serving our UOCAVA voters. The poor image is due to many factors and years of lack of participation from UOCAVA voters. We have to overcome the image issues one by one within the boundary of state laws and regulations. The new technologies have

been presented by an innovative local company with a long term affordable price. We want to join the trend of cutting costs while improving our service by using advanced technologies. The end measurement of this image change will be overall improvement of our UOCAVA voters' and election staff's satisfaction.

5.2.2. Provide Easier Way to Request Full Ballot

We will provide additional ballot-request avenues for our UOCAVA voters. In addition to current mail or fax, our EASE will allow our voters to submit the FPCA and FWAB using their Internet connected computer. A measurable improvement will be the time savings for our UOCAVA voters and our staff processing time of each received ballot. We anticipate over 50% of time saving minimum for our voters and 20% time saving for our staff. Our voters will submit both their FPCAs and FWABs within 15 minutes. Our staff will receive a crystal clear image of the FPCA and FWAB every time. Now, many of the mailed and faxed images are hard to read.

5.2.3. Track Voters' Paper Ballot Request/Delivery

Our UOCAVA voters will be able to log on their EASE to check the status of their ballot request and the shipping status of their full paper ballots. This will be a totally new service.

5.2.4. Provide Better Way to Deliver Blank Ballot

Michigan allows our UOCAVA voters to receive ballots online. The qualified voter will log onto the EASE to mark the full ballot, sign, print and mail their marked ballot back. This has never been done before. Therefore, the EASE makes it a totally brand new service.

5.2.5. Test the Technologies for Michigan

Our strategic goals are to find the industry expert in EASE business with an approved track record with the city, and experience in the election industry. Konnech, one of our current vendors, provided the EVSW service for FVAP to 3 states in 2010, and an election logistic management system for Detroit for the past 3 years.

We are the only city in Michigan with this kind of project. Our final measurements for this project are these pilot project results and reports, which are critical for most jurisdictions in Michigan.

5.3. Identification of Each Process and the Related Elements

5.3.1. Easy Ballot Request or FPCA & FWAB Submission

Most of the information is the same in both FPCA and FWAB. Voters are required to submit their FPCA each year to be qualified as the UOCAVA voters. FWAB can be also submitted for the coming election with their federal and state write-in candidates. Michigan's new election law allows the voters to submit their name, resident address and signature online to apply for their absentee ballot.

The processing transparency will enhance the voters' participation. In addition to the prior EVSW online version, the voters can also check the following information through the new EASE:

- My Ballot Application Status
- My Paper Ballot Delivery Status
- My Polling Location
- My Help Contacts

5.3.2. Easy Blank Ballot Delivery

We are required to transmit the ballot 45 days in advance of the election. Michigan has a short window. Therefore, the online delivery becomes critical. The steps are:

- Gather UOCAVA contact information
- Initial communication related to voter qualification as UOCAVA voter
- Notification of blank ballot delivery based on voters' request of delivery method
- Availability of delivery status

5.3.3. Easy Ballot Return

EASE will help us to have close communications with our voters. It is critical for our UOCAVA voters since there is a shorter return period for their marked ballot.

- Updated ballot return instructions
- Ballot receiving scanning
- Automatic posting of ballot received status in EASE
- Report reviewing to improve future operation

5.3.4. Better Quality of Cast Ballot

Most of the information is the same in both FPCA and FWAB. Voters are required to submit their FPCA each year to be qualified as the UOCAVA voters. FWAB can be also submitted for the coming election with their federal and state write-in candidates. Michigan's new election law allows the voters to submit their name, resident address and signature online to apply for their absentee ballot.

5.3.5. Project Management Methodology

Close communications with a technology partner is more effective than hierarchy, collaboration is more effective than debate, seamless software is more effective than complex documentation, and flexibility in adapting to changing circumstances is more effective than rigid blueprints. We have discovered that in working with our vendor in the past. We know that in addition to meeting the minimum requirements, they will provide the most useful tools, which will enhance the program and add to overall value.

Konnech uses an Agile Project Methodology known as SCRUM to engineer its projects because there's a fairly high incidence of changing needs that require flexibility to redesign the programs. Agile as a software development methodology is fast becoming a popular approach due to its ability to react to business changes.

SCRUM divides the project into three major divisions: planning and system architecture, sprints, and closure.

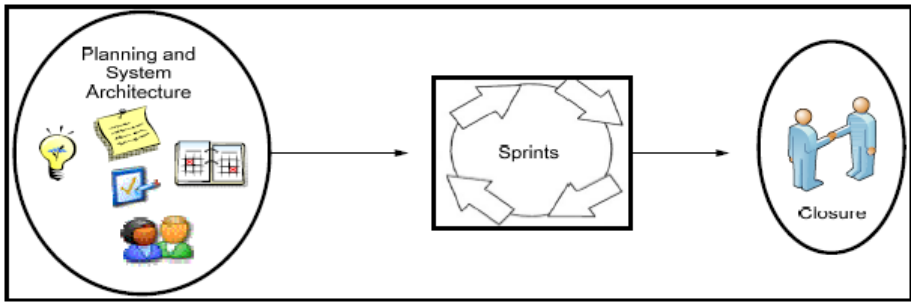
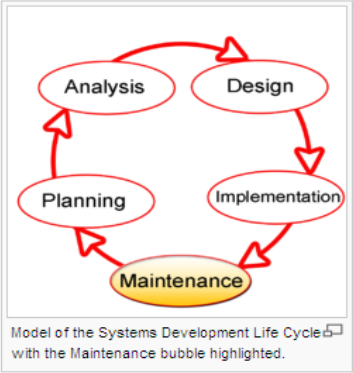


Exhibit 2

In the planning and system architecture division, we research the special needs and requirements of the end users and design the architecture; these are 15 to 30 day cycles using small cross functional teams to deliver shippable software sections; and closure includes the installation, training, and acceptance of the completed project.

Ideally, every sprint will include each element of the SDLC (Systems Development Life Cycle) process shown in the right Exhibit 3.



Model of the Systems Development Life Cycle with the Maintenance bubble highlighted.

For this project, Konnech's project manager would meet with the city users involved with the tool usage to compare the look and feel of our existing product or new testing tools to the idealized version as envisioned by the FVAP. We would collect samples of the data to be uploaded, the current databases, the finished ballots, etc. This research and fact-finding is absolutely critical to successful project completion.

We would then divide the software coding into manageable sprints. Each sprint would include phone conferences with Webinars, analysis of the information, design of the changes, and layout of the redesigned product on a web based prototype site, feedback, and revision.

After the confirmation from the end users with that sprint, we can install it on an actual test site.

5.3.6. Steps to Build the EASE

We will go through the following steps to build up our EASE.

- Teleconferences
- Establish SharePoint Server for Content Management
- View the prototype
- Comment on prototype
- Fact finding

- Draw up edited prototype
- Reach agreement on edited prototype
- Build testing sites
- Test testing sites
- Build actual sites
- Launch actual sites

5.4. Identification of Potential Risks and Mitigating Strategies

There are 2 testing labs, which have just finished their security test for Konnech's EVSW. The new version of EASE will incorporate all good feedback from the test. The vendor is willing to work with us for additional testing during the implementation of this EASE by the security team from University of South Alabama.

5.4.1. Voter Interfaces Exposure

The voter interfaces are open-target since it is open to the public. Hackers could try to attack the EASE server through the voter interfaces for voters' private data mining, contact information changing, candidate name fixing within the FWAB write-in form, or virus injection. A successful attack would cause major damage to our election.
Besides using the conventional methods of preventions like SSL, encryption data, we also use the same in-house developed software to protect the database.

During the penetration test provided by one of FVAP funded testing labs, the attacker successfully passed the Cisco firewall, Symantec software firewall, and tried to control the server. Our anti-attack software promptly found the attacking behavior and successfully stopped the attacker.

5.4.2. Administration Console Exposure

Beside the application software hack prevention, SSL is used to protect data while it is in transmission. In addition, the encryption of data in transmission and in the servers is also important. The encryption has to be in compliance with NIST FIPS certification.

In addition, we have built up fixed IP access for the city. For remote use, there is a USB key with additional security for access. Without public access, the risk should be dramatically reduced.

5.5. Formalization of Performance Indicators

5.5.1. Ballot Application Increase Rate

We have had General Election in past 3 years with the following UOCAVA requests.

	2010	2009	2008
Military	84	7	1,250
Overseas Civilian	38	3	586
Total	**122**	**10**	**1,836**

Our goal is to increase the UOCAVA voter ballot application by 50%, which means that there will be 918 more potential voters for the 2012 General Elections.

5.5.2. Marked Ballot Return Rate

We have the history data of total absentee ballots mailed and returned by deadline for our general population.

	2010	2009	2008
Total Absentee Ballot Issued	49,117	46,544	81,396
Ballot Returned by Deadline	44,739	41,829	78,563
Return Ratio	**91.1%**	**89.9%**	**96.5%**

We have not collected the information just for UOCAVA voters for their returned ballots. The grant funding will allow us to collect the UOCAVA return data and to improve our tracking and service of our UOCAVA voters.

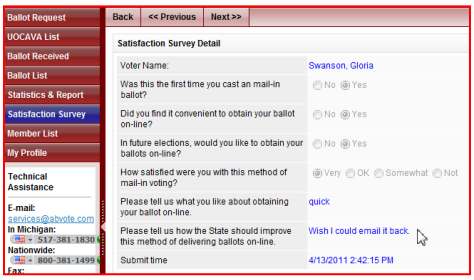
5.6. Justification for the Modification

Detroit is an American bench-mark city with the hope of recovery in its local economy. With the grant supported improvement in election technologies, our department should be able to show our UOCAVA voters that we listen to their concerns and needs. We should be able to provide as good of service as any other jurisdiction in the entire country. This EASE presents us with one of these opportunities.

5.7. Projections of the Effectiveness of Modifications

5.7.1. UOCAVA Voters' Satisfaction Survey

We will program a satisfaction survey into our EASE so our EASE users can give us their feedback to help us to improve our service over years.



5.7.2. Election Staff's Performance Improvement

Due to the city budget issue, we could not increase our staffs to deal with more absentee voters in general. In fact, in 2010 we had to cut the staff by 33%. Therefore, we must rely on technology as our solution to improve our staff's productivity while maintaining their job satisfaction levels.

5.7.3. Real Time UOCAVA Management and Better Reporting

In the past, we could not separate the UOCAVA ballot return and delivery failure rate from the general population. With this project, we should be able to collect the data in real-time. More detailed reports can be generated in just a few clicks of a mouse button.

5.8. Measurements of Performance

The measurement of our performance can be the higher voter registration and ballot requests. We anticipate the EASE should increase our ballot requests in 2012 General Election to 50% over 2008 General Election level, which will be at least 918 more UOCAVA voters.

In addition, we want to add the Mobile App for iPhone/iPad and Google Android powered smart phones to our EASE so our UOCAVA voters can access their ballot through both the Internet connected computer and/or their Smartphone. For our city staffs, they will use only one set of administrative console to manage all phases of the UPCAVA voting process effectively and efficiently.

By using this cutting edge technology first in the country, we will focus our study of the systems stability, expandability and security in the first 3 months. Once the quick test has provided successfully, we will use the new tools for our 2012 primary and general election. No matter if the real usage proves to be successful or failure, we will publish our studies so everyone in the county can learn from our mistakes.

It is going to be an exciting project. We look forward to having your support to start this critical project for our city.

6. Current and Pending Project Proposal Submissions:

6.1. Related or Complementary Proposal Submission 1

- Title of Proposal and Summary;
  Title: *Detroit EASE Mobile App Project*
  Summary:
  We, the City of Detroit, Department of Elections, want to test an Electronic Voting System Wizard (EVSW) Mobile App solution from Konnech Inc. for the coming 2012 elections. Konnech is one of our current vendors providing us Poll Location Management and Poll Worker Management Solutions since 2008. As a 2010 FVAP EVSW winner, Konnech understands the challenges of absentee voting, which includes the UOCAVA voting. They have developed the lab-testing version of a smart phone Mobile App, which they demonstrated to FVAP in Arlington, Virginia on May 2, 2011. It has the following features, which enhance the EVSW online voter access dramatically:
    - *Use the mobile phone screen as the signature pad so voters do not need to print and then scan the document to email the marked ballot.*
    - *The Mobile App creates a secured storage space so personal data can be reused for FPCA, FWAB and ballot submission for coming election(s).*

  Many more unique features of the Mobile App are discussed within our proposal.

  There will be 142.8 million smart phone users in the USA and 449 million globally by the end of 2011. Owners use their smart phones 4.6 hours a day on average. Most US uniformed personnel have a smart phone in their hands. The total downloads from mobile app stores will reach 17.7 billion in 2011. We believe that Konnech's Mobile App for EVSW could improve UOCAVA voter access and ballot return dramatically. If used by all States, hundred thousands more UOCAVA ballots would be counted for each of the coming elections in 2012.
    - *It gets the right ballots to and from the voters quicker than any other previous method.*
    - *Once the risks are well-assessed and well-tested, more jurisdictions will adopt it. It will open the flood gate of ballot requests from UOCAVA voters.*
    - *The effectiveness and low cost will assist States to change laws to comply with the MOVE Act.*

  Security is our main concern in using the mobile device to conduct elections. Extensive and exhaustive testing and risk analysis by both internal and an expert team are needed. We ask for FVAP funding to do the following:
    - *Build up our city testing environment for EVSW Mobile App*
    - *Run a Mock Election with at least 1,000 overseas US citizens*
    - *Conduct Risk Analysis*
      - *Server hardware and software NIST FIPS compliance test*
      - *Mobile User Interface (UI) security and personal data safety tests*
      - *To assist a third party to conduct the Risk Assessment Test*

To have a better control of grant funding and security firewall between internal and external testing, we are submitting 3 grants. One is for EASE. The second is this grant for the EASE Mobile App. The last one is for Risk Assessment. The first and second grants will be subcontracted with Konnech Inc. The last one will be with the University of South Alabama.

- source and amount of funding (annual direct costs; provide contract and/or grant numbers for current contracts/grants); ***Another grant proposal submitted to FVAP (BAA number: HQ0034-FVAP-11-BAA-0001) (pending)***

- percentage effort devoted to each project; ***100%***

- identity of prime applicant and complete list of subcontractors, if applicable;
  Primary Applicant: City of Detroit
  Subcontractor: Konnech Inc.

- technical contact (name, address, phone/fax, and email address);
  Kelly Neuder
  4211 Okemos Road, Suite 3 & 4
  Okemos, MI 48864
  517.381.1830
  Fax: 877.301.0793
  Kelly@konnech.com

- period of performance;
  From September 1 to December 31, 2011

- proposed project and all other projects or activities requiring a portion of time of the senior personnel must be included, even if they receive no salary from the project(s);
  25% Kimberly Wallace

- award period and amount including indirect costs as well as the number of person-months or labor hours that are to be devoted to the project(s), regardless of support; and
  Award Period: From September 1 to December 31, 2011
  Grant Proposed Amount: *$396,065*

- how projects are related to the proposed effort and indicate the degree of overlap.
  This grant is to build up the EASE Mobile Application (Mobile App), which will be accessed by only by voters. Another related grant is to build up the EASE so the Smartphone users can also access the voter's interfaces through Internet connected computer in addition to their Smartphone. There is no overlap for the city administrator database and control console. Another grant will fund our partnership with University of South Alabama to assess the risks for both the EASE and its Mobile App. The risk assessment grant is based on the successful funding of the EASE and it Mobile App grants.

6.2. Related or Complementary Proposal Submission 2

- Title of Proposal and Summary;
  Title: *Electronic Absentee Voting Risk Assessment: Comparing Mail-in to Online Plus Mobile Device Balloting*
  Summary:
  Electronic alternatives, including online voting and voting with mobile devices, are now available that promise to make absentee voting more efficient and effective. Electronic voting alternatives are particularly attractive for overseas citizens and military personnel that have no other choice than by mail. Electronic voting system components, including support for online voting and voting with mobile add-ons, are currently under consideration for use in Detroit, Michigan. These electronic alternatives offer potential to enfranchise Military and Overseas voters in Detroit and across the United States. With any change, however, comes risk.

  Electronic absentee system components, while clearly advantageous in terms of the ability to deliver the vote in a more timely way, and with fewer ballots lost or arriving late, nevertheless introduces new threats. Electronic voting systems are subject to cyber attacks, malware intrusions, technical failures, and user error. Some electronic voting alternatives, particularly precinct-based optical scanners and direct record electronic machines, have been used for a number of years, and the risks are well understood. Other technology alternatives, such as web-based online voting, and voting with mobile devices, are much newer and pose a variety of risks. An understanding of these risks is a necessary and important part of the process of new technology evaluation.
  In this project, we propose to apply novel risk management methods to perform a comparative risk assessment of absentee voting alternatives for the City of Detroit using a risk assessment process created for the United States Election Assistance Commission (EAC). Our approach relies on the skills of independent experts and a spreadsheet-based simulation tool to compare election operations risks for the current absentee vote-by-mail system against the electronic options under consideration.

- source and amount of funding (annual direct costs; provide contract and/or grant numbers for current contracts/grants); ***Another grant proposal submitted to FVAP (BAA number: HQ0034-FVAP-11-BAA-0001) (pending)***

- percentage effort devoted to each project; ***100%***

- identity of prime applicant and complete list of subcontractors, if applicable;
  Primary Applicant: City of Detroit
  Subcontractor: University of South Alabama

- technical contact (name, address, phone/fax, and email address);
  Dr. Jeff Landry
  University of South Alabama
  307 University Blvd, North
  Mobile, Alabama 36688

jlandry@usouthal.edu
251.461.1596

- period of performance;

  September 1, 2011 through September 30, 2012

- proposed project and all other projects or activities requiring a portion of time of the senior personnel must be included, even if they receive no salary from the project(s);

  10% Kimberly Wallace

- award period and amount including indirect costs as well as the number of person-months or labor hours that are to be devoted to the project(s), regardless of support; and

  Award Period: *September 1, 2011 through September 30, 2012*

  Grant Proposed Amount: *$119,070*

- how projects are related to the proposed effort and indicate the degree of overlap.
  Risks of wireless voting system are not well-known in the election industry. This pilot project will be a good learning process for the industry as whole. It is to protect the health growth of the wireless voting technology to secure the voting process of US and to speed up the process of digital voting, which will overcome these key bottleneck issues like ballot delivery and return securely and reliably.

7. Qualifications

Qualifications of Our Key Personnel for This Project

Kimberly Wallace, City Project Manager, obtained both Master of Science (Computer Information System) and Bachelor of Science (Computer Information System) degrees from University of Detroit Mercy, Detroit, Michigan in 1999 and in 1996. Since then, she is certified with the followings:

- Microsoft Office User Specialist: 2003, XP, 2000, 97
- Microsoft Certified Technology Specialist – SQL Server
- Microsoft Certified Professional
- CompTIA Network+ Certified Professional
- CompTIA A+ Certified Service Professional
- International Business Administration
- UNIX O/S & C Programming
- EDUCATION AND TRAINING

Currently, she is the Computer Systems Support Manager for the Department of Elections, City of Detroit. She supervise, plan and direct the various activities of data processing, network and telecommunications, which include all computer operations, programming and systems development. Coordinate the various data processing and communication needs in the most efficient and timely manner. Work is of a complex technical nature, involving a great deal of creativity, perception and initiative as well as a high level of independent judgment. She is a computer Professional with over thirteen years experience providing technical training and assistance to business

professionals and students, demonstrated ability to integrate computer skills, customer support experience, project management and related education to exceed technical, business, and customer requirements, and is skilled at troubleshooting and fixing problems while, minimizing customer stress levels.

Eugene Yu, our project manager, obtained his MBA degree in 1988 from the Babcock Graduate School of Management of Wake Forest University, and his BS degree from Zhejiang University, P.R. China in 1982, one of the best engineering schools in China. He was a member of BICSI with extensive experience in server room design, installation and web hosting service as a Microsoft Hosting Service Partners' technical contact for Konnech. He completed the IT project management course at Lansing Community College in 2008. He has led the team to finish several large online web application suites for the election industry and in school districts, including the EASE project with FVAP for 3 States in 2010. From his 20 years experience in technology and management, he is well-qualified to lead his team to successfully accomplish this FVAP Data Migration Tool mission.

Anne Wang is our Technical Manager with a Master Degree in Information Science from the University of South Florida, Tampa, FL and Associate Degree of Computer Support from Lansing Community College, Lansing, Michigan. She is certified with Microsoft Application Software Training, CompTIA A+ Certificate Training. Since 2005, she has organized her programmer team to finish a number of large projects in the election and educational industries for Konnech.

Heather Zeng, Documentation Manager, has a Master Degree of Computer Science from the HuaZhong University of Science and Technology, Wuhan, P.R. China, and taken the C# and SQL programming courses in Lansing Community College in 2005. She develops training material, prepares user manuals, and upgrades test manuals for ABVote state and county users and PollChief® city and county users.

Kelly Neuder, Support Manager, has her Bachelor of Arts in Communication from Michigan State University. Since 2008, she has been working at Konnech providing customer service and support to the Department of Elections, City of Detroit and Leon County, Florida starting in 2009, and the ES&S project in 2010. She has managed project planning, overseen website production, ensured quality control, conducted alpha testing, managed beta testing, operated three database systems, interfaced between users and product engineers, created page designs using Hypersnap 6 and Visio, trained users, provided help desk support, demonstrated help desk, written instruction documents. She will lead the FVAP project if we are awarded this contract.

Laura Potter, Business Development Manager/Account Manager, has extensive customer service experience. She researches and analyzes election industry activities, coordinates election demonstration projects and oversees marketing. She successfully completed our PollChief project with Leon County, Florida in 2009, and our last project with the FVAP by coordinating all activities with the FVAP, BTA, states,

counties, and voting equipment vendors smoothly in addition to the activities with ES&S and jurisdictions in 2010. She has the expertise in communications needed to have our project well-planned and coordinated with outside parties.

Resume - Kimberly Wallace

[redacted]

SUMMARY

Computer Professional with over thirteen years experience providing technical training and assistance to business professionals and students. Demonstrated ability to integrate computer skills, customer support experience, project management and related education to exceed technical, business, and customer requirements. Skilled at troubleshooting and fixing problems while, minimizing customer stress levels. Professionally certified by CompTIA and Microsoft.

SKILLS

□ Technical Training	□ Help Desk Operations	□ Project Management
□ Desktop Systems	□ Customer Service	□ Preventative Maintenance
□ System Tuning	□ Analysis	□ Component Repair
□ Microsoft Windows	□ Microsoft Office	□ Microsoft Networking

EXPERIENCE

CITY OF DETROIT/DEPT OF ELECTIONS, Detroit, MI 2007 - Present

Computer Systems Support - Manager

Supervise, plan and direct the various activities of data processing, network and telecommunications, which include all computer/PBX operations, programming and systems development. Coordinate the various data processing and communication needs in the most efficient and timely manner. Work is of a complex technical nature, involving a great deal of creativity, perception and initiative as well as a high level of independent judgment.

- Program Local Municipal Elections
- Perform Diagnostic on various election equipment
- Update and maintain the Dept of Election website
- Participate in the selection of new colleagues.
- Train, develop and evaluate colleagues.
- Develop overall strategy related to the design, implementation, operation, and security of computers, networks and telecommunication systems.
- Direct colleagues in the planning of work schedules and maintenance of operations.
- Establish and maintain work standards, methods and procedures.
- Assist in the selection of hardware and software for information, network and communication systems.
- Report to management on progress of developments.
- Direct establishment of user training in relation to computer/communication systems.
- Ensure implementation of and adherence to local security procedures.

- Regular contact with others outside the work group to coordinate computer, network, and communication system needs.

WAYNE COUNTY COMMUNITY COLLGE DISTRICT, Detroit, MI 2007 - Present

Distance Learning Instructor

Developed and delivered online training to prepare students for a degree/career in Computer Information Systems via Blackboard. Rendered instructions on a diverse range of Information Technology subject matters including:

- Internet Business
- Site Development
- Network Technology

Part-time Instructor

Lecture students to cultivate skills to create, present, and collaborate on professional presentations by using Microsoft PowerPoint software, as a visual communication tool, to create remarkable presentations with enhanced multimedia capabilities.

FOCUS:HOPE INFORMATION TECHNOLOGIES CENTER, Detroit, MI 1999 - Present

LEAD P.C. Technician Instructor

Managed instructors, teacher assistants and students enrolled in P.C. Technology courses. Assisted system administrator with hardware and software problems, provided troubleshooting, and owned desktop and network issues to resolution. Perform maintenance of computer lab PC's and peripheral equipment. Identify problems and provide appropriate solutions. Install operating systems and applications and facilitated new hire classes, technical training demonstrations as well as corporate training.

- Built, maintained, and repaired computer systems to improve speed, reliability, and efficiency of operation.
- Prototyped system upgrades to identify potential problems and learned to operate and troubleshoot new systems.
- Analyzed frequent problems or potential conflicts and consulted with Training Staff and System Administrator to design and implement a solution in order to address the concerns.
- Demonstrated high quality, results-driven, prompt, and professional technical service and support to instill confidence in technical advice and directions.
- Reduced stress levels of management by adopting a cooperative attitude and positive approach to every task and assignment.
- Manage projects for fundraising efforts and student exposure for possible internship opportunities
- Organize Monthly Mentor group between students and Ford Motor Company professional
- Earned recognition from CompTIA for leading an entire class to 100% CompTIA A+ Certified.

PARSER I.T. PROVIDER, Warren, MI 2000 - 2001

Technical Consultant (Lead Deployment Specialist)

Lead a diverse group in the deployment of a new Desktop launch for St. John Hospital and its subsidiaries. Required the evaluation of current hardware and upgrade, retire or acquire new hardware to meet clients and system specifications.

- Loaded the 2000 core desktop image for several end-users
- Performed BIOS flash after hardware installations
- Executed quality testing
- Confirm user log-ins, drive mappings and accessibility of resource

AIRTOUCH WIRELESS COMMUNICATIONS, Southfield, MI 1998 - 1999
Network Analysis
Maintain the integrity of the cellular network for the Great lake region and Northern Ohio. Used several different applications and ran customized scripts to manipulate the imported data from several switches throughout the network.

- Analyzed the data from multiple switches to determine the performance of the cellular network
- Created queries to evaluate data imported from switches for possible problems.
- Liaised between customer operations and engineering group to disseminate technical information and customer concerns
- Facilitated technical/informative meetings for departmental and regional managers
- Trained marketing team and sales reps on the usage of new handset equipment

Technical Knowledge

Operating Systems: Windows2003, Windows XP Pro, Windows2000, NT Server, Windows 95&98, Novell 5.1, Novell ZEN, MS DOS 6.X, UNIX SCO.
Computer Languages: Visual C++, HTML, Perl, Pascal, COBOL, FORTRAN, and UNIX Shell Scripts.
Utilities/Application: Virtual Machine, Norton Ghost, Norton Anti-Virus, MS Office, Fox Pro, NetG, Corel Suite, Rbase 4.0, Exchange 5.5,Lotus Notes, Outlook.
Hardware Installations: Hard Drives, CD-ROMs, Network Cards, RAM, Floppy drives, SCSI controllers, Sound Cards, Printers, and Modems, USB devices.

EDUCATION AND TRAINING

University of Detroit Mercy, Detroit, Michigan
Master of Science (Computer Information System), 1999

University of Detroit Mercy, Detroit, Michigan
Bachelor of Science (Computer Information System), 1996

Wayne County Community College, Detroit, Michigan
Associate of Applied Science (Computer Information System), 1994

CERTIFICATIONS

Microsoft Office User Specialist: 2003, XP, 2000, 97

Microsoft Certified Technology Specialist
Microsoft Certified Professional
CompTIA Network+ Certified Professional
CompTIA A+ Certified Service Professional
International Business Administration
UNIX O/S & C Programming

Volume 2 - Budget Proposal
Detroit Electronic Absentee System for Elections (EASE)

1) Catalog of Federal Domestic Assistance Number: 12.217

2) **BAA number: HQ0034-FVAP-11-BAA-0001**

3) **Title of Proposal:** Detroit Electronic Absentee System for Elections (EASE)

4) **CAGE Code**: [redacted] **and DUNs Number**: [redacted]

5) **Applicant:**
Department of Elections
City of Detroit
2978 W. Grand Blvd
Detroit, MI 48202

Subcontractor: Konnech Inc.
CAGE Code: [redacted] and **DUNs Number**: [redacted]

6) Technical contact:
Kelly Neuder
Konnech Inc.
4211 Okemos, Okemos, MI 48864
(517) 381-1830
Fax: (877) 301-0793
Kelly@konnech.com

7) Administrative/ business contact:
Gina C. Avery
Department of Elections
City of Detroit
2978 W. Grand Blvd
Detroit, MI 48202
(313) 876-0221
FAX: (313) 876-0053
averyg@detroitmi.gov

8) Proposed period of performance
From September 1, 2011 to November 31, 2012

II. Budget Proposal – July 1, 2011

Table of Contents

1. Itemized Budget:

The itemized budget contains a detailed list of the following:

1.1. Direct Labor:

None

1.2. Administrative and clerical labor:

None

1.3. Fringe Benefits and Indirect Costs (F&A, Overhead, G&A, etc.):

None

1.4. Travel:

None

1.5. Subcontracts/sub awards:

Attached below please find the subcontract items in the detail.

1.5.1. Contractor Direct Labor:

Contracted Labor Categories	Rate	Hours
Co-Project Manager	$195	51
Technical Manager	$175	45
Documentation Manager	$150	69
Developer 1	$150	69
Developer 2	$150	107
Tester 1	$125	91
Tester 2	$125	77
Project Coordinator	$75	125

1.5.2. Contractor Administrative and clerical labor:

None

1.5.3. Contractor Fringe Benefits and Indirect Costs (F&A, Overhead, G&A, etc.):

Labor Categories	TOTAL WAGES	FICA (7.65%)	MESC (2.4%)	WORKERS' COMP (1%)	TOTAL
City Project Manager	0	0	0	0	$0
Co-Project Manager	9,945	761	239	99	$11,044
Technical Manager	7,875	602	189	79	$8,745
Documentation Manager	10,350	792	248	104	$11,494
Developer 1	10,350	792	248	104	$11,494
Developer 2	16,050	1,228	385	161	$17,824
Tester 1	11,375	870	273	114	$12,632
Tester 2	9,625	736	231	96	$10,689
Project Coordinator	9,375	717	225	94	$10,411

Total	**84,945**	**$6,498**	**$2,039**	**$849**	**$94,331**

1.5.4. Contractor Travel:

Item Name	Detail	Total
Staffs Mileage	100 mi x .51/mile x 15 mo	$765
Webinar & Conference	57 mo x 15	$855
Air fare & Taxi	900 (1 trips and 2 staffs)	$1,800
Meals & Lodging (2 staff)	$182/day x 2 nights x 2 staffs	$728
Meals on travel days	53.25/day x 4 days	$213
		$4,361

Webinar and online conference calls are the main tools to reduce the travel cost. We have planed frequent trip to our leased telecomm data center at Lansing by car, and 1 trip to Arlington by 2 persons for a meeting at DC.

1.5.5. Contractor Subcontracts/sub awards:

None

1.5.6. Contractor Consultants:

Unless separately identified in the prime contractor's proposal, provide a breakdown of the consultant's hours, the hourly rate proposed, and any other proposed consultant costs, a copy of the signed Consulting Agreement or other documentation supporting the proposed consultant rate/cost, and a copy of the consultant's proposed statement of work.
None

1.5.7. Contractor Materials and Supplies:

Provide an itemized list of all proposed materials and supplies including quantities, unit prices, proposed vendors (if known), and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).

Item Name	Detail	Total
Envelopes, Pens, Paper, Folders, etc.	10/month x 15 months	$150
Postage	10/month x 15 months	$150
		$300

1.5.8. Contractor Other Direct Costs:

Provide an itemized list of all other proposed other direct costs such as contractors, equipment rental/user fees, report and publication costs, and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).

The key part of this grant proposal is to build up the EASE hardware and software so we can also add EASE Mobile App, which is a piece of software available for Smartphone users to down load from Apple Store, Google MarketPlace and our city's web site. The UOCAVA voters can use either Internet connected computer or their Smartphone using Mobile App to do online or mobile voting.

Item Name	Detail	Total
Telecomm Data Center Space Rent	$2000/mo x 10% x 15 months	$3,000
Facilities utilities	$500 mo x 10% x 15	$750
Facilities insurance	$100 mo x 10% x 15	$150
Facilities Cable & Internet	$150 mo * 10% x 10	$225
Other Staff Development	60*3	$180
Total In-Kind for Whole Project	2% of Total Project Cost	$5,427
		9,732

Hardware	Unit	Amount
• Dell™ PowerEdge™ R510 servers with Intel® Xeon® Processors E5563 series	2	$19,460
• Dell PowerEdge R910 rack servers with Intel Xeon Processors 7560	3	$65,151
• Cisco™ 7200 VXR Routers	1	$10,000
• SonicWALL® E-Class Network	1	$28,822
Software		
• Checkpoint® Firewall Software Blade	1	$3,000
• McAfee® Total Protection/ePolicy	1	$150
• Microsoft® SQL Server® 2008	2	$39,318
• Symantec™ Backup Exec 12 (included in Dell's Hardware Quotation)		$0
• Windows Server® 2008 R2 Enterprise (included in Dell's Hardware Quotation)		$0
	Total	**$165,901**

2 R510 and 2 R910 will be used to build a cluster server at the telecomm data center. Another R910 will be installed at a remote data center, which will be mirrored to telecomm data center cluster server.

1.6. Consultants:

Unless separately identified in the prime contractor's proposal, provide a breakdown of the consultant's hours, the hourly rate proposed, and any other proposed consultant costs, a copy of the signed Consulting Agreement or other documentation supporting the proposed consultant rate/cost, and a copy of the consultant's proposed statement of work.

None

1.7. Materials and Supplies:

Provide an itemized list of all proposed materials and supplies including quantities, unit prices, proposed vendors (if known), and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).

None

1.8. Other Direct Costs:

Provide an itemized list of all other proposed other direct costs such as contractors, equipment rental/user fees, report and publication costs, and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).
None

2. The Return on Investment (ROI) Analysis

2.1. ROI Analysis Related to Information Inquiries

Detroit currently does not keep record of any inquiries related to the UOCAVA only. This grant will help us to establish a tool to track the inquiries closely in real-time fashion.

2.2. ROI Analysis Related to Additional Registrations

We are confident that the new tool will help us to double our current UOCAVA voter registration. Currently, we do not have a tool to separate the UOCAVA voters from the others. This tool will offer us the opportunity to do so.

2.3. ROI Analysis Related to Absentee Ballot Applications

In 2008 General Election, we had 1,836 UOCAVA ballot applications. We plan to at least increase our application by 55%, which would be 1,000 more applications.

2.4. ROI Analysis Related to Ballot Transmissions

We currently do not keep track of the transmission of our ballot. There is no tool for the voters to report that they never received the mailed paper ballot. The new tool will help us to build up web based status of registration, ballot request, and city ballot delivery. If the paper ballot is not sent on-time or the online ballot was not downloadable, the new too will make it much easier to contact us. Therefore, any human failure of ballot transmissions can be eliminated.

2.5. ROI Analysis Related to Ballot Markings

Online marking is not available currently to our voters. This new tool will make it possible. This funding will help us to solve this bottleneck problem and should help us to increase the UOCAVA ballot quality dramatically so more returned ballots will be counted.

2.6. ROI Analysis Related to Ballot Returns

The ballot return failure is the most problematic issue for us. Since we do not have a system to track all the steps above, the failure rate of the ballot returning is unknown. We can assume that it is high and should be dramatically improved by our new EASE. It can be further improved if the Mobile App can solve the ballot signature and email back issues on one device, a Smartphone.

We think that we are piloting a project for our nation. The EASE with Mobile App is an innovative idea at the right time and place. Let us assume that there are 6 million overseas

US citizens qualified as UOCAVA voters. Currently, there may be less than 2% of these voters voting. The potential for a Smartphone to push their participation to 10% is achievable within a few years, which would be 500,000 more UOCAVA voters voting.