# SCORE II Mock Election Evaluation



# **Colorado Department of State**

# **Evaluation Report**

May 22, 2008

Produced by

Jan Kuhnen

Consultant to the Colorado Department of State

# **Table of Contents**

| 1. |                        | cutive Summary                               |            |
|----|------------------------|--|------------|
| 1  | .1                     | Mock Election Background and Overview        | 3          |
| 1  | .2                     | Mission Statement                            |            |
| 1  | .3                     | Executive Level Findings                     | 4          |
| 1  | .4                     | Report Contribution                          | 4          |
| 2  | Und                    | erstanding the Mock Election                 | 5          |
|    |                        | Mock Election Overview                       |            |
|    |                        | Mock Election Setup                          |            |
|    |                        | Mock Election Staffing                       |            |
|    |                        | Mock Election Schedule                       |            |
|    | 2. <del>4</del><br>2.5 | Mock Election Scenarios                      |            |
|    |                        |  |            |
|    |                        | mary of Findings                             |            |
|    |                        | System Training Gaps                         |            |
|    |                        | System Functionality Gaps                    |            |
|    |                        | System Connectivity or Technology Gaps       |            |
|    |                        | CDOS Process Decision Points                 |            |
|    |                        | Instill County Confidence                    |            |
| 3  | 3.6                    | Key Issues and Recommended Actions (Summary) | 12         |
| 4. | Reco                   | ommendations                                 | 13         |
| 4  | .1                     | Training 1                                   | 13         |
| 4  | .2                     | Business Processes                           | 15         |
| 4  | .3                     | Saber Help Desk1                             | 16         |
| 4  | .4                     | Network Connectivity                         | 17         |
| 4  | 5                      | County Adoption                              | 17         |
| 4  | .6                     | Additional Recommendations                   | 18         |
| 4  | .7                     | Election Readiness and Organization          | 19         |
| 5. | Dota                   | iled Findings2                               | 20         |
|    |                        | Scenario Results                             |            |
| _  |                        | Mock Election Findings                       |            |
| J  | ,. <u> </u>            |  |            |
|    | 5.2.1                  |  | - 1<br>21  |
|    | 5.2.3                  |  |            |
|    | 5.2.4                  |  |            |
|    | 5.2.4                  | ·  |            |
|    | 5.2.6                  | ,  | 1 <u>~</u> |
|    | 5.2.7                  |  |            |
|    | 5.2.7                  | ·  |            |
|    | 5.2.8                  |  |            |
|    | 5.2.8                  |  |            |
|    | 5.2.1<br>5.2.1         |  |            |
|    | _                      |  |            |
|    | 5.2.1<br>5.2.1         | 11   |            |
| F  |                        | <b>5</b>                                     | 32         |
| _  |                        | CARRIE DE SARIA SULLINIENTE SUEDIS           |            |

### 1. Executive Summary

### 1.1 Mock Election Background and Overview

In mid April 2008, 64 Colorado counties became HAVA compliant on a fully deployed statewide voter registration and election management system. The imminent 2008 presidential cycle, commencing with a primary election in August, necessitated the immediate holding of a statewide Mock Election. At the recommendation of the North Highland Company, the Colorado Secretary of State contracted with Jan Kuhnen to serve as the Mock Election Coordinator commencing March 10<sup>th</sup>. The Colorado Mock Election was held from April 21<sup>st</sup> through May 2<sup>nd</sup>.

This report provides findings from this Mock Election. The illustration below outlines how the Mock Election was structured and managed.

High Level Election Life-Cycle **Election** Election **Early Voting /** Poll-Book Absentee **Balance** Mgmt Worker Processing **Vote Center** Generation First time counties ▶ High pass Issues with Strong pass rate Strong system Issues with and confidence for had setup an rate for processing performance for balancing reports election scenarios absentee ballots early voting concurrent poll-▶ Training issue book processing. ▶ Key issues with Complex for ▶ UOCAVA ▶ Vote center related to ballot setup and small counties concerns Process issue with reporting connectivity issues poll-book printing inventory. New business Mixed reports on Unaffiliated voter ▶ Issue with export processes for report balancing issue ballot styles large counties 100% county setup **Enterprise Findings** ▶ Strong training program is needed for counties to adopt to ▶ Higher number of connectivity issues than expected. Good system performance and stability. the system. ▶ Unaffiliated voters were not setup correctly – functional and Counties need more business process overview. Voter move issue was identified and resolution formulated. processing defect. ▶ CDOS tier 2 support improved over the duration of the mock. ▶ There were key policy issues identified that needed more clarification. Saber help desk improved performance over time with active management. The mock was successful as it:

Action plans are in place to address all functional, technical, and training gaps identified.

▶ Identified training needs

Identified functional gaps

Identified network / technology issues
Instilled confidence in the system

### 1.2 Mission Statement

The Mock Election plan identified the following five mission objectives:

1. Identify system functional gaps

▶ Approximately 1000 Spirit tickets were issued during this

exercise with over 60% related to training.

- 2. Identify system connectivity gaps
- 3. Identify system training gaps
- 4. Identify necessary CDOS decision points
- 5. Instill county confidence in the voter registration and election management system

### 1.3 Executive Level Findings

We believe the Mock Election successfully met the agreed upon objectives and was a very useful exercise to identify areas for improvement. The following illustration provides an overview of the findings from the Mock Election.

High Level Election Life-Cycle **Early Voting** / Poll-Book Election **Election** Absentee **Balance** Worker Mgmt **Processing Vote Center** Generation First time counties ▶ High pass Issues with Strong pass rate Strong system Issues with and confidence for had setup an rate for processing performance for balancing reports absentee ballots scenarios early voting concurrent pollelection Training issue Key issues with Complex for ▶ UOCAVA book processing. related to Vote center ballot setup and Process issue with small counties reporting concerns connectivity issues poll-book printing inventory. New business Mixed reports on Unaffiliated voter Issue with export processes for report balancing ballot styles large counties 100% county setup **Enterprise Findings** ▶ Higher number of connectivity issues than expected. Strong training program is needed for counties to adopt to Good system performance and stability. the system. ▶ Unaffiliated voters were not setup correctly – functional and Counties need more business process overview. processing defect. Voter move issue was identified and resolution formulated. CDOS tier 2 support improved over the duration of the mock. ▶ There were key policy issues identified that needed more ▶ Saber help desk improved performance over time with active clarification. The mock was successful as it: ▶ Approximately 1000 Spirit tickets were issued during this Identified training needs exercise with over 60% related to training. Identified functional gaps Identified network / technology issues Instilled confidence in the system

Action plans are in place to address all functional, technical, and training gaps identified.

# 1.4 Report Contribution

Key team members participated in the assembly of this report and with the production of the Mock Election.

Trevor Timmons – SCORE Project Director
Holly Lowder – Elections Division Director
Scott Lee – Wyant Data Systems IV&V
William Browning – North Highland Program
Management Office
Leigh-Anne McDonald – Score Project Manager
James Lundy – SCORE Network Operations
CDOS Front Line Support

Vicky Stecklein Bill Kottenstette Alyssa Prohaska Cameron Brauer Paula Barrett Lisa Doran Heather Williams Terry Grenda – User Acceptance Testing Christi Granato – User Acceptance Testing Hilary Rudy – CDOS Legal Specialist Keri Ashley – CDOS Campaign Finance Saber Team

Puneet Agrawal
Trent Parker
Ken Slaughter
Venkat Subramanian

Saber Help Desk Team
County Script and Scenario Team
Amy Naccarato

Alissa Bohall Sheila Reiner Terry Carver Alyssa Prohaska

# 2. Understanding the Mock Election

#### 2.1 Mock Election Overview

The Mock Election plan was designed around a primary election. A primary election uses 100% of an election management system while necessitating the system function correctly when changing party affiliation for unaffiliated and political organization voters. The first statewide election to be held on SCORE II will be a primary election, so system exposure for all counties ranked high. Individual scenarios, simulating a primary election, were designed to be completed in the identified two-week period. Mock election counties were instructed that the scenarios were a minimum skeleton framework and additional functions/scenarios should be added at any time. Scenarios started with the state "pushing down" mock ballot certifications and the counties proceeding on to election set-up. Given the two-week time frame, counties were limited in the amount of depth they could simulate. Some counties chose to engage all precincts, while other counties set up a test situation. The depth of the participation was strictly a county decision.

Three control counties were established. These counties were continuing to run their legacy systems and when contacted, agreed to compare the Mock Election scenarios to the same scenarios in their legacy systems. Rio Blanco County, LEDS legacy, represented the small counties, Delta County, LEDS legacy, represented the medium sized counties and Adams County, VOTEC legacy, represented the large counties. We would like to recognize and thank Clerks Nancy Amick, Ann Eddins and Karen Long, as well as their staffs, for the extra diligence, care and time taken by agreeing to serve in this function.

### 2.2 Mock Election Setup

Participating counties ranged from voter registrations of 599 to 349,794. Prior to the start of the Mock Election, counties were surveyed for participation and the type of election they were setting up and testing (polling place or vote center). Specifically:

- One hundred percent (100%) participation resulted in 16 counties setting up a vote center election and 48 counties conducting a polling place election.
- Election management scenarios were set out as daily, however, no routine was expected, except for Day 1, when counties faxed in election set-up and on Day 8 when a simultaneous pollbook printing was planned.
- At several county requests, additional scenarios were added to provide further system testing (election day look-up) and direction to the counties to, if possible, access the system between 10 am and noon each day.
- Daily phone calls for immediate feedback were established. Based on voter registration size, counties were divided into small, medium and large and phone calls were established accordingly.
- Beginning and end of day team meetings were established to provide communication and task setting expectations.
- A daily newsletter was prepared to share inter-county issues. This communication tool
  was designed to provide quick, relevant information that could affect all counties. Mock
  Election Alerts were also used to deliver critical information to all counties as everyone
  proceeded through the Mock Election. System functionality issues created the need for
  most Mock Election Alerts.
- Scenario evaluation sheets were delivered with each scenario. The evaluation sheets were designed for quick, simple feedback. At the request of the networking team,

- connectivity ratings were also included in the evaluation. Counties were asked to turn in evaluation sheets daily, either by fax or by e-mail.
- Nightly scoring of all returned evaluations was recorded and CDOS customer support, where possible, returned phone calls the next day on evaluation questions, thus closing the feedback loop.
- The Saber Help Desk was directed to be the first point of contact for the counties. All issues were to be reported to the Help Desk and if resolution was not established in fifteen minutes, the counties were directed to call the CDOS Customer Support lines. Individual attention and issue resolution were delivered by all parties. The Saber Help Desk added training resources to provide web-based training, using GoToMeetings for individual county trainings and assistance.

### 2.3 Mock Election Staffing

The Mock Election Command Center was established and manned daily by the following individuals:

- Trevor Timmons, SCORE II Project Director
- Jan Kuhnen, SCORE Mock Election Coordinator
- James Lundy, Networking Specialist
- Ken Slaughter, Saber Field Support Manager
- Trent Parker, Saber Functional Analyst

Team meetings including all customer support, communications manager, command center personnel, project management office, legal specialist, SOS representatives, IV&V and the Saber project manager were held twice a day. Holly Lowder, State Elections Director, called in to meetings as she was providing first-hand feedback to the Mock Election team from the counties. County observations allowed the deployment of field resources as needed. Items were reviewed on a daily basis and the team was staffed accordingly.

CDOS implemented a front line Customer Support area to aid counties in business process issues and to supplement the Saber Help Desk during the Mock Election. An 800 number for county use with five tier-one staff, one SPIRIT (Saber Help Desk ticket tracker) logger and two tier-two staff were assigned. County acceptance and praise was high. Questions, business process oriented and SCORE related, were answered quickly, plus feedback loops from evaluations were closed by this group. This group will continue to function through the November election and provide immediate access for the county questions.

# 2.4 Mock Election Schedule

The following illustrates the high-level schedule for the Mock Election

| Day Date        |         | Mock Election Activity   |  |  |
|-----------------|---------|--|--|--|
| Monday          | 4/21/08 | Ballot Cert and Election Set-up—State & County   |  |  |
| Tuesday 4/22/08 |         | Close of Registration and Ballot Inventory Set-up<br>Small and medium county call-ins                        |  |  |
| Wednesday       | 4/23/08 | Poll Worker set-up and run Absentee labels or export Large counties call-in                                  |  |  |
| Thursday        | 4/24/08 | Absentee starts. Run Signature Card export Small and medium county call-ins                                  |  |  |
| Friday          | 4/25/08 | Run Absentee scenarios<br>Large county call-in   |  |  |
| Monday          | 4/28/08 | Early Voting starts Small and medium county call-ins   |  |  |
| Tuesday         | 4/29/08 | Early Voting ends—close of business<br>Large county call-in  |  |  |
| Wednesday       | 4/30/08 | EVERYONE to simultaneously run Poll books/Signature Cards Vote Center set-up Small and medium county call-in |  |  |
| Thursday        | 5/1/08  | Mock Election Day – everyone to access Voter<br>Search for one hour<br>Large county call-in                  |  |  |
| Friday 5/2/08   |         | Import E-poll Book and close election<br>Small and medium county call-in                                     |  |  |

# 2.5 Mock Election Scenarios

The following table lists the 46 Mock Election Scenarios that were executed:

| Scenario   | Component   | Mock Date          |
|--|---|--------------------|
| Create an Election                                     | Election Management                                   | 4/21/08            |
| Ballot Certification                                   | Election Management                                   | 4/21/08            |
| Issue on a Primary Ballot                              | Election Management                                   | 4/21/08            |
| Ballot Order   | Election Management                                   | 4/21/08            |
| Export ballot styles                                   | Election Management                                   | 4/21/08 to 4/22/08 |
| Ballot inventory set-up                                | Election Management                                   | 4/22/08            |
| Assign election workers                                | Election Workers                                      | 4/23/08            |
| Mail notification letters                              | Election Workers                                      | 4/23/08            |
| Accept election workers                                | Election Workers                                      | 4/23/08            |
| Decline election workers                               | Election Workers                                      | 4/23/08            |
| Adding/Editing training class                          | Election Workers                                      | 4/23/08            |
| Mail-in (absentee) processing Initial file             | Absentee  | 4/23/08            |
| Print training class rosters                           | Election Workers                                      | 4/23/08            |
| Emergency registration with active ballot              | Voter Registration                                    | 4/24/08            |
| UOCAVA   | Voter Registration/receive mail-in (absentee) ballots | 4/24/08            |
| Mail-in (Absentee)OTC                                  | Voter Registration & ballot processing                | 4/24/08            |
| Signature Card 2-Up and Signature Card 4-Up            | Election Management                                   | 4/24/08            |
| Receive mail-in (absentee) ballots                     | Receive Mail-in (Absentee) Ballots                    | 4/25/08            |
| Receive mail-in (absentee) ballots Rejects             | Receive Mail-in (Absentee) Ballots                    | 4/25/08            |
| Undeliverable Mail-in (Absentee) Ballots               | Receive Mail-in (Absentee) Ballots                    | 4/25/08            |
| ReplacementBallot processing                           | Receive Mail-in (Absentee) Ballots                    | 4/25/08            |
| Early Voting - Receive Absentee                        | Early Voting  | 4/28/08            |
| Early Voting Address change Before Cutoff              | Early Voting  | 4/28/08            |
| Early VotingAffiliating an unaffiliated voter          | Early Voting  | 4/28/08            |
| Error in affiliation                                   | Early Voting  | 4/28/08            |
| Address change After Cutoff                            | Early Voting  | 4/28/08            |
| Activity: Spoiling a ballot                            | Early Voting  | 4/28/08            |
| Carry ballot   | Early Voting  | 4/28/08            |
| Transfer Credit  | Early Voting  | 4/28/08            |
| Balancing  | Early Voting  | 4/28/08            |
| Reallocate inventory                                   | Early Voting  | 4/28/08            |
| Create household labels for TABOR                      | Voter Search  | 4/28/08            |
| Processing voters who are cancelled, inactive, etc.    | Early Voting  | 4/29/08            |
| Emergency registration                                 | Early Voting  | 4/29/08            |
| Early voting for a voter with an active mail-in ballot | Early Voting  | 4/29/08            |
| Voter tries to vote twice                              | Early Voting  | 4/29/08            |
| Early voting after early voting has ended              | Early Voting  | 4/29/08            |
| Pollbook   | Election Management                                   | 4/30/08            |
| Test your vote center connectivity                     | Election Management                                   | 4/30/08            |
| Vote center reports                                    | Election Management                                   | 5/1/08             |
| Election Day   | Election Day  | 5/1/08             |
| Voting at Vote Center                                  | Election Day  | 5/1/08             |
| Vote Center Test                                       | Vote Center   | 5/1/08             |
| Mail-in (absentee) Late Ballots                        | Ballot Processing                                     | 5/1/08             |
| Paying election workers                                | Election Workers                                      | 5/2/08             |
| Post history and close election                        | Election Management                                   | 5/2/08             |

# 3. Summary of Findings

# 3.1 System Training Gaps

The primary issues with the Mock Election concerned training issues. Approximately 60% of reported problems that were identified by the Saber help desk were categorized as training-related. Other training related issues included:

- Election Management training inadequate
- Absentee pulling not well documented
- Pollworker Module training
- Reports usage
- Ballot inventory usage

### 3.2 System Functionality Gaps

The following gaps were identified during the Mock Election:

- 1023 Spirit Issues reported by counties
- Permanent absentee status
- Inadequate reports, including tracking of voided ballots
- Unaffiliated voters not affiliating for primary/printing on Pollbooks/Voter History
- Vote Center judge's assignment/acceptance
- District style generation for import to tabulation systems failing or not available
- Health Care Facility designation
- Close of Registration Date and Eligibility Hunt
- Early Voting and Vote Center label printing delay
- Printing of Pollbooks
- Foreign address printing on Avery 5160
- Election worker movement between county and tracking
- Ballot transfer did not reprint label
- Payroll export
- Election processing speeds
- Permanent mail-in designation

Based upon the Mock Election, the SCORE Project Team has decided to produce 4.1 Application Release to address Mock Election Findings. Some findings from the Mock Election were known and are part of the 4.0 Release, including:

- Provisional ballot tracking
- Administrative void
- Permanent mail-in absentee

### 3.3 System Connectivity or Technology Gaps

The following network connectivity, system performance, and other technology related issues and gaps were identified. These issues were more numerous and extensive than initially diagnosed:

- Approximately 30 to 40% of counties reported connectivity issues of some type. These issues included:
  - SSL errors
  - Slow and jerky mouse
  - Log-in difficulties
  - Peripheral issues using label printers, scanners
  - Frozen screens
  - Vote Center blank screens
  - Vote Center multiple sessions open
- Counties reported not having access to Excel
- Counties reported unfamiliarity with mail merge, creating PDFs, exporting and data manipulation

### 3.4 CDOS Process Decision Points

Specific issues were identified that relate to CDOS business process and policy. These include:

- Voter move
- ID verification
- Absentee surrender
- Effective county communication
- CDOS response to critical issues
- Election readiness of election staff

It should be noted that the CDOS customer support pulled together quickly and the support of CDOS Administration was critical in this endeavor. System familiarity and knowledge was quickly garnered and communicated to the counties in an efficient manner.

CDOS has recognized some of the weaknesses in their organizational structure that have been created due to the implementation of a statewide voter registration and election management system. They are working to fill these gaps. A lesson learned is that the CDOS election area must accelerate their efforts on behalf of all counties. Decisions, processes and communication must move quickly at election time and beyond. This may well require a cultural change to provide election readiness.

### 3.5 Instill County Confidence

The Mock Election improved county confidence in the following key areas:

- Simultaneous pollbook generation statewide
- "Load" testing of pollbook generation and election day activities
- Server capabilities were measured and passed with high marks
- Counties coming off some legacy systems found the SCORE II application to be much easier to use than their legacy systems
- Other users found the logic in SCORE II to be easier than their legacy system
- Some counties found functional items in SCORE II that makes their election processes easier
- Given the extent of the connectivity and application errors, county confidence In business processes could not be measured

No functional showstoppers were uncovered during the Mock Election; however, many critical issues identified must be corrected to ensure a successful 2008 election. These are:

- Connectivity and system performance
- Unaffiliated voter correction
  - Creating extra ballot styles because of an issue on the ballot
  - Unaffiliated voter not appearing on pollbook/E-pollbook
  - Unaffiliated election day voters history not posting
- Business process speed
- Reports and balancing
- County end-user training
- Vote Center connectivity/processing
- Use of SCORE provided exposure to the system and increased county familiarity

# 3.6 Key Issues and Recommended Actions (Summary)

The following actions are suggested from the findings from the Mock Election:

| Issue               | Action Plan   |
|---------------------|---|
| Connectivity        | <ul> <li>DRC hired and providing root cause analysis</li> <li>Progress on SSL errors appears to being made</li> <li>System Patch applied 5/16/08</li> </ul>   |
| Unaffiliated Voters | <ul> <li>Set for 4.0 and 4.1 release</li> <li>Pollbook printing corrected in 4.0 release</li> <li>Pollbook back-end processing is set for 4.1 release</li> <li>Voter history posting is set for 4.1 release</li> </ul>  |
| Process Speeds      | <ul> <li>Address and resolve connectivity issues</li> <li>Review and improve business processes</li> <li>Defaults on certain fields would reduce mouse strokes</li> <li>Hot key deployment would cut processing time.</li> </ul>                                    |
| Report Balancing    | <ul> <li>Critical need reports identified and being provided in 4.1 (i.e., Void Report by Ballot Stage – 12a&amp;b)</li> <li>Also, a query description for each report to be provided by Saber for reference by the counties (compare apples to apples).</li> </ul> |
| Training            | <ul> <li>An extensive training plan to be developed with immediate implementation</li> <li>Counties are encouraged to repeat the Mock Election on their own to increase system familiarity</li> </ul>   |
| Vote Centers        | <ul> <li>Increase process speeds</li> <li>Unaffiliated voter issues affected processing</li> <li>Resolve tabulation interface issues for smart cards</li> </ul>   |

At the completion of the Mock Election, system defects were identified, however, providing these key functional gaps can be resolved in a timely fashion, no showstopper functional areas were uncovered. Network connectivity, reports balancing and election process flows continue to need critical correction immediately.

### 4. Recommendations

# 4.1 Training

A comprehensive training plan has been established and is in the process of being implemented. The key objectives of the training plan are:

- Deliver immediate and effective SCORE II system and business process training to the following organizations:
  - 64 counties across Colorado specifically Elections related staff.
  - · Colorado Department of State (CDOS) Elections Division staff
  - External entities as needed (OIT, Executive Branch, Legislature, and general public
  - Saber front line support in terms of business process for Colorado
- · Prioritize and deliver training against the election calendar
- Counties need to train election judges and workers this training plan should produce some "downstream" material for this purpose.
- IT Training to support network, peripherals.
- Provide other training needs such as MS Office 101.
- Assist in facilitation of election worker training.
- Deliver training through multiple channels.
- Effectively measure the training output for training and adjust as necessary.

The following training gaps were identified from the Mock Election:

- Create an Election (Election Setup) Elections Management Module
- Reporting
- Extraction
- Voter Move
- Ballot inventory / Ballot styles
- Election Worker Module
- Transaction Sources (voter registration)
- ID Verification
- Batch Scanning and Management
- Absentee Management
- New 4.0 Provisional, Permanent Mail In
- Districts and Precincts
- VC Programmer
- Vote Center

The following illustrates the high-level training summary.

|   | Planning  | Phase 1  |     | Phase 2  | Phase 3   |
|---|---|--|-----|--|---|
|   | 5/1 – 5/16  | 5/17 – May 31  |     | June 08  | July 08   |
| • | Election Activities: Voter Registration Reporting Data Migration Election Worker  | Voter Registration     Reporting     Election Worker     Election Setup     Voter Movement   |     | Election Activities: Voter Registration Reporting Election Setup Ballots Absentee  | Election Activities: Voter Registration Reporting Absentee Early Voting Setup Vote Center Setup   |
| • | Training Activities: Finalize Training Plan Scope training resources Build Reporting Index Finalize Regional Agenda Define Critical Reports Define SOP FAQ on Release 4.0 Initiate Election Readiness | Training Activities: Voter Move "How To" Finish Regional Content Hire Training Resources Dedicated Field Support Webinar Development Begin FAQs Initiate Listserv CDOS internal training | - 1 | Training Activities: Conduct GS Regional Conduct Webinars (2 / week) Produce 1 self-service video / web-based training (per week) Continue FAQs CDOS internal training | Training Activities: Conduct Large County Sessions Conduct Webinars (2 / week Produce 1 self-service video web-based training (per week) Continue FAQs CDOS internal training |
|   | Training Content: Reporting definitions Scope 4.0 overview  | Training Content:  Voter Move Policy FAQ  General FAQ  Voter ID Policy Summary  Reporting Webinar  Election Worker 101  Release 4.0 Webinar  Initiate MS Office 101                      | /   | Training Content:  Voter Move Training Election Worker Ballot Management Election Setup Absentee Policy updates Release 4.1  | Training Content:  Release 4.1 / Corrective builds Early Voting Vote Center Policy Updates Tabulation Interface   |

The training plan has been initiated per the schedule above.

# 4.2 Business Processes

The following table describes business process recommendations for **Counties**:

| Area  | Action Plan  |
|---|--|
| Mail Merge Usage, Using MS<br>Office (Excel), Exports | Included in the CDOS training plan.  |
| Centralization of Election Processes                  | County cross-training of many modules should be implemented.   |
| Voter Move and<br>In Flight Ballots                   | <ul> <li>Policies Needed – State to Provide</li> <li>Training Program – Varied and Plentiful</li> </ul>  |
| Election Process<br>Sequencing                        | <ul> <li>Checklists for counties so they can establish and follow best practices based on County Practices.</li> <li>State will provide processes where applicable.</li> </ul> |
| Pollbook Printing                                     | <ul> <li>The pollbook will be divided into smaller units.</li> <li>Saber will create pdf's on scheduler that will help automate the pollbook production.</li> </ul>            |
| Naming of User Ids                                    | <ul> <li>CDOS will standardize log-in naming conventions.</li> <li>Going forward this will include county name or number in log-in.</li> </ul>                                 |

The following table describes business process recommendations for **CDOS**:

| Area   | Action Plan   |  |  |
|--|---|--|--|
| Ramping up for an election                                     | Education on election readiness with a state-wide system – all ready started with mock                          |  |  |
| Culture change to election readiness and execution office wide | SCORE training for CDOS staff<br>PMO to facilitate office adoption  |  |  |
| SCORE Petition Module  | Training – Internal and rewrite of business processes   |  |  |
| Business process manual  | Customer Support to develop and publish to counties   |  |  |
| Training of counties   | Statewide SCORE training plan – designed and ready for implementation   |  |  |
| Training of election office In statewide systems               | Professional memberships – nationwide<br>Election Center certification<br>HAVA certification of elections staff |  |  |
| Policy decisions   | State to decide and publish policy decisions quickly  |  |  |

# 4.3 Saber Help Desk

The response time for the Help Desk was not sufficient but performance did improve as the Mock Election progressed – specifically with daily CDOS and Saber Help Desk conference calls designed to share ideas, discuss issues, and follow up on responsiveness.

| Critical Issue Description   | Recommendations  |  |  |
|--|--|--|--|
| Help Desk call resolution at primary election time. This concern also extends to the November general when all states will be utilizing the Help Desk. | <ul> <li>A clear, set expectation should be established by the State and the Counties of the Help Desk function.</li> <li>Any need gaps can then be filled by the CDOS Customer Support area.</li> </ul> |  |  |

### 4.4 Network Connectivity

- Dynamic Resources Corporation (DRC) has been hired to identify root cause for network connectivity issues and provide recommendations to correct.
- In addition to the DRC analysis and mitigation, County IT staff, if available, should be trained for on-site troubleshooting. Requires standard procedures from the State. Several counties have already requested this training and it is included in the master training plan.
- Paper back up contingencies at early voting and vote centers must be in place for all counties.
- Reports from several large counties indicate a high level of interest by voters in receiving their ballots by mail. The mail-in module functioned adequately during the Mock Election.
- Saber has already re-engineered the vote center screens to provide faster data relay when a voter is called up. Processing speeds should increase considerably. This solution will need testing and verification.
- Pollbook printing is restricted to printing in file sizes of 10-20 precincts.

# 4.5 County Adoption

The development of additional reporting functions to help with the balancing of the election is imperative and scheduled in Release 4.1. Voided ballots, by ballot stage, are vital to the balancing of mail-in ballots, as well as voter move.

Counties may well choose to run parallel election management systems. This is a definite county choice. Once familiarity with SCORE II and the election management system is achieved, county adoption will improve. Counties also appear to place high trust in the mail-in ballot section of the SCORE II system. Many counties have mailed permanent mail-in and regular mail-in applications to all their voters. We encourage counties to engage voters in the mail-in ballot process as this is where their system trust lies at this time.

Efficiencies in SCORE II will become more apparent as time goes on. Voter merge has not been completed at this time and will, hopefully, gain data entry efficiencies as will the CDOR and CDOC interfaces. A statewide voter registration system and election management system will provide statewide compliance and the equal treatment of all Colorado voters, just as the Help America Vote Act of 2002 envisioned. As the SCORE II system matures, technological solutions can be implemented for the benefit of all counties.

# 4.6 Additional Recommendations

It is further recommended that the following be implemented to help ensure a successful program launch.

| Responsible Party  | Recommendation   |  |  |  |  |
|--------------------|--|--|--|--|--|
| Saber              | <ul> <li>SCORE II functional gaps identified and prioritized for emergency releases and a 4.1 release</li> <li>In progress with a release date of 7.1.08</li> <li>Data migration issues for affected counties resolved</li> <li>On-going system development is in progress</li> <li>Pollbook Scheduler Implementation</li> </ul> |  |  |  |  |
| CDOS               | <ul> <li>Implement training plan and release dates to counties for planning purposes</li> <li>Provide training aids and business processes</li> <li>Provide policies as needed</li> <li>Implement DRC recommendations</li> <li>Provide data extraction mechanisms</li> </ul>   |  |  |  |  |
| IV & V             | <ul><li>Determine multiple log-in issues</li><li>Continue to monitor security and performance</li></ul>  |  |  |  |  |
| Counties           | <ul> <li>Counties to develop business processes based on county election processes</li> <li>Redesign pollbook printing for smaller file size</li> <li>Run test elections in sandbox to gain system familiarity</li> </ul>  |  |  |  |  |
| DRC                | <ul> <li>Continue to investigate connectivity root causes and<br/>deliver recommendations.</li> </ul>  |  |  |  |  |
| Mini-Mock Election | A Mini-Mock Election should be conducted with Release<br>4.1 in mid-July.  |  |  |  |  |

Counties requested, and the State agrees, that a 3-day mini-mock be performed to test business processes and Release 4.1 functionality should be conducted prior to the August Primary Election. This mini-mock will be completed by a minimum number of counties (representing all county sizes). The date is anticipated for mid-July but will be decided by the participating counties.

# 4.7 Election Readiness and Organization

With the movement to a statewide voter registration and election management system the organizational structure at CDOS will be prompted to change. The SCORE II system has necessitated the addition of employees. The management of this unit will continue to exist and system workings will always be impacted by legislative changes and election statutes and rules. The coordination of all election functions must now be tied together. Leadership will want to investigate the management of all functions.

Counties and the state will want to ascertain election readiness. The Elections Readiness Tracking Sheet is currently being managed by Saber Field Support and Holly Lowder, the Elections Division Director. This detailed report identifies key gaps, issues, risks and provides a snapshot of a county's ability to conduct the election using SCORE. Progress is actively managed to help ensure county adoption.

# 5. Detailed Findings

# 5.1 Scenario Results

The following table summarizes the scenario completion rate and the pass rate for counties that attempted the scenarios:

| Scenario  | Mock Date          | Evaluations | Completion   | Pass        |
|---|--------------------|-------------|--------------|-------------|
| Create an Election                                      | 4/21/08            | 64          | 100%         | 100%        |
| Ballot Certification                                    | 4/21/08            | 62          | 97%          | 97%         |
| Issue on a Primary Ballot                               | 4/21/08            | 50          | 78%          | 100%        |
| Ballot Order  | 4/21/08            | 54          | 84%          | 85%         |
| Export ballot styles                                    | 4/21/08 to 4/22/08 | 46          | 72%          | 70%         |
| Ballot inventory set-up                                 | 4/22/08            | 54          | 84%          | 89%         |
| Assign election workers                                 | 4/23/08            | 50          | 78%          | 96%         |
| Mail notification letters                               | 4/23/08            | 47          | 73%          | 91%         |
| Accept election workers                                 | 4/23/08            | 47          | 73%          | 100%        |
| Decline election workers                                | 4/23/08            | 44          | 69%          | 100%        |
| Adding/Editing training class                           | 4/23/08            | 44          | 69%          | 98%         |
| Mail-in (absentee) processing Initial file              | 4/23/08            | 39          | 61%          | 92%         |
| Print training class rosters                            | 4/23/08            | 47          | 73%          | 98%         |
| Emergency registration with active ballot               | 4/24/08            | 44          | 69%          | 77%         |
| UOCAVA  | 4/24/08            | 51          | 80%          | 80%         |
| Mail-in (Absentee)OTC                                   | 4/24/08            | 45          | 70%          | 84%         |
| Signature Card 2-Up and Signature Card 4-Up             | 4/24/08            | 46          | 72%          | 90%         |
| Receive mail-in (absentee) ballots                      | 4/25/08            | 51          | 80%          | 94%         |
| Receive mail-in (absentee) ballots Rejects              | 4/25/08            | 45          | 70%          | 96%         |
| Undeliverable Mail-in (Absentee) Ballots                | 4/25/08            | 44          | 69%          | 91%         |
| ReplacementBallot processing                            | 4/25/08            | 41          | 64%          | 100%        |
| Early Voting - Receive Absentee                         | 4/28/08            | 42          | 66%          | 95%         |
| Early Voting Address change Before Cutoff               | 4/28/08            | 53          | 83%          | 90%         |
| Early VotingAffiliating an unaffiliated voter           | 4/28/08            | 55          | 86%          | 93%         |
| Error in affiliation                                    | 4/28/08            | 55          | 86%          | 87%         |
| Address change After Cutoff                             | 4/28/08            | 52          | 81%          | 96%         |
| Activity: Spoiling a ballot                             | 4/28/08            | 52          | 81%          | 85%         |
| Carry ballot  | 4/28/08            | 50          | 78%          | 84%         |
| Transfer Credit   | 4/28/08            | 53          | 83%          | 91%         |
| Balancing   | 4/28/08            | 49          | 77%          | 96%         |
| Reallocate inventory                                    | 4/28/08            | 47          | 73%          | 95%         |
| Create household labels for TABOR                       | 4/28/08            | 29          | 45%          | 94%         |
| Processing voters who are cancelled, inactive, etc.     | 4/29/08            | 52          | 81%          | 71%         |
| Emergency registration                                  | 4/29/08            | 53          | 83%          | 84%         |
| Early voting for a voter with an active mail-in ballot  | 4/29/08            | 49<br>48    | 77%          | 84%         |
| Voter tries to vote twice                               | 4/29/08            |             | 75%          | 90%         |
| Early voting after early voting has ended               | 4/29/08            | 33          | 52%<br>100%  | 88%         |
| Pollbook  | 4/30/08<br>4/30/08 | 64<br>36    | 56%          | 98%<br>100% |
| Test your vote center connectivity  Vote center reports | 5/1/08             | 27          | 42%          | 100%        |
| Election Day  | 5/1/08             | 31          | 42%          | 93%         |
| Voting at Vote Center                                   | 5/1/08             | 25          | 39%          | 100%        |
| Voting at vote Center  Vote Center Test                 | 5/1/08             | 9           | 39%<br>14%   | 100%        |
| Mail-in (absentee) Late Ballots                         | 5/1/08             | 24          | 38%          | 79%         |
| Paying election workers                                 | 5/2/08             | 30          | 47%          | 76%         |
| Post history and close election                         | 5/2/08             | 27          | 42%          | 74%         |
| i ost history and close election                        | J12/00             |             | <b>4</b> ∠70 | 7470        |

Confidence rate on the scenarios regarding issues on a primary ballot were complicated by the creation of the correlating ballot styles. The ballot order scenario was compromised by the unfamiliarity and absence of needed reports. An index of reports was identified as needed and provided in paper copy to the counties. This helped the counties immensely, but did not alleviate the situation. Other scenarios rated a low confidence rate based on the system not being able to consistently vote unaffiliated voters due to a programming error created because a primary issue was placed on the ballot. This created inaccurate ballot styles and the inability of the user to complete some scenarios.

# 5.2 Mock Election Findings

### 5.2.1 Training

The Mock Election brought to light the need for an immediate and intense training program. While many counties are comfortable with the voter registration portion of the system, it is apparent that the election management section needs further training. Many counties used the Mock Election notebook to learn the system; however, counties were under the assumption that the Mock Election would provide a "how-to" manual. That was not the direction or goal of the Mock Election charge. The previous training provided to the counties gave an overview of election management, forcing counties to "dig out" processes. This resulted in counties comparing the SCORE II system to their legacy system when searching for answers.

### 5.2.2 Business Process Manual

A business process manual had not been prepared at the CDOS level for distribution to counties. The Saber system – SCORE II – provides alternative ways to accomplish tasks, needed, and in many cases, based, on the size of the county. County practices cannot and should not be dictated by the State. However, some county offices suffer from a lack of computer knowledge and expertise that is required by this system. Those training needs have not been met and continue to be of concern. Items such as saving files as a PDF, using MS Excel, using exports and using mail merge are needed to use the SCORE II system. Training guidelines for these items are needed. Several counties, at the beginning of the Mock Election, were unfamiliar with the print screen capture feature. They quickly caught on and found this feature to be a useful tool, especially for reporting items to the SCORE Help Desk. Many of the smaller counties also do not have access to Excel – a much needed product for preparing some reports from this system.

# 5.2.3 Training Manual

The training manual provided by Saber was inadequate in areas and contained an overview of the system. Particularly missing were the ordering of how certain steps in the election management system need to be accomplished in order to efficiently and effectively move through the election process.

### 5.2.4 Saber Help Desk

As noted in Section 3, the Saber Help Desk was inundated with calls from people seeking help. While the Help Desk improved greatly during the Mock Election, those support personnel with Colorado knowledge were limited. It is a high concern that personnel resources pulled from other states to help with the Mock Election Help Desk will be released from Colorado availability during the primary and general elections. Waiting for an answer several hours to several days continues to be noted by the counties.

### **5.2.5 Network Connectivity**

The Mock Election brought forth the extent of the state connectivity issues. Prior to the Mock Election, several "trip wires" were verbalized by the networking liaison, James Lundy. These included:

- Jerky mouse
- Freezing frame
- SSL error
- Peripheral issues
  - Printers
  - Scanners

The Mock Election provided county-by-county metrics on these issues. In addition, the Dymo label printer not functioning consistently or in timely manner was also added to the list. Counties were identified with severe connectivity issues and were identified as first touch counties for DRC. The following further illustrates technology issues by type by county from a survey conducted prior to the Mock Election.

| County       | SSL Errors | Connectivity | Network | Peripherals |
|--------------|------------|--------------|---------|-------------|
|              |            |              | Latency |             |
| Adams        | Yes        |              | Yes     | Yes         |
| Alamosa      |            |              | Yes     | Yes         |
| Arapahoe     | Yes        | Yes          | Yes     | Yes         |
| Bent         |            |              | Yes     | Yes         |
| Boulder      | Yes        |              | Yes     | Yes         |
| Chaffee      |            |              | Yes     |             |
| Cheyenne     |            | Yes          | Yes     |             |
| Broomfield   | Yes        | Yes          | Yes     |             |
| Conejos      | Yes        | Yes          | Yes     |             |
| Costilla     |            | Yes          | Yes     | Yes         |
| Crowley      |            |              | Yes     |             |
| Custer       |            |              | Yes     |             |
| Delta        | Yes        |              | Yes     |             |
| Dolores      |            | Yes          | Yes     |             |
| Eagle        |            |              | Yes     |             |
| El Paso      | Yes        | Yes          | Yes     | Yes         |
| Elbert       | Yes        | Yes          | Yes     | Yes         |
| Fremont      |            | Yes          | Yes     |             |
| Garfield     | Yes        |              | Yes     |             |
| Gilpin       |            | Yes          | Yes     |             |
| Grand        |            |              | Yes     | Yes         |
| Gunnison     | Yes        | Yes          | Yes     | Yes         |
| Hindsdale    |            |              | Yes     |             |
| Jackson      |            |              | Yes     | Yes         |
| Kiowa County |            |              | Yes     |             |
| Kit Carson   |            | Yes          | Yes     |             |
| La Plata     |            | Yes          | Yes     |             |
| Larimer      | Yes        | Yes          | Yes     | Yes         |

| County     | SSL Errors | Connectivity | Network | Peripherals |
|------------|------------|--------------|---------|-------------|
| -          |            |              | Latency |             |
| Lincoln    |            | Yes          | Yes     |             |
| Logan      |            |              | Yes     |             |
| Mesa       |            | Yes          | Yes     | Yes         |
| Morgan     |            |              | Yes     |             |
| Otero      | Yes        | Yes          | Yes     |             |
| Ouray      |            |              | Yes     | Yes         |
| Park       | Yes        | Yes          | Yes     |             |
| Phillips   |            |              | Yes     | Yes         |
| Pitkin     | Yes        |              | Yes     | Yes         |
| Prowers    |            |              | Yes     |             |
| Rio Blanco |            |              | Yes     |             |
| Rio Grande | Yes        | Yes          | Yes     |             |
| Routt      | Yes        | Yes          | Yes     | Yes         |
| San Miguel |            |              | Yes     |             |
| Teller     |            | Yes          | Yes     | Yes         |
| Washington |            |              | Yes     |             |
| Weld       |            |              | Yes     | Yes         |
| Yuma       | Yes        | Yes          | Yes     | Yes         |
| Archuleta  |            | Yes          |         |             |
| Denver     | Yes        | Yes          |         | Yes         |
| Huerfano   |            |              |         | Yes         |
| Jefferson  | Yes        | Yes          |         |             |
| Las Animas | Yes        | Yes          |         |             |
| Montezuma  |            |              |         | Yes         |
| Montrose   | Yes        |              |         |             |
| Pueblo     |            | Yes          |         | Yes         |

The number and variety of connectivity issues related by the counties make it difficult to judge whether the system can effectively process voters for the 2008 election cycle. Frozen screens, SSL errors, slow and jerky mouse issues, difficulty logging in (several hours delay) are unacceptable practices at election time as they will impact the processing time of voters.

### 5.2.6 Vote Centers

The vote center module is Election Day connectivity with an electronic pollbook. It is used by counties that do not use paper pollbooks in individual precincts. Sixteen (16) Colorado counties tested the vote center application in the Mock Election.

Vote center connectivity issues included blank screens after hitting process voters and after using the tabulation smart card interface. Multiple log-ins were noted on the same system ID. Processing enhancements had all ready been identified by Saber and will appear in the 4.1 release. These changes were initiated to speed up vote center processing times.

# 5.2.7 Mock Election System Usage

System usage metrics showed well across the two-week period. Confidence in system capability can be built off the following system metrics from Site 1 and 2 during the Mock Election.

|              | Site 1        |              |                                   |                                   |         |                        |                        |  |
|--------------|---------------|--------------|-----------------------------------|-----------------------------------|---------|------------------------|------------------------|--|
| Session Data |               |              | Citrix Meta Frames Servers (1-10) |                                   |         | Database Servers (1-4) |                        |  |
|              |               | Maximum      | Maximum                           | Minimum                           |         | Maximum                | Minimum                |  |
|              | Sandbox Users | Simultaneous | Processor                         | Memory                            | Maximum | Processor              | Memory                 |  |
| Date         | Sessions      | Users        | Utilization %                     | Available                         | Threads | Utilization %          | Available              |  |
| 4/21/2008    | 124           | 135          | 7.89                              | 1,357MB                           | 3,026   | 9.50                   | 15,574MB               |  |
| 4/22/2008    | 163           | 160          | 10.52                             | 1,071MB                           | 2,706   | 14.00                  | 10,352MB               |  |
| 4/23/2008    | 172           | 96           | 13.20                             | 1,756MB                           | 2,219   | 6.67                   | 11,186MB               |  |
| 4/24/2008    | 165           | 129          | 11.65                             | 1,604MB                           | 2,511   | 7.00                   | 10,351MB               |  |
| 4/25/2008    | 174           | 118          | 10.17                             | 776MB                             | 2,435   | 4.50                   | 12,587MB               |  |
| 4/28/2008    | 215           | 140          | 10.03                             | 604MB                             | 2,644   | 4.00                   | 12,453MB               |  |
| 4/29/2008    | 203           | 160          | 13.14                             | 925MB                             | 2,630   | 7.83                   | 9,673MB                |  |
| 4/30/2008    | 173           | 165          | 17.01                             | 404MB                             | 2,887   | 10.00                  | 10,258MB               |  |
| 5/1/2008     | 249           | 166          | 15.79                             | 737MB                             | 2,745   | 3.00                   | 9,681MB                |  |
| 5/2/2008     | 124           | 118          | 19.47                             | 1,269MB                           | 2,355   | 3.50                   | 9,645MB                |  |
|              |               |              |                                   |                                   |         |                        |                        |  |
|              |               |              | Site 2                            |                                   |         |                        |                        |  |
|              | Session Data  |              |                                   | Citrix Meta Frames Servers (1-10) |         |                        | Database Servers (1-4) |  |
|              |               | Maximum      | Maximum                           | Minimum                           |         | Maximum                | Minimum                |  |
|              | Sandbox Users | Simultaneous | Processor                         | Memory                            | Maximum | Processor              | Memory                 |  |
| Date         | Sessions      | Users        | Utilization %                     | Available                         | Threads | Utilization %          | Available              |  |
| 4/21/2008    | 88            | 107          | 9.55                              | 1,367MB                           | 2,354   | 21.83                  | 13,862MB               |  |
| 4/22/2008    | 109           | 105          | 9.25                              | 1,801MB                           | 2,450   | 21.33                  | 11,401MB               |  |
| 4/23/2008    | 131           | 146          | 10.73                             | 930MB                             | 2,746   | 13.50                  | 9,403MB                |  |
| 4/24/2008    | 94            | 145          | 12.27                             | 439MB                             | 2,629   | 19.50                  | 11,056MB               |  |
| 4/25/2008    | 99            | 106          | 8.07                              | 629MB                             | 2,308   | 17.33                  | 11,625MB               |  |
| 4/28/2008    | 141           | 131          | 9.41                              | 1,155MB                           | 2,540   | 8.00                   | 11,236MB               |  |
| 4/29/2008    | 140           | 145          | 18.88                             | 1,695MB                           | 2,575   | 12.83                  | 11,429MB               |  |
| 4/30/2008    | 99            | 86           | 8.20                              | 131MB                             | 2,136   | 16.00                  | 86MB                   |  |
| 5/1/2008     | 138           | 150          | 11.42                             | 1,188MB                           | 2,720   | 25.33                  | 54MB                   |  |
| 5/2/2008     | 108           | 86           | 21.60                             | 1,627MB                           | 2,252   | 23.67                  | 10,011MB               |  |

| Site 1    | Vote Center ASP.Net Servers (1-4)     |                                |                               |  |  |
|-----------|---------------------------------------|--------------------------------|-------------------------------|--|--|
| Date      | Maximum<br>Processor<br>Utilization % | Minimum<br>Memory<br>Available | Maximum<br>Active<br>Sessions |  |  |
| 4/30/2008 | 1.83                                  | 2716KB                         | 527                           |  |  |
| 5/1/2008  | 3.55                                  | 2626KB                         | 570                           |  |  |
|           |                                       |                                |                               |  |  |
| Site 2    | Vote Center ASP.Net Servers (1-4)     |                                |                               |  |  |
| Date      | Maximum<br>Processor<br>Utilization % | Minimum<br>Memory<br>Available | Maximum<br>Active<br>Sessions |  |  |
| 4/30/2008 | 3.17                                  | 2760KB                         | 86                            |  |  |
| 5/1/2008  | 7.42                                  | 2614KB                         | 578                           |  |  |

#### 5.2.8 SCORE Mock Infrastructure Information

The tables above are a compilation of information gathered from the system log information being captured daily on the SCORE infrastructure. The SCORE Infrastructure uses the Indicative software product to manage many of these metrics. The product is capable of creating reports and graphs for specific timeframes on the data points established by Saber and the State. The information in the tables is intended to show the worst case or low points that were hit during the mock election period. It is important to remember that all the metrics with the exception of the Sandbox User Sessions are reporting on all the SCORE environments. This includes, Sandbox (Mock Elections), UAT (Release Testing / Support issues), and Production. It is also important to remember that these low points may not give an entirely clear picture of the entire system resource pool as all of the servers are either clustered (Oracle) or in farms (Citrix). What this means to you is that although a specific server reached the documented level, the average across all the servers would have been higher for the same period. The load balancing that occurs at multiple levels within the infrastructure takes this into account when making assignments to those servers. It is the intention of the SCORE Project team to share those detailed results at the next SCORE IT Users Group meeting.

In an effort to clarify the provided data we are providing the following supporting information on each of the columns provided in the table:

**Date** – The date in the mock election in which the information was captured. All of the metrics were captured between 7:00 am and 6:00 pm.

**Sandbox Users Sessions** – This number is captured from the Active Directory logs and shows the total number of Sandbox users that logged into the Sandbox environment for the day. A single user, in the course of a normal day would in fact log into both sites depending on the load balancing decision.

**Maximum Simultaneous Users** – This number is captured by Indicative, and represents the total number of users logged into the SCORE infrastructure at any given time during the period. As noted early, this number includes all three environments, Sandbox, UAT, and production.

#### Citrix Meta Frame Servers (1-10)

**Maximum Processor Utilization** – This percentage is captured by Indicative, and represents the highest level of server processor utilization at any given time during the period.

**Minimum Memory Available** – This value is captured by Indicative, and represents the number of Megabytes (MB) of available memory for use on a server at any given time during the period.

**Maximum Threads** – This value is captured by indicative and represents the number of active "processes" the servers are supporting at any given time during the period.

#### **Database Servers (1-4)**

**Maximum Processor Utilization** – This percentage is captured by Indicative, and represents the highest level of server processor utilization at any given time during the period.

**Minimum Memory Available** – This value is captured by Indicative, and represents the number of Megabytes (MB) of available memory for use on a server at any given time during the period.

### Vote Center ASP.Net Servers (1-4)

**Maximum Processor Utilization** – This percentage is captured by Indicative, and represents the highest level of server processor utilization at any given time during the period.

**Minimum Memory Available** – This value is captured by Indicative, and represents the number of Megabytes (MB) of available memory for use on a server at any given time during the period.

**Maximum Active Sessions** – This value is captured by Indicative, and is an arbitrary number used to gauge the number of processes that are being serviced. Saber has found another metric that will be provided moving forward that directly represents the number of users logged into the Vote Center servers and ultimately the application.

### 5.2.9 County Adoption

County adoption of the SCORE II system, as identified in the North Highland Assessment, continues to create its own set of problems. Counties fear the adoption of an unknown system in a presidential election cycle year. County adoption is further hampered not only by training and connectivity needs, but also by no trust in the reporting capabilities of SCORE II. Reports that appear as if they should pull like numbers do not agree. The logic behind the report query may be unknown and different in many cases. Saber has been requested to provide the functional query logic for county distribution. Balancing is of utmost importance in this election cycle and must be proved. This will increase with training and understanding

Counties coming from county legacy systems have moved to the SCORE II system for HAVA compliance. This is a difficult situation for many, as the SCORE II system, at this time, has not shown itself to present manpower efficiencies. Additional staffing needs have increased some county election budgets. Other counties are delighted at the efficiency and effectiveness the SCORE II system provides. Their legacy system was not able to complete nearly the number of processes they can now handle. The state-wide system is a balance among 64 county ways of completing elections.

Colorado has always been a national leader in election processes. Technology has played an important part in the development of elections in Colorado. The SCORE II system is technologically advanced at the state level; however, individual counties can no longer provide quick technological solutions to election situations. The process of Saber Help Desk tickets and the development of new features in the system, state-wide, can be a slow and lengthy process.

### 5.2.10 Saber Field Support Findings

The State of Colorado has purchased a Field Support Program from Saber for one year — this is in addition to the support currently provided across the Saber organization. This program provides six full-time employees and one manager to assist with county field support. The field support personnel were assigned county "routes" and scheduled to provide assistance throughout the mock. As counties were identified as needing additional support with the Mock Election, field support personnel were available to be pulled off their assigned county routes and redeployed. The major findings of the Field Support Team are as follows:

| Area                      | Finding  |  |  |  |
|---------------------------|--|--|--|--|
| Mock Election<br>Notebook | <ul> <li>Counties expected communication regarding the mock in January</li> <li>Greater direction in notebook expected</li> <li>Review and revision by Saber beforehand would have captured errors</li> <li>County staff felt they were being tested versus the system.</li> </ul> |  |  |  |
| System Functionality      | <ul> <li>Pull Absentee button missed</li> <li>Mixed reviews on poll worker module dependent on county size and past experience</li> <li>TABOR not included in on-line help and not recognized under Household Labels</li> <li>Ballot Inventory time consuming</li> </ul>           |  |  |  |
| Reports                   | <ul> <li>Confusion on what to use</li> <li>Totals of perceived "like" reports not the same</li> <li>Report index helped a lot</li> </ul>   |  |  |  |
| Help Desk                 | <ul> <li>Too much log and dispatch</li> <li>Not enough follow-through</li> <li>Need more first call resolution</li> </ul>  |  |  |  |
| Online Help               | <ul> <li>Good resource for counties to find help</li> <li>Counties should use content tab – it's the most user friendly</li> <li>Needs to include processes and checklists</li> </ul>  |  |  |  |
| Field Support             | <ul> <li>Purpose and duration of the Field Support Group was/is unknown by counties</li> <li>Confusion over who can/should open/close Spirit tickets</li> <li>Review open tickets before visiting your county</li> </ul>   |  |  |  |
| Communication             | <ul> <li>Needed – Daily newsletters great</li> <li>Ask counties when to Field Support should arrive</li> <li>On-line CDOS FAQ's would be helpful</li> </ul>  |  |  |  |

# Saber Field Support Con't

| Area     | Finding   |  |  |
|----------|---|--|--|
| Counties | <ul> <li>Mock was good. Now we are going to run our own in sandbox.</li> <li>Many had not been in the system much and had to spend time re-familiarizing themselves</li> <li>Specific people in the office complete specific tasks. If that person is out, work flow stopped. More crosstraining needed.</li> <li>Business process changes are difficult for all counties</li> <li>Staff with little legacy system history adapt faster</li> <li>Unclear on status of CDOR records</li> </ul> |  |  |
| CDOS     | <ul> <li>Business Process Reengineering not completed and distributed before the mock</li> <li>If a mini-mock is held, field support and CDOS support need training</li> <li>Counties are not running elections alone anymore. Elections are under the guidance of the state. This is a complete change in the model. Change is hard.</li> </ul>  |  |  |

# 5.2.11 IV&V Findings

| Area  | Finding  |  |
|---|--|--|
| Saber   | <ul> <li>Do not apply hardware or software patches during the Mock<br/>Election that could potentially affect the testing.</li> <li>Have Saber review the Mock Election materials for potential<br/>application gaps before they are distributed to the counties</li> </ul>  |  |
| Simulation  | Treat the mock as though it is a real election in every aspect (Vote Center training, testing T-1, back-up delay, Help Desk, etc.)   |  |
| System<br>Observations  | <ul> <li>Need to get a better understanding of the when multiple logins with the same ID are possible. Need to understand the impact of this as far as support and troubleshooting issues.</li> <li>Need to make sure the Load Balancing rules are working correctly at every level to minimize the impact to the counties.</li> <li>The site 2 active directory listings are much smaller than site 1. It appears that users are being bumped more frequently on site 1. Need to verify. This did improve during the second week and will be verified during the planned performance testing.</li> </ul>  |  |
| Counties  | <ul> <li>Keep in mind that counties have struggled every year with their legacy system and training was not adequate then a may never be adequate, meaning it will be an ongoing need.</li> <li>The counties' calls provided great feedback. Over communicating to the counties is a necessity.</li> <li>Include the county names and or number in the log-ins in the future. This information can be used to quickly identification potential problems that may occur if metaframe is overloaded on Election Day.</li> <li>Countie0073 were under the impression that they were being tested as opposed to testing the effectiveness of the training and support. Counties need to be re-assured that testing them is not the goal of the Mock Election.</li> </ul> |  |
| <ul> <li>Scripting of emergency phone calls would be beneficial moving forward. This keeps a consistent message are everyone on the same page.</li> <li>A process of e-mailing to the Saber Help Desk, as wa place for the mock, needs to be put in place for the full</li> </ul> |  |  |

# 5.2.12 CDOS Support Staff Findings

- Team meetings were held daily in a.m. and p.m. and were very informative
- A standardized call list (paper or electronic depending on the process) is helpful
- In-depth training on SCORE II modules needed
- Develop and provide documentation and training aids
- Need an overview of reports
- Team sharing of "hot issues" for future calls
- Updated list of county contacts names and phone numbers
- Call center management of phones
- Consider communication with counties based on assigned counties
- Staff visits to counties helped integrate election law and the reality of elections
- Escalation of questions to Tier II worked well
- Good system for reporting issues to SABER Help Desk
- Availability of SABER expertise good during the mock
- SABER was slow to update on known issues/poor communication
- Mock election was a great training tool for those team members unfamiliar with elections
- Front line support management needs better communication of roles and perhaps management reorganization. Individual team member's strengths and weaknesses were brought to light and should be embraced.
- Vote Center expertise missing in front line team

### 5.2.13 Business Process Findings

### **Large County Meeting (May 6<sup>th</sup>)**

The Mock Election scenarios did not reveal any functional "showstoppers", however, the question of whether large counties could efficiently and effectively move voters through the processes remained a concern. The state invited large county representatives to a meeting on May 6<sup>th</sup> to discuss business processes. That meeting included ten counties being represented along with various CDOS staff and the project management team.

Input from the large counties validated Mock Election findings and included the following processing concerns:

- Process completion time as it relates to label printing
- o The need for hot keys in voter registration
- o Effective date in voter verification
- The need for election default in the early voting module
- Activation of inactive voters
- o Parsing of mailing addresses
- Mail-in ballot processing batch numbers and reports

The counties further emphasized the following issues:

- Reporting not being adequate
- Reports with apparent like headings not balancing
- Pollbook printing
- Ballot inventory
- Data extraction
- o Connectivity issues
- Data migration

The Project Management Office requested that pilot counties partner with new counties to assist them with business process design.

### **CDOS Business Process Findings**

CDOS had identified the following additional business process issues:

### Counties:

- The use of mail merges, Excel spreadsheets and exports is unfamiliar to many county users
- Assignment of specific modules to county staff is more difficult because of the interrelationship of SCORE processes
- Voter moves and ballots in-flight
- Office processes and the sequencing of such processes
- Pollbook printing breaking into smaller units

### CDOS:

- Policy decisions for statewide use, i.e., data entry standards, voter identification rules, data sale/fees, voter move decisions, surrendering absentee ballots
- Ramping up for an election many lack the experience/knowledge
- Culture change to election readiness and execution office wide, SCORE will touch many other aspects of elections
- State use of the petitions module
- Business process development/training aids

### 5.3 Conclusion and Next Steps

The Mock Election was a vital element to the successful deployment of the SCORE II system. This successful exercise clearly illustrates the necessary actions and activities required for full election readiness. Critical activities for this program include:

- 1. Active program management and effective county-level coordination for on-going activities, events, and associated election cycle activities.
- 2. Continued emphasis on internal program and county communication through multiple channels (email, web, conference calls, front line support, and other touch points).
- 3. Resolution and testing of remaining functional defects identified within the Mock Election. This includes deployment of scheduled functional releases 4.0 (May 27) and 4.1 (July 7).
- 4. Aggressive mitigation of the connectivity and technical issues by utilizing the DRC, CDOS and Saber technical team resources.
- 5. Execution of the training program to further develop county expertise using the SCORE II system.
- 6. Continued on-site Field Support to assist counties with key issues and training.
- 7. Dedicated county-based field support for counties with more problematic adoption concerns.
- 8. Continued development and refinement of CDOS based policies, procedures and business processes.
- 9. Execution of a Mini-Mock Election after a successful deployment of Release 4.1 in mid-July.
- 10. Encourage counties to utilize sandbox for testing and training on self-guided exercises.
- 11. Continued Customer Support Group growth in knowledge and training.
- 12. Completion of currently on-going performance and security testing.
- 13. Completion of currently on-going performance and security testing.
- 14. Development of contingency plans for key business scenarios.

Additional status and performance reports are to be produced on a weekly basis on progress against these critical activities. In addition, monthly reports should be provided to the Steering Committee which is comprised of CDOS and County representatives.