2013 Professional Practices Program

iAPP - Accessibility through Innovation

Denver, CO

Submitted by:
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iAPP – iPad Accessibility Pilot Project

The iPad Accessibility Pilot Program (iAPP) implemented by the Denver Elections Division has provided voters with the option to use iPads as ballot marking devices. These devices enable voters with disabilities to mark and cast their ballots privately, in the comfort of their own Group Residential Facility (GRF). The Help America Vote Act, passed in 2002, requires that at polling places Direct Recording Equipment (DRE) machines be made available that are accessible for people with disabilities. Colorado law also requires that any group residential facility with more than seven mail ballot recipients have those ballots delivered by county election staff. The Denver Elections Division has combined these two requirements, by bringing iPads equipped with assistive technologies to group residential facilities. Using headphones, a voter can have the ballot read to them via the narrator function on the iPad, and simply tap anywhere on the screen in order to make a selection when they hear the name of the candidate they wish to choose. For the first time in Colorado, voters who are restricted to their home facility can vote privately and independently. The ballot is then printed and submitted into a ballot box transported by Denver Elections Division staff back to our office for counting. In addition to voting, the iPads have provided an opportunity for members of group residential facilities to update their voter registration information on the spot, and immediately be issued a ballot using the iAPP system.

The Help America Vote Act of 2002 (HAVA) requires that voters ‘with a full range of disabilities’ be provided equal opportunity to cast a ballot with privacy and independence. To date, that requirement has been met through the use of assistive technology deployed on hardware that is both unfamiliar to voters (not used in everyday life), and non-intuitive (requires considerable practice and instruction for use). While technically filling the requirement for HAVA, the current technology sees very little use by voters with disabilities in the Denver electorate, including those in group residential facilities. The existing technology was the best available option when purchased in 2006, but technology and the use of technology by persons with disabilities in everyday life has continued to evolve.

Additionally the Denver Elections Division needed a solution for updating voter registration records at the GRF and an immediate option for issuing a ballot to a voter. Previous to this program a voter who needed to register to vote or update their registration record would have to complete a Colorado Voter Service Center Information Form at the facility, an election judge would transport the form to the Elections Division, a voter registration specialist would process the form, and an election judge would at a later date take a ballot back to the GRF and the voter. Alternatively, the traditionally homebound voter would have to visit a Voter Service Center during hours of operation to update their registration and obtain a ballot.

A four person bi-partisan team of election judges travels to a group residential facility with mail ballots, iPads, printers and other election supplies in hand. Registered voters who have previously requested a mail ballot are given their ballot and offered the use of the iAPP system if they desire or need voting assistance. The mail ballot is surrendered to an election judge and a voter card is issued to track voting history. The voter is issued an iPad and logged in to the ballot marking site developed by Everyone Counts. The accessibility suite is customized for the voter depending on their specific need prior to ballot marking. The
voter marks their ballot, independent of assistance, prints their ballot to a portable printer conveniently placed next to the voter, puts their ballot in an envelope, and signs their voting affidavit. Election judges collect all voted ballots in a secure ballot box and return them to the Denver Elections Division for processing and counting. Due to the need of a portable printing device, the ballot is printed onto an 8 ½ x 11 piece of printing paper (see Attachment #1). This paper style does not run through the Sequoia counting system used by the Denver Elections Division so ballots returned by voters would have to be hand duplicated by election judges. In order to continue the efficiency of this new process, the Denver Elections Division utilized ballot transcription software provided by Runbeck Elections Services to automatically duplicate the ballot by reading the 2D barcode printed on the ballot with a hand barcode reader. The 2D barcode contains ballot marking data that is transmitted to a ballot on demand printer that prints an identical image of the ballot onto ballot cardstock that can then be run through ballot counting machines.

In the event a voter has recently moved to the group residential facility and hasn’t been able to update their registration, an election judge is able to update their registration record or provide emergency registration and immediately issue a ballot to the voter through the iAPP system. Previously the voter would be required to visit one of the Denver Elections Division Voter Service Centers during hours of operation, update their registration, and obtain a ballot. Alternatively, election judges previously would have had to take a Colorado Voter Service Center Voter Information Form back to the Denver Elections Division for processing and return to the group residential facility at a later date and time to give the voter their ballot. The iAPP system has greatly enhanced the customer service level to voters at GRF’s and greatly decreased the workload on Elections Division staff members.

The iPad Accessibility Pilot Project utilized online ballot marking software developed by Everyone Counts. The ballot marking system is accessed on an iPad 2 over a MiFi connection, and can be marked using the assistive technology inherit to the iPad. The assistive technology features a voice over system that reads the ballot to the voter, a pinch and zoom function that will magnify the ballot for easier viewing, immediate translation of the ballot in 36 different languages, as well as the obvious portability of the tablet that allows voters with varying physical disabilities to hold or position the iPad in a way that is most comfortable for them. Additionally the Denver Elections Division utilized Runbeck Election Services ballot transcriber software to automatically duplicate the voted ballot onto ballot cardstock that could be run through ballot counting systems at the Denver Elections Division.

The Denver Elections Division applied for and received over $25,000 in federal funding from the Help America Vote Act (HAVA). This project was developed and implemented at no cost to the Denver Elections Division. The HAVA funding received by the Denver Elections Division was used to purchase a fleet of iPads, portable printers, MiFi devices, the Everyone Counts eLect system, the Runbeck ballot transcriber software, and miscellaneous accessories to accompany the traveling Voter Service Center.

The iAPP project was wildly successful. Over 100 voters in two elections were able to mark their ballot privately in the comfort of their group residential facility for the first time ever in the City and County of Denver as well as the State of Colorado. Additionally, Elections Division staff members were able to update voter records and provide on the spot voting for residents who previously would have to leave their home to update their record and obtain a ballot. This low cost program has become a staple for those in group residential facilities in the City and County of Denver.

The Denver Elections Division continues to be a leader in the world of elections administration. The iAPP project is an example of a customer centric mentality combined with forward thinking and budget consciousness. Over 100 voters with varying disabilities were able to exercise their constitutional right to vote in the comfort of their group residential facility and privately without the assistance of an election judge. This program is one of the first of its kind in the nation and the first in the State of Colorado.
Attachment #1 – Sample Ballot

OFFICIAL BALLOT
CITY AND COUNTY OF DENVER
MUNICIPAL GENERAL RUNOFF ELECTION
TUESDAY, JUNE 7, 2011
BOLETA OFICIAL DE VOTACIÓN
CIUDAD Y CONDADO DE DENVER
ELECCIÓN GENERAL MUNICIPAL DE DESEMPATE
7 DE JUNIO DEL 2011

Ballot Style: 527
1330518527

Ballot Receipt Number: 43435906

CANDIDATOS - CANDIDATES

MAYOR ALCALDE
Michael Hancock
Chris Romer

CLERK AND RECORDER SECRETARIA Y REGISTRADOR
Debra Johnson
Sarah McCarthy

COUNCILMEMBER DISTRICT 8 CONCEJAL DEL DISTRITO 8
Albus Brooks
Will Assen

200 West 14th Ave., Suite 100, Denver, CO 80204  www.denvervotes.org
Phone: 720-913-VOTE (8683)  TTY: 720-913-8657  Fax: 720-913-8600
Some voters will have moved recently, and may not receive a mail ballot. Registered voters will be given mail ballots that have already been printed for that particular voter. Some voters will have moved recently, and may not receive a mail ballot.

Voters are issued ballots in the statewide Voter Registration System, and given an envelope in which to submit their iPad ballot. Voters are issued a blue voter card to take with them to an iPad marking station.

An election judge logs in each voter based on their voting precinct.

Voter completes a Colorado Voter Service Center Form. Voter surrenders their mail ballot to an election judge. Voter without a mail ballot. Voter’s information is updated on the spot by an Election Judge.

Some voters with a mail ballot may want to vote on an iPad for its accessibility features.

Voter makes their selections. Voter reviews their selections, visually or with audio. Voter prints their ballot. Voter inserts their ballot into a locked ballot box and receives an “I Voted” sticker.

The voter may pinch to zoom, listen to the ballot be read using headphones and access the ballot in Spanish.

A 4 person team from the Denver Elections Division travels to a Group Residential Facility. The team brings mail ballots, iPads, printers and other supplies. The voter inserts their ballot into their ballot envelope, and signs their ballot envelope.
Attachment # 3 – HAVA Project Completion Report

Measuring the Success of iAPP – The iPad Accessibility Pilot Project
Denver Elections Division

Results Data:
ipad Votes: 99
Eligible Voters: 983
Percentage of Eligible who participated: 10.07%
Facilities Visited: 40

Objective:
The objective of iAPP was to determine the usability and financial benefits of providing a disability designed ballot marking software solution via tablet-based hardware for serving voters with disabilities. This was implemented by providing iPads with Apple’s accessibility software suite at Group Residential Facilities during visits by Denver Elections Division staff.

Summary: A total of 99 voters used an iPad for voting purposes during the June 26, 2012 Primary Election at Group Residential Facilities and the Denver Elections Division Voter Service Center. Apple’s accessibility suite allowed voters to increase the size of the text, listen to the ballot being read, translate the ballot in 36 different languages, as well as many other features. The audio portion of Apple’s accessibility suite, known as Voice Over, was used for several voters who could, for the first time, vote a ballot independently without leaving their residential facility. More commonly, voters used the zoom-in feature of the iPad to increase the size of ballot text. This made the ballot accessible to voters with low vision. Additionally, physically disabled voters were able to place the iPad in their lap and independently mark their ballot.

Unanticipated successes in accessibility came from the iPads ability to provide a ballot to voters who would not have otherwise received one at their residential facility. We encountered many voters who had out of date information in their voter registration records, and with the use of iAPP we were able to update the voter record and issue a ballot on demand. After the voter completed a Colorado Service Center Voter Information Form, staff members were able to access SCORE and update a voter’s record. Voters could then vote on an iPad, print the ballot and turn it in on the spot.
Previously, a voter with outdated information would have had to visit a Voter Service Center to update their information and obtain a mail ballot. With iAPP, we are able to bring the Voter Service Center to the voter. This process increases accessibility to the voter and remains very cost efficient to the county. In essence, the team traveling to Group Residential Facilities became a mobile service center, complete with Ballot-On-Demand capabilities.

From a financial perspective the project will only become more economically feasible. The bundle of one iPad, printer, and mi-fi card cost a total of $834.76. The equipment was purchased rather than rented nearly eliminating any recurring costs.

**Staff Reactions:**
In addition to these efficiencies staff reported feeling fulfilled and excited for the project. Although skeptical at first, the numerous voter compliments and the level of participation was rewarding and indicated to them, and to the Denver Elections Division, that the program was a success. One of the fears was certainly that older people who are less technologically aware would be intimidated by the iPad, but through the help of some very kind and savvy student judges, voters left having learned something new. One comment repeatedly received from voters was “My Grandkids are not going to believe this.”
From a continuing series of articles, Who Can Vote?, a News21 investigation of voting rights in America.

iPads used as ballot-marking devices
While electronic poll books run software that speeds up lines and verifies voters at polls, new hardware also helps make voting more accessible and transparent.

Oregon and Denver use iPads as ballots; Denver for seniors and voters who have disabilities and Oregon for the disabled. Oregon votes by mail statewide, but election officials provided iPads for voters who would benefit from them.

Both states use software from Everyone Counts, an election technology company that provides software to ensure secure elections and has conducted elections in Chicago, Honolulu, Colorado, Utah and West Virginia. Other states are looking to Oregon and Denver to see if they can implement the new method.

So far, iPads aren’t being used to verify a voter’s identity. Amber McReynolds, Denver’s director of elections, said her agency tested a voter database on iPads, but based on screen size and usability, the agency preferred laptops or paper for poll books.

Disabled voters who live in Oregon’s 1st Congressional District used Apple-donated iPads first. More than 200 voters used the iPads for the November and January special election. The pilot program went so well, every county now has an iPad for future elections.

Once a voter indicates his or her choices, the ballot is printed, so there is paper proof of the vote. Oregon Secretary of State Kate Brown said her state was the first to use an iPad for elections.

The iPads meet the federal requirements for voters who have disabilities. Voters can enlarge text for easier reading, use headphones to listen to a computer voice read the ballot and in Oregon, voters with cerebral palsy can use their breathing to control the device.

“It’s a very adaptable tool,” Brown said. “A couple of the citizens that I watched vote loved the iPad technology, even if they haven’t used a computer before. It’s so simple that kids can use it, babies can use it.”

The city and county of Denver followed. Clerk and Recorder Debra Johnson applied to the Colorado Secretary of State’s office for a $12,900 Help America Vote Act grant for seven iPads and printers to use at residential centers.

McReynolds said when she went to voting sites, she saw that once people got the hang of the delicate touch needed to operate the iPad, they voted easily and liked the technology.

Vonsella Scott, who lives at Denver’s Porter Place Retirement center, used an iPad for the first time when voting in the June primary.

“I have a little difficulty in writing, due to a stroke, and it just was easier for me,” said Scott, 84. “It was enlarged if you needed it and explained very well.”

Not only are the iPads more portable, but they are cheaper than their large, clunky voting machine counterparts.

“An iPad, these are about $400 or $500. Whereas a voting machine could cost $4,000 or $5,000,” McReynolds said. “There’s a significant difference in price and these can be utilized for other functions as well. It’s a step in the right direction to expand the use of technology in elections.”