



Business Proposal

RFP # CDOS-UVS-2013-01

Uniform Voting System

Issue Date: October 1, 2013

Response Due: NLT December 4, 2013 5:00 PM MST

Presented To
State of Colorado
Department of State



Submitted By
Marjorie McDermott
National Executive Director
Government Solutions
801-930-5402

Table of Contents

Section Number	Section Title
None	State of Colorado Request for Proposal Cover Sheet
None	Transmittal Letter
1.0	Executive Summary
2.0	Company Overview
3.0	Company Financial Status
4.0	Relevant Business Experience
5.0	Prior Proposals
6.0	Project Approach
6.1	Project Management
6.2	UVS Software
6.3	UVS Hardware
6.4	Database
6.5	Data Migration
6.6	Test Strategy
6.7	Training
6.8	Implementation
6.9	Support
7.0	Sample Reports
8.0	Sample Project Artifacts
9.0	General Questions
10.0	Preliminary Project Schedule and Staffing Plan
11.0	Proposed Staffing
12.0	UVS System Requirements

**State of Colorado Request for
Proposal Cover Sheet**

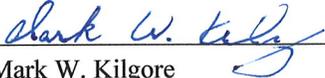
State of Colorado Uniform Voting System Request for Proposal (RFP) Cover Sheet

SEALED RESPONSES MUST BE MAILED OR DELIVERED TO:

Colorado Department of State
Attn: Al Davidson
1700 Broadway
Suite 200
Denver, CO 80290

SOLICITATION NUMBER:	CDOS-UVS-2013-01
DEADLINE DATE AND TIME:	December 4, 2013 at 5:00 PM MOUNTAIN TIME
PURCHASING CONTACT:	Al Davidson
PHONE NUMBER:	303-895-2200, ext. 6361 (for delivery questions only)

BIDDERS MUST SUBMIT ONE (1) ORIGINAL AND NINETEEN (19) COPIES OF THE PROPOSAL AND ONE ELECTRONIC COPY FOR BOTH THE BUSINESS PROPOSAL AND COST PROPOSAL. BIDDERS MUST COMPLETE THE BELOW INFORMATION.

F.E.I.N.	45-0643660
DELIVERY DATE	Bell and Howell will deliver based upon the schedule of activities highlighted in 2.6 Schedule of Activities of the RFP
AUTHORIZED SIGNATURE	
TYPED/PRINTED NAME	Mark W. Kilgore
TITLE	Senior Vice President, Sales Operations
COMPANY NAME	Bell and Howell, LLC
ADDRESS	3791 S Alston Avenue
CITY/STATE/ZIP	Durham, NC 27713-1803
CONTACT FOR CLARIFICATIONS	Marjorie McDermott
CONTACT TITLE	National Executive Director, Government Solutions
PHONE NUMBER	801-930-5402
FAX NUMBER	866-593-1694
EMAIL ADDRESS	Marjorie.mcdermott@bhemail.com

IMPORTANT: THE FOLLOWING INFORMATION MUST BE ON THE OUTSIDE OF THE RFP SUBMITTAL ENVELOPE AND/OR PACKAGE. SEE THE RFP FOR MORE DETAILED INSTRUCTIONS.

<VENDOR NAME>
RFP # CDOS-UVS-2013-01 <BUSINESS OR COST> PROPOSAL
DUE ON DECEMBER 4, 2013 AT 5:00PM MDT
PACKAGE # OF #

Please be advised that telegraphic or electronic responses (Fax, Western Union, Telex, etc.) cannot be accepted as a sealed proposal. Bidders are urged to read the RFP documents thoroughly before submitting a response.

This Proposal Cover Sheet **must** be signed by a representative of the vendor who is legally authorized to bind the vendor to their proposal. Vendors will be required to submit confirmation of their F.E.I.N. number prior to any issuance of Contracts, Purchase Orders, or payments resulting from this RFP.

Transmittal Letter



ADDRESS : 3791 S. ALSTON AVENUE • DURHAM, NC 27713
WEB : BELLHOWELL.NET
PHONE : 919.767.6400

December 3, 2013

Colorado Department of State
Attn: Al Davidson, CDOS-UVS-2013-01 Proposal
1700 Broadway, Suite 200
Denver, CO 80290

Dear Mr. Davidson:

Bell and Howell is responding to RFP # CDOS-UVS-2013-01. Bell and Howell (BH) affirms our willingness and ability to comply with all work requirements, general contract requirements and other terms and conditions as noted in Section 1, 5.3.2. As required, any deviations or exceptions are included in the body of this letter.

Material and enclosures included in our proposal include:

- Criterion APEX Data Sheet
- Criterion Elevate Data Sheet

Bell and Howell acknowledges receipt of Amendment 1, 2, and 3.

Bell and Howell is partnering in a Vote by Mail Sorting System with Boulder County, Colorado.

Bell and Howell does not have any conflicts related to this RFP.

Bell and Howell will not be using any subcontractors.

Bell and Howell notes the following objections/exceptions:

- BH takes exception and specifies that where such County specific terms contradict the terms of the RFP and Contract that said Colorado UVS RFP Contract terms shall control.

- **v. Primacy of Coverage**
Coverage required of Contractor and Subcontractor shall be primary over any insurance or self-insurance program carried by Contractor or the State. ***Coverage will only be primary but as respects to the operations of Bell & Howell.***
- **vi. Cancellation**
The ***above Automobile Liability and Worker's Compensation*** insurance policies shall include provisions preventing cancellation or non-renewal without at least 30 days prior notice to Contractor and Contractor shall forward such notice to the State in accordance with §16 (Notices and Representatives) within seven days of Contractor's receipt of such notice. ***The Contractor shall request the General Liability Policy be endorsed to so provide.***

Bell and Howell acknowledges that the Colorado Department of State may contact any references provided to release information.

Bell and Howell is proposing solutions to the following sub-categories of the RFP:

- Sub-Category E – Automated Ballot Envelope Scanning and Signature Verification
 - All requirements (E-1 through E-17)
- Sub-Category F – Mail Ballot Tracking
 - We are responding to specific requirements that apply to data collection from the USPS and tracking status of ballots through the sorter, as well as review steps (F-1 through F-3). We are not proposing a solution for communicating the “opt in” updating voters regarding the status of their ballots (F-4 through F-11). We can provide the combined scan data in a usable format to the Mail Tracking Ballot system that will be communicating the status to the individual voters.
- Sub-Category G – Vendor Training & Support
 - All requirements (G-1 through G-8)

We have provided responses to the specific requirements that are related to or are impacted by our proposed solutions as described below:

- Sub-Category H – Miscellaneous Requirements
 - Several of the requirements in this sub-category seem to apply to voting systems and a smaller sub-set applies to sorting systems. We

have responded to the requirements that BH feels applied to sorting systems. The specific requirement ID's are: H-1, H-5, H-6, H-10, H-11, H-15, H-16, H-19, H-20, H-21, H-22, H-29, H-30, H-34 and H-38.

- Sub-Category A – Election Management System (EMS)
 - Although we are not proposing a solution for the EMS sub-category, we have added comments to the specific requirements that will be positively impacted by our sorting systems. The specific requirement ID's are: A-52, A-53, A-64, A-67, A-68, and A-69.

Bell and Howell, in accordance with the instructions for this RFP has not included any pricing information except within Appendix C.

Mark W. Kilgore, Senior Vice President, Sales Operations, signs this letter; Mr. Kilgore is an authorized Bell and Howell signatory.

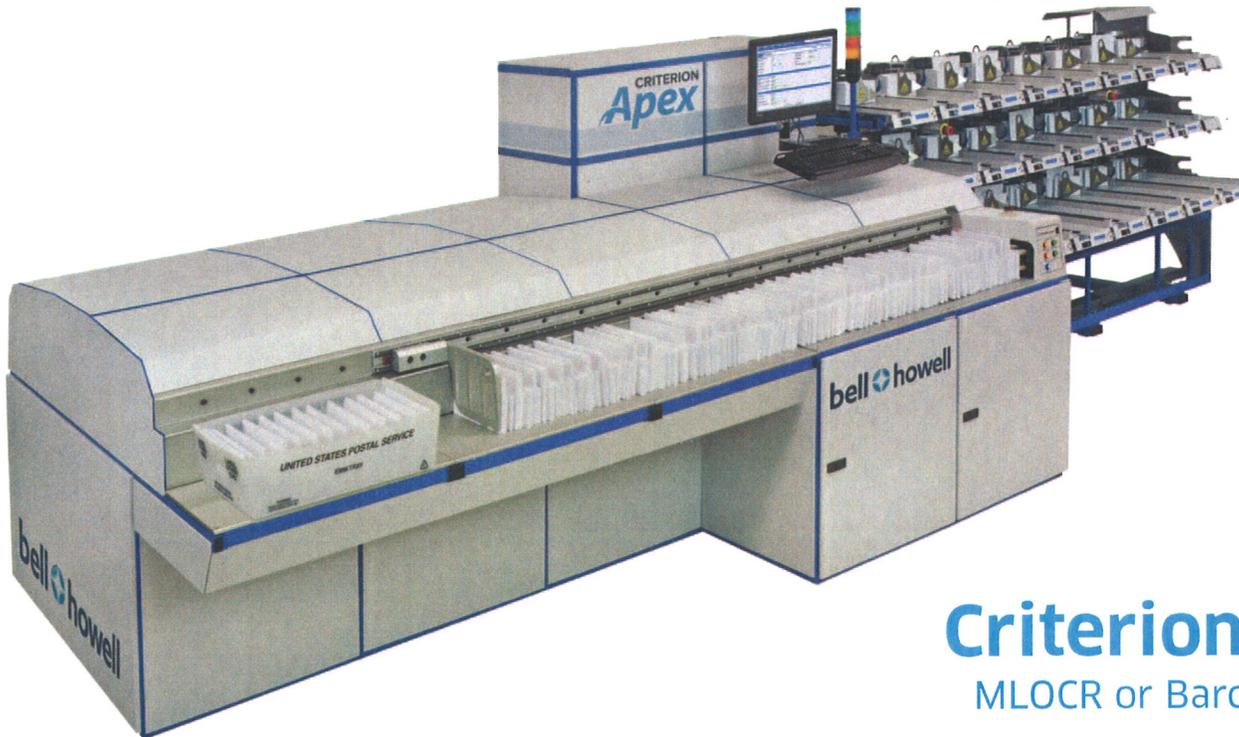
The main contact for Bell and Howell for this RFP is Marjorie McDermott, National Executive Director, Government Solutions. Ms. McDermott's contact information is Office (801) 930-5402; Mobile (801) 349-6191; her email address is marjorie.mcdermott@bhemail.com.

Bell and Howell looks forward to the opportunity to work with the State of Colorado on their Uniform Voting System project.

Sincerely,



Mark W. Kilgore
Senior Vice President,
Sales Operations



Criterion APEX

MLOCR or Barcode Reader

The fast and modular sorter that grows with your business needs

The Criterion APEX® sorter has been designed with the latest technology to increase your productivity, process a wider variety of mail and ensure greater flexibility for your ever-changing needs.

The Peak of Sorting Performance

Handling virtually any mail type need is a challenge faced almost daily. What kind of equipment smoothly runs at operating speeds up to 70,000 pieces per hour and gives you the ability to read more of your mail than ever before? The answer is the Criterion APEX, available in multiple models to fit your mail sorting needs.

FLEXIBILITY

Envelopes come in different shapes and sizes. The Criterion APEX has been designed to process the full spectrum of business and collection mail, whether it is in uniform batches or mixed with various types and sizes. The new Bell and Howell controlled gap feeder features constant gap control, constant pressure and pickup speed to ensure that you will have the highest throughput, keeping processing time of every job to a minimum.

INTEGRITY

The Criterion APEX may be configured with an optional metal detector, height detector, indicia detector and thickness detector to further assure the quality

KEY FEATURES

Flexibility & Integrity

- » The Criterion APEX can handle most, if not all, size variations you may encounter in your operations.
- » Sorting mail creates clarity and allows for postage discounts when submitting to a national postal authority.

Optional Features

- » Doubles detector
- » Thickness detector
- » Height detector
- » Metal detector
- » Indicia detector
- » WayMark® in-line weighing (36,000 p/h)
- » High-speed labeler (41,000 p/h)
- » Optional extended magazine (up to 3,000 envelopes for 1 oz. envelopes)

and integrity of your mailstream. An optional double detector can reject doubles increasing the integrity of your mail operation.

MODULARITY

When your business needs change, additional devices and modules can easily be added to the Criterion APEX with minimal interruption to your operation. Criterion APEX's extensive range of software, handles the real-time communication between the sorter and standard or optional features. From large to small operating environments, simple to unique sorting applications, Bell and Howell has a configuration to meet your needs.

MMT SABRE®

This multi-line optical character reader is an omni-font software-based address recognition system that converts a mailpiece's outgoing address to the appropriate delivery point POSTNET® / Intelligent Mail® barcode. Three tightly integrated OCR engines provide the highest possible read rates.

LINERLESS IN-LINE LABELER

The Bell and Howell labeler allows you to affix a blank label to a mailpiece, creating a clear zone. Mailpieces that are too glossy, lack adequate clear zones or have incorrect barcodes can now be automated. This labeler has the highest speed with the most widely deployed linerless labeling technology on sorters in the mailing industry. Up to 41,000 envelopes per hour.

WAYMARK

An alternative postage payment solution that verifies the weight of every mailpiece, calculates postage, and optionally prints a customized indicia in one operation, saving money on meters, labor and supplies. Compliance with postal standards is achieved by verifying payment amounts based on conformance of mail pieces to the claimed weight categories.

SPECIFICATIONS

Document specs	Height: 3.5" – 7.0" Length: 5.0" – 11.5" Thickness: 0.007" – 0.375" Magazine/feeder capacity: 2,000 envelopes With optional extended magazine: 5,000 envelopes
Cycle speeds	Postcard: 70,000 p/h #10 envelope: 45,000 p/h #9 envelope: 47,500 p/h #7 envelope: 58,000 p/h
Belt speed	167 ips (4.2 mps)
Dimensions without bins (L x W)	Barcode reader: 119" x 68.5" MLOCR: 174" x 68.5" MLOCR with optional WayMark: 227" x 68.5"
Bins	Works with: X-Class, M-Class and PTI® bins Number of tiers: 1–3 Max number of bins: Unlimited

With over 30 years of experience, we have been designing and developing leading-edge sorting solutions based on your operational needs. We are dedicated to increasing your quality and efficiency, decreasing your costs and reducing your risks by developing modular, reliable and flexible production mail solutions, like the Criterion APEX sorter.



P.O. Box 14986, Research Triangle Park, NC 27709-4986
(800) 220-3030 • marketing@bhemail.com
www.bellhowell.net



For more information, visit: bellhowell.net

© 2011-2012 Bell and Howell, LLC. All rights reserved. Bell and Howell, the Bell and Howell logo, Criterion APEX, MMT SABRE, WayMark and PTI are trademarks or registered trademarks of Bell and Howell, LLC. POSTNET and Intelligent Mail are registered trademarks of the United States Postal Service. All other marks are the property of their respective owners. Specifications are subject to change without notice. Actual performance results may vary.



Criterion Elevate

MLOCR/BCR Sorter

Small footprint... advanced functionality

The Criterion® Elevate sorter has been designed to meet the needs of a range of mail processing environments that require high-speed automation, but have space limitations, such as:

- » Mail ballot processing/Vote by Mail
- » Outgoing mail processing
- » Incoming mail processing
- » Flats processing

The Criterion Elevate sorter greatly reduces the amount of space needed to run your operation while still processing at high speeds. With two-tier bins, the sorter has one of the smallest footprints in the industry. It is portable for easy relocation so you can move the sorter to where you need it.

The Criterion Elevate sorter handles a wide range of mail types from postcards to flats and a variety of processes from simple barcode sorting to complex database lookups and image processing.

MMT SABRE

MMT SABRE®, our multi-line optical character reader, is an omni-font software-based image processing system with industry leading read rates. The MMT SABRE can perform a variety of functions:

KEY FEATURES

- » Smallest footprint with multi-tier bins
- » Handle the widest range of mail – postcards to flats
- » Portable for ease of relocation between peak processing periods
- » Single phase/three phase power options
- » Industry-leading functionality

- » **Outgoing mail processing:** Converts a mailpiece's outgoing address to the appropriate delivery point Intelligent Mail® barcode
- » **Inbound mail processing:** Several read modes from barcode reading to complex inbound database lookups
- » **Mail ballot processing:** Inline Automated Signature Verification (i-ASV) integrated with complex inbound database lookups

MODULARITY

When your sorting needs change, additional devices or software can easily be added to the Criterion Elevate sorter to expand its capabilities with minimal interruption to your operation. Available options include:

- » **Integrity:** A thickness detector, height detector, doubles detector or indicia verifier can be added to assure the quality and integrity of the sorting process
- » **Check/MICR detection:** A MIPR device can be added to sort based on the presence/absence of checks, or other MICR marks
- » **Inline selective opener:** An inline opener which allows you to selectively open the bottom edge of envelopes based on the sort scheme, without damaging the contents.
- » **WayMark®:** A postage payment solution that verifies the weight of every mailpiece, calculates postage, and optionally prints customized indicia in one operation, saving money on meters, labor and supplies. Compliance with postal standards is achieved by verifying payment amounts based on conformance of mailpieces to the claimed weight categories.

With over 30 years of sorting experience, we have been designing and developing leading-edge sorting solutions based on a wide range of operational needs. We are dedicated to increasing your processing performance, decreasing your costs and reducing your risks by developing modular, reliable and flexible mail processing solutions.

SPECIFICATIONS	
Document specs	<i>Height:</i> 3.5" – 7.0" (up to 13" with optional flats package) <i>Length:</i> 5.0" – 11.5" <i>Thickness:</i> 0.007" – 0.5"
Cycle speeds	18,000 p/h (for #10 envelopes, MLOCR mode) Dimensions with 16
2 -Tier bins (L x W)	14.3' X 6.2'
Bins	<i>Number of tiers:</i> 1-2
Power	Single phase/three-phase, amps depend on configuration
Air	No air required with the cartridge printer option



P.O. Box 14986, Research Triangle Park, NC 27709-4986
 (800) 220-3030 • marketing@bhemail.com
www.bellhowell.net

➤ For more information, visit: bellhowell.net

© 2012 Bell and Howell, LLC. All rights reserved. Bell and Howell, the Bell and Howell logo, Criterion, MMT SABRE and WayMark are trademarks or registered trademarks of Bell and Howell, LLC. Intelligent Mail is a registered trademark of the United States Postal Service. All other marks are the property of their respective owners. Specifications are subject to change without notice. Actual performance results may vary.

1.0 Executive Summary

1.0 Executive Summary

Bell and Howell, LLC understands that the Uniform Voting System initiative is a monumental undertaking and changes the approach of purchasing election equipment. Having partnered with the State of Oregon as their sole vendor for Vote-By-Mail (VBM) we have experienced the challenges of growing and learning as we participated with the different ways counties conduct elections. Bell and Howell (BH) has participated in assisting counties through automation of the incoming ballot envelopes and automated signature verification or side-by-side signature match. BH is committed to building a partnership with Colorado, as well as other states, through continuous process improvement and laying the groundwork for a smooth transition to a uniform system.

BH recognizes the multiple categories that the UVS is evaluating which include the areas of Election Management System (EMS); Polling Location Ballot Scanner and Tabulation Equipment; Central Ballot Scanner and Tabulation Equipment; Electronic Voting Equipment; Automated Ballot Envelope Scanning and Signature Verification; Mail Ballot Tracking; Vendor Training and Support and Miscellaneous Requirements relating to auditing, voting system certification, testing of hardware/software, security, and system documentation.

Bell and Howell understands that multiple vendors may be awarded and provide the components outlined in this RFP. The CDOS has taken great care to incorporate the needs of all its diverse counties large, medium and small when writing this RFP. The Counties will determine, within yet to be defined timelines, when they will convert to the UVS. At that time, the systems will be available to them from the selected vendor(s) at the state negotiated price.

As outlined in the RFP, proposal evaluation will include several underlying principles which are essential to the establishment of a UVS in Colorado. BH will endeavor to participate and provide input to assist in this transition. And as essential to providing solutions is our ability to listen to our customers to provide solutions that meet their requirements.

2.0 Company Overview

2.0 Company Overview

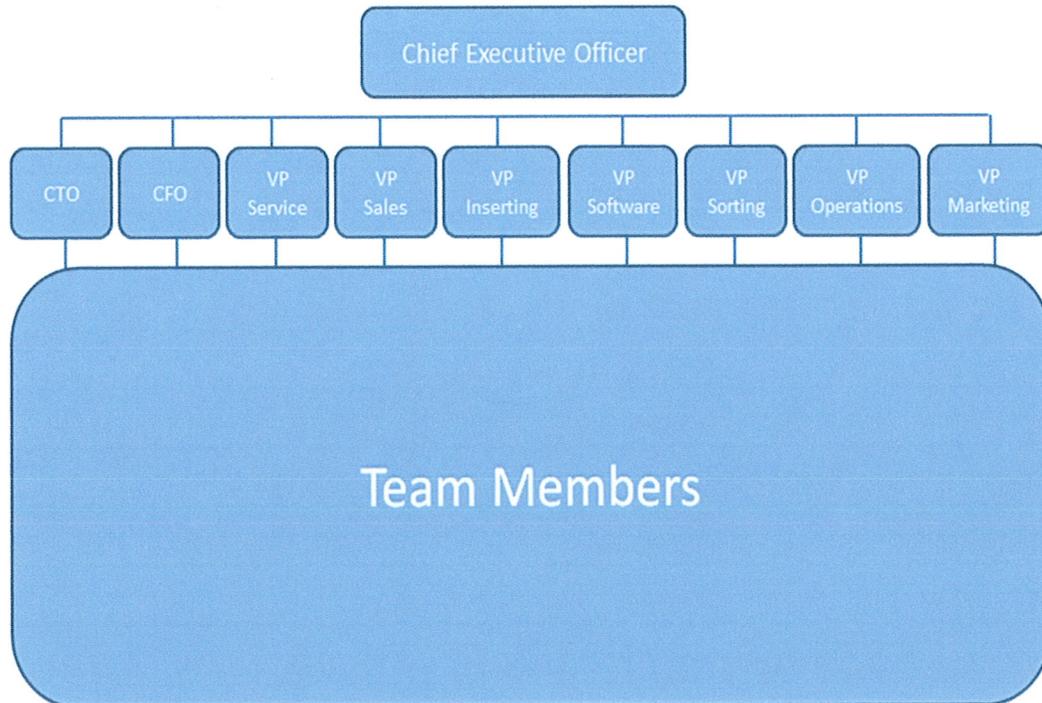
Bell and Howell's (BH's) headquarters are located in Durham, NC with operational centers in Wheeling, IL, Irving, TX, Bethlehem, PA, Rochester, NY and Waterloo, ON. We have more than 70 years of experience developing superior equipment and software for the mailing industry.

Our VBM solution is based on our industry leading proven mail processing platforms (data quality, outgoing mail package preparation, internal/ external tracking and incoming verification and sorting). We have been serving the VBM market for sorting products across all election cycles since 2007 with 13 installations across multiple states – six systems in California, five systems in Oregon, one system in Colorado and one system in Illinois .

Bell and Howell is an innovative partner to businesses in the mail and messaging market space. Our best-in-class products, industry leading services and 'customer-first' philosophy has helped many companies improve their messaging capabilities with more impactful and traceable documents delivered via one or many channels for the lowest cost.

The Bell and Howell organization is structured top-down to provide the highest level of service, support and visibility into customer opportunities. Each of these business leaders has teams with both vertical and horizontal responsibilities to ensure that every task and every shared resource is aligned to the goal at hand, taking care of and growing from ideas presented by our customers.

Overall organizational following:



As the percentage of votes cast through absentee voting (Vote by Mail) has increased over the years, it was clear to Bell and Howell in 2007 that election officials wanted to improve efficiencies, reduce costs and improve integrity, transparency and responsiveness. As our VBM market segment grew, BH invested in forming the Government Solutions Team to be the “face forward” in front of the customer. The Government Solutions team has over 100 years of experience in the mailing industry. They have been actively involved since 2005 in developing an automated solution that meets the needs of our election officials.

Additionally, BH has been adding software, hardware and product management as our VBM install base grows. Bell and Howell considers VBM to be a growth market and we view this business segment as a long-term investment in both the health of our company and the ability to provide best in class VBM solutions to our customer in the elections segment.

BH has four (4) Customer Service Engineers (CSE’s) residing in Colorado with technical field support in the surrounding states. We proudly reinforce the value of our offerings with an industry-leading customer service network of over 1000 people in the U.S. with a 24 x 7 Technical Assistance Center (TAC).

BH is the only vendor that develops its own hardware and software for our complete Criterion APEX and Elevate VBM sorting systems and sells directly from the factory to our customers. The reader, sorter, software for the reader, server and side-by-side verification applications developed by BH are always under review for continuous improvement for our customers. Our own CSE’s and factory personnel support BH’s VBM systems.

BH prides itself on building the best sorting systems available today, having the best service network and continuing the enhancement of our product features ensuring our long-term success and commitment to the Vote by Mail market.

Bell and Howell, LLC is a Limited Liability Company headquartered at 3791 South Alston Avenue, Durham, NC, 27713. BH’s parent company is Contrado BBH Holdings, LLC with a FEIN number of 45-0643660.

Bell and Howell understands and will comply with the terms and conditions set forth in RFP Section 2. Administrative Information. We understand the requirements that the proposed system should meet as well as the size and scope of the project. The project logistics are clear and we have cited all exceptions in the Transmittal letter as instructed. All confidential information is included in its own binder; there has been no co-mingling of information. In addition, all proposed prices are BH’s Best and Final offer and are included in the Cost Proposal. Due to the security and the sensitive nature of this project no element of the RFP and resulting contract will be performed outside of the United States of America. Bell and Howell is 100% U.S. owned. Please note that recycled paper has been used as encouraged by the CDOS.

3.0 Company Financial Status

3.0 Company Financial Status

BH Response: Please reference the Confidential Financial Binder of this RFP Response.

Bell and Howell, LLC has no contractual obligations which would have a material impact upon its ability to perform its contract with the CDOS, if awarded such contract. Bell and Howell, LLC has performed multiple large contracts simultaneously in the past.

4.0 Relevant Business Experience

4.0 Relevant Business Experience

Starting with our first VBM installation in California, we have steadily grown our presence in the VBM market, and today we have nine sorters installed in various counties for VBM processing. We have implemented our proposed system in Oregon, where the five counties that are automated all utilize our Criterion Elevate or Apex.

The following are four references:

Client Name: Ventura County

1) Description of the project:

A VBM sorter was installed to process incoming ballot envelopes with in-line automated signature verification and sorting by a combination of precinct number and verification result with no loss in throughput. Sorting is done to precinct groups and challenge codes on first pass, and to individual precincts and challenge codes on a second pass. Sorting system interfaces with the county's election management system, EIMS. The system was installed and operational in a short time frame and used successfully for the first election.

2) Reference contact information:

Mark Lunn, County Clerk and Recorder

Telephone: 805- 654-2266

Fax: N/A

mark.lunn@ventura.org

Martin Cobos, Program Administrator 3

Telephone: 805-654-2786

Fax: N/A

Martin.cobos@ventura.org

3) Project timeline from start to finish (planned and actual)

9/20/10 – 10/20/10

4) Contract performance issues, if any:

None

5) Quantity, type and version of voting equipment and software installed

One Criterion Apex

6) Poll worker training provided:

N/A

7) Election staff training provided:

Yes

- 8) Support provided for early voting, election day voting and post-election activities:
Yes
- 9) Any problems reported regarding election results accuracy and, if so, how handled:
No
- 10) Any problems reported regarding equipment availability and, if so, how handled:
No
- 11) Description of project management services you provided to the project:
Bell and Howell provided various personnel including a Project Manager, Customer Service Engineer, VBM Engineer, VBM Software Specialist and Account Executive.

Client Name: County of Tulare

1.) Description of the project:

A VBM sorter was installed in two phases – phase I was for outgoing USPS mail and phase II was for the VBM functionality for processing incoming ballot envelopes. Incoming ballot envelopes are processed with no loss in throughput, with in-line automated signature verification and sorting by a combination of precinct number and verification result. Sorting is done to precinct groups and challenge codes on first pass, and to individual precincts and challenge codes on a second pass. Sorting system interfaces with the county's election management system, EIMS.

2.) Reference contact information:

Ann Turner, Elections Division Manager
Telephone: (559) 624 -7230
Fax: N/A
E-mail: aturner@co.tulare.ca.us

Maryalice Cypert, Deputy Election Clerk
Telephone: 559-624-7303
Fax: N/A
mcypert@co.tulare.ca.us

3.) Project timeline from start to finish (planned and actual)
5/20/07 – 7/20/07

4.) Contract performance issues, if any:
None

5.) Quantity, type and version of voting equipment and software installed
One Criterion Apex

- 6.) Poll worker training provided:
N/A
- 7.) Election staff training provided:
Yes
- 8.) Support provided for early voting, election day voting and post-election activities:
Yes
- 9.) Any problems reported regarding election results accuracy and, if so, how handled:
No
- 10.) Any problems reported regarding equipment availability and, if so, how handled:
No
- 11.) Description of project management services you provided to the project:
Bell and Howell provided various personnel including a Project Manager, Customer Service Engineer, VBM Engineer, VBM Software Specialist and Account Executive.

Client Name: County of Sonoma

- 1.) Description of the project:

A VBM sorter was installed to process incoming ballot envelopes with in-line automated signature verification and sorting by a combination of precinct number and verification result with no loss in throughput. Sorting is done to precinct groups and challenge codes on first pass, and to individual precincts and challenge codes on a second pass. Sorting system interfaces with the county's election management system, EIMS. The system was installed and operational in a short time frame and used successfully for the first election.

- 2.) Reference contact information:

Gloria Colter, Assistant Registrar of Voters
Telephone: (707) 565-6843
Fax: N/A
gcolter@sonoma-county.org

Janice Atkinson, Assistant Registrar of Voters
Telephone: (707) 565-6800
Fax: N/A
Janice.atkinson@sonoma-county.org

- 3.) Project timeline from start to finish (planned and actual)
8/2008- 9/2008
- 4.) Contract performance issues, if any:
None

- 5.) Quantity, type and version of voting equipment and software installed
One Criterion Apex
- 6.) Poll worker training provided:
N/A
- 7.) Election staff training provided:
Yes
- 8.) Support provided for early voting, election day voting and post-election activities:
Yes
- 9.) Any problems reported regarding election results accuracy and, if so, how handled:
No
10. Any problems reported regarding equipment availability and, if so, how handled:
No
11. Description of project management services you provided to the project:
Bell and Howell provided various personnel including a Project Manager, Customer Service Engineer, VBM Engineer, VBM Software Specialist and Account Executive.

Client Name: Oregon Secretary of State's Office

- 1) Description of the project:

BH was awarded a contract from the Oregon Secretary of State's office for up to seven sorters for counties located across the state of Oregon. Installations have already taken place at the counties of Multnomah, Lane, Washington and Deschutes. Multnomah, Lane and Deschutes used their systems in the May 2011 election with Bell and Howell working with OCVR in a very compressed timeframe. Four counties are installed and functional, three of the four were installed in time to use in the May 2011 election. The fourth system was purchased for installation in June and was successfully installed the week of June 20, 2011.

- 2.) Reference contact information:

Don DeFord, HAVA Grants Manager
Telephone: 503-986-0523
Fax: N/A
don.deford@state.or.us

Cris Walker, County Clerk
Telephone: 541-774-6147 Ext.6125
Fax: N/A
walkercd@jacksoncounty.org

- 3.) Project timeline from start to finish (planned and actual)
12/2012-2/2013

5.0 Prior Proposals

5.0 Prior Proposals

Bell and Howell is not allowed both by company policy and at our customers' requests not to provide a list of all quotations over the 5 years.

We have attempted to provide all information that is allowable.

6.0 Project Approach

6.0 Project Approach

BH Response:

The approach we are proposing for the UVS project is modeled on our experiences over several decades installing and supporting our products across diverse industries, and in the Vote by Mail segment since 2007. We have reviewed the project management requirements in Appendix D and confirm that we will be compliant with that approach, for the specific counties that may choose to proceed with our proposed solutions.

6.1 Project Management

6.1 Project Management

Bell and Howell leverages best practices in the industry for project management across diverse industries, tailored for the needs of typical VBM installations.

The project management process followed by BH can be broadly broken out into five steps, and is designed to be flexible to meet the varying needs of customers. The five steps are:

Initiating Process

- This step defines and authorizes the project.
- The customer contract will be the guiding document.
- A project kickoff meeting is typically held to introduce the key team members, and an overview of the key milestones, project plan and other project details.

Planning Process

- This step defines the objectives and plans the course of action.
- Activities include project team definition, scope review and finalization, communication planning, identifying risks and dependencies along with a mitigation plan, deliverables and deadlines for the key stakeholders, cost budgeting, planning purchases and services as required.
- The project plan is updated at this point.

Executing Process

- This step integrates the resources to carry out the plan for the project and involves project execution and quality assurance.
- This will include the build and factory test of the proposed systems, as well as installation onsite and training.

Monitoring and Control Process

- This step keeps track of the progress of the project and takes necessary steps to ensure the best possible outcomes.
- Activities include the following:
 - **Risk management:** The risks identified in the planning process, along with the mitigation steps will be monitored on an ongoing basis and updated as necessary with more information, or additional risks being identified during the course of the project.
 - **Issue management:** Any issues that come up during the project will be tracked using an Excel spreadsheet with description, actions to be taken, owners and target dates.
 - **Change management:** If there are specific requirements that change during the course of the project, requiring significant additional effort, that will be addressed using a mutually agreed change management process, using Change Requests (CRs)

- **Communication:** Project status updates, including percentage completion on specific tasks, updating risk and issue lists and any other necessary items will be done on pre-defined schedule throughout the project.

Closing Process

- This step formalizes client hand-off of the solution and brings the project to an orderly end.
- Activities include:
 - User Acceptance Testing (UAT)
 - Administrative tasks
 - Service support transition
 - Review of items leading to continuous improvement.

6.2 UVS Software

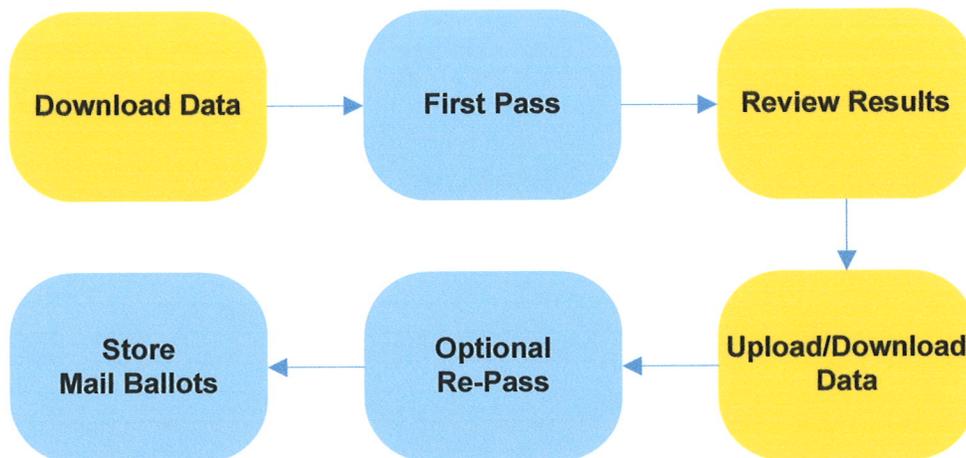
6.2 UVS Software

Software Functionality Overview

Processing Steps

The BH Vote by Mail Sorting System is very flexible, supporting a wide range of processing modes, evolved over experiences and feedback from multiple counties since our initial mail ballot sorting installation in 2007. While we have worked with variations in processes between counties, we have also identified underlying common characteristics that do not vary significantly across counties. Our systems are manufactured with these common characteristics as a basis with additional functionality that can be configured to best meet the unique needs of each county. A possible workflow scenario is described at a high level below:

First Pass



- **Download Data:** Typically there is an initial download from the county's voter registration/election management system for all the data and reference signatures for the upcoming election. Additionally, there is a daily and/or on-demand download prior to processing each day's volume so that all verification and sorting is performed based on the latest data.
- **First Pass:** Mail that has just arrived from USPS/ picked up from drop-off locations will be run on the sorter in First Pass mode. The sorter will automatically create a batch, verify the barcode on each mail ballot, compare it to the most recent downloaded data, perform inline ASV and sort all in one pass, with no loss in throughput.
 - If a challenge code already exists for a specific mail ballot, it will be sorted based on that code. If there is no pre-existing challenge code it will be sorted based on the automated verification result and the precinct (or groups of ballot style) (depending on how the scheme is setup and if precinct or groups of ballot style) sorting is desired
 - Bin displays on the bin ensure that the user is aware of the contents of the bin without having to lookup the sort scheme

- The user can print a tray tag that includes the batch number and description of the bin contents by pressing an on-demand print button on each sort bin
- The drop location information can be associated with the mail ballots being run for improved tracking of mail that maybe dropped off by voters rather than sent through the USPS.
- Envelopes returned from the USPS as undeliverable (UAA) can also be processed in First Pass as a separate batch to eliminate manual data entry and processing
- **Review results:** This is a step which is performed on the county's computers with the supplied software or on the county's EMS if the functionality is available (in this case this step will follow a data upload). ASV results can be reviewed along with the signature image from the envelope and the reference signature, along with all associated data available for the piece. The ASV result can be updated by county authorized users. Typically the threshold level for ASV is established during trials to ensure that incorrect signature pairs are not accepted. Therefore, after validating the settings, the county may choose to focus the review effort only on the signatures that were below the threshold level.
- **Upload/ Download Data:** After the review, data should be uploaded to the county's EMS. Typically there are validation rules in place to resolve any updates that may have happened since the last download. The county may choose to perform a data download immediately after the upload to get the latest data for immediate processing or could choose to wait for a scheduled nightly download.
- **Optional Re-Pass:** This is an optional processing mode that some counties use to out-sort envelopes from the First Pass that need to be physically pulled for immediate processing or for an audit. Other counties prefer to directly go to the final precinct (or groups of ballot style) sort and allow the challenged mail to be out-sorted as part of that process. Multiple First Pass batches can be accumulated and run as a single Re-Pass batch to optimize the processing effort while still physically separating out the unaccepted/ challenged pieces. Only envelopes run in First Pass will be processed on Re-Pass. If any envelopes were accidentally fed directly in Re-Pass, the system will out-sort them to avoid incorrect processing.
- **Store Mail Ballots:** BH recommends that the sorted mail be stored by batch and bin, to allow easy location of specific pieces at any time and to maximize efficiencies for the Fine Sort process.

Fine Sort (Precinct/Ballot Style Sort)

This step is to sort the reviewed pieces to individual precincts (or groups of ballot styles) as necessary. If a county does not desire to sort to precincts or groups of ballot styles, it is not necessary to run in Fine Sort.



- **Download Data:** A data download is necessary right before Fine Sort to ensure that any mail ballots that may have changed status during storage have sorted correctly. This may coincide with the data download right after the review process.
- **Fine Sort:** Only mail that has completed First Pass sort and whose data has been successfully uploaded to the county’s EMS is expected to be run on the sorter in Fine Sort mode. The operator will feed mail from specific First Pass sort bins (per a system-generated report) and the sorter will sort the mail down to individual precincts (or ballot style groups). If some envelopes are accidentally fed directly in Fine Sort (and therefore the data has not yet been uploaded to the county’s election management system), the sorter will out-sort them to avoid incorrect processing. If an inline opener is part of the configuration, envelopes can be opened as part of the Fine Sort process.
- **Ballot Extraction & Tabulation:** Depending on the county’s process and the number of days to Election Day, envelopes that have been sorted to individual precincts (or groups of ballot styles) are handed over for ballot extraction and tabulation.

Ballot Secrecy/Voter Anonymity

The proposed solution has the capability to ensure ballot secrecy by ensuring that the number of envelopes available for Repass or Fine Sort (and therefore for handing over for opening and extraction) are above a specified threshold for each Ballot Style.

This is accomplished by determining the quantity per Ballot Style that have been run in First Pass, not yet run in Fine Sort (or Re-Pass if Fine Sort is not used) and have an “Accepted” status.

The system holds back a quantity per Ballot Style up to the specified threshold (a configurable parameter), and checks if there are sufficient additional envelopes to still meet the threshold, if all the available envelopes are run in the final pass (Re-Pass or Fine Sort, per the county’s desired process).

- If the available envelopes are below the threshold for a ballot style, all envelopes corresponding to that ballot style will be out-sorted.
- If the available envelopes are at or above the threshold for a ballot style, they will be sorted to the bin that the ballot style is mapped to, per the sort scheme.

This sorting approach ensures that the user of the sorting system can easily differentiate between envelopes that can proceed with further processing and envelopes that should be held back until the threshold is met. Once configured, these steps are done automatically by the system as part of the regular processing steps,

saving significant manual effort in sorting and maintaining counts of envelopes per ballot style.

Out-sort Specific Ballot Styles

A county may have a list of ballot styles that they may prefer to handle outside of the sorting process after First Pass for specific elections, due to historically very low turnouts, or other reasons. The proposed system has the ability for an authorized user to identify a list of such ballot styles as part of the setup of the system.

During First Pass, envelopes that match these ballot styles are sorted to the designated bin for this condition. ASV will be performed for these pieces, images will be available for review, and the data will be included in the export file for upload to SCORE. However, the envelopes will be excluded from additional processing on the sorter, since the county would have a separate process for handling these ballot styles.

Identifying and Handling Duplicates

The proposed system has several features that help identify and efficiently handle duplicates. In most cases, it is due to pieces being accidentally fed more than once. However, the duplicate checks ensure that the counts are accurate and match the data uploaded to SCORE. Duplicates are checked for the following conditions:

- Within and across First Pass batches
- Within Re-pass batches
- Within and across Fine Sort batches

For all instances of envelopes fed through the sorter, images are captured with detailed time stamp and other processing information, to aid efficient investigation and resolution of the scenario.

Programming Languages

The sorting system consists of several components, and different languages that are used across them:

- .NET/ Visual Basic (moving to .NET)
- Java/ J2EE
- C

Software Release Process

BH software undergoes ongoing improvements based on customer feedback, and the released software versions will be provided to the county/ counties on CDs/ DVDs with clearly marked version numbers.

Third Party Software

The Automated Signature Verification (ASV) option utilizes a signature verification engine that is developed by Parascript, LLC. BH and Parascript have a long term partnership for providing handwriting recognition software on BH sorting products and the ASV option is an extension of this relationship. Both companies work very closely together to support the BH customer base.

6.3 UVS Hardware

6.3 UVS Hardware

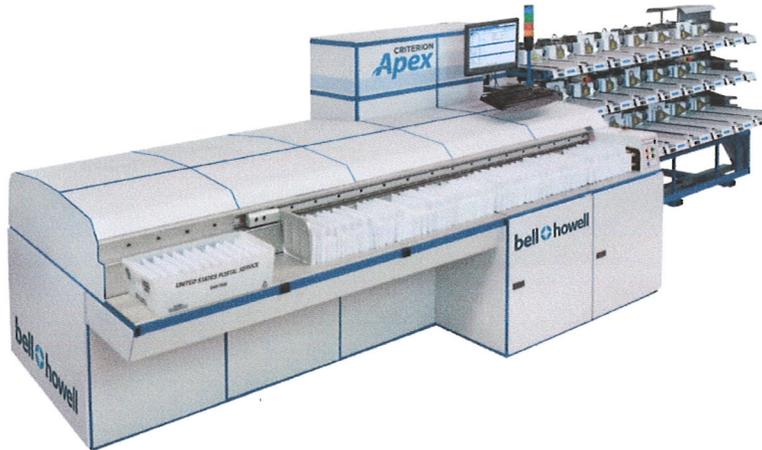
BH Response:

Proposed Hardware Solutions

BH has proposed two options for the base sorting platform, based on the desired throughput.

- Criterion® APEX
- Criterion® Elevate

The Criterion® APEX



The Criterion® APEX sorter has one of the highest throughputs in the industry and handles a wide range of mail types very effectively with an advanced friction feeder. A data sheet is attached behind the Transmittal Letter.

Document specs	Height: 3.5" – 7.0" Length: 5.0" – 11.5" Thickness: 0.007" – 0.375" Magazine/feeder capacity: 2,000 envelopes With optional extended magazine: 5,000 envelopes
Cycle speeds	#10 envelope: 45,000 p/h #9 envelope: 47,500 p/h #7 envelope: 58,000 p/h
Belt speed	167 ips
Dimensions without bins (L x W)	174" x 68.5"
Bins	X-Class Number of tiers: 1–3 Max number of bins: Unlimited

Criterion® Elevate



The Criterion® Elevate sorter has one of the smallest footprints among high-speed sorting systems. It utilizes much of the proven technology from the higher speed Criterion APEX, but has a significantly reduced footprint because of the lower throughput. A data sheet is attached behind the Transmittal Letter.

Document specs	<i>Height:</i> 3.5" – 7.0" up to 13" with optional flats package) <i>Length:</i> 5.0" – 11.5" <i>Thickness:</i> 0.007" – 0.375"
Cycle speeds	18,000 p/h (for #10 envelopes, MLOCR mode)
Dimensions with 16 2-tier bins (L x W)	14.3' x 6.2' (4.36 x 1.89 m)
Bins	<i>Number of tiers:</i> 1-2

X-Class Sort Bins

Regardless of the sorting platform chosen, both the Criterion Elevate and APEX platforms utilize the X-Class sort bin system described below.

The X-Class sort bin system is modular and provides exceptional productivity and increased efficiency in a space-saving design, while offering superior investment protection. Available in one, two or three – tier options for the Criterion APEX, and in one or two-tier options for the Criterion Elevate, the X-Class system can be readily reconfigured to adapt to changes to operational needs. A host of optional features, including tray tag printers, above-bin tray racks and below-bin tray drawers, only add to the increased functionality the X-Class offers over other systems.



Some of the key features include:

- A single-tier system (starting from just 8 bins) can be upgraded to a two-tier system, while a two-tier system can be upgraded to a three-tier system (for a Criterion APEX)
- Indicators at each bin (and a display above the machine) notify operators when the bins are nearly full and completely full
- In the event of a malfunction, the X-Class sort bins can individually be replaced by an operator in less than two minutes. Once replaced, the bins may be repaired offline and kept as spares.
- The removable bins also provide easy access to electronic components for routine and emergency maintenance.
- The X-Class system has been designed to maximize operator productivity, while minimizing fatigue, physical stress and errors. X-Class Bins provide operators with an intuitive and accessible work area.
- Optional above-bin tray racks and below-bin tray drawers allow operators to comfortably sweep mail from bins into trays. Additionally, this insures that operators are always facing the bins while sweeping and are not required to turn around or visually scan racks to the right for swept mail.
- Each sort bin is also equipped with a tray tag holder for pre-printed tray tags, further simplifying the manual handling of sorted mail.



Inline Device Options

Doubles Detector

This is a device that can be added to the sorter with no added footprint that can detect and out-sort double feeds. This is accomplished through the use of a specially designed camera located beneath the mail path that processes an image of the edge of the envelope as it passes overhead. If two edges are detected, the envelope will be rejected or out-sorted.

Thickness Detector

In some applications, it is necessary to check whether envelopes are within a desired thickness range and sort based on the result. The thickness detector is a laser measuring device that detects thickness variations as low as a single sheet of paper to efficiently identify and out-sort envelopes that may not have a ballot (below the lower threshold limit) or may have more than one ballot (above the upper threshold limit)..

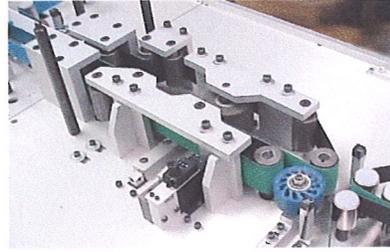
Endorsement Printer

Printers can be added to the sorting transport to apply a time-date stamp and/or a user defined message on the envelope concurrent with sorting, with no loss in throughput or sorting performance.

Selective Inline Opener

The selective inline opener enables the bottom edge of the envelopes to be opened as part of the sorting process, typically for the last pass through the system.

- The device works at the same rated throughput of the sorter, resulting in no loss of throughput when used.
- A cut/no-cut decision is made for each envelope based on the image processing (or other device inputs) results, enabling one piece to be opened and the very next piece to proceed without being opened.
- The opening is performed as a milling operation, leaving a “feathered” edge that minimizes the risk of paper cuts to the finger when removing contents.
- A port is provided to connect a dust collector to efficiently remove the fine paper chips resulting from the opening process.



Product Development

BH welcomes feedback from its customers and continuously improves our product platforms. Hardware design changes that are released within the warranty period are available to our customers at no additional charge. Our sorting systems are designed to be used for several years of continuous use.

The sorting system is modular, therefore additional changes that are made outside of the warranty period can also be updated on customer request if necessary, at a reasonable cost.

6.4 Database

The database on the server will be the master repository for all data used by the sorting system. The database used currently is a MySQL database.

Access to the database on the server is controlled with username and password, to prevent unauthorized access. The county computers that may be used for image review does not require a database. The client software is designed to run on typical office computers (Windows XP or later, with the latest Java software version).

There are various options for backing up the data on the each of the computers on the system, and to recover in the event of a failure:

Initial Backup

The configuration files from the key computers of the sorting system needs to be backed up each time there is either a software upgrade for the respective software application or any change in the specific configuration. These files are necessary to restore the configuration in the event of a computer replacement.

Periodic Data Backups

An initial backup of the entire server needs to be performed at the start of the election processing period.

After the initial backup, there should be ongoing backups to safeguard the data related to the processing of the current election. This should be typically done every night, as part of the nightly backups done by the site's IT department. BH will provide the folder locations to be backed up.

Automated Backup System (Q1/ Q2 2014)

BH will be offering an automated backup system in Q1 or Q2 2014, to further minimize the risk of data transfer between periodic backups. The system will consist of the following:

- Backup server with the same version of software as the main server
- Backup network drive with redundant drives 4.5TB or greater (Option of Drobo 5D/ 800i or equivalent) with Symantec Backup Exec software
- Network hardware will be included in the backup system

Description:

- The system will be setup with a specified backup frequency for each computer. The sorter computers will be configured to be backed up each night, and the server will be backed up more frequently to minimize loss of data in the event of a failure.
- The backups copy only the incremental data since the last backup, so it is expected to be completed with a minimal impact on the regular data processing.
- Both the VBM server and the backup server would have an iSCSI network connection to the backup drive, to enable the fastest backup to the drive.
- The backup drive accepts standard 3.5" SATA drives (the 800i model will support up to 8 drives). The size and number of drives can be selected to provide the necessary storage space. The standard backup package will have three 1TB drives, which is expected to provide the necessary storage for most counties.

Restoring Data to a New Computer

- The new computer needs to be installed, with the right IP address
- If the reader computer is being replaced, softlock licenses would need to be installed.
- Current approach:
 - Ensure that the current software versions are loaded on the computer.
 - Restore data from the last backup of the computer. For the server, this would be the nightly backup.
- With the automated backup system (Q1/Q2 2014):
 - Power on, load the Symantec boot disk and wait for the backup software to restore the data.
 - If the automatic data restore does not work, manually copy the folders from the network drive to the new computer.

Data Access

CDOS or County will be the sole owner and custodian of all election related data in the system, and will be able to generate and export data as necessary from the system.

6.5 Data Migration

The solutions proposed by BH are not for replacing the EMS, therefore this section

6.4 Database

6.4 Database

The database on the server will be the master repository for all data used by the sorting system. The database used currently is a MySQL database.

Access to the database on the server is controlled with username and password, to prevent unauthorized access. The county computers that may be used for image review does not require a database. The client software is designed to run on typical office computers (Windows XP or later, with the latest Java software version).

There are various options for backing up the data on the each of the computers on the system, and to recover in the event of a failure:

Initial Backup

The configuration files from the key computers of the sorting system needs to be backed up each time there is either a software upgrade for the respective software application or any change in the specific configuration. These files are necessary to restore the configuration in the event of a computer replacement.

Periodic Data Backups

An initial backup of the entire server needs to be performed at the start of the election processing period.

After the initial backup, there should be ongoing backups to safeguard the data related to the processing of the current election. This should be typically done every night, as part of the nightly backups done by the site's IT department. BH will provide the folder locations to be backed up.

Automated Backup System (Q1/ Q2 2014)

BH will be offering an automated backup system in Q1 or Q2 2014, to further minimize the risk of data transfer between periodic backups. The system will consist of the following:

- Backup server with the same version of software as the main server
- Backup network drive with redundant drives 4.5TB or greater (Option of Drobo 5D/ 800i or equivalent) with Symantec Backup Exec software
- Network hardware will be included in the backup system

Description:

- The system will be setup with a specified backup frequency for each computer. The sorter computers will be configured to be backed up each night, and the server will be backed up more frequently to minimize loss of data in the event of a failure.
- The backups copy only the incremental data since the last backup, so it is expected to be completed with a minimal impact on the regular data processing.
- Both the VBM server and the backup server would have an iSCSI network connection to the backup drive, to enable the fastest backup to the drive.
- The backup drive accepts standard 3.5" SATA drives (the 800i model will support up to 8 drives). The size and number of drives can be selected to provide the necessary storage space. The standard backup package will have three 1TB drives, which is expected to provide the necessary storage for most counties.

Restoring Data to a New Computer

- The new computer needs to be installed, with the right IP address
- If the reader computer is being replaced, softlock licenses would need to be installed.
 - Current approach:
 - Ensure that the current software versions are loaded on the computer.
 - Restore data from the last backup of the computer. For the server, this would be the nightly backup.
 - With the automated backup system (Q1/Q2 2014):
 - Power on, load the Symantec boot disk and wait for the backup software to restore the data.
 - If the automatic data restore does not work, manually copy the folders from the network drive to the new computer.

Data Access

CDOS or County will be the sole owner and custodian of all election related data in the system, and will be able to generate and export data as necessary from the system.

6.5 Data Migration

6.5 Data Migration

The solutions proposed by BH are not for replacing the EMS; therefore this section does not appear to be applicable to our response.

BH has a proven data interface to SCORE, based on the Vendor Toolkit released by the SCORE team. Support for changes to the EMS interface is typically included in the annual Software Maintenance fee.

6.6 Test Strategy

6.6 Test Strategy

BH Response:

BH typically conducts a User Acceptance Test based on a mock election with either sample envelopes or envelopes from a previous election (particularly when testing ASV). The specific detail of the test can be worked out with the county (due to variations in processing needs), and can cover some or more of the following:

- Baseline system test to validate proper functioning of all the components on the system
- Detailed tests for the steps required to create and setup an election on the sorting system
- Functionality tests
 - First Pass
 - Automated Signature Verification
 - Image review on county computers with BH software
 - Initial review with Reviewer level login
 - Secondary review with Supervisor level login
 - Data export and upload to EMS
 - Data download (file from EMS)
 - Repass Sort
 - Fine Sort
 - Duplicate identification and handling

The tests are typically conducted with participation from both BH and County personnel. For each of the tests, the applicable reports are checked to be consistent with the physical outcomes, including accuracy of counts.

6.7 Training

6.7 Training

BH Response: Bell and Howell's system installation project management plan includes and incorporates comprehensive training details, including the training related information described in the RFP.

One of the most imperative requirements of the CDOS or County are to provide employees who are comfortable with equipment and learning and most importantly are dedicated to attend all the training classes without distraction

Sessions will immediately follow the installation of the system. This will allow the users to become familiar with the equipment, understand the functionality, and perform controlled tests, leading to live mail ballots if available. We recommend a test election be setup in the election management system for initial trials and training.

These training sessions are 3 – 4 days long, and include key aspects of the operation, use, configuration, and normal daily user maintenance of the system, as well as applicable health and safety topics. The training covers key tasks involved with pre-election, election, and post-election processing. Operator manuals for the system are supplied at the time of the training. In addition, each student is given two training documents; a system operator training workbook and a vote by mail training workbook. Both provide clear and concise instructions on how to operate the system and how to process incoming ballots, and include pertinent screen shots for clarity. Upon completion of both sessions, each operator will receive a certificate verifying they have successfully completed the training on the system and are qualified to operate the equipment to process election materials.

All training is conducted at the customer site on the same system the operators will be using during elections. The training is predominately hands-on, each student ultimately demonstrating their proficiency for the instructor. Training sessions are limited to 4 participants. This is done for safety reasons and to ensure each operator gains the hands-on experience during the training to develop the required skills and confidence to be successful at operating the equipment and processing incoming ballots.

Training is a crucial part of the process to ensure that a County's team is familiar and confident with the new system. Our training approach will be as follows:

- Two training sessions are included at no additional cost for up to four operators for each sorting system installed. These sessions will be conducted onsite during normal business hours for 4-5 days.
- The first training session will immediately follow the installation of the system. This session will enable the county personnel to start using the new system, and will cover the following:
 - o Machine and process details
 - o Mapping the new functionality to the county's processes
 - o Setting up a new election
 - o Data upload and download procedure
 - o Daily processing activities, including daily operator maintenance procedures and applicable safety items
 - o Automated Signature Verification

- o Side-by-side image comparison
- o Additional activities such as looking up individual pieces, recommended staging practices and appropriate use of different run modes
- A training guide will be provided with operating instructions. Upon successful completion of training each operator will receive an official certificate verifying that they have completed training on that specific model and are qualified to operate the equipment
- The second training session is meant to address questions that county personnel may have encountered during the running of a live election. This session will also assist the county in addressing process variations and/or other processing needs using available functionality.
- In addition, supplementary training sessions may be scheduled to accommodate the county's needs. These sessions will be quoted upon request.

After the initial election, it is possible that the county's processes may change and there will be opportunities for improving the functionality and/or how it is used by the county. BH welcomes such discussions and considers it one of the most important factors in ensuring that our product offering continues to be the most comprehensive, reliable and user-friendly system available today.

Ongoing Support

Bell and Howell also provides for both ongoing maintenance support as well as several levels of elevated technical support through a dedicated field service organization that is over 1,000 field personnel strong. The benchmarks of the BH field service organization are as follows:

- 7 X 24 X 365 Customer Support Infrastructure
- Dedicated Customer Care Center (CCC)
- Dedicated Technical Assistance Center (TAC)
- A service organization recognized 11 Times by Training Magazine as one of the Top 125 U.S. companies for its investment in training
- VBM Specific Service Plans – Aligned to the county's specific needs/ requirements
 - o Actual contracts based on established election cycles
 - o Options for special non-scheduled elections
- Pre-scheduled VBM maintenance
 - o Before and after each election

Changes made to the product are available to all our customers as part of the annual software fee quoted.

6.8 Implementation

6.8 Implementation

BH has installed several mail ballot sorting systems with similar functionality since 2007, and has deep experience in achieving the best possible outcomes. We have also deployed several hundred sorting systems across diverse industries; therefore each team member in the implementation team has very deep relevant experience.

For the Colorado UVS project, since we already have a working interface to SCORE, there will be little or no changes required for the initial implementation. However, BH looks forward to feedback from our customers on areas to improve, and updated software for future elections is typically provided as part of the pre-election setup (targeted for 60 days prior to Election Day) for installation and onsite tests.

Operator training and support for the initial election play a very important role in the overall success of the implementation. Some of the best practices utilized are as follows:

- Training sessions will immediately follow the installation of the system. This will allow the users to become familiar with the equipment, understand the functionality, and perform controlled tests, leading to live mail ballots if available. We recommend a test election be setup in the election management system for initial trials and training.
- These training sessions are 3 – 4 days long, and include key aspects of the operation, use, configuration, and normal daily user maintenance of the system, as well as applicable health and safety topics. The training covers key tasks involved with pre-election, election, and post-election processing. Operator manuals for the system are supplied at the time of the training. In addition, each student is given two training documents; a system operator training workbook and a vote by mail training workbook. Both provide clear and concise instructions on how to operate the system and how to process incoming ballots, and include pertinent screen shots for clarity. Upon completion of both sessions, each operator will receive a certificate verifying they have successfully completed the training on the system and are qualified to operate the equipment to process election materials.
- All training is conducted at the customer site on the same system the operators will be using during elections. The training is predominately hands-on, each student ultimately demonstrating their proficiency for the instructor. Training sessions are limited to 4 participants. This is done to ensure that each operator gains the hands-on experience during the training to develop the required skills and confidence to be successful at operating the equipment and processing incoming ballots.
- Due to the unique nature of mail ballot processing and the changes between the initial days of processing and the final days of processing, we have observed that training is best accomplished with a second additional session of 3-4 days, included in the proposed price. The difference between the initial training session and the second session are as follows:

- The first session will immediately follow the installation of the system. This will allow the users to get familiar with the equipment, understand the functionality, and perform controlled tests, leading to live mail ballots if available. A recommended approach is to have a test election setup in the election management system for initial trials and training
- The second session is normally scheduled for the first live election, at a time that is convenient for the county. The focus of this session is to answer more advanced questions that come up as the users start using the equipment in a live environment. There are always processes that are different from county to county and this creates a collaborative environment where the Bell and Howell trainer can work closely with the users who are now more knowledgeable about the system and can gain greater efficiencies from it.

6.9 Support

6.9 Support

HELP DESK AND ESCALATION SUPPORT

All of BH's products and services are backed by a supporting infrastructure that provides 24-hour coverage, 7 days a week, for parts, service, and technical support. Our goal is to continuously provide the highest possible efficiency, productivity, and uptime at a fair, affordable price.

Bell and Howell service has been represented in Hawaii, without interruption, since the 1960's. We have supported commercial sorting systems in Hawaii since 1993. All of our Hawaii based technicians are factory trained on our sorting systems and have extensive experience supporting our commercial line of sorters. Bell and Howell has been the exclusive provider of sorting systems and service support to the commercial mailing market in Hawaii since 1993. No other vendor has installed and supported a commercial MLOCR (Multi-Line Optical Character Recognition) sorting system in Hawaii.

The design for the BH Criterion Elevate VBM sorting system we are proposing came from the BH Criterion model used at our commercial accounts in Hawaii. We have an extensive inventory of parts in Honolulu that can be used to support the BH Criterion Elevate VBM sorter at the City and County of Honolulu. To ensure minimal downtime it is critical to have parts availability in Hawaii. Shipping parts from the mainland, even "overnight", can add a one to two day delay to complete repairs and return equipment to production.

Our Technical Staff

BH is committed to providing the right personnel in support of your production environment. These individuals are the heartbeat of our offering and will become experts on your specific equipment configurations. Each BH Customer Service Engineer (CSE) is required to attend technical training on specific machine components at the Bell and Howell University (BHU) in Durham, North Carolina. Our technical training is instructor-led and delivered at BHU's 25,000 square foot facility in one of our ten classrooms.

BHU's inventory of training equipment includes over 154 computers and BH mail processing modules. Each classroom contains the necessary machine(s) for that class. Our machines are dedicated to training, which allows the instructors to spend 70% of their classroom time conducting hands-on instruction and assigning practical exercises for the machines. All instructor- led technical training culminates with both written and practical assessments.

During the practical assessments, each student must troubleshoot, diagnose, and fix the machine that their instructor has broken. The instructor-led training provides actual hands-on experience in a learning-conducive environment so our technicians hit the ground running when they return to their field sites.

All technical training is coordinated with your production schedule to ensure continuity of your production goals.

7x24x365 Customer Support Infrastructure

Bell and Howell is very proud of the sustained uptime provided to our resident customers over the years. We have worked very diligently to provide an automated escalation system that starts with the assigned technicians and escalates all the way through both Technical and Service Management. The escalation process is time-based, proven, and involves our Customer Service Engineers, local, regional, and national Service Technical Management in addition to our Technical Assistance Center.

Scope of Service Coverage

For this Request for Bid, two election cycles have been assumed. The service coverage will consist of the following:

- On-Call Priority Service coverage for first shift, 7:45am - 4:30pm M-F during the election cycle. Pricing includes two (2) Election cycles per year.
- Pre-Election Support- Prior to the Election date, BH will perform a Preventive Maintenance (PM) inspection and test the Sorter to ensure readiness for election ballot processing. These actions are designed to ensure an efficient and trouble free start-up of the equipment for the upcoming election processing period.
- Operator Training - At the conclusion of each Pre-Election inspection and testing, BH will provide an operator training refresher course for new and experienced operators.
- All non-consumable replacement parts required to maintain the equipment during the term of the agreement.
- Access to BH's toll free 7x24x365 Customer Care Center.
- Phone response by a BH Customer Service Engineer within 30 minutes of a service call.
- Remote support- BH local Hawaii CSE's and BH support specialists may troubleshoot some issues via remote access to the equipment. An Internet connection is required for this support (provided by the Customer).

- 4 hour on-site response time.
- Discounted service rates for calls outside of regular business hours.

BH Response: Remedial Repair and Escalation Policy

Remedial Repair

1. Requesting Service is accomplished by:
 - a. Customer calling the BH Customer Care Center at 1-800-792-4782
 - i. providing Service Tag information and a description of the problem
 - b. As an alternative contact method, Customer will be provided with cell phone access to all local Hawaii based Customer Service Engineers
2. The local Hawaii based Customer Service Engineer ("CSE") will call the Customer within 15 minutes of being contacted by the Customer Care Center. The CSE will validate the problem and attempt a resolution by phone.
3. If on-site service is deemed necessary, the local Hawaii based CSE will provide Customer with an estimated time the CSE will arrive on-site. The expected on-site arrival time for a CSE is four (4) hours. The typical arrival time for a CSE in Hawaii is less than two hours.
4. After on-site arrival of the CSE the following actions will occur:
 - a. diagnosis of the problem by CSE
 - b. alignment or replacement of suspect parts
 - c. Observation and mutual agreement that equipment is fixed before CSE departure.

This agreement will be documented by Customer signing the CSEs Service ticket and being given a copy of the ticket

Escalations

1. If a malfunction occurs that renders a machine totally inoperable, the local Hawaii Customer Service Engineer will utilize his best efforts, and the efforts of the local Hawaii technical service team, to correct the problem within a period of four (4) hours. During this time the technician will conduct a series of diagnostic checks and troubleshooting techniques

to try to resolve the problem. Remote support for the BH equipment by a BH specialist may be utilized providing internet access is available (provided by Customer).

- A. Should the technician be unable to resolve the problem within a four (4) hour time period, he will alert the TAC (Technical Assistance Center) requesting assistance.
2. If the effort of the local Hawaii technical service team, with the support of the TAC, fails to restore the machine to operation within four (4) hours, the problem will be referred to one or more of the following, in the order given:
 - A. Technical Support Analyst
 - B. District Service Manager
 - C. Technical Support Management
 - D. Executive Service Director
 3. Any one or more of the above will decide on whether further on-site assistance should be provided. The decision will be based on whatever approach is required to restore the machine to operation in the shortest time possible.
 - A. On-site assistance may be provided by other area personnel.
 - B. Home office on-site assistance may be requested by the TAC, District Service Manager, or the Executive Service Director.
 4. If a service technician experiences an intermittent or on-going problem, but the equipment is not totally inoperable, the TAC will be alerted. From this point, the same emphasis will be placed on resolving the problem as if the machine were totally inoperable.
 5. The Executive Service Director or District Service Manager is responsible for follow-up to see that Customer is satisfied with the solution. If Customer is not satisfied, the Executive Service Director or District Service Manager is required to consult about further efforts, with the appropriate home office Technical Services Manager or with the home office Director of Service Support. The BH Customer Service Engineer shall continue to diagnose and repair the problem until resolved or until such time as Customer elects to terminate the Agreement.

7.0 Sample Reports

"Batch Number","Ballot ID","EMS Code","ASV Result","Review Result","ASV False
Positive","ASV False Negative"
"1","612034462","In Process","SBR Code 05","Good"," ","Y"
"1","612037865","In Process","SBR Code 05","Good"," ","Y"
"1","612040145","In Process","SBR Code 05","Good"," ","Y"
"1","612039324","In Process","No Sig Match","Good"," ","Y"
"1","612034597","In Process","SBR Code 05","Good"," ","Y"
"1","612035427","In Process","No Sig Match","Good"," ","Y"
"1","612039017","In Process","No Sig Match","Good"," ","Y"
"1","612039309","In Process","SBR Code 05","Good"," ","Y"
"1","612041792","In Process","SBR Code 05","Good"," ","Y"
"1","612034065","In Process","SBR Code 05","Good"," ","Y"

AuditLogs_12-03-2013_12_27_PM.csv

```

"Election ID","Batch ID","Ballot ID","Serial ID","Image
ID","Mode/Activity","Action's Timestamp","EMS Code","Active/Updated
Code","Group","Bin","User Name","Sorter/User Activity"
"133","","","","","","New Election Created: ID 133, Server Location:
T","10-07-2013 17:00:36","","","","admin","USER"
"133","","","","","","Import EMS data, New Election, Records 6000","10-07-2013
17:00:55","","","","admin","USER"
"133","1","612035427","0","100386520","First Pass Normal","10-07-2013 17:17:31","0 -
In Process","49 - No Sig Match","","8","Sorter","SORTER"
"133","1","612034065","0","100386521","First Pass Normal","10-07-2013 17:17:31","0 -
In Process","5 - SBR Code 05","","3","Sorter","SORTER"
"133","1","612034597","0","100386522","First Pass Normal","10-07-2013 17:17:31","0 -
In Process","5 - SBR Code 05","","3","Sorter","SORTER"
"133","1","","0","100386523","First Pass Normal","10-07-2013 17:17:31","0 - In
Process","0 - In Process","","1","Sorter","SORTER"
"133","1","612039017","0","100386524","First Pass Normal","10-07-2013 17:17:31","0 -
In Process","49 - No Sig Match","","8","Sorter","SORTER"
"133","1","612039309","0","100386525","First Pass Normal","10-07-2013 17:17:31","0 -
In Process","5 - SBR Code 05","","3","Sorter","SORTER"
"133","1","612039324","0","100386526","First Pass Normal","10-07-2013 17:17:31","0 -
In Process","49 - No Sig Match","","8","Sorter","SORTER"
"133","1","612034462","0","100386527","First Pass Normal","10-07-2013 17:17:31","0 -
In Process","5 - SBR Code 05","","3","Sorter","SORTER"
"133","1","612040145","0","100386528","First Pass Normal","10-07-2013 17:17:31","0 -
In Process","5 - SBR Code 05","","3","Sorter","SORTER"
"133","1","612037865","0","100386529","First Pass Normal","10-07-2013 17:17:31","0 -
In Process","5 - SBR Code 05","","3","Sorter","SORTER"
"133","1","612041792","2281","100386530","First Pass Reject","10-07-2013
17:17:31","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
"133","2","612039324","0","100386561","First Pass Normal","10-07-2013 17:19:32","0 -
In Process","5 - SBR Code 05","","3","Sorter","SORTER"
"133","2","612039017","0","100386562","First Pass Normal","10-07-2013 17:19:32","0 -
In Process","49 - No Sig Match","","8","Sorter","SORTER"
"133","2","","0","100386563","First Pass Normal","10-07-2013 17:19:32","0 - In
Process","0 - In Process","","1","Sorter","SORTER"
"133","2","","2283","100386564","First Pass Reject","10-07-2013 17:19:32","0 - In
Process","0 - In Process","","1","Sorter","SORTER"
"133","2","612035427","2283","100386565","First Pass Reject","10-07-2013
17:19:32","0 - In Process","49 - No Sig Match","","8","Sorter","SORTER"
"133","2","612039324","0","100386561","Ballot Instance Deleted through VBM
Server...","10-07-2013 17:23:10","","5 - SBR Code 05","","3","manager","USER"
"133","1","612034462","0","100386527","Review New","10-07-2013 17:24:58","0 - In
Process","50 - Good","","3","John Doe-manager","USER"
"133","1","612037865","0","100386529","Review New","10-07-2013 17:24:58","0 - In
Process","50 - Good","","3","John Doe-manager","USER"
"133","1","612040145","0","100386528","Review New","10-07-2013 17:24:58","0 - In
Process","50 - Good","","3","John Doe-manager","USER"
"133","1","612039324","0","100386561","Review New","10-07-2013 17:24:58","0 - In
Process","50 - Good","","8","John Doe-manager","USER"
"133","1","612034597","0","100386522","Review New","10-07-2013 17:25:00","0 - In
Process","50 - Good","","3","John Doe-manager","USER"
"133","1","612035427","0","100386565","Review New","10-07-2013 17:25:00","0 - In
Process","50 - Good","","8","John Doe-manager","USER"
"133","1","612039017","0","100386562","Review New","10-07-2013 17:25:00","0 - In
Process","50 - Good","","8","John Doe-manager","USER"
"133","1","612039309","0","100386525","Review New","10-07-2013 17:25:00","0 - In
Process","50 - Good","","3","John Doe-manager","USER"
"133","1","612041792","2281","100386530","Review New","10-07-2013 17:25:04","0 - In
Process","50 - Good","","3","John Doe-manager","USER"
"133","1","612034065","0","100386521","Review New","10-07-2013 17:25:04","0 - In
Process","50 - Good","","3","John Doe-manager","USER"
"133","3","612041985","0","100386595","First Pass Normal","10-09-2013 14:11:29","0 -
In Process","3 - Form Reco Problem","","3","Sorter","SORTER"

```

AuditLogs_12-03-2013_12_27_PM.csv

"133","3","612041941","0","100386596","First Pass Normal","10-09-2013 14:11:29","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","3","612041931","0","100386597","First Pass Normal","10-09-2013 14:11:29","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","3","612041909","0","100386598","First Pass Normal","10-09-2013 14:11:29","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","3","612041908","0","100386599","First Pass Normal","10-09-2013 14:11:29","0 - In Process","3 - Form Reco Problem","","3","Sorter","SORTER"
 "133","3","612041852","0","100386600","First Pass Normal","10-09-2013 14:11:29","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","3","612041852","0","100386600","Review New","10-09-2013 14:13:50","0 - In Process","50 - Good","","3","John Doe-manager","USER"
 "133","3","612041931","0","100386597","Review New","10-09-2013 14:13:50","0 - In Process","50 - Good","","3","John Doe-manager","USER"
 "133","3","612041941","0","100386596","Review New","10-09-2013 14:13:50","0 - In Process","50 - Good","","3","John Doe-manager","USER"
 "133","3","612041908","0","100386599","Review New","10-09-2013 14:13:50","0 - In Process","50 - Good","","3","John Doe-manager","USER"
 "133","3","612041909","0","100386598","Review New","10-09-2013 14:13:53","0 - In Process","50 - Good","","3","John Doe-manager","USER"
 "133","3","612041985","0","100386595","Review New","10-09-2013 14:13:53","0 - In Process","50 - Good","","3","John Doe-manager","USER"
 "133","4","612041985","0","100386612","First Pass Normal","10-09-2013 14:15:20","0 - In Process","3 - Form Reco Problem","","3","Sorter","SORTER"
 "133","4","612041941","0","100386613","First Pass Normal","10-09-2013 14:15:20","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","4","612041931","0","100386614","First Pass Normal","10-09-2013 14:15:20","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","4","612041909","0","100386615","First Pass Normal","10-09-2013 14:15:20","0 - In Process","49 - No Sig Match","","8","Sorter","SORTER"
 "133","4","612041908","0","100386616","First Pass Normal","10-09-2013 14:15:20","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","4","612041852","0","100386617","First Pass Normal","10-09-2013 14:15:20","0 - In Process","49 - No Sig Match","","8","Sorter","SORTER"
 "133","4","612041985","0","100386612","Ballot Instance Deleted through VBM Server...","10-09-2013 14:16:32","","3 - Form Reco Problem","","3","manager","USER"
 "133","5","612041837","0","100386629","First Pass Normal","10-09-2013 14:30:21","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","5","612041501","0","100386630","First Pass Normal","10-09-2013 14:30:21","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","5","612041452","0","100386631","First Pass Normal","10-09-2013 14:30:21","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","5","612041451","0","100386632","First Pass Normal","10-09-2013 14:30:21","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","5","612041448","0","100386633","First Pass Normal","10-09-2013 14:30:21","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","5","612041436","0","100386634","First Pass Normal","10-09-2013 14:30:21","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","5","612041434","0","100386635","First Pass Normal","10-09-2013 14:30:21","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","6","612041837","0","100386647","First Pass Normal","10-09-2013 14:32:29","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","6","612041501","0","100386648","First Pass Normal","10-09-2013 14:32:29","0 - In Process","5 - SBR Code 05","","3","Sorter","SORTER"
 "133","5","612041434","0","100386635","Review New","10-09-2013 14:32:58","0 - In Process","50 - Good","","3","John Doe-manager","USER"
 "133","5","612041436","0","100386634","Review New","10-09-2013 14:32:58","0 - In Process","50 - Good","","3","John Doe-manager","USER"
 "133","5","612041448","0","100386633","Review New","10-09-2013 14:32:58","0 - In Process","50 - Good","","3","John Doe-manager","USER"
 "133","5","612041451","0","100386632","Review New","10-09-2013 14:32:58","0 - In Process","50 - Good","","3","John Doe-manager","USER"

AuditLogs_12-03-2013_12_27_PM.csv

```

"133", "5", "612041452", "0", "100386631", "Review New", "10-09-2013 14:33:00", "0 - In
Process", "50 - Good", "", "3", "John Doe-manager", "USER"
"133", "6", "612041837", "0", "100386647", "Ballot Instance Deleted through VBM
Server...", "10-09-2013 14:33:34", "5 - SBR Code 05", "", "3", "manager", "USER"
"133", "5", "612041434", "0", "100386635", "Review Verify", "10-09-2013 14:35:17", "0 - In
Process", "50 - Good", "", "3", "John Doe-manager", "USER"
"133", "5", "612041436", "0", "100386634", "Review Verify", "10-09-2013 14:35:17", "0 - In
Process", "50 - Good", "", "3", "John Doe-manager", "USER"
"133", "5", "612041448", "0", "100386633", "Review Verify", "10-09-2013 14:35:17", "0 - In
Process", "50 - Good", "", "3", "John Doe-manager", "USER"
"133", "5", "612041501", "0", "100386648", "Review Verify", "10-09-2013 14:35:17", "0 - In
Process", "49 - No Sig Match", "", "3", "John Doe-manager", "USER"
"133", "5", "612041837", "0", "100386647", "Review Verify", "10-09-2013 14:35:28", "0 - In
Process", "50 - Good", "", "3", "John Doe-manager", "USER"
"133", "5", "612041451", "0", "100386632", "Review Verify", "10-09-2013 14:35:28", "0 - In
Process", "50 - Good", "", "3", "John Doe-manager", "USER"
"133", "5", "612041452", "0", "100386631", "Review Verify", "10-09-2013 14:35:28", "0 - In
Process", "50 - Good", "", "3", "John Doe-manager", "USER"
"133", "5", "612041434", "0", "100386635", "Review Verify", "10-09-2013 14:35:37", "0 - In
Process", "50 - Good", "", "3", "John Doe-manager", "USER"
"133", "5", "612041436", "0", "100386634", "Review Verify", "10-09-2013 14:35:37", "0 - In
Process", "50 - Good", "", "3", "John Doe-manager", "USER"
"133", "5", "612041448", "0", "100386633", "Review Verify", "10-09-2013 14:35:37", "0 - In
Process", "50 - Good", "", "3", "John Doe-manager", "USER"
"133", "5", "612041501", "0", "100386648", "Review Verify", "10-09-2013 14:35:37", "0 - In
Process", "49 - No Sig Match", "", "3", "John Doe-manager", "USER"
"133", "5", "612041837", "0", "100386647", "Review Verify", "10-09-2013 14:35:39", "0 - In
Process", "50 - Good", "", "3", "John Doe-manager", "USER"
"133", "5", "612041451", "0", "100386632", "Review Verify", "10-09-2013 14:35:39", "0 - In
Process", "50 - Good", "", "3", "John Doe-manager", "USER"
"133", "5", "612041452", "0", "100386631", "Review Verify", "10-09-2013 14:35:39", "0 - In
Process", "50 - Good", "", "3", "John Doe-manager", "USER"
"133", "8", "612041430", "0", "100386660", "First Pass Normal", "10-09-2013 14:38:12", "0 -
In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "8", "612041429", "0", "100386661", "First Pass Normal", "10-09-2013 14:38:12", "0 -
In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "8", "612041415", "0", "100386662", "First Pass Normal", "10-09-2013 14:38:12", "0 -
In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "8", "612041343", "0", "100386663", "First Pass Normal", "10-09-2013 14:38:12", "0 -
In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "8", "612042411", "0", "100386664", "First Pass Normal", "10-09-2013 14:38:12", "0 -
In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "8", "612039841", "0", "100386665", "First Pass Normal", "10-09-2013 14:38:12", "0 -
In Process", "49 - No Sig Match", "", "8", "Sorter", "SORTER"
"133", "9", "612041430", "0", "100386677", "First Pass Normal", "10-09-2013 14:39:10", "0 -
In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "9", "612041429", "0", "100386678", "First Pass Normal", "10-09-2013 14:39:10", "0 -
In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "9", "612041415", "0", "100386679", "First Pass Normal", "10-09-2013 14:39:10", "0 -
In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "9", "612041343", "0", "100386680", "First Pass Normal", "10-09-2013 14:39:10", "0 -
In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "9", "612042411", "0", "100386681", "First Pass Normal", "10-09-2013 14:39:10", "0 -
In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "9", "612039841", "0", "100386682", "First Pass Normal", "10-09-2013 14:39:10", "0 -
In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "8", "612041430", "0", "100386660", "Ballot Instance Deleted through VBM
Server...", "10-09-2013 14:40:07", "5 - SBR Code 05", "", "3", "manager", "USER"
"133", "10", "612041229", "0", "100386694", "First Pass Normal", "10-09-2013 14:44:43", "0
- In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "10", "612042574", "0", "100386695", "First Pass Normal", "10-09-2013 14:44:43", "0
- In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "10", "612038529", "0", "100386696", "First Pass Normal", "10-09-2013 14:44:43", "0

```

AuditLogs_12-03-2013_12_27_PM.csv

```
- In Process", "49 - No Sig Match", "", "8", "Sorter", "SORTER"
"133", "10", "612035131", "0", "100386697", "First Pass Normal", "10-09-2013 14:44:43", "0
- In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "10", "612035726", "0", "100386698", "First Pass Normal", "10-09-2013 14:44:43", "0
- In Process", "49 - No Sig Match", "", "8", "Sorter", "SORTER"
"133", "10", "612035725", "0", "100386699", "First Pass Normal", "10-09-2013 14:44:43", "0
- In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "11", "612035726", "0", "100386711", "First Pass Normal", "10-09-2013 14:46:08", "0
- In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "11", "612038529", "0", "100386712", "First Pass Normal", "10-09-2013 14:46:08", "0
- In Process", "5 - SBR Code 05", "", "3", "Sorter", "SORTER"
"133", "10", "612035726", "0", "100386698", "Ballot instance deleted ....", "10-09-2013
14:47:01", " ", " ", " ", " ", " ", "John Doe", "USER"
"133", "10", "612038529", "0", "100386696", "Ballot instance deleted ....", "10-09-2013
14:47:01", " ", " ", " ", " ", " ", "John Doe", "USER"
```

Counts By Batch Report

[50375085-799C-4F92-B16D-B0F0D43F8A61]

Processing Date: 08/06/2013

Report Date: 8/6/2013 11:19:10 AM

Start Time: 11:17:17

Election: SCORE Test-95

End Time: 11:18:57

First Pass Batch: 2

Sort Code (Precinct) Section

Group	Bin	Sort Code	CC	Count
0	2	DS-01	80	1
0	2	DS-03	80	1
0	2	DS-04	80	1
0	2	DS-05	80	1
0	2	DS-07	80	1
0	2	DS-09	80	1
0	2	DS-15	80	2
0	2	DS-16	80	1
0	2	DS-17	80	1
0	3	DS-01	6	1
0	3	DS-09	3	2
0	3	DS-12	3	1
0	3	DS-16	3	1
0	4	DS-01	81	2
0	4	DS-02	81	3
0	4	DS-04	81	2
0	4	DS-05	81	1
0	4	DS-06	81	1
0	4	DS-08	81	2
0	4	DS-16	24	2
0	4	DS-16	81	2
0	8	DS-01	49	7
0	8	DS-02	49	8
0	8	DS-03	49	7
0	8	DS-04	20	1
0	8	DS-04	21	1
0	8	DS-04	22	1
0	8	DS-04	49	5
0	8	DS-05	22	1
0	8	DS-05	49	3
0	8	DS-06	27	1
0	8	DS-06	28	1
0	8	DS-06	49	7
0	8	DS-07	49	3
0	8	DS-08	49	6
0	8	DS-09	49	4
0	8	DS-10	49	6
0	8	DS-11	49	4
0	8	DS-12	49	5

Counts By Batch Report

[50375085-799C-4F92-B16D-B0F0D43F8A61]

0	8	DS-14	49	4
0	8	DS-15	20	1
0	8	DS-15	23	1
0	8	DS-15	49	6
0	8	DS-16	21	1
0	8	DS-16	23	1
0	8	DS-16	27	1
0	8	DS-16	28	1
0	8	DS-16	29	1
0	8	DS-16	49	16
0	8	DS-17	49	5

Ballot Style Section

Group	Bin	Ballot Style	CC	Count
0	2	203-DS-07	80	1
0	2	209-DS-17	80	1
0	2	315-DS-09	80	1
0	2	705-DS-01	80	1
0	2	873-DS-16	80	1
0	2	901-DS-04	80	1
0	2	911-DS-05	80	1
0	2	VIP-DS-03	80	1
0	2	VIP-DS-15	80	2
0	3	315-DS-09	3	1
0	3	316-DS-09	3	1
0	3	611-DS-12	3	1
0	3	705-DS-01	6	1
0	3	873-DS-16	3	1
0	4	207-DS-08	81	1
0	4	208-DS-08	81	1
0	4	705-DS-01	81	1
0	4	852-DS-16	24	1
0	4	900-DS-16	81	1
0	4	901-DS-04	81	2
0	4	911-DS-05	81	1
0	4	916-DS-02	81	2
0	4	VIP-DS-01	81	1
0	4	VIP-DS-02	81	1
0	4	VIP-DS-06	81	1
0	4	VIP-DS-16	24	1
0	4	VIP-DS-16	81	1
0	8	100-DS-16	21	1
0	8	100-DS-16	49	1
0	8	101-DS-16	49	1
0	8	200-DS-03	49	2

0	8	201-DS-03	49	2
0	8	201-DS-06	28	1
0	8	201-DS-06	49	4
0	8	207-DS-08	49	2
0	8	208-DS-08	49	2
0	8	209-DS-17	49	2
0	8	315-DS-09	49	1
0	8	316-DS-09	49	1
0	8	405-DS-10	49	2
0	8	502-DS-10	49	1
0	8	600-DS-14	49	1
0	8	601-DS-14	49	1
0	8	610-DS-12	49	1
0	8	611-DS-12	49	1
0	8	653-DS-13	49	1
0	8	654-DS-13	49	1
0	8	705-DS-01	49	3
0	8	707-DS-01	49	2
0	8	801-DS-15	20	1
0	8	801-DS-15	49	1
0	8	843-DS-16	23	1
0	8	843-DS-16	49	2
0	8	852-DS-16	49	2
0	8	873-DS-16	49	2
0	8	900-DS-16	49	1
0	8	901-DS-04	20	1
0	8	901-DS-04	49	1
0	8	905-DS-04	21	1
0	8	905-DS-04	49	1
0	8	905-DS-16	27	1
0	8	905-DS-16	49	2
0	8	906-DS-16	28	1
0	8	906-DS-16	49	2
0	8	907-DS-16	29	1
0	8	907-DS-16	49	2
0	8	910-DS-05	22	1
0	8	915-DS-02	49	2
0	8	916-DS-02	49	4
0	8	917-DS-11	49	2
0	8	VIP-DS-01	49	2
0	8	VIP-DS-02	49	2
0	8	VIP-DS-03	49	3
0	8	VIP-DS-04	22	1
0	8	VIP-DS-04	49	3
0	8	VIP-DS-05	49	3
0	8	VIP-DS-06	49	3
0	8	VIP-DS-07	49	3
0	8	VIP-DS-08	49	2

~ Continue on page 04 ~

Counts By Batch Report

[50375085-799C-4F92-B16D-B0F0D43F8A61]

0	8	VIP-DS-10	49	3
0	8	VIP-DS-11	49	2
0	8	VIP-DS-12	49	3
0	8	VIP-DS-13	49	1
0	8	VIP-DS-14	49	2
0	8	VIP-DS-15	23	1
0	8	VIP-DS-15	49	5
0	8	VIP-DS-16	49	1
0	8	VIP-DS-17	49	3

Count per CC Section

Group	CC	Count
0	20	2
0	21	2
0	22	2
0	23	2
0	24	2
0	27	2
0	28	2
0	29	1
0	3	4
0	49	99
0	6	1
0	80	10
0	81	13

Count per Bin Section

Group	Bin	Count
0	2	10
0	3	5
0	4	15
0	8	112

Totals Section

Reject Bin	0
UnSchemed Bin	10
Challenged Bins	132
Good Bins	0
Total Fed	142

[50375085-799C-4F92-B16D-B0F0D43F8A61]

Duplicates Report

[557AE630-5167-4C7C-BB82-DA7BBF502D58]

Report Date: 8/6/2013 11:19:10 AM

Election: SCORE Test-95

Batch	Ballot ID	Qty	Error Type
2	133187009	2	No Status

Ballot ID	Batch	Qty	Error Type
133187009	1	2	No Status

[557AE630-5167-4C7C-BB82-DA7BBF502D58]

Incoming First Pass Count Per Bin and Code Report

Department Name
 Address Line 1
 Address Line 2

Printed On: Monday, August 30, 2010 @ 5:26:31 PM
 Processing Date: Monday, August 30, 2010
 Batch: 2
 Mailing: Primary 2010
 Job Name: VBM_1_FP

Bin(s)	Code	Code Text	Total Documents
1		Reject	15
4		Bad Res Address	4
		Deceased	8
		Duplicate	4
		Undeliverable	4
5		No Signature	6
6		No Sig Match	3
7		Good	536

Total Fed:	580	Total Good:	536
Total Read:	565	No Sig Match	3
Total Rejects:	15	Bad Res Address	4
Total Out of Scheme:	0	Duplicate	4
		Undeliverable	4
		No Signature	6
		Deceased	8
		Reject	15
		Total Challenged:	44

Incoming Sort Scheme Listing By Bin Report

Printed On: Monday, August 30, 2010 @ 5:34:27 PM
 Processing Date: Monday, August 30, 2010
 Mailing: Primary 2010
 Job Name: VBM_1_FP

Department Name
 Address Line 1
 Address Line 2

<u>Bin(s)</u>	<u>No Count</u>	<u>Fine Sort</u>	<u>Code Range(s)</u>	<u>Code Text</u>
1			Reject 00000001 - 15999999 16000001 - 16999999 17000001 - 17999999 18000001 - 18999999	Reject VBM Reject No Barcode No Ballot DB No Ref Sig
2	X		Unscheme	Unscheme
4			31000001 - 31999999 32000001 - 32999999 33000001 - 33999999 34000001 - 34999999 35000001 - 35999999 36000001 - 36999999 37000001 - 37999999 38000001 - 38999999 48000001 - 48999999	Void Undeliverable No Ballot In Envelope Duplicate Too Late Other Bad Res Address Deceased UnKnown Challenge
5			29000001 - 29999999	No Signature
6			49000001 - 49999999	No Sig Match
7		X	50000001 - 50000224 50001225 - 50001239 50002240 - 50002241 50003242 - 50003709 50004710 - 50004715 50005716 - 50006443 50007444 - 50007484 50008485 - 50008496 50009497 - 50009606 50010607 - 50010632 50011633 - 50011665 50012666 - 50013495 50014496 - 50014925 50015926 - 50016144	0000801 0000802 0000803 0000804 0000805 0000806 0000807 0000808 0000809 0000810 0000811 0000812 0000813 0000814

EMS_CC_Code	Ballot_Qty_EMS	Ballot_Qty_Sorter
0	3112	277
20	2	2
21	2	2
22	4	4
23	2	2
24	2	2
25	2	0
26	4	2
27	2	2
28	2	2
29	2	2
30	2	2
31	2	2
49	2	0

8.0 Sample Projects Artifacts

TESTING PROJECT PLAN

ID	Task Name	Duration	Start	Finish	Resource Names	2013	2014
1	Complete County 2013 Project Plan	326 days	Tue 1/29/13	Fri 12/20/13			47%
2	Finalize Plan for 2013	50 days	Fri 3/1/13	Fri 4/19/13			91%
3	Review planned product improvements for Q2 2013	1 day	Fri 3/1/13	Fri 3/1/13	BH, BC		100%
4	Review deliverables for Q2 2013	19 days	Tue 3/19/13	Fri 4/12/13	BH, BC		100%
5	Review UAT test approach, cases and desired outcomes	5 days	Mon 4/8/13	Fri 4/12/13	BH, BC		50%
6	Finalize product improvements and deliverables for Q2 2013	3 days	Wed 4/17/13	Fri 4/19/13	BH, BC		100%
7							
8							
9	Q2 Activities						
10	Product Improvement Tasks	189 days	Tue 1/29/13	Tue 8/6/13			65%
11	UAT Test#1 Development Work	150 days	Tue 1/29/13	Thu 6/27/13			81%
12	Development of product improvements	129 days	Tue 1/29/13	Thu 6/6/13			97%
13	System testing at BH	93 days	Tue 1/29/13	Thu 6/6/13	BH		100%
14	Deliver software improvements with release notes	45 days	Fri 4/5/13	Thu 6/6/13	BH		90%
15	Update Latest Software (Regression Test Required)	1 day	Wed 5/29/13	Wed 5/29/13	BH		95%
16	Deliver all Process and Testing Documentation to BC	2 days	Thu 5/30/13	Fri 5/31/13	BH		90%
17	Process Documentation	7 days	Fri 5/31/13	Thu 6/6/13			67%
18	Regression Test Plan and Logs	1 day	Fri 5/31/13	Fri 5/31/13			85%
19	UAT Specific Test Scripts and Documentation	1 day	Fri 5/31/13	Fri 5/31/13			85%
20	Deliver software improvements with release notes	1 day	Thu 6/6/13	Thu 6/6/13	BH		30%
21	Q2 Improvements as Outlined SOW	1 day	Thu 6/6/13	Thu 6/6/13	BH		50%
22	UAT Test#2 Development Work	18 days	Mon 6/10/13	Thu 6/27/13			0%
23	Development of product improvements (for Q2 deliverables)	14 days	Mon 6/10/13	Thu 6/27/13	BH		0%
24	System testing at BH	9 days	Mon 6/17/13	Thu 6/27/13	BH		0%
25	Deliver software improvements with release notes	0 days	Thu 6/27/13	Thu 6/27/13	BH		0%
26	Deliver all Process and Testing Documentation to BC	1 day	Thu 6/27/13	Thu 6/27/13			0%
27	Process Documentation	1 day	Thu 6/27/13	Thu 6/27/13			0%
28	Regression Test Plan and Logs	1 day	Thu 6/27/13	Thu 6/27/13			0%
29	UAT Specific Test Scripts and Documentation	1 day	Thu 6/27/13	Thu 6/27/13			0%
30							
31	UAT Development Test #1 (Q2)	11 days	Fri 6/7/13	Mon 6/17/13			7%
32	Preparation Tasks	6 days	Fri 6/7/13	Wed 6/12/13			14%
33	Sorter system check	1 day	Fri 6/7/13	Fri 6/7/13	BH		25%
34	Provide test deck and prepare UAT Election	2 days	Mon 6/10/13	Tue 6/11/13	BC		30%
35	Install new software, validation tests	2 days	Tue 6/11/13	Wed 6/12/13	BH		0%
36	Review system setup and create BH UAT Election	1 day	Wed 6/12/13	Wed 6/12/13	BC		0%
37	UAT Testing Tasks	6 days	Wed 6/12/13	Mon 6/17/13			0%

bell howell
Printed: Fri 11/8/13

Critical Split Task Progress Milestone Project Summary External Tasks External Milestone Deadline

Critical Split Task Progress Baseline Summary Progress External Milestone Deadline

Task Baseline Split Summary Deadline

ID	% Complete	Task Name	Duration	Start	Finish	Resource	2013	2014
38	0%	Initial 100-piece batch end-to-end test to validate system, monitor results	1 day	Wed 6/12/13	Wed 6/12/13	BC,BH	e	a e a p a u J u l u e O c t o e a e
39	0%	500-piece batch end-to-end test to validate system, monitor results	1 day	Thu 6/13/13	Thu 6/13/13	BC,BH		
40	0%	Scale up to available test volumes, monitor counts and document results	2 days	Fri 6/14/13	Mon 6/17/13	BC,BH		
41	0%	UAT Test Wrap-up	1 day	Mon 6/17/13	Mon 6/17/13	BC,BH		
42	0%	Review test results	1 day	Mon 6/17/13	Mon 6/17/13	BC,BH		
43	0%	Document open items and target dates for completion	1 day	Mon 6/17/13	Mon 6/17/13	BC,BH		
44								
45	0%	UAT Development Test #2 (Q2)	14 days	Thu 6/27/13	Wed 7/10/13			
46	0%	Preparation Tasks	2 days	Thu 6/27/13	Fri 6/28/13			
47	0%	Sorter system check	1 day	Fri 6/28/13	Fri 6/28/13	BH		
48	0%	Provide test deck and prepare SCORE UAT Election	2 days	Thu 6/27/13	Fri 6/28/13	BC		
49	0%	Install new software, validation tests	2 days	Thu 6/27/13	Fri 6/28/13	BH		
50	0%	Review system setup and create BH UAT Election	1 day	Fri 6/28/13	Fri 6/28/13	BC		
51	0%	UAT Testing Tasks	3 days	Mon 7/1/13	Wed 7/3/13			
52	0%	Initial 100-piece batch end-to-end test to validate system, monitor results	1 day	Mon 7/1/13	Mon 7/1/13	BC,BH		
53	0%	500-piece batch end-to-end test to validate system, monitor results	1 day	Mon 7/1/13	Mon 7/1/13	BC,BH		
54	0%	Scale up to available test volumes, monitor counts and document results	3 days	Mon 7/1/13	Wed 7/3/13	BC,BH		
55	0%	UAT Test Wrap-up	1 day	Mon 7/8/13	Mon 7/8/13	BC,BH		
56	0%	Review test results	1 day	Mon 7/8/13	Mon 7/8/13	BC,BH		
57	0%	Document open items and target dates for completion	1 day	Mon 7/8/13	Mon 7/8/13	BC,BH		
58	0%	Compile, review and finalize UAT summary documentation	3 days	Mon 7/8/13	Wed 7/10/13	BC,BH		
59								
60	0%	Q2 UAT COMPLETE	0 days	Fri 7/12/13	Fri 7/12/13			
61								
62	0%	Q2 Mock Election	17 days	Mon 7/15/13	Wed 7/31/13			
63	0%	Preparation Tasks	2 days	Mon 7/15/13	Tue 7/16/13			
64	0%	Sorter system check	1 day	Mon 7/15/13	Mon 7/15/13	BH		
65	0%	Provide test deck and prepare SCORE Mock Election	2 days	Mon 7/15/13	Tue 7/16/13	BC		
66	0%	Execute validation tests	2 days	Mon 7/15/13	Tue 7/16/13	BH		
67	0%	Review system setup and create BH Mock Election	1 day	Tue 7/16/13	Tue 7/16/13	BC		
68	0%	Test Election Tasks	3 days	Mon 7/22/13	Wed 7/24/13			
69	0%	Initial 100-piece batch end-to-end test to validate system, monitor results	1 day	Mon 7/22/13	Mon 7/22/13	BC,BH		
70	0%	500-piece batch end-to-end test to validate system, monitor results	1 day	Mon 7/22/13	Mon 7/22/13	BC,BH		
71	0%	Scale up to available Mock volumes, monitor counts and document results	2 days	Tue 7/23/13	Wed 7/24/13	BC,BH		
72	0%	Mock Election Wrap-up	1 day	Thu 7/25/13	Thu 7/25/13			
73	0%	Review Mock results	1 day	Thu 7/25/13	Thu 7/25/13	BC,BH		
74	0%	Document open items and target dates for completion	1 day	Thu 7/25/13	Thu 7/25/13	BC,BH		

bell howell
Printed: Fri 11/8/13

Critical Split Split
 Critical Progress Task Progress
 Task Baseline
 Baseline Split Summary
 Milestone Milestone
 Summary Progress External Milestone
 Deadline Project Summary External Milestone

ID	% Complete	Task Name	Duration	Start	Finish	Resource Names
75	0%	Compile, review and finalize Mock Election summary documentation	3 days	Mon 7/29/13	Wed 7/31/13	BC
76	0%	MOCK ELECTION COMPLETE	0 days	Wed 7/31/13	Wed 7/31/13	
77	0%					
78	0%					
79	0%	Q2 DEVELOPMENT ACCEPTANCE COMPLETE	0 days	Tue 8/6/13	Tue 8/6/13	
80	0%					
81	0%	Legislative/Critical Actions (Placeholder)				
82	0%	Q3 - Release Validation Results Submitted to Boulder	27 days	Thu 9/19/13	Tue 10/15/13	
83	0%	Q3 - Release Validation Results Submitted to Boulder	2 days	Thu 9/19/13	Fri 9/20/13	
84	0%	Q3 - Release Validation Results Submitted to Boulder	2 days	Thu 9/19/13	Fri 9/20/13	BH
85	0%	Q3 - Development Window Closed	2 days	Thu 9/19/13	Fri 9/20/13	BH
86	0%					
87	0%	Q3 - Release Submitted to Boulder	0 days	Thu 9/19/13	Thu 9/19/13	
88	0%	Release Notes, Updated Documentation and Development List Submitted to Boulder	0 days	Thu 9/19/13	Thu 9/19/13	BH
89	0%					
90	0%	Q3 - Development Test #1	8 days	Thu 9/19/13	Thu 9/26/13	
91	0%	Preparation Tasks	6 days	Thu 9/19/13	Tue 9/24/13	
92	0%	Sorter system check	2 days	Thu 9/19/13	Fri 9/20/13	BH
93	0%	Provide test deck and prepare SCORE UAT Election	2 days	Thu 9/19/13	Fri 9/20/13	BC
94	0%	Install new software, validation tests	1 day	Mon 9/23/13	Mon 9/23/13	BH
95	0%	Review system setup and create BH UAT Election	1 day	Mon 9/23/13	Mon 9/23/13	BC
96	0%	Test Election Tasks	1 day	Mon 9/23/13	Mon 9/23/13	BH
97	0%	Initial 100-piece batch end-to-end test to validate system, monitor results	1 day	Tue 9/24/13	Tue 9/24/13	BC,BH
98	0%	500-piece batch end-to-end test to validate system, monitor results	2 days	Tue 9/24/13	Wed 9/25/13	
99	0%	Scale up to available test volumes, monitor counts and document results	1 day	Tue 9/24/13	Tue 9/24/13	BC,BH
100	0%	Test Election Wrap-up	1 day	Wed 9/25/13	Wed 9/25/13	BC,BH
101	0%	Review test results	1 day	Thu 9/26/13	Thu 9/26/13	
102	0%	Document open items and target dates for completion	1 day	Thu 9/26/13	Thu 9/26/13	BC,BH
103	0%	Compile, review and finalize Test Election summary documentation	1 day	Thu 9/26/13	Thu 9/26/13	BC,BH
104	0%					
105	0%	Q3 - Development Test #2	6 days	Thu 10/10/13	Tue 10/15/13	
106	0%	Preparation Tasks	6 days	Thu 10/10/13	Tue 10/15/13	
107	0%	Sorter system check	1 day	Thu 10/10/13	Thu 10/10/13	BH
108	0%	Provide test deck and prepare SCORE UAT Election	2 days	Thu 10/10/13	Fri 10/11/13	BC
109	0%	Install new software, validation tests	1 day	Fri 10/11/13	Fri 10/11/13	BH
110	0%	Review system setup and create BH UAT Election	1 day	Fri 10/11/13	Fri 10/11/13	BC
111	0%	Test Election Tasks	1 day	Fri 10/11/13	Fri 10/11/13	BH



Printed: Fri 11/8/13

ID	% Complete	Task Name	Duration	Start	Finish	Resource Names	2013	2014
112	0%	Initial 100-piece batch end-to-end test to validate system, monitor results	1 day	Fri 10/11/13	Fri 10/11/13	BC,BH	10/15	0%
113	0%	500-piece batch end-to-end test to validate system, monitor results	1 day	Mon 10/14/13	Mon 10/14/13	BC,BH	10/15	0%
114	0%	Scale up to available test volumes, monitor counts and document results	1 day	Mon 10/14/13	Mon 10/14/13	BC,BH	10/15	0%
115	0%	Test Election Wrap-up	1 day	Mon 10/14/13	Mon 10/14/13	BC,BH	10/15	0%
116	0%	Review test results	1 day	Tue 10/15/13	Tue 10/15/13	BC,BH	10/15	0%
117	0%	Review open items and target dates for completion	1 day	Tue 10/15/13	Tue 10/15/13	BC,BH	10/15	0%
118	0%	Compile, review and finalize Test Election summary documentation	1 day	Tue 10/15/13	Tue 10/15/13	BC,BH	10/15	0%
119								
120	0%	Q3 DEVELOPMENT ACCEPTANCE COMPLETE	0 days	Tue 10/15/13	Tue 10/15/13		10/15	0%
121								
122	0%	Coordinated Live Election November 5th	60 days	Tue 10/15/13	Fri 12/13/13			0%
123	0%	Election Preparation	3 days	Tue 10/15/13	Thu 10/17/13			0%
124	0%	Test Deck and Sandbox Election Created	2 days	Tue 10/15/13	Wed 10/16/13	BC		0%
125	0%	Setup for Election	1 day	Tue 10/15/13	Tue 10/15/13	BC		0%
126	0%	BH Maintenance and Services	2 days	Tue 10/15/13	Wed 10/16/13	BH		0%
127	0%	BH System Setup Configuration and System Test (Regression Test Required)	1 day	Wed 10/16/13	Wed 10/16/13	BH		0%
128	0%	Election Process Material Provided	1 day	Wed 10/16/13	Wed 10/16/13	BC,BH		0%
129	0%	BH Process Refresher / Training Updates	2 days	Wed 10/16/13	Thu 10/17/13	BH		0%
130	0%	Election Conducted	41 days	Wed 10/16/13	Mon 11/25/13			0%
131	0%	Process election mail, monitor counts and document results	29 days	Wed 10/16/13	Mon 11/25/13	BC,BH		0%
132	0%	Election Wrap Up	19 days	Mon 11/25/13	Fri 12/13/13			0%
133	0%	Gather election challenges and improvement opportunities	15 days	Mon 11/25/13	Fri 12/13/13	BC,BH		0%
134								
135	0%	BOULDER COUNTY COORDINATED ELECTION COMPLETE	0 days	Fri 12/13/13	Fri 12/13/13			0%
136								
137	0%	2013 System Shutdown	8 days	Fri 12/13/13	Fri 12/20/13			0%
138	0%	County Election Information Backed Up	6 days	Fri 12/13/13	Fri 12/20/13	BC		0%
139	0%	Server Election Information Backed Up	1 day	Fri 12/13/13	Fri 12/13/13	BH		0%
140	0%	Server Powered Down	1 day	Fri 12/20/13	Fri 12/20/13	BC		0%
141	0%	Equipment Powered Down	6 days	Fri 12/13/13	Fri 12/20/13	BH		0%
142	0%	Server Access Disabled	1 day	Fri 12/20/13	Fri 12/20/13	BC		0%
143	0%	Election Material Stored	6 days	Fri 12/13/13	Fri 12/20/13	BC		0%
144								
145	0%	2013 Boulder County Implementation Complete	5 days	Mon 12/16/13	Fri 12/20/13			0%
146	0%	2013 Implementation Reviewed	0 days	Mon 12/16/13	Mon 12/16/13	BC,BH		0%
147	0%	2012 Product Improvements and Deliverables (Q1 2014) Drafted	5 days	Mon 12/16/13	Fri 12/20/13	BC,BH		0%

bell howell
 Printed: Fri 11/8/13

Critical **Critical Split**

Critical Progress **Task Progress**

Task **Baseline**

Baseline Split

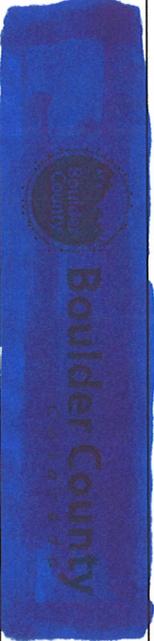
Summary

Project Summary

External Tasks

External Milestone

Deadline



ID	Task Name	Duration	Work	Start	Finish	Resource Names	2012
1	County of Boulder Colorado	86 days?	784 hrs	Tue 8/14/12	Wed 11/7/12		o e Jan e Ma Apr a Jun Jul u e Oct o e Jan 20
2							
3	Criterion Elevate Build and Ship	35 days	160 hrs	Tue 8/14/12	Mon 9/17/12		
4	Receive PO from Boulder County	1 day	8 hrs	Tue 8/14/12	Tue 8/14/12	BCC	0%
5	Build sorting system and complete testing	17 days	136 hrs	Wed 8/22/12	Thu 9/13/12	BH	0%
6	Ship sorter to Boulder County	2 days	16 hrs	Fri 9/14/12	Mon 9/17/12	BH	0%
7	Sorter arrives at Boulder County	0 days	0 hrs	Mon 9/17/12	Mon 9/17/12		9/17
8							
9	Boulder County Site Preparation	17 days	40 hrs	Mon 8/20/12	Wed 9/5/12		50%
10	Confirm power and network drop	2 days	16 hrs	Mon 8/20/12	Tue 8/21/12	BCC	100%
11	Prepare mock election data and physical mail	1 day	8 hrs	Wed 8/22/12	Wed 8/22/12	BCC	0%
12	Confirm data transfer with SCORE using current server onsite	1 day	16 hrs	Wed 9/5/12	Wed 9/5/12	BCC, BH	0%
13							
14	On-site Installation & Validation	12 days?	136 hrs	Mon 9/17/12	Fri 9/28/12		0%
15	On-site Systems Installation	5 days	40 hrs	Mon 9/17/12	Fri 9/21/12		0%
16	Sorter installation	2 days	16 hrs	Mon 9/17/12	Tue 9/18/12	BH Service	0%
17	BH hardware and software validation, system tests	3 days	24 hrs	Wed 9/19/12	Fri 9/21/12	BH Service	0%
18	Operator Training	4 days	32 hrs	Mon 9/24/12	Thu 9/27/12		0%
19	Submit operator training syllabus and manual to Boulder County	1 day	8 hrs	Mon 9/24/12	Mon 9/24/12	BH	0%
20	Training session	3 days	24 hrs	Tue 9/25/12	Thu 9/27/12	BH	0%
21	Mock Election	5 days?	64 hrs	Mon 9/24/12	Fri 9/28/12		0%
22	Validate end to end functionality with a low volume test	1 day	16 hrs	Mon 9/24/12	Mon 9/24/12	BCC, BH	0%
23	Proceed with multiple batches, validate functionality	3 days	48 hrs	Tue 9/25/12	Thu 9/27/12	BCC, BH	0%
24	Switch to production environment	1 day?	0 hrs	Fri 9/28/12	Fri 9/28/12		0%
25	System ready to go live	0 days	0 hrs	Fri 9/28/12	Fri 9/28/12	BCC, BH	0%
26							
27	Live Production Run	38 days	448 hrs	Mon 10/1/12	Wed 11/7/12		0%
28	Run low volume live batches, confirm end to end functionality	18 days	224 hrs	Mon 10/1/12	Thu 10/18/12	BCC, BH	0%
29	Start high volume election mail processing	20 days	224 hrs	Fri 10/19/12	Wed 11/7/12	BCC, BH	0%



Printed: Fri 11/8/13

Critical Critical Split Critical Progress Task

Split Task Progress Baseline Baseline Split

Baseline Milestone Milestone Summary Progress Summary

Project Summary External Milestone External Tasks External Milestone Deadline

SERVICE COVERAGE CALENDAR

SERVICE COVERAGE CALENDAR

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Shift	6/26	6/27	6/28	6/29	6/30	6/31
1st Shift						Customer Service Engineer TSE Product Specialist (Remote)
2nd Shift						Customer Service Engineer TSE Product Specialist (Remote)
3rd Shift						Customer Service Engineer TSE Product Specialist (Remote)
Shift	6/2	6/3	6/4	6/5	6/6	6/7
1st Shift						Customer Service Engineer TSE Product Specialist
2nd Shift						Customer Service Engineer TSE Product Specialist
3rd Shift						Customer Service Engineer TSE Product Specialist
Shift	6/9	6/10	6/11	6/12	6/13	6/14
1st Shift						Customer Service Engineer TSE Product Specialist -If Needed Specialist, Training/Consult Test Plan Specialist Software Product Specialist -If Needed Project Manager
2nd Shift						Customer Service Engineer TSE Product Specialist -If Needed Specialist, Training/Consult Test Plan Specialist Software Product Specialist -If Needed Project Manager
3rd Shift						Customer Service Engineer TSE Product Specialist -If Needed Specialist, Training/Consult Test Plan Specialist Software Product Specialist -If Needed Project Manager
Shift	6/16	6/17	6/18	6/19	6/20	6/21
1st Shift						Customer Service Engineer TSE Product Specialist -If Needed Specialist, Training/Consult Test Plan Specialist Update remaining improvements and apply the regression test
2nd Shift						Customer Service Engineer TSE Product Specialist -If Needed Specialist, Training/Consult Test Plan Specialist Update remaining improvements and apply the regression test
3rd Shift						Customer Service Engineer TSE Product Specialist -If Needed Specialist, Training/Consult Test Plan Specialist Update remaining improvements and apply the regression test
Shift	6/23	6/24	6/25	6/26	6/27	6/28
1st Shift						Customer Service Engineer TSE Product Specialist -If Needed Specialist, Training/Consult Test Plan Specialist Software Product Specialist -If Needed Update remaining improvements and apply the regression test
2nd Shift						Customer Service Engineer TSE Product Specialist -If Needed Specialist, Training/Consult Test Plan Specialist Software Product Specialist -If Needed Update remaining improvements and apply the regression test
3rd Shift						Customer Service Engineer TSE Product Specialist -If Needed Specialist, Training/Consult Test Plan Specialist Software Product Specialist -If Needed Update remaining improvements and apply the regression test
Shift	6/30	7/1	7/2	7/3	7/4	7/5
1st Shift						Customer Service Engineer TSE Product Specialist -If Needed
2nd Shift						Customer Service Engineer TSE Product Specialist -If Needed
3rd Shift						Customer Service Engineer TSE Product Specialist -If Needed

9.0 General Questions

9.0 General Questions

1) What staff support from CDOS and counties do you envision needing during the Implementation of the UVS in a county? Identify each resource by location (CDOS or county), role or responsibility, technical skills needed, suggested expertise in years, and any clarifying comments.

BH Response:

- The proposed solution is a sorting system and optional mail ballot tracking.
- The proposed system already has a working interface with SCORE, therefore, unless changes are made to SCORE, we do not anticipate requiring CDOS personnel for the implementation.
- The county will need to dedicate time from personnel as follows:
 - Planning activities: The key officials currently managing the vote by mail process, facilities management personnel and the key IT personnel that will be involved in setting up the network connectivity
 - Training and implementation: During the actual installation of the system, in addition to the personnel involved in planning, the key operators of the system are also necessary to be made available.
- The sorting system is designed for operation by people with basic computer skills, therefore, deep technical skills are not necessary.

2) How many county implementations do you feel you could support simultaneously?

BH Response:

- BH has a proven capability of supporting four (4) simultaneous installations for the same election.
- A larger number of installations can also be handled simultaneously, with careful planning, by deploying personnel from our nationwide service network to help with simultaneous installations.
- Depending on the number of installations to be handled, a detailed project plan will be worked out to ensure a successful implementation.

3) What is your coverage, terms, and duration for warranties of the hardware, software, and other deliverables provided pursuant to this RFP?

BH Response:

Bell and Howell will provide a one-year warranty on parts and labor as requested in this RFP. Software is covered both under warranty and under the Software Maintenance Agreement.

4) What is your coverage, terms, and duration for maintenance of the hardware components of your UVS solution?

BH Response:

BH's approach is to provide the highest coverage during elections years (even numbered) when a primary and general elections are held. If a special election should occur, BH

provides the same type of coverage using a different pricing model (please see pricing in Appendix A).

5) What is your coverage, terms, and duration for licensing of the software components of your UVS solution?

BH Response:

BH's approach to software components is covered under the annual software maintenance agreement that has an annual fee. All improvements and updates to the options chosen by the county are provided at no additional charge, even if the changes are requested by a different county. This helps BH provide the best possible support to our customers by having consistent versions across customers, and it also ensures that our customers get the benefit of recommendations from other users. Product development is an ongoing process and feedback from existing customers is welcomed to ensure that the product evolves to better meet their needs.

6) Are updates and modifications to the UVS because of legislative mandates a part of your support agreement or are they custom enhancements?

BH Response:

As described in our response to General Question (5), BH welcomes feedback on improvements to the product at no additional charge to the Software Maintenance Agreement fee. However, in the unlikely event of a legislative mandates that may result in a substantial rewrite, BH will have to charge for development. From our experiences in VBM since 2007, we have not had to charge for separate development to meet legislative mandates.

7) What is the certification status of each component within your proposed solution? Include a matrix showing the following:

- Component Identification
- Federal certification date
- The federal certification standard currently met (e.g. 2005 VVSG)
- Any state certifications
- Projected certification date and standard if not currently certified
- Projected certification date and standard for a future planned upgraded certification

BH Response:

Mail ballot sorting products are not necessary to be certified, to the best of our knowledge. If the State determines that certification is necessary, BH will be glad to work with the state to get certified as soon as possible.

8) What features of your proposed solution exist to ensure ballot secrecy? Please describe those features.

BH Response:

The proposed solution has the capability to ensure ballot secrecy by ensuring that the number of envelopes available for Repass or Fine Sort (and therefore for handing over for opening and extraction) are above a specified threshold for each Ballot Style.

This is accomplished by determining the quantity per Ballot Style that have been run in First Pass, not yet run in Fine Sort (or Re-Pass if Fine Sort is not used) and have an “Accepted” status.

The system holds back a quantity per Ballot Style up to the specified threshold (a configurable parameter), and checks if there are sufficient additional envelopes to still meet the threshold, if all the available envelopes are run in the final pass (Re-Pass or Fine Sort, per the county’s desired process).

- If the available envelopes are below the threshold for a ballot style, all envelopes corresponding to that ballot style will be out-sorted.
- If the available envelopes are at or above the threshold for a ballot style, they will be sorted to the bin that the ballot style is mapped to, per the sort scheme.

This sorting approach ensures that the user of the sorting system can easily differentiate between envelopes that can proceed with further processing and envelopes that should be held back until the threshold is met. Once configured, these steps are done automatically by the system as part of the regular processing steps, saving significant manual effort in sorting and maintaining counts of envelopes per ballot style.

9) What is your organizational chain-of-command for escalating problems needing resolution?

BH Response:

Please refer to Tab 6.9 Support

10) What purchase options do your company offer (e.g. payment in full upon delivery, financing, leasing)?

BH Response:

BH offers both purchase and leasing. We would be happy to discuss the suggested payment in full upon delivery if awarded the contract. Final agreement and terms would need to be discussed with the BH Executive Management and the State.

11) What is the maximum number for each of the following items that your Election Management?

System allows:

- Precincts
- Contests
- Candidates
- Political Parties
- Ballot Styles
- Precincts per Ballot Style
- Ballot Styles per Precinct
- Other limitations?

BH Response:

Since we are proposing solutions only for mail ballot sorting and tracking, this does not appear to be applicable to our proposal.

12) What interface capabilities, with the CDOS voter registration system (SCORE), can your Election Management Software provide? Is there a defined extract format for precinct and district definitions, registration statistics, and candidate or contest information that is or may be made compatible with SCORE? What interface data formats are available (e.g. EML, XML, CSV, and ASCII)?

BH Response:

- The proposed solution is a sorting system, and optional mail ballot tracking. BH is not proposing an Election Management System.
- The proposed system already has a proven working interface with SCORE developed per the Vendor Toolkit.
- Data can be exported and imported using text files, as well as using web services.

13) What are the security features and capabilities of your proposed system and processes? Include the following areas in your response to this question:

- How do you protect the audit logs (e.g., encryption, hashing)?
- Does your system documentation contain suggested security auditing procedures? If so, please provide.
- Do you provide an executable application whitelist with digitally signed programs?
- How does your system prevent unauthorized, non-whitelisted applications from running?
- What specific hardening procedures and standards are your voting devices held to?
- What database encryption mechanisms are used by your system for data at rest and in transit? Please describe, in detail, all uses of data encryption/decryption in your proposed solution.
- What password features are included in your proposed solution (e.g., complexity, reuse)?

- Is there any remote communication technology associated with your proposed solution? If so, explain.
- What processes are you using for source code review and compiler security verification?
- What independent security audits has your proposed system received?

BH Response:

The proposed solution is a sorting system, with optional mail ballot tracking. Therefore, not all areas may apply to our proposed system.

- Audit logs are not editable by any user of the system, and can be periodically generated to save text file copies, at separate locations. An audit log feed can also be provided via web services if necessary to further minimize any risk of modifications.
- Each user of the system can be configured with an individual username and password, with specific roles, ranging from a reviewer role (most restricted), supervisor role (less restricted) and an administrator role (least restrictive)
- Since there is a paper –based trail (the envelopes themselves, as well as the storage location), it is straightforward to validate the processing history and captured images with the data as stored in the database and exported from the system.
- Remote access is typically accomplished via access to the server through VPN (Virtual Private Network), based on security policies in place at target counties. Remote access is used specifically for providing remote support to an onsite team/ customer.
- All computers that are part of the system are able to be physically locked
- The proposed products have not yet been required to have an independent security audit

14) What post-election audit capabilities are provided by your system and what processes or procedures do you offer to support a post-election audit, including a risk limiting audit?

BH Response:

The system automatically generates reports at various points throughout the election-processing period. Some of the reports provide cumulative counts that can be compared against counts from ballot tabulation.

Audit processes are typically handled by county personnel, and BH can provide specific recommendations on utilizing system functionality to minimize the manual labor for the validation steps.

Since the proposed solution does not include ballot extraction or tabulation, audits are typically focused on counts during the sorting process, as well as the review and data export processes.

15) To what extent, if any, do the hardware and software products you are proposing to Colorado meet the requirements of Section 508 of the Rehabilitation Act of 1973 and subsequent amendments to that Act?

BH Response:

Since we are proposing solutions only for mail ballot sorting and tracking, this does not appear to be applicable to our proposal.

16) What products or services do you provide in the areas of Voter Education and Voter Outreach? This is an informational question only.

BH Response: Bell and Howell does not currently offer products or services in the areas of Voter Education and Voter Outreach.

10.0 Preliminary Project Schedule

10.0 Preliminary Project Schedule and Staffing Plan

Sample Project Plan

A sample project plan is attached that shows the typical tasks involved in a VBM sorting system installation. The actual project plan to be used will be worked out in discussion with the County personnel to ensure that the relevant tasks and the right timelines are included in the plan.

Key Success Factors

Due to the unique periodic nature of elections, and the different processing steps at different periods during an election, careful planning is necessary to ensure a successful implementation. Some of the key items that contribute to success are:

- Identifying the right stakeholders from each side (Bell and Howell, County's election officials, IT personnel and infrastructure personnel).
- Discussing the details of how the manual process followed today will change with automation and planning mail storage and process flow changes that best meet the county's needs while maximizing process efficiency and integrity.
- Establishing a common project plan that communicates the timelines required to be met by different team members to meet the deadline and having frequent status meetings to adapt to risks or issues that may arise during the course of the project.
- Testing the system based on actual envelopes from a previous election to best replicate a live environment.
- Conducting detailed training close to the election to maximize retention of the relevant details.
- Starting to use the sorting system as early in the process as possible, and monitoring closely as the mail volume builds up. This allows time for the team to become familiar with the new processes as well as identify any changes that may be required early on to ensure a successful election.
- Maintaining close communication between the Bell and Howell and County personnel to adapt quickly to changes, utilizing the experiences from both sides to arrive at the best solution to the challenges faced.
- Conducting a review session after the first election to make further improvements for the next election.

VBM Project Plan(CO).mpp

ID	Task Name	Duration	Start	Finish	Resource Names
1	County VBM Sorting System Project Plan	158 days?	Mon 12/2/13	Wed 7/9/14	
2	Contract Award	65 days?	Mon 12/2/13	Fri 2/28/14	
3	Contract Proposal Submission	1 day	Mon 12/2/13	Mon 12/2/13	BH
4	Contract Award	1 day?	Fri 2/28/14	Fri 2/28/14	County
5	Purchase Order	0 days	Fri 3/7/14	Fri 3/7/14	
6	Secure Signed Purchase Order/ Contract from the County	0 days	Fri 3/7/14	Fri 3/7/14	BH,County
7	Site Survey and Process Review	1 day	Fri 3/14/14	Fri 3/14/14	
8	Formal site survey and process review with county	1 day	Fri 3/14/14	Fri 3/14/14	BH Service
9	Criterion Elevate Build and Ship	32 days	Fri 3/7/14	Mon 4/21/14	
10	Build sorting system and complete testing	30 days	Fri 3/7/14	Thu 4/17/14	BH
11	Ship sorter to County	2 days	Fri 4/18/14	Mon 4/21/14	BH
12	Sorter arrives at County	0 days	Mon 4/21/14	Mon 4/21/14	BH, County
13	County Site Preparation	16 days	Fri 3/28/14	Fri 4/18/14	
14	Confirm location, power and network drop	2 days	Fri 3/28/14	Mon 3/31/14	BH,County
15	Prepare mock election data and physical mail	14 days	Tue 4/1/14	Fri 4/18/14	County
16	On-site Installation & Validation	9 days?	Tue 4/22/14	Fri 5/2/14	
17	On-site Systems Installation	4 days	Tue 4/22/14	Fri 4/25/14	
18	Sorter installation	1 day	Tue 4/22/14	Tue 4/22/14	BH Service
19	BH hardware and software validation, system tests	3 days	Wed 4/23/14	Fri 4/25/14	BH Service
20	Operator Training	4 days	Mon 4/28/14	Thu 5/1/14	
21	Submit operator training syllabus and manual to County	1 day	Mon 4/28/14	Mon 4/28/14	BH Training
22	Training session	3 days	Tue 4/29/14	Thu 5/1/14	BH Training
23	Mock Election	5 days?	Mon 4/28/14	Fri 5/2/14	
24	Validate end to end functionality with a low volume test	1 day	Mon 4/28/14	Mon 4/28/14	County,BH
25	Proceed with multiple batches, validate functionality	3 days	Tue 4/29/14	Thu 5/1/14	County,BH
26	Switch to production environment	1 day?	Fri 5/2/14	Fri 5/2/14	BH,County
27	System ready to go live	0 days	Fri 5/2/14	Fri 5/2/14	County,BH
28	Live Production Run	37 days?	Tue 5/20/14	Wed 7/9/14	
29	Run low volume live batches, confirm end to end functionality	19 days	Tue 5/20/14	Fri 6/13/14	County,BH
30	Higher volume election processing	7 days	Mon 6/16/14	Tue 6/24/14	County
31	Election Day	1 day?	Tue 6/24/14	Tue 6/24/14	
32	Post election processing	10 days	Wed 6/25/14	Tue 7/8/14	County
33	Post election maintenance	1 day?	Wed 7/9/14	Wed 7/9/14	BH

11.0 Proposed Staffing

George M. Varghese

760 S Wolf Road, Wheeling, IL 60090 - 6298

Phone (847) 423 7515

George.Varghese@BHemail.com

PROFILE

Product management professional experienced in software and high speed automation products. Successful track record of identifying opportunities in growth markets including Vote by Mail, and leading new product initiatives from concept to implementation in critical processing environments.

PROFESSIONAL EXPERIENCE

<i>Sr. Market Development Manager – Vote by Mail</i>	<i>Current</i>
<i>Sr. Product Manager – Sorting Products</i>	<i>2008 to 2011</i>
<i>Product Manager – Sorting Products</i>	<i>2005 to 2008</i>

BELL + HOWELL, LLC

Wheeling, Illinois

- Product management of high-speed mail automation products, covering “new to the market” products as well as ongoing incremental product improvement across multiple industry segments.
- Specific responsibilities include market analysis, product definition, product development, marketing strategy and product rollouts.
- Extensive interaction with prospects and current customers throughout the product lifecycle including presentations, web conferences, proposals and direct involvement in high value product implementation.
- Contributor to process improvement initiatives in the area of product development and portfolio management

Consultant, J.P Morgan Chase, New York

2003-2004

Cognizant Technology Solutions

Teaneck, New Jersey

- Identified opportunities for improving efficiencies in a \$5 million customer data hub improvement program, and worked with senior client managers on implementation
- Managed software product customization and benchmarking projects involving teams from different software firms, introducing effective project management practices conforming to CMM (Capability Maturity Model) quality standards

Project Leader – Industrial Projects
Geometric Software Solutions Co. Ltd.

2001-2003
Pune, India

- Led product development for a virtual three dimensional modeling product variant from concept development to product launch, with emphasis on requirements development, focused customer visits, concept testing and user surveys resulting in a 50% reduction in time to market
- Strengthened the marketing and sales team as an industry specialist; identified new opportunities, product presentations to global prospects
- Requirements development for a 3D design collaboration platform, including analysis of competitive product offerings and key differentiators.

Assistant Manager – Engineering and Exports
Carborundum Universal Ltd., Industrial Ceramics Division

1996-2001
Hosur, India

- Developed a platform for different product lines of customized wear limiting products resulting in reduced production cycle times (by up to 80% for complex products), improved quality and strong exports growth. Managed client relationships accounting for 25% of division's revenues.
- Motivated and led teams to achieve operational improvements of more than 50% in production processes and reducing machine downtime by over 40%.

EDUCATION

QUEEN'S SCHOOL OF BUSINESS
MBA for Science and Technology (Dean's list)

Kingston, Canada
May 2005

National Institute of Technology
Bachelor of Technology (Mechanical Engineering)

Calicut, India
September 1996

PROFESSIONAL/ INDUSTRY AFFILIATIONS

International Association of Clerks, Recorders, Election Officials and Treasurers (IACREOT), Election Center, NASS (National Association of Secretaries of State) and various State-level associations.

Ark Nieckarz

268 S. Elmwood Ave.

Palatine, IL. 60074

e-mail: ark.nieckarz@BHemail.com

(224) 475-1098

SUMMARY OF QUALIFICATIONS

- Software Engineering Technology
- Direct customer support
- Vote-By-Mail (VBM) systems
- High speed machine automation
- Computer Hardware Technology
- Technical instructor
- Sort plan Analysis
- Software installation & configurations

HIGHLIGHTS OF EXPERIENCE

Bell and Howell (Bowe Bell +Howell), Wheeling, Illinois

September 1997 to Present

Software Engineer / Software Developer / Software Analyst

- Implement USPS policies and procedures into application used for sorting mail.
- Generate and maintain USPS zip code lists used by all client customers.
- Designed and developed Vote-By-Mail (VBM) software used on high speed sorting equipment.
- Developed software to exchange data with election management systems; EIMS, DIMS-Net.
- Implement, test and report on engineering development changes of USPS policies and procedures.
- Conducted product training to client management and technical personnel.
- Maintain and enhance existing product capabilities.
- Provide technical guidance and assistance to other software engineers.
- Experience with Java, VB, .Net and SQL Server (MySql, FireBird, MS SQL, PostgreSQL).
- Familiar with real-time development for manufacturing equipment.
- Familiar with the following operating systems: MS Windows XP/Vista/Windows7 and Linux.
- Familiar with low level UDP and TCP packet development.
- Familiar with Crystal Reports, Install Shield

Panasonic (Matsushita), Elgin, Illinois.

Sep. 1994 - Sep. 1997

Software Developer

- Develop software and hardware for Panasonic Touch Screen Point of Sale system used in gas stations.
- Developed database import/export software for updating DBASE and MS Access databases.
- Developed socket communications for network message delivery between computer systems.
- Developed communications for satellite data transfer.
- Interfaced with UNIX based mainframes for file upload/download of data.
- Analyzed and developed PC hardware setup and configurations.
- Maintained C programs and DLLs.
- Troubleshooting and analyzing of Ethernet network hardware and software.
- Trained client store managers during end of day process and procedures.

Argonne National Laboratory, Argonne, Illinois.

July 1993 - Sep. 1994

Junior File Inspector / Computer Technician

- Test and analyze file alarm panels and sensing devices for safety and operation.
- Software maintenance of DBASE database application used for fire panel safety application.

EDUCATION

DeVry University, Chicago, Illinois.

July 1993

Bachelor of Science Degree in Electronics Engineering Technology

Jeffrey D. Dobbins

4100 Steeple Chase Drive, Reading, PA 19606-9006
Phone (610) 698-3076
Jeffrey.Dobbins@BHemail.com

PROFILE

Technical support engineer experienced in software and high speed automation products. Successful track record providing implementation and support of automated sorting systems, including Vote by Mail.

PROFESSIONAL EXPERIENCE

<i>Technical Support Engineer</i>	<i>2004- Current</i>
<i>Technical Team Supervisor</i>	<i>1996 to 2004</i>
<i>Regional Technical Analyst</i>	<i>1993 to 1996</i>

BELL + HOWELL, LLC

Wheeling, Illinois

- Product support of high-speed mail automation products, covering “new to the market” products as well as ongoing incremental product improvement across multiple industry segments.
- Specific responsibilities include 1st and 2nd level support including training to Field Service personal, direct customer support, aid in documentation development, and testing of new software.
- Contributor to product improvement with close collaboration with engineering team
- Support of complex network configurations in both linux and Windows environment as well as VPN, Network storage and Remote access.
- Provide support with specialized Software as well as all forms of Windows, DOS, OS2, Unix, Linux, and many applications including database management

EDUCATION

Penn State University

Pennsylvania

Batchelor of Science with major in Electrical Engineering Technology

May 1993

12.0 UVS System Requirements

12.0 UVS Systems Requirements

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM				
A – ELECTION MANAGEMENT SYSTEM (EMS)				
Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Election Creation	A-1	Allow county and state election officials the ability to generate and maintain an administrative database containing the definitions and descriptions of political subdivisions and offices within their jurisdiction.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Election Creation	A-2	Provide definition for separate ballot styles that reflect different combinations of contests that are included depending on place of residence of the voter or similar administrative criteria.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Election Creation	A-3	Provide software capability for the creation of newly defined elections.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Election Creation	A-4	Provide software capability for the retention of previously defined election setups.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Election Creation	A-5	Provide software capability to copy, edit, and delete previously defined elections.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Election Creation	A-6	Generate all required master and distributed copies of the voting program in conformance with the definition of the ballot for each voting location and voting device, including devices required to facilitate mail-in voting and voters with disabilities.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Election Creation	A-7	Provide for all distributed copies of the voting program, resident or installed, in each voting device to include all software modules required to monitor system status and generate machine-level audit reports, to accommodate device control functions performed by voting location officials and maintenance personnel, and to accept and accumulate votes.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

A – ELECTION MANAGEMENT SYSTEM (EMS)

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Election Creation	A-8	<p>Provide for a unified, integrated centralized database that allows global edits by authorized users.</p> <p>Note: Please describe how the system minimizes the need to update a particular data element in multiple locations for a change made to that data element anywhere within the database. For instance, removing a candidate that appears in multiple ballot styles or changing a voting location designation that appears in multiple places in the database.</p>	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Election Creation	A-9	Provide a test mode which supports testing to validate the correctness of election programming for each voting device and ballot style and ensure that the ballot display corresponds with the installed election program.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Election Creation	A-10	<p>Be able to import electronically from the Secretary of State and counties in an agreed-upon format that contains, at a minimum, the following data:</p> <ul style="list-style-type: none"> a. Full candidate name b. Candidate sequence, title and text of ballot questions, and voting language options c. Office name d. Contest name, including candidate name in case of retention contest e. Maximum number to vote for each office f. Party affiliation g. Number of eligible registered voters at the precinct h. Number of active registered voters at the precinct. 	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

A – ELECTION MANAGEMENT SYSTEM (EMS)

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Election Creation	A-11	Be able to export electronically to the Secretary of State and counties in an agreed-upon format that contains, at a minimum, the following information: <ul style="list-style-type: none"> a. Full candidate name b. Office name c. Contest name d. Number of votes for each candidate and ballot question e. Number of votes against each ballot question f. Number of undervotes in each contest g. Number of overvotes in each contest h. Number of people voting by precinct and by party affiliation (if applicable) i. Number of registered voters at the precinct level (by party affiliation, if applicable) j. 	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Election Creation	A-12	Allow EMS authorized users the ability to create custom voter instructions that may include images.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Election Creation	A-13	Provide the flexibility to have an election created by an authorized user (vendor, county, state or other third party) and import or export as necessary.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Election Creation	A-14	Accommodate multiple languages (English and Spanish required). Note: Please explain the capabilities of your system to handle multiple languages.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Election Creation	A-15	Allow for a mock election setup and support for public use prior to the initiation of a live election.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Election Creation	A-16	Allow for precinct numbers containing at least 10 digits/characters.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

A – ELECTION MANAGEMENT SYSTEM (EMS)

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Ballot Creation	A-17	Provide for standard ballot layout prototypes to be edited for ease of election specification.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Ballot Creation	A-18	Provide an authorized user the ability to customize the standard ballot layouts.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Ballot Creation	A-19	Provide software capability for authorized users to create newly defined ballot layouts. The system will be designed so as to facilitate error-free definition of ballot layouts for electronic voting equipment and paper ballot optical scanning equipment. For example, the system should have the capability to report discrepancies between ballot layouts.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Ballot Creation	A-20	Allow for creation of two-sided and multi-page ballots. Note 1: Please explain how your system handles the creation of multi-page ballots. Note 2: Please explain any built-in control your system has for preventing bleed-through ink from erroneously marking votes on both sides of a two-sided ballot.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Ballot Creation	A-21	Have the capability to reprogram, download, and reinstall a ballot for an electronic voting device or paper ballot optical scanner. Note: Please explain the process and procedure, with time frames, required to reprogram, download, and reinstall a ballot on the voting device in the event that there is a change to a name or contest on the ballot in the final few weeks before an election.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

A – ELECTION MANAGEMENT SYSTEM (EMS)

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Ballot Creation	A-22	For each election, generate and maintain a contest title and candidate name database and provide for the production or definition of properly formatted ballot layouts for use on paper ballots and electronic voting devices. This database will assist the operator to design and edit ballot layouts for paper ballots and electronic voting devices with a minimum amount of repetitive tasks.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Ballot Creation	A-23	Provide a mechanism for the definition of the ballot, including the definition of the number of allowable choices for each office, contest, measure, and for special voting options such as write-in candidates. Note: Please state your solution’s maximum number of potentially active voting positions (arranged to identify party affiliations if a primary election), offices and their associated labels and instructions, candidate names and their associated labels and polling instructions, and issues or measures and their associated text and instructions.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Ballot Creation	A-24	Provide for the retention of previously defined ballot layouts.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Ballot Creation	A-25	Provide for the modification of previously defined ballot layouts, subject to additional security requirements, after an election has been defined.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

A – ELECTION MANAGEMENT SYSTEM (EMS)

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Ballot Creation	A-26	<p>Provide for all voting options and specifications as provided for in the Colorado Revised Statutes, including the requirements for a recall election and instant runoff voting (IRV) (section 1-7-1003, C.R.S.).</p> <p>Note: Ranked Voting Methods, including IRV, are currently features used in local jurisdiction elections and not at the State or County level. However; since counties often conduct elections for local jurisdictions, please explain the capabilities of your system to create and process a ballot that contains one or more contests requiring a ranked voting and tabulation process.</p>	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Ballot Creation	A-27	Generate sample ballots for each ballot style that will not be accepted or counted by a scanner.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Ballot Creation	A-28	Generate a consolidated sample ballot containing all races, issues and questions.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

A – ELECTION MANAGEMENT SYSTEM (EMS)

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Ballot Creation	A-29	<p>Produce ballot content output for paper ballot printing, with the following capabilities:</p> <ul style="list-style-type: none"> a. Accommodate non-proprietary print-ready format (e.g. PDF). b. Accommodate multiple stub sizes within same election. c. Accommodate multiple stubs on a ballot. d. Accommodate variable paper ballot stub sizes up to three inches. e. Customize paper ballots with sequential numbering and static fields on ballot stubs. f. Handle multiple font features. g. Handle special character sets associated only with non-English languages. <p>Note 1: Please provide your ballot size capabilities and layout options.</p> <p>Note 2: Please provide information about your system’s font capabilities (e.g. typefaces, sizes, kerning and leading, color, bolding, underscoring, and italics).</p>	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Ballot Processing	A-30	Output ballot content to an election media device for use in equipment (electronic voting devices, scanners, tabulators, etc.).	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Ballot Processing	A-31	<p>Output ballot content to accommodate accessible voting, including adjustable audio and visual output.</p> <p>Note: Please detail capacity limits of data fields for accessible voting (e.g. font sizes, display options).</p>	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Ballot Processing	A-32	<p>Allow authorized users to electronically adjudicate ballots to reflect voter intent, while retaining the originally marked ballot image.</p> <p>Note: Please explain the process of ballot adjudication using your system.</p>	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

A – ELECTION MANAGEMENT SYSTEM (EMS)

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Vote Results Reporting	A-33	Report vote tally results by individual voting device. Note: For the purposes of this RFP, the Vote Results Reporting requirements are shown as part of the EMS. Some vendors may have a reporting module that is considered separate from their EMS and, if so, can explain that in their response to this requirement.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-34	Report vote tally results by contest jurisdiction-wide.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-35	Report vote tally results by contest by precinct.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-36	Report the total votes for each candidate for each contest, as well as by candidate by precinct.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-37	Report vote tally results by voting location.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-38	Report vote tally results by ballot source (e.g. Early Vote, Election Day, Mail, and Provisional).	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-39	Report votes by ballot style.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-40	Report votes by ballot batch.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

A – ELECTION MANAGEMENT SYSTEM (EMS)

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Vote Results Reporting	A-41	Report votes by ballot style within precinct.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-42	Report undervotes and overvotes in each contest, with the option to exclude from reports.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-43	Provide the capability to report ranked-choice voting results.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-44	Report a summary of results in addition to the detailed Statement of Votes Cast reports.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-45	Report certified write-in candidate results in each contest with the ability to exclude from reports.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-46	Import election night voter registration counts for Active and Total voters and report percent turnout relevant to vote tally for both Active and Total registrations.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-47	Report and export each report in either PDF, XLS, TXT, EML, or CSV formats. Note: Please identify the formats available in your system.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-48	Provide for Zero reports to be printed prior to first upload of voting results.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

A – ELECTION MANAGEMENT SYSTEM (EMS)

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Vote Results Reporting	A-49	Allow the capability to select any combination of reports to be run and logged at any time permissible.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-50	Provide customization of report headers (e.g. “Unofficial” or “Final Unofficial”), contest labels and print layout. Note: Please explain any character limitations imposed by your system on labeling, reporting or exporting.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-51	Include creation date, time, and page numbers on all reports.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-52	When the total number of votes cast by voters on a specific ballot style/precinct or with a particular voting method or at a particular voting location is less than the currently allowed threshold of ten, the vote tallies for all such subgroups are to be reported in aggregations such that each category always contains at least ten, per section 1-8-308(b), C.R.S. This is also applicable to property owner ballots. Note: Please explain how your system will accommodate this requirement for all reports to maintain voter privacy.	1	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS) However, the solution proposed for category E (Automated Ballot Envelope Scanning, and Signature Verification) includes the ability to consolidate envelopes that are accepted and approved for opening, but do not meet a configurable minimum threshold value. This will help to ensure that a batch of envelopes can proceed with opening and extraction only if the quantity per ballot style meets or exceeds the threshold.

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

A – ELECTION MANAGEMENT SYSTEM (EMS)

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Vote Results Reporting	A-53	Allow the minimum threshold number of votes to be changed if the legal requirement changes. This requirement refers to section 1-8-308(b), C.R.S.	1	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS) However, please note our response to item A-52 that describes how our proposed solution will help to ensure that a batch of envelopes can proceed with opening and extraction only if the quantity per ballot style meets or exceeds the threshold. The threshold value is configurable with the proposed solution.
Vote Results Reporting	A-54	Be able to include or exclude property owner ballot results from reports.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-55	Provide an option to suppress a race or candidate from all reports, when either is withdrawn from the ballot.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-56	Provide an easily readable method to identify the candidate(s)/measure with the most votes in each contest. If more than one winner is possible, identify all winners. Note: Your system should have this feature as an option, so not used on partial results reports.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Vote Results Reporting	A-57	Have the capability to report political party designation for each candidate for partisan elections.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

A – ELECTION MANAGEMENT SYSTEM (EMS)

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Import/Export	A-58	Import/export ballot information and voter registration information files to be exchanged from/to Colorado's centralized statewide voter registration database (SCORE).	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Import/Export	A-59	<p>Display detailed upload status for each portable vote storage media unit (e.g. memory card) by polling location and counting center.</p> <p>Note: For example, users should be able to visually confirm an exact match between the physical portable vote storage media unit being uploaded and the unit identified by the EMS. (e.g. If an authorized user is uploading "Polling Location A, Memory Card 01", onscreen the user should be able to visually confirm that the system is uploading "Polling Location A, Memory Card 01." Please explain how your solution handles this scenario.</p>	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Import/Export	A-60	<p>Prevent the upload of wrong or duplicate portable vote storage media units.</p> <p>Note: Please explain your system's safeguards against errant or multiple uploads from portable vote storage media units and how to correct the problem if it should happen.</p>	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Import/Export	A-61	Produce and print a list, at any time in the process, showing which portable vote storage media units have and which have not been uploaded.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Import/Export	A-62	Save a report to a local or portable drive for transfer to a networked computer in a non-proprietary format.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

A – ELECTION MANAGEMENT SYSTEM (EMS)

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Import/Export	A-63	Display error messages and instructions to recover during importing and exporting operations.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Data Storage and Processing	A-64	Maintain election data in a secure environment. Note: Please describe how EMS data is stored and secured from unauthorized access and/or manipulation.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS) However, all components on our proposed mail ballot sorter require a username and password for access to data, and can be physically isolated/ secured. Additionally, the latest status downloaded from the EMS is used for processing on the sorter at all times.
Data Storage and Processing	A-65	Provide the capability for counties to upload, from election media, externally created election setup data.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Data Storage and Processing	A-66	Provide a means to upload vote count results to the EMS from vote collection/tabulation equipment.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)
Data Storage and Processing	A-67	Provide statistics of batches (e.g. number of ballots in each batch, number of batches pending, number of batches deleted, and number of batches saved). Note: Does your system have a batch size and/or number of batches limitation and, if so, what is it?	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS) However, the mail ballot sorting system does provide a list of all batches with the status and count of each batch.

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

A – ELECTION MANAGEMENT SYSTEM (EMS)

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Data Storage and Processing	A-68	Have the ability to delete saved ballot batches from the system. Note: Please explain how your system manages batch accountability identification.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS) However the proposed mail ballot sorting system does provide the ability to delete a batch. The delete operation is logged with the username and time of action.
Data Storage and Processing	A-69	Have data backup capabilities. Note: Please explain any system data backup capabilities and protocols within your system.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS) However, the proposed mail ballot sorting system has an option to setup automated and manual data backups.
Data Storage and Processing	A-70	Have redundancy capabilities. Note: Please explain any general and real time redundancy features.	5	No solution proposed for category A – ELECTION MANAGEMENT SYSTEM (EMS)

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Scanning	B-1	<p>Accurately capture votes from paper ballots.</p> <p>Note 1: Please indicate the speed of your polling location ballot scanner.</p> <p>Note 2: Please describe how acceptance/rejection criteria for ballot marks are established for your polling location scanner.</p> <p>Note 3: Please explain how your polling location scanner is impacted by ballots containing fold creases or other irregularities.</p>	5	No solution proposed for category B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	B-2	<p>Notify the voter or an authorized user of errors before accepting the ballot.</p>	5	No solution proposed for category B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	B-3	<p>Accept overvoted ballots, upon review, in a manner that allows the voter to review each case of an overvote, one case at a time, and to provide clearly understandable options to further review the ballot, or cast the ballot without further review if the voter chooses not to ask for a replacement ballot.</p>	5	No solution proposed for category B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	B-4	<p>Accept undervoted ballots, upon review, in a manner that allows the voter to review each case of an undervote, one case at a time, and to provide clearly understandable options to further review the ballot, or cast the ballot without further review.</p>	5	No solution proposed for category B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Scanning	B-5	Handle, and reliably account for, multi-page ballots, including when the pages become separated from each other. Count votes regardless of the sequence that pages are scanned or if some pages are not scanned. Note: Please explain how your system reliably accounts for multi-page ballots, including when the pages become separated from each other.	5	No solution proposed for category B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	B-6	Display a Public Counter, which shows the number of ballot pages processed.	5	No solution proposed for category B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	B-7	Display a Protective Counter showing the count of all ballot pages processed on the equipment, which is not reset after an election.	5	No solution proposed for category B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	B-8	Accept ballots in any of the four possible orientations.	5	No solution proposed for category B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT
Hardware	B-9	Display the unit serial number(s) of tabulation devices both physically and within any applicable software, logs, or reports.	5	No solution proposed for category B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT
Tabulation	B-10	Have the ability to write cast vote records to an election media device during operation that the EMS can disallow from being tabulated prior to the close of polls on Election Day. Note: Please describe the security your equipment provides for ensuring media is not removed until procedurally authorized.	5	No solution proposed for category B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Tabulation	B-11	Provide a secure means to upload vote count results to the EMS.	5	No solution proposed for category B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT
Error Handling	B-12	Identify and reject ballots that are not valid. Note: Please explain how your system identifies ballots that have been printed on nonstandard paper or on a home printer.	5	No solution proposed for category B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT
Transportability	B-13	Be easily transported by one person. Note: Describe the transportability characteristics of your equipment (e.g. weight, width, height, wheels).	5	No solution proposed for category B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT
Supplies	B-14	Provide dust-and-moisture-proof covers for transportation and storage purposes. Note: Please describe your equipment covers.	5	No solution proposed for category B – POLLING LOCATION BALLOT SCANNING AND TABULATION EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Scanning	C-1	<p>Accurately scan paper ballots into identifiable and locatable batches.</p> <p>Note 1: Please indicate the speed of your central location ballot scanner.</p> <p>Note 2: Please explain how your central location scanner is impacted by ballots containing fold creases or other irregularities.</p>	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	C-2	Be capable of establishing single ballot batches.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	C-3	<p>Retain an electronic image of each voted paper ballot in a non-proprietary format.</p> <p>Note 1: Please describe the format(s) you offer for ballot images. Also describe how your system handles adequate resolution of saved images relative to the paper original.</p> <p>Note 2: Please describe how each electronic image will retain its relationship to the voted paper ballot and any reduction in resolution or compression used before retention of the image.</p>	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	C-4	Allow the authorized user to verify ballot quantities counted to ballots provided by batch prior to saving to the system.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Scanning	C-5	Allow the authorized user to verify ballot quantities counted to ballots provided by batch after saving to the system.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	C-6	Allow the authorized user to rerun a batch of ballots, if necessary, without impacting results to date.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	C-7	Have the ability to logically delete (not physically) saved ballot batches from the system. Note: Please explain how your system manages batch accountability identification.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	C-8	Identify and segregate ballots or ballot images with overvotes for adjudication. Note: Please explain how your central count solution allows for physically locating a specific ballot in a batch of ballots.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	C-9	Identify and segregate ballots or ballot images with write-ins for adjudication.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	C-10	Identify and segregate, for adjudication, ballots or ballot images that cannot be read.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	C-11	Identify and segregate, for adjudication, ballots or ballot images that are read as blank.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Scanning	C-12	Provide information to an authorized user as to why a ballot was segregated.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	C-13	Assign a unique number to the batch of ballots and verify that the count is zero upon beginning a scan and giving a total number of ballot pages processed at the close of the batch scan.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	C-14	Handle scanning of both front and back page of a ballot when data is contained on back of ballot page.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	C-15	Handle and reliably account for multi-page ballots, including when the pages become separated from each other. Count votes regardless of the sequence that pages are scanned or if some pages are not scanned. Note: Please explain how your system reliably accounts for multi-page ballots when pages are out of order or when all ballot pages are not returned, including when the pages become separated from each other.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	C-16	Accept ballots in any of the four possible orientations.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	C-17	Display publicly the number of ballot pages processed.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Scanning	C-18	Display a Protective counter showing the count of all ballot pages processed on the equipment, which is not reset after an election.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Scanning	C-19	Allow the option to disable or enable the review of undervoted ballots.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Hardware	C-20	Display the unit serial number(s) of tabulation devices both physically and within any applicable software, logs, or reports.	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Tabulation	C-21	<p>Accurately capture votes marked by a voter or a ballot marking device on a paper ballot without adjusting machine thresholds.</p> <p>Note 1: Please characterize the accuracy of your central ballot scanner in capturing voter intent.</p> <p>Note 2: Please describe how acceptance/rejection criteria for ballot marks are established for your central location scanner.</p>	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Tabulation	C-22	<p>Account for overvotes in every contest where overvotes occur.</p> <p>Note: Please explain how overvotes are handled by your system.</p>	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Tabulation	C-23	<p>Account for undervotes in every contest where undervotes occur.</p> <p>Note: Please explain how undervotes are handled by your system.</p>	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Tabulation	C-24	<p>Have the ability to write cast vote records to an election media device during operation that the EMS can disallow from being tabulated prior to the close of polls on Election Day.</p> <p>Note: Please describe the security your equipment provides for ensuring media is not removed until procedurally authorized.</p>	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Tabulation	C-25	<p>Provide a secure means to upload vote count results to the EMS.</p>	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT
Error Handling	C-26	<p>Identify and reject ballots that are not valid.</p> <p>Note: Please explain how your system identifies ballots that have been printed on nonstandard paper or on a home printer.</p>	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Error Handling	C-27	<p>Continue ballot scanning while electronically or physically segregating and sorting ballots to user-identified categories that need additional attention.</p> <p>Note 1: Please describe how your system handles these situations:</p> <ul style="list-style-type: none"> a. Ballots are unreadable by the scanner. b. Notifying an authorized user whether a ballot has been scanned successfully or not. c. Notifying an authorized user that a ballot has been previously scanned. d. Identifies where a voter marked the box for a write-in but did not write in a name, and where the voter did not mark the box but did enter a write-in candidate on the line. <p>Note 2: Please describe how the relationship of paper ballot to ballot scan to cast vote record will be maintained when this physical or electronic sorting or segregation is taking place.</p>	5	No solution proposed for category C – CENTRAL BALLOT SCANNING AND TABULATION EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

D – ELECTRONIC VOTING EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Ballot	D-1	Display choices for the contests, (candidates and measures) of the election for each ballot style.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ballot	D-2	When activated for the voter, display prominent ballot identifiers, including precinct, party, and similar identifiers, in order to give the voter the opportunity to verify that they will be voting on the correct ballot.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ballot	D-3	Record each voter’s candidate and measure selections as the ballot is cast. Note: This requirement is not applicable to certain ballot marking devices that depend on a produced paper ballot being processed and tabulated elsewhere.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ballot	D-4	Have a public counter that displays the number of ballots cast or marked, depending on the functionality of the electronic voting equipment.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ballot	D-5	Make clear to the voter how to cast a ballot or print a marked ballot, such that the voter has minimal risk of doing so accidentally, but when the voter intends to cast the ballot or complete the ballot marking session, the action can be easily performed.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ballot	D-6	Assure that the ballot marking device automatically returns to a state such the next voter cannot learn how the previous voter voted, once the paper ballot is printed.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

D – ELECTRONIC VOTING EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Ballot	D-7	<p>Allow voters, including voters with disabilities, to be able to review their write-in input to the ballot interface, edit that input, and confirm that the edits meet their intent.</p> <p>Note: Please describe how voters, including voters with disabilities, will be able to review their write-in input to the ballot interface, edit that input, and confirm that the edits meet their intent.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ballot	D-8	<p>Provide a method by which voters with disabilities can choose the language of the ballot visually and through the audio interface.</p> <p>Note: Please describe how your electronic voting units provide a method by which voters with disabilities can choose the language of the ballot visually and through the audio interface.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Hardware	D-9	<p>Display a Protective counter showing the count of all ballots processed on the equipment, which is not reset after an election.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Hardware	D-10	<p>Display the unit serial number(s) of tabulation devices both physically and within any applicable software, logs, or reports.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

D – ELECTRONIC VOTING EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Accessibility	D-11	<p>Provide electronic voting equipment designed to allow for installation in a voting location accommodating access by voters with disabilities in compliance with the Americans with Disabilities Act (ADA), HAVA and all applicable federal and state laws that address accessibility to voting for persons with disabilities.</p> <p>Note: Please describe how your system’s features comply with HAVA, ADA and other Federal and State laws that require accessibility for voters with a variety of disabilities, including visual or cognitive impairments. Identify the EAC standards your system meets.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Accessibility	D-12	<p>Meet the standards for accessible voting systems listed in section 1-5-704, C.R.S. The size of a ballot position and the font size of candidate information must be in accordance with Colorado Election Rules.</p> <p>Note: Please stipulate the maximum available positions on the voting device, based on such size of a ballot position and the font size of candidate information, to be used for an election.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Accessibility	D-13	<p>Include a privacy enclosure or voting booth that contains the electronic voting device(s) designated for voters with disabilities and complies with the Americans with Disabilities Act Accessibility Guidelines (ADAAG) providing sufficient dimensions to allow access to voters who use wheelchairs.</p> <p>Note: Please explain how your voting device complies with all forward and side reach requirements of the ADA and ADAAG.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

D – ELECTRONIC VOTING EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Accessibility	D-14	<p>Include electronic voting units adaptable for voters with disabilities either through adjustability of the device or the voting booth or inclusion of an auxiliary device. The auxiliary device should also be lightweight and removable making it portable for use on a voter's lap or provide an alternative solution.</p> <p>Note 1: Please describe your accessible alternative input devices. List such devices and explain the operation of each device and how it accommodates voters with disabilities.</p> <p>Note 2: Please explain how your proposed system accommodates voters with visual disabilities. Include with the description how portions of the displayed ballot may be intensified and/or enhanced, in contrast and font size and then restored to the initial size.</p> <p>Note 3: Please explain how your electronic voting device can be repositioned to accommodate a variety of voters with disabilities. Include any information about the ability of the voter to independently adjust the device.</p> <p>Note 4: Is the voting screen glare-free regardless of positioning?</p> <p>Note 5: Please explain any magnifying capacity of the electronic voting device.</p> <p>Note 6: If your electronic voting unit uses an activation card, please explain how it may be used easily by voters, including voters with disabilities.</p> <p>Note 7: Please explain how your electronic voting unit adequately provides privacy for a voter who uses a wheelchair.</p> <p>Note 8: Please explain how a voter can verify the accuracy of the cast votes.</p> <p>Note 9: Please describe additional features of your system that are designed to accommodate voters with disabilities.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

D – ELECTRONIC VOTING EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Accessibility	D-15	<p>Allow for importing of audio ballot content from an outside source (e.g. candidates or pre-recorded audio.).</p> <p>Note: Please explain the process and procedure, with time frames, required to re-program the audio read-back on the voting device in the event that there is a change to a name or contest on the ballot in the final few weeks before an election.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Accessibility	D-16	<p>Allow for a voter to change volume and/or speed of an audio ballot.</p> <p>Note: Explain how the voter can fast-forward through instructions and measure text.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Accessibility	D-17	<p>Provide for audio instructions for the ballot and a mechanism for voters with visual impairments to cast a ballot or print a marked ballot, either on the voting unit itself or on a separate device designed for this purpose. The process shall imitate the process used by sighted voters with the exception of the audio interface.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Accessibility	D-18	<p>Support an enlarged-print ballot screen image for voters with visual impairments. Following the casting of a vote or the printing of a marked ballot, the machine must reset to its initial state to accommodate the next voter.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Accessibility	D-19	<p>Accommodate voters regardless of their ability to read.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Accessibility	D-20	<p>Allow for connection of personal auxiliary devices, such as sip/puff or jelly switch devices.</p> <p>Note: Please describe such capabilities provided by your system.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

D – ELECTRONIC VOTING EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Ease of Use	D-21	<p>Be designed so that actions performed by the voter, such as making a vote selection or changing a vote, are easily understood so that errors are prevented to the maximum extent possible, and so that recovery from an erroneous action is facilitated by the features of the system prior to casting the ballot or printing a marked ballot.</p> <p>Note: Please explain how your proposed system facilitates voter actions prior to casting a ballot or printing a marked ballot.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ease of Use	D-22	Accommodate font sizes that are adjustable for ease of sight.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ease of Use	D-23	During the voting process or prior to casting the vote, display (visually or using audio, as applicable) a summary indicating the choices made or skipped.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ease of Use	D-24	<p>Allow the voter the ability to change a selection until the voter is satisfied with the choice at any time prior to the final casting of a ballot or printing a marked ballot.</p> <p>Note: Please explain here how your proposed voting system allows the voter to review and/or modify his/her selections before final casting of the vote or printing of the marked ballot.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ease of Use	D-25	Provide a method for the voter to confirm the choices before casting the ballot or printing a marked ballot, signifying to the voter that casting or printing the ballot is irrevocable and directing the voter to confirm his/her intention to cast or print the ballot, and shall further signify to the voter that the ballot has been cast or printed after the voting session is complete..	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

D – ELECTRONIC VOTING EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Ease of Use	D-26	Provide a means to demonstrate the operation of the electronic voting device to the voters.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ease of Use	D-27	Disallow a voter to overvote a contest and will enable the voter to correct the selections. Note: Please explain how your proposed system shall not allow a voter to overvote a contest and enable the voter to correct his or her selections.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ease of Use	D-28	Warn voters that they have undervoted a contest and permit them to correct or accept the undervote. Note: Please explain here how your proposed system shall warn voters that they have undervoted a contest and permit them to correct or accept the undervote.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ease of Use	D-29	Provide a means of recording the votes cast for write-in candidates for any contest that allows write-in candidates. This capability shall allow the entry of as many names of candidates as the voter is entitled to select for each contest in compliance with Colorado's Election Law. Note: Please explain how your proposed system allows for write-in votes for any authorized contest.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ease of Use	D-30	During election setup, provide an option to provide the voter with a list of certified write-in candidates.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ease of Use	D-31	Provide a screen response that will allow a voter to request a list of certified write-ins if the election setup provided that option.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

D – ELECTRONIC VOTING EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Ease of Use	D-32	Allow authorized users the ability to modify the voter instructions for an electronic or audio voting session.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Ease of Use	D-33	Provide an authorized user an ability to reset screen calibration, including between uses in an election. Note: Please explain if your electronic voting equipment logs such calibration and produces any warnings when calibration needs to be reset.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Uninterrupted Operation	D-34	Provide, in case of power interruption, a means for voting operations to continue. This feature shall consist of either an uninterruptible power supply (UPS) or other means to keep electronic voting equipment active. Note: Please specify how your system will provide notice of power loss or low-battery state, so that election judges or election officials can take appropriate steps.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Uninterrupted Operation	D-35	Provide for continuous uninterrupted operation for a minimum of two hours in case of power failure. Note: Please specify how long your system will operate without an external power source and under what conditions. If the device does not have a battery backup, what size of UPS will be required to maintain operation for two hours?	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Uninterrupted Operation	D-36	In the event of the failure of an electronic voting unit, retain a record of all votes cast prior to the failure. Note: Please explain how your system retains and reports votes cast in the event of a loss of power.	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

D – ELECTRONIC VOTING EQUIPMENT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Voter Verifiable Paper Trail	D-37	<p>Include, with each voting device, the functionality of a Voter-Verified Paper Audit Trail (VVPAT) that meets all Federal and State Certification requirements.</p> <p>Note 1: Please explain how your proposed voting device complies with this requirement.</p> <p>Note 2: Explain if your proposed system has an alternate means of counting a non-ballot type of VVPAT for audit purposes. The alternative means can include but is not limited to the availability of bar codes and readers for the VVPAT.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Voter Verifiable Paper Trail	D-38	<p>Provide a means for voters with disabilities (visually impaired or unable to read) to review the VVPAT.</p> <p>Note: The review of the VVPAT by voters that cannot see or read the VVPAT requires a feature that enables read-back from the physical VVPAT.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Voter Verifiable Paper Trail	D-39	<p>Have the capability, if proposing a VVPAT solution that is not an official marked ballot, for the print on the VVPAT to be large enough and dark enough for voters to verify and for election judges to read easily during a recount.</p> <p>Note: Please explain the type of paper used to record the VVPAT and the characteristics of the paper impression to ensure ease of reading and fade resistance. For instance; 18 point font, bold and double spaced would be preferred.</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT
Transportability	D-40	<p>Be easily transported.</p> <p>Note: Describe the transportability characteristics of your electronic voting equipment (e.g. weight, width, height, wheels).</p>	5	No solution proposed for category D – ELECTRONIC VOTING EQUIPMENT

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM				
E – AUTOMATED BALLOT ENVELOPE SCANNING AND SIGNATURE VERIFICATION				
Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Mail Ballot Envelope Processing	E-1	<p>Provide hardware with the capability to scan mail ballot envelopes and perform the following functions:</p> <ol style="list-style-type: none"> Scan and capture voter ID barcode Scan and capture envelope and signature images Log envelope as received Endorse (customizable) & date/time stamp envelope Separate envelopes that may need manual intervention <p>Note 1: Please provide information about your ballot envelope sorting equipment, including what versions are available for counties with various volumes of envelopes. Can your equipment perform all these above functions in a single pass? If not, please explain the number of passes required and the actions taken on each pass.</p> <p>Note 2: Please indicate if your solution has the capability, assuming envelope and ballot are designed properly, to determine the ballot style of the enclosed ballot.</p>	1	<p>Compliant. The proposed solution meets all the requirements stated in E-1.</p> <p>Note 1 Response: The proposed solution has been proven across several election cycles to perform all the stated requirements (including additional verification and sorting as well) in a single pass through the system. This is described in more detail in the attached “VBM Overview” document. We offer different models as follows:</p> <ul style="list-style-type: none"> • Criterion APEX (throughput of 47K/ hour) • Criterion Elevate (throughput of 18k/hour) • Compact solution for release later in 2014/2015 (throughput of 5-7K/hour) <p>Note 2 Response: The proposed solution has a proven capability to determine the ballot style (and /or any additional information available from the EMS data export file) to drive sort decisions, or additional processing based on specific conditions. This is accomplished through inline database lookups on the sorter utilizing the unique barcode on the envelope accompanied by data pre-processing to support the sorting intent.</p>

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM				
E – AUTOMATED BALLOT ENVELOPE SCANNING AND SIGNATURE VERIFICATION				
Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Mail Ballot Envelope Processing	E-2	Be capable of generating an output file, with voter ID and voter's envelope signature, to be matched with SCORE voter registration data and used in the Automated Signature Verification process.	1	<p>The proposed solution has proven capabilities for:</p> <ul style="list-style-type: none"> • Exporting signature image files per the format specified in the SCORE Vendor Toolkit • Directly generating a file per the format specified in the SCORE Vendor Toolkit for importing into SCORE • Importing the EXP-004 file and utilizing the reference signatures received from SCORE • Performing Automated Signature Verification concurrent with sorting
Mail Ballot Envelope Processing	E-3	<p>Be capable of updating the mail ballot envelope output file with status values (e.g. received, accepted, rejected) so that the SCORE system can use the output file to update voter registration records.</p> <p>Note: Please provide a list of code values your system assigns for ballot envelope processing status.</p>	1	<p>The proposed solution has a proven capability to directly generate a file per the format specified in the SCORE Vendor Toolkit for importing into SCORE. The user has the option to either generate a "Received" export file (with a status value of 0), or to generate a file with Accepted/ Rejected status values (1 or 2 respectively). For a Rejected status value of 2, a reason code will also be provided, that matches the SCORE values.</p> <p>Response to Note: The proposed solution is configurable to allow code values that the EMS requires</p>

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM				
E – AUTOMATED BALLOT ENVELOPE SCANNING AND SIGNATURE VERIFICATION				
Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
				<p>to be directly utilized in the export file. For SCORE, the status reason codes specified in the SCORE Vendor Toolkit are supported.</p> <p>They are:</p> <p>A Administrative Action</p> <p>EE Empty Envelope</p> <p>F Voter is a convicted felon</p> <p>HE House Exception</p> <p>ID ID Required - Not Provided</p> <p>L Received After 7pm on Election Day</p> <p>M Voted more than one ballot</p> <p>NSIG No signature</p> <p>NV Void / Not Voted</p> <p>OTH Other</p> <p>SD Signature Discrepancy</p> <p>TBE Two ballots in one envelope</p> <p>V Verification Affidavit not complete</p>
Mail Ballot Envelope	E-4	Allow an authorized user the ability to update the disposition code for an	1	The proposed solution has a proven capability to specify two

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM				
E – AUTOMATED BALLOT ENVELOPE SCANNING AND SIGNATURE VERIFICATION				
Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Processing		envelope (e.g. from “challenged” to “good”).		<p>levels of users – a Reviewer role and a Supervisor role) with a username and password for each user.</p> <ul style="list-style-type: none"> • Users with a Reviewer role can provide an initial update to the disposition code • Users with a Supervisor role can update the status of an envelope any number of times <p>The disposition codes that are available for changing are configurable. Therefore some or all of the codes can be made available for update, as part of the election creation process on the server.</p>
Mail Ballot Envelope Processing	E-5	Be configurable for ballot envelope size and design.	1	<p>The proposed solution can be configured to handle envelope sizes that meet USPS requirements for First-Class letter mail, with dimensions as stated below:</p> <ul style="list-style-type: none"> • Minimum dimensions: 3-1/2” x 5” • Maximum dimensions: 6-1/8” x 11-1/2” • Minimum thickness: .007” • Maximum thickness: 1/4” non-compressed <p>Within these specifications, the system can be configured for the following:</p> <ul style="list-style-type: none"> • Primary barcode read area

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM				
E – AUTOMATED BALLOT ENVELOPE SCANNING AND SIGNATURE VERIFICATION				
Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
				<ul style="list-style-type: none"> • Secondary barcode read area • Signature image save area • Image properties to maximize read rates and Automated Signature Verification performance
Mail Ballot Envelope Processing	E-6	Be configurable for thickness detection.	1	<p>The proposed system has a proven capability to out sort envelopes based on the thickness of the envelope.</p> <p>The system allows the minimum and maximum thickness to be configured, to ensure that:</p> <ul style="list-style-type: none"> • Envelopes without the required contents are sorted as too thin • Envelopes that have more than the expected contents are sorted as too thick. <p>The thickness detector is a laser-based measurement device that is able to measure variations of a single sheet of paper and up to the full range of thickness that can run on the sorter.</p>
Mail Ballot Envelope Processing	E-7	Automatically separate envelopes when voter ID required into a separate stack or identify them electronically for easy separation.	1	<p>The proposed solution has a proven capability to out-sort envelopes based on codes in addition to the primary disposition code as part of the First Pass. This includes the “ID Required” condition, based on the</p>

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM				
E – AUTOMATED BALLOT ENVELOPE SCANNING AND SIGNATURE VERIFICATION				
Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
				<p>ID Required field in the EXP-004 file generated from SCORE.</p> <p>After the necessary validation has been completed for the piece, the user has the option to turn off the feature and allow the envelope to be sorted based on its primary disposition/ challenge code.</p>
Mail Ballot Envelope Processing	E-8	<p>Have an option for sort/pass with the ability to customize sorting definition (e.g. style, precinct, district, unaccepted envelope, signature discrepancy and no signature).</p> <p>Note: Please explain the sort options available in your system.</p>	1	<p>The proposed system can be configured to sort on any of the key fields in the EXP-004 (or equivalent) file from SCORE/ Election Management System.</p> <p>Response to Note: There are a variety of sort options that can be setup, based on a county's processing needs. The status code used for sorting is determined by the following (based on a county's needs):</p> <ul style="list-style-type: none"> • The relative priority between additional codes such as VOID or ID Required and the Status/ Disposition code (such as Unaccepted, Signature Discrepancy, No Signature) • Calculated conditions based on a certain set of Ballot Styles that may need to be processed manually, due to historical data indicating very low turnouts • Calculated condition for the quantity received per Ballot Style, to be sure that only

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM				
E – AUTOMATED BALLOT ENVELOPE SCANNING AND SIGNATURE VERIFICATION				
Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
				<p>pieces that are above the configured threshold quantity proceed to opening and extraction.</p> <p>The sorting is based on a combination of the status code and the selected sort parameter (Ballot Style, group of Ballot Styles, District Styles or Precincts)</p> <p>There are various run modes supported by the system:</p> <ul style="list-style-type: none"> • First Pass: This is a mandatory run mode, and handles multiple activities in a single pass through the system (including Automated Signature Verification). Sorting in First Pass is typically done with groups of precincts or Ballot Styles, with certain bins dedicated to challenge conditions. • Re-Pass: This optional mode is to re-run any (or all pieces), to sort on the latest disposition code, based on the most recent data downloaded from the Election Management System. The scheme used for Re-Pass is the same as the First pass scheme. • Fine Sort: This optional mode is to sort envelopes down to the desired separations (Ballot Style, group of Ballot Styles,

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM				
E – AUTOMATED BALLOT ENVELOPE SCANNING AND SIGNATURE VERIFICATION				
Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
				District Styles or Precincts) With a range of options to choose from, it is possible to setup the system to meet the varying needs for different counties.
Mail Ballot Envelope Processing	E-9	<p>Provide a high-volume solution for counties with a large voter population.</p> <p>Note 1: Please specify the throughput capacity on your high-volume envelope processor.</p> <p>Note 2: County size by registered voter population is as follows:</p> <p>Large = Over 25,000 voters</p> <p>Medium = 10,000 – 25,000 voters</p> <p>Small = Fewer than 10,000 voters</p>	1	<p>We have proposed two representative configurations for high volume counties, since very high volume counties that may have more than 250,000 envelopes returned would likely have different processing challenges than a county with 50,000 envelopes returned. Other factors that impact the choice of transport are the number of separations desired, and the general patterns in the volume of envelopes received during the last two days leading up to Election Day.</p> <p>Response to Note 1: The two configurations proposed for high volume counties, with throughputs are:</p> <ul style="list-style-type: none"> • Criterion APEX platform, 47,000/hour (# 10 envelopes) • Criterion Elevate platform, 18,000/ hour (#10 envelopes) <p>Response to Note 2:</p> <p>The Criterion APEX and Criterion Elevate options are both</p>

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM				
E – AUTOMATED BALLOT ENVELOPE SCANNING AND SIGNATURE VERIFICATION				
Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
				intended for counties that are Large, as defined in this RFP.
Mail Ballot Envelope Processing	E-10	Provide a low-volume solution for counties with a small or medium voter population (see E-9 requirement Note 2). Note: Please specify the throughput capacity on your low-volume envelope processor.	1	For Small to Medium sized counties, the Criterion Elevate and Criterion APEX that we have quoted for the Large counties would not be a good fit. We are working on a very compact, low volume solution that we are intending to bring to market in the second half of 2014/ early 2015 for the counties that have a small or medium voter population, as defined in E-9, Note 2. We have provided an indicative price for this product, but should note that both price and delivery can vary, since we are still at an early stage.
Mail Ballot Envelope Processing	E-11	Provide configurable reports for tray id, tray count and pieces status.	1	The proposed solution provides a range of reports to keep track of counts, based on feedback from various Vote by Mail customers over the last few years. Reports are generated typically by processing batch and bin, as well as by the sorted status within the bin. BH follows an approach of continuous product improvement based on customer feedback,

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM				
E – AUTOMATED BALLOT ENVELOPE SCANNING AND SIGNATURE VERIFICATION				
Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
				covered under our annual software fee, at no additional charge.
Automated Signature Verification	E-12	<p>Provide tested/proven Automated Signature Verification (ASV) software, which can automatically compare a voter's ballot envelope signature with the SCORE voter registration signature based on a customer selected confidence determination.</p> <p>Note: Please provide any information about your system that might be an alternative to manual removal of the signature security tab on mail ballot envelopes.</p>	1	<p>BH has been providing inline, Automated Signature Verification since our very first Vote by Mail customer in 2007, for every election since then.</p> <p>The signature image captured from the envelope is automatically compared against the reference signature image previously downloaded from the Election Management System, concurrent with the First Pass sorting operation. Therefore, the envelope is sorted on the outcome of ASV in the First pass. An authorized user can specify the confidence threshold based on trials with actual envelopes and signatures, to optimize the false positives and false negatives, to the county's acceptance levels.</p> <p>Response to Note: We are intending to offer an automated tab removal option in the second half of 2014/ early 2015. Indicative pricing for this option is provided for review, but it should be noted that both pricing and delivery can vary, since we are still at an early stage.</p>

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM				
E – AUTOMATED BALLOT ENVELOPE SCANNING AND SIGNATURE VERIFICATION				
Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
				This option would enable a suitably designed privacy tab on an envelope to be automatically removed as part of the processing of the envelope on the sorting system.
Automated Signature Verification	E-13	Be configurable to meet or exceed a state established acceptance threshold for signature acceptance.	1	As described in E-12, the proposed solution has an ASV option that has a configurable threshold. From our experience working with different counties, ASV performance can vary based on reference image quality and envelope design, as well as demographics and engagement of the voters.
Automated Signature Verification	E-14	Provide user activity log records that include full description of all human intervention during the ASV process.	1	The proposed solution has a proven capability to record all user and sorter activity that changes the status of a piece. The system also provides a report that states the ASV result and the reviewed result, with user name.
Automated Signature Verification	E-15	Provide an audit function to verify the accuracy of machine accepted signatures.	1	Please refer to response to item E-14.
Automated Signature Verification	E-16	Extract returned ballot envelopes for manual review when the signature does not meet the acceptance	1	The proposed solution has a proven capability to sort based on the ASV result in First Pass. This will physically separate envelopes

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM				
E – AUTOMATED BALLOT ENVELOPE SCANNING AND SIGNATURE VERIFICATION				
Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
		threshold level, is unreadable, or is missing.		<p>that have signatures that were below the ASV threshold, were unable to be processed successfully for any reason, or had missing signatures.</p> <p>The manual image review software that is included at no additional charge to the proposed solution has the ability to filter on a variety of factors, included the latest status of an envelope. Using this functionality it is possible to review only the ballot envelope images that had signatures that were below the threshold, were unable to be processed successfully, or had missing signatures.</p>
Automated Signature Verification	E-17	<p>Create a record when the signature does not meet the acceptance threshold level. This record will be used to generate a letter when the signature cannot be manually verified.</p> <p>Note: Please explain your process for creating and using these records.</p>	1	<p>The proposed solution identifies all envelopes that have a signature that has an ASV result below the acceptance threshold. It is possible to generate a list of all the IDs that have this condition.</p> <p>The system also has the ability to view the full envelope image captured, along with the reference signature image and associated voter information, with the ability to print the page for attaching to a letter that the county wishes to send to the voter.</p> <p>Response to Note: Throughout</p>

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM				
E – AUTOMATED BALLOT ENVELOPE SCANNING AND SIGNATURE VERIFICATION				
Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
				the election processing period, the BH server will maintain the most recent information downloaded from the Election Management System, along with the most recent reviewed information, so that it is available for authorized users to investigate in greater detail or generate reports or screenshots.

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

F – MAIL BALLOT TRACKING

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Mail Ballot Tracking	F-1	Track a mail ballot envelope from the time it is prepared for the voter in an elections office or by a vendor, through every stage of the U.S. Postal Service mail delivery system.	1	<p>An option has been quoted for including the USPS scan information in the Lookup Status of the individual envelope ID.</p> <p>However, since the USPS provides scan information only for Intelligent Mail Barcodes (IMb), it is necessary for county or the vendor that is applying the IMbs to provide a cross-reference file that matches the unique Tracking Numbers to the IMbs</p>

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

F – MAIL BALLOT TRACKING

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Mail Ballot Tracking	F-2	<p>Track a mail ballot through stages of the ballot acceptance process after return to the County by the voter.</p> <p>Note: Explain which processes within the Elections Office can be tracked by your system after the ballot envelope is received in that office.</p>	1	<p>The proposed system has a proven capability to track the progress of each envelope through the different stages of the process. This can be easily observed by using a “Lookup by Piece” option with the software that will allow a user to key/scan in the unique tracking number of an envelope and retrieve the detailed information about that envelope, including images and processing history.</p> <p>Response to Note: The processes that are tracked by the BH system are:</p> <ul style="list-style-type: none"> • Sorter history: Each time the envelope is run on the sorter across any mode (First Pass, Re-Pass, Fine Sort), the time stamp, batch, bin and sorted code is captured, along with the username of the operator. • Review History: Each review done on the envelope is recorded, with the last saved code for that step, along with the time stamp, batch and username of the user. • Delete History: If an authorized user were to delete a specific instance of the sorting history, a delete record will be created in the audit log, and this will also show up in the history of the piece.

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

F – MAIL BALLOT TRACKING

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Mail Ballot Tracking	F-3	Provide sufficient report capability for the election officials to ascertain the status of any and all mail ballots in each stage of the mail ballot process tracked by the system.	1	The VBM Tracking option included in the proposal will provide an output file that lists the status of each mail ballot in the system
Mail Ballot Tracking	F-4	Provide a system whereby voters can “opt in” to receive messages about their ballot’s status in the process.	4	The proposed system does not include any user interface to individual voters. However, the BH system can provide scan data form USPS (if the VBM Tracking option is selected) to SCORE or to any other system that may be providing a user interface to voters.
Mail Ballot Tracking	F-5	Provide a system whereby voters who have chosen to “opt in” to receive messages about their ballot’s status in the process can choose to “opt out”.	4	Please refer to F-4
Mail Ballot Tracking	F-6	Provide a messaging system that delivers messages via a website to voters who have requested notification about their ballot’s status.	4	Please refer to F-4
Mail Ballot Tracking	F-7	Provide a messaging system that delivers messages via email to voters who have requested notification about their ballot’s status.	4	Please refer to F-4
Mail Ballot Tracking	F-8	Provide a messaging system that delivers messages via text messaging to voters who have requested notification about their ballot’s status.	4	Please refer to F-4

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

F – MAIL BALLOT TRACKING

Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Mail Ballot Tracking	F-9	Have sufficient capacity to provide the same level of service to as few as one or as many as 64 counties at the same time. (Estimate up to 4 million records if all counties are participating.)	4	Please refer to F-4
Mail Ballot Tracking	F-10	Be able to utilize all email and text messaging vendor systems in use in Colorado.	4	Please refer to F-4
Mail Ballot Tracking	F-11	Provide each individual county the ability to personalize messages to its voters based on its elections setup, processes, etc.	4	Please refer to F-4

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

G – VENDOR TRAINING & SUPPORT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Hardware & Software Support	G-1	Include availability of vendor support personnel to assist in hardware and software installation and setup onsite.	1	Local 24 hour support currently in place.
Hardware & Software Support	G-2	Include availability of vendor support personnel to assist in hardware and software installation and setup from a remote help desk.	1	Access to the remote help desk is provided through local technicians that are currently supporting the territory. Access is available 24/7, 365 days a year.

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

G – VENDOR TRAINING & SUPPORT

Requirement Sub- Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Training	G-3	Include availability of vendor supported onsite training personnel to train CDOS and County users.	1	<p>Training sessions will immediately follow the installation of the system. This will allow the users to become familiar with the equipment, understand the functionality, and perform controlled tests, leading to live mail ballots if available. We recommend a test election be setup in the election management system for initial trials and training.</p> <p>These training sessions are 3 – 4 days long, and include key aspects of the operation, use, configuration, and normal daily user maintenance of the system, as well as applicable health and safety topics. The training covers key tasks involved with pre-election, election, and post-election processing. Operator manuals for the system are supplied at the time of the training. In addition, each student is given two training documents; a system operator training workbook and a vote by mail training workbook. Both provide clear and concise instructions on how to operate the system and how to process incoming ballots, and include pertinent screen shots for clarity. Upon completion of both sessions, each operator will receive a certificate verifying they have successfully completed the training on the system and are qualified to operate the equipment to process election materials.</p> <p>All training is conducted at the customer site on the same system</p>

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

G – VENDOR TRAINING & SUPPORT

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Training	G-4	Include availability of self-study user training via the Internet or electronic media.	4	Years of experience training users on systems of the type proposed by Bell and Howell for Requirement Categories E and F, have repeatedly demonstrated that hands-on training best prepares the users to exploit the full capabilities of the systems. This hands-on training, provided on the actual system(s) the operators will use during production, ensures the operators develop the skills and confidence to safely and successfully operate the systems.
Voting Period Support	G-5	Provide 24-hour available technical support for all system components beginning sixty days prior to an election and continuing until the completion of the official canvass (generally twenty days after an election). Note: Please describe your capability to provide extended support, beyond twenty days after and election, for circumstances such as a recount.		BH can provide the requested support both before and after an election. If a recount should occur, BH can support the County during this period. Costs are quoted on a Time and Materials basis in 5.0 Miscellaneous Cost Table.

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

G – VENDOR TRAINING & SUPPORT

Requirement Sub- Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Hardware Parts and Supplies	G-6	<p>Include hardware solutions for the UVS that are supported by a supply chain contingency plan.</p> <p>Note: Please provide an explanation of your supply chain contingency planning. The intent of this requirement is to assess the risk to Colorado of one or more of your suppliers not being able to provide needed components. Identify the depth of your supply chain (e.g. one, two, or more suppliers deep).</p>		<p>All parts for hardware on BH sorters are supported by a supply chain contingency plan that runs two to four suppliers deep.</p> <p>The Bell and Howell Supply Chain Organization is aligned to support our customers and keep spare parts stock on site for contract PMA customers. We are committed to making a positive impact on our customers. Uptime, asset productivity and risk management are key areas of focus. The following structure is positioned to help drive efficiencies, eliminate waste and create synergies throughout the supply chain. Additionally, the Supply Chain Organization ensures that we are leveraging standards, processes and resources globally.</p> <ul style="list-style-type: none"> ▪ Service Materials Planning and Analytics ▪ Service Materials Distribution, Inventory Control and Corporate Wide Freight Logistics ▪ Centralized Procurement ▪ Strategic Sourcing

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

G – VENDOR TRAINING & SUPPORT

Requirement Sub- Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Hardware Parts and Supplies	G-7	Make equipment parts and supplies available through December 31, 2020.		Through BH's multiple vendors, we can provide parts and supplies through 2012.
Hardware Parts and Supplies	G-8	Not require royalty fees, user fees, or other charges or limitations on the printing of ballots designed or printed on vendor devices. Similarly, no fee or limitation shall be placed on any electronic file, report or representation of the vote produced by vendor devices or software.		Printing of ballots does not apply to BH. BH will place no fee or limitation on electronic files, report or representation of the vote produced by vendor devices or software.

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

H – MISCELLANEOUS REQUIREMENTS

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Auditing	H-1	<p>Store sufficient data in an unalterable system audit log file to allow the auditing of all operations related to election setup, ballot creation, ballot tabulation, results consolidation and report generation. The audit log file shall contain:</p> <ol style="list-style-type: none"> a. An identification of the program and version being run. b. An identification of the election file being used. c. A record of all options entered by the operator, including operator ID. d. A record of all actions performed by a subsystem of the system. e. A record of all tabulation and consolidation input. f. Audit log records that are created and maintained in the sequence in which operations were performed, with date/time stamps. <p>Note 1: Please explain what audit trail techniques and audit reports are incorporated in your proposed system.</p> <p>Note 2: Please provide a list of all audit log files, the file location within the voting system, and the procedures to navigate to and retrieve them from the voting system.</p> <p>Note 3: Please describe steps needed to protect the audit logs from possible unintentional or intentional erasure or alteration.</p> <p>Note 4: Please provide a sample set of audit reports (system logs, etc.) from an election in a county with 200,000 or more registered voters (not necessarily in Colorado).</p>	5	<p>The proposed system is for category E-Automated Ballot Envelope Scanning and Verification, and not for voting equipment.</p> <p>However, the system does create an audit log that captures the following steps:</p> <ul style="list-style-type: none"> - Data import and export steps - Sorting history (item level) - Review history (item level) - Delete history (item level) <p>The audit log is a separate table in the database, and an export file can be generated at any time that outputs the data in a CSV file format.</p>

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

H – MISCELLANEOUS REQUIREMENTS

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Auditing	H-2	Accommodate random audits on electronic voting and tabulation devices.	5	Not applicable since we are not proposing voting equipment
Auditing	H-3	Accommodate random audits on paper vote capture and tabulation devices.	5	Not applicable since we are not proposing voting equipment
Auditing	H-4	Log all activity on voting equipment including: when turned on/off, any errors, power failure, power restoration, when an error occurred and when an error was resolved.	5	Not applicable since we are not proposing voting equipment
Auditing	H-5	Run real time reports, when needed.	1	Reports can be generated at any time that captures a snapshot of the current status for all items in the active election.
Auditing	H-6	Run post-election diagnostics on all auditable equipment in a manner that does not endanger the integrity of the election record. Note: Please explain your system's post-election diagnostic capabilities.	5	Not applicable since we are not proposing voting equipment. However, a complete backup can be done of the server that is part of the proposed solution, and post-election diagnostics can be run as necessary on the system without endangering the data uploaded to SCORE.

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

H – MISCELLANEOUS REQUIREMENTS

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Auditing	H-7	Provide for adequate information to facilitate a recount under Colorado law.	5	Not applicable since we are not proposing voting equipment and a recount does not impact the sorting system.
Auditing	H-8	Have a permanent paper record of each vote for audit purposes.	5	Not applicable since we are not proposing voting equipment
Auditing	H-9	Support a Risk Limiting Audit, as defined in section 1-7-515(5)(b), C.R.S. sufficient to audit the functionality of electronic and paper vote capture as well as vote tabulation devices. Note 1: Please describe how your proposed system supports the execution of a Risk Limiting Audit. Note 2: Does your solution place unique identifying numbers on ballots as they are scanned? Note 3: Section 1-7-515, C.R.S. stated that Colorado must begin risk-limiting audits in 2014, but was revised in the 2013 session to extend the start of the requirement to 2017.	5	Not applicable since we are not proposing voting equipment
Auditing	H-10	Incorporate a real time clock as part of the system hardware and all audit log record entries shall include a date/time stamp.	5	Not applicable since we are not proposing voting equipment. However, all audit log entries have a date and time stamp based on the server's clock.
Auditing	H-11	Use a real time clock that will continue to run during a power loss.	5	Not applicable since we are not proposing voting equipment. The server is on an uninterruptible power supply

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

H – MISCELLANEOUS REQUIREMENTS

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Auditing	H-12	<p>Print audit reports on the standard system hardcopy output device when the following conditions are met:</p> <ul style="list-style-type: none"> a. The generation of an audit trail report does not interfere with the production of other output reports. b. The entries can be identified so as to facilitate their recognition, segregation and retention. c. The physical security of the audit record entries can be ensured. 	5	Not applicable since we are not proposing voting equipment
Auditing	H-13	Create audit records during the election definition and ballot preparation phases showing completion of the baseline ballot layouts and any modifications to them, a description of the modifications and a date/time stamp.	5	Not applicable since we are not proposing voting equipment
Auditing	H-14	Create audit records during the pre-election phase that include electronic and manual data entered and maintained by election personnel, election definitions, instances of all final ballot layouts and the ballot preparation edit event log.	5	Not applicable since we are not proposing voting equipment
Auditing	H-15	Create audit records prior to the initiation of ballot counting to verify hardware and software status. These particular audit records shall include the identification of the software release, the identification of the election to be processed and the results of hardware and software diagnostic tests.	5	<p>Not applicable since we are not proposing voting equipment.</p> <p>However, the audit logs will have initialization records.</p>

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

H – MISCELLANEOUS REQUIREMENTS

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Auditing	H-16	<p>Create in-process audit records containing data documenting system operation during diagnostic routines and any machine generated error and exception messages. Examples of these audit records include:</p> <ul style="list-style-type: none"> a. System startup diagnostic and status messages. b. Checks that pre-count reports show zeroes. c. The source and disposition of system interrupts resulting in entry into exception handling routines. d. All messages generated by exception handlers. e. The identification code and number of occurrences for each hardware and software error or failure. f. All operator actions. g. Notification of system login or access errors, file access errors and physical violations of security. h. Other exception events such as power failures, failure of critical hardware components, data transmission errors, and other types of operating anomalies. 	5	<p>Not applicable since we are not proposing voting equipment.</p> <p>However, various components on the sorter generate system logs for effective troubleshooting.</p>
Auditing	H-17	<p>Provide an in-process audit report, for post-election use, consisting of data containing a record when each vote is initiated and each ballot is cast.</p>	5	<p>Not applicable since we are not proposing voting equipment.</p>

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

H – MISCELLANEOUS REQUIREMENTS

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Auditing	H-18	<p>Print reports necessary to assist election officials in performing a manual count as required by Colorado election law and rules.</p> <p>Note 1: Please explain how your proposed system can create the reports necessary to allow election officials to perform and validate a manual count.</p> <p>Note 2: Please explain how, in the case of a recount, the election can be reconstructed ballot by ballot, while still maintaining voter privacy.</p>	5	Not applicable since we are not proposing voting equipment.
Auditing	H-19	Record audit log entries onto durable non-volatile storage.	1	The server which is included in the proposed solution can be backed up periodically (which will include the audit log entries). Additionally, the audit log can be exported as CSV file that can be saved on a different system.
Auditing	H-20	Export audit logs in formats suitable for use by elections officials and the public including common electronic formats (PDF, Excel, CSV, TXT, EML).	1	The audit log can be exported into a CSV file for ease of review.
Certification	H-21	<p>Be certified or certifiable by the EAC, another state, or Colorado.</p> <p>Note 1: If not certified, please explain.</p> <p>Note 2: See section 1-5-601.5, C.R.S. for Colorado voting system certification compliance with federal regulations. RFP section 5.3.11 has a question on certification status of vendor proposed solutions.</p>	5	<p>Not applicable since we are not proposing voting equipment.</p> <p>If any certification is required, BH will be glad to comply. However, the prices quoted do not include any certification expenses. If certification is necessary for the sorter, BH can estimate the cost based on the specific requirements.</p>

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

H – MISCELLANEOUS REQUIREMENTS

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Testing	H-22	<p>Be configurable so as to be capable of performing the following functions on all system hardware/software, in compliance with current Colorado statutes and rules:</p> <ul style="list-style-type: none"> a. Hardware test b. Logic and Accuracy Test c. Post-Election Audit d. Pre-Recount Logic and Accuracy Test e. And capable of performing the Colorado Risk Limiting Audit commencing no later than 2017. 	5	<p>Not applicable since we are not proposing voting equipment.</p> <p>However, installations typically include functionality and accuracy tests. BH will be glad to comply with any testing requirements.</p>
Testing	H-23	<p>Allow authorized user creation of scripted simulation Logic and Accuracy tests with various patterns (e.g. 1,2,3 or 1,1,1 or 1,2,3,4,5...).</p> <p>Note: Please explain how your system allows for pre-determined simulation for creating test ballots and electronic voting equipment test input.</p>	5	Not applicable since we are not proposing voting equipment.
Testing	H-24	Have the capability to test ballot layouts to verify the allowable number of votes for a contest or question and the combinations of voting patterns permitted or required by the using jurisdiction.	5	Not applicable since we are not proposing voting equipment.
Testing	H-25	Provide capability to permit diagnostic testing of all the major components within each electronic vote capture device.	5	Not applicable since we are not proposing voting equipment.
Testing	H-26	Ensure non-contamination of voting data through tests of all data paths and memory locations to be used in actual vote recording.	5	Not applicable since we are not proposing voting equipment.

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

H – MISCELLANEOUS REQUIREMENTS

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Testing	H-27	Provide evidence in an audit record that test data has been expunged.	5	Not applicable since we are not proposing voting equipment.
Testing	H-28	Allow the ability to load and test audio ballots in electronic vote capture equipment.	5	Not applicable since we are not proposing voting equipment.
Testing	H-29	Provide the ability to print all necessary reports for proofing the results of logic and accuracy testing.	5	Not applicable since we are not proposing voting equipment. However, all reports from the system can be printed.
Security	H-30	Provide an environment whereby all databases and data are maintained with provisions for operational security, access control and auditability. Note 1: Please describe the authentication protocols for access to the EMS database and your system's processes for providing operational security and auditability. Note 2: System security must not obstruct authorized access to event or audit logs, and printing or exporting of reports.	5	Not applicable since we are not proposing voting equipment. However, all computers are access controlled with username and passwords, and can also be physically secured. Response to Note 1: The BH system does not have direct access to the EMS. Data transfer is via text file transfer that is user initiated. Response to Note 2: Reports and audit logs can be generated at any time, simultaneous with regular operation of the system.

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

H – MISCELLANEOUS REQUIREMENTS

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Security	H-31	Require two factor authentication for access to the EMS and all tabulation equipment. This means an authorized user will need a physical device (e.g. token, card) and something memorized (e.g. password) to access the software or equipment.	5	Not applicable since we are not proposing voting equipment.
Security	H-32	Allow tamper evident seals to be placed on all equipment doors, openings, and data access points such that unauthorized access is either prevented or clearly indicated by the damage to or destruction of a seal. Note: Please describe the security offered by your proposed system relating to tamper evident seal placements.	5	Not applicable since we are not proposing voting equipment.
Security	H-33	Allow all access points to equipment to be visible and subject to oversight of seals, unless the access point is behind doors or a cover. Access points that are not visible should also accommodate tamper evident seals.	5	Not applicable since we are not proposing voting equipment.
Security	H-34	Report unauthorized modifications to audit data or audit logs. Note: Please explain your system's capabilities to restrict user authorizations and access rights for creating, reading, modifying, and deleting audit data or logs.	1	The audit logs are not editable by the users. However, the logs can be accessed or an export file of the audit log can be generated by authorized users.

SYSTEM REQUIREMENTS TABLE for the COLORADO UNIFORM VOTING SYSTEM

H – MISCELLANEOUS REQUIREMENTS

Requirement Sub-Category	Req. ID	UVS Requirement (The System will ...)	Response Code	Vendor Response
Security	H-35	Allow for installation and auditing of a Trusted Build per Colorado Election Rules.	5	Not applicable since we are not proposing voting equipment.
Documentation	H-36	Include a clear set of documented instructions for election judges to set up voting equipment. These instructions should be modifiable by county personnel.	5	Not applicable since we are not proposing voting equipment.
Documentation	H-37	Include documented instructions for troubleshooting any voting equipment issues that may arise.	5	Not applicable since we are not proposing voting equipment.
Documentation	H-38	Include a complete set of User and Technical documentation.	1	User documentation including common troubleshooting procedures are included with the system.
Documentation	H-39	Include current certification documentation and VSTL and/or state test reports.	5	Not applicable since we are not proposing voting equipment.