CDOS Certification Number: 2007-CDOS-HAR-001-0404
Manufacturer: Hart Intercivic
Application Date: 04/04/2007

Test Number
CF1-P3 - 101
**2007-CDOS-HAR-001-0404**

**Purpose:**
The purpose of this test is to verify that audit logs show specific hardware events required herein.

**Prerequisites:**
DB1-P3-110

**Test Procedures:**
Use testing and machine setup from DB1-P3-110. Document the findings of audit log printout after votes have been cast on the device.

**Variance Used During Testing:**
N/A

Audit logs show hardware events such as: add hardware, remove hardware, reset hardware and change hardware properties.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retaining, stop and restoring the system as necessary.
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Operator</th>
<th>Comments and Observations</th>
<th>Incident Reports</th>
</tr>
</thead>
</table>

### Amendments

**Documents**
- (list all documents)
  - 0924-HAR-D-31

**Videos**
- (list all videos)
  - DB1-P3-110

**Photos**
- (list all photos)
  - No [ ] Yes [x]

### Acceptable Compromising Controls

### Results Summary

The voting system fails to meet the requirements.

<table>
<thead>
<tr>
<th>1st Review</th>
<th>2nd Review</th>
<th>Supervisor Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tim Bishop</td>
<td>Michael L. Chodkowski</td>
<td>John Gardner</td>
</tr>
</tbody>
</table>

Printed name

Tim Bishop

Michael L. Chodkowski

John Gardner

Signature

Date

9-26-07

18-02-07

[Signature]
Observations:
See attached evidence bag# 0924-HAR-O-31. The voting system provides an audit log, however the detail of the audit log does not include information regarding hardware events as required. i.e. VBO PRINTER CONNECTED/MOVED, JELLY GAUGE CONTROLLER ATTACHED.

Findings:
The voting system fails to meet the test requirements.
CDOS Certification Number: 2007-CDOS-HAR-001-0404

Manufacturer: Hart Intercivic

Application Date: 04/04/2007

Test Number

CF1-P3 - 102
2007-CDOS-HAR-001-0404

The voting system shall track and maintain audit information of the following voting system application events:
Election events – setup, set for election, unset for election, open polls, close polls, and election, upload devices, download devices, create ballots, create precincts, create districts, create poll places (or Vote Centers), initialize devices, backup devices, and voting activity;

Test Number:
CF1-P3-102

Test Date:
9/25/2007

Test Date/Time:
9/26/2007

Test Type (DRE, ME)
Functional

By Type
DRE

Equipment Model
eSlate

Serial Number
A09400, C01083

Manufacturer
Hart Interivic

Purpose:
The purpose of this test is to verify that audit logs show the events required herein.

Prerequisites:
DB1-P3-110

Test Procedures:
Use testing and machine setup from DB1-P3-110. Document the findings of audit log printout after votes have been cast on the device.

Variances Used During Testing:
N/A

Audit logs show all election events described in this requirement.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, returing, stop and restoring the system as necessary.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Operator</th>
<th>Actions</th>
<th>Comments</th>
<th>Incident Reports</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Continue to next page...
The voting system fails to meet the requirements.

FAIL

<table>
<thead>
<tr>
<th>Tim Bishop</th>
<th>2nd Review:</th>
<th>Supervisor/Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Printed name</em></td>
<td><em>Printed name</em></td>
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<tr>
<td><em>Signature</em></td>
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<td><em>Signature</em></td>
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<tr>
<td><em>Date</em></td>
<td><em>Date</em></td>
<td><em>Date</em></td>
</tr>
</tbody>
</table>

*Voting Systems Certification Program*

*Created by the Colorado Secretary of State's Office*
Observations:
See attached evidence bag# 0924-HAR-O-31. The voting system provides an audit log, however the detail of the audit log does not include information regarding election events as required.

Findings:
The voting system fails to meet the test requirements.
CDOS Certification Number: 2007-CDOS-HAR-001-0404

Manufacturer: Hart Intercivic

Application Date: 04/04/2007
The voting system shall track and maintain audit information of the following voting system application events: Printing activity (where applicable).

Purpose:
The purpose of this test is to verify that audit logs show all printing activity where applicable.

Prerequisites:
DB1-P3-110

Test Procedures:
Use testing and machine setup from DB1-P3-110. Document the findings of audit log printout after votes have been cast on the device.

Variances Used During Testing:
N/A

Audit logs show printing activity, where applicable. At a minimum this should include all printing of reports, V-VPATs, and ballots.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, testing, stop and restoring the system as necessary.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Operator</th>
<th>Comments</th>
<th>Maintain Reports</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
</tr>
</tbody>
</table>

*Continues to next page...*
The voting system fails to meet the requirements.

<table>
<thead>
<tr>
<th>Documents</th>
<th>Videos</th>
<th>Photos</th>
</tr>
</thead>
<tbody>
<tr>
<td>No ☐</td>
<td>Yes ☒</td>
<td>No ☐</td>
</tr>
<tr>
<td>(list all documents) 0024-HAR-O-31</td>
<td>(list all videos) DB1-P3-110</td>
<td></td>
</tr>
</tbody>
</table>

**Acceptable Compliance Criteria**

**Results Summary**

FAIL

**1st Review**

Tim Bishop

**2nd Review**

Michael L. Chadwell

**Supervisor Approval**

John Gardner

9-26-07

10-02-07

Created by the Colorado Secretary of State's Office
Additional Observations and Findings

Observations:
See attached evidence bag# 0924-HAR-C-31. The voting system provides an audit log, however the detail of the audit log does not include information regarding printing activity as required.

Findings:
The voting system fails to meet the test requirements.

T. Bishop
Printed name
Signature: [Signature] Date: [09/26/07]

Michael L. Chippewa
Printed name
Signature: [Signature] Date: [10/09/07]

John Gardner
Printed name
Signature: [Signature] Date: [10/27/07]
CDOS Certification Number: 2007-CDOS-HAR-001-0404
Manufacturer: Hart Intercivic
Application Date: 04/04/2007

Text Number
CF1-P3 - 104
The voting system shall track and maintain audit information of the following voting system application events:
Application start and stop.

**Purpose:**
The purpose of this test is to verify that audit logs show application start and stop events.

**Prerequisites:**
DB1-P3-110

**Test Procedures:**
Use testing and machine setup from DB1-P3-110. Document the findings of audit log printout after votes have been cast on the device.

**Variance Used During Testing:**
N/A
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, stop and restoring the system as necessary.
The voting system meets the test requirements.

PASS

Tim Bishop
Printed name
Signature 9-20-07
Date

Michael L. Chadwell
Printed name
Signature 6-02-07
Date

John Gardner
Printed name
Signature 10-17-07
Date
Additional Observations and Findings

Observations:
See attached evidence bag# 0924-HAR-O-31. The voting system provides an audit log, which includes information regarding the starting and stopping of the device application.

Findings:
The voting system meets the test requirements.
State of Colorado
Department of State
1700 Broadway
Suite 250
Denver, CO 80290

Mike Coffman
Secretary of State
Holly Lowder
Director of Elections

CDOS Certification Number: **2007-CDOS-HAR-001-0404**
Manufacturer: Hart Interivic
Application Date: 04/04/2007

Text Number
CF1-P3 - 105
The voting system shall track and maintain audit information of the following voting system application events:
Log on and log off activity.

Purpose:
The purpose of this test is to verify that the audit log reports log on and log off activity as required herein.

Test Procedures:
Use testing and machine setup from DB1-P3-110. Document the findings of audit log printout after votes have been cast on the device.

Prerequisites:
DB1-P3-110

Variance Used During Testing:
N/A

Audit log shows all log on and log off information.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, stop and restoring the system as necessary.
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Operator</th>
<th>Yes</th>
<th>No</th>
<th>Operator</th>
<th>Yes</th>
<th>No</th>
<th>Operator</th>
<th>Yes</th>
<th>No</th>
<th>Operator</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

**Documents**
(list all documents)
0924-HAR-O-31

**Videos**
(list all videos)
DB1-P3-110

**Photos**
(list all photos)

---

**Acceptable Compensation Controls**

---

**Reality Check**

The voting system fails to meet the requirements.

**FAIL**

---

**1st Review**
Tim Bishop
Printed name

Signature: [Signature]
Date: 9/26/07

**2nd Review**
Michael L. Chadwell
Printed name

Signature: [Signature]
Date: 10/2/07

**Supervisor Approval**
John Gardner
Printed name

Signature: [Signature]
Date: 10/2/07

---

Voting Systems Certification Program

Created by the Colorado Secretary of State's Office
Additional Observations and Findings

Observations:
See attached evidence bag# 0924-HAR-O-31. The voting system provides an audit log, however the detail of the audit log does not include information regarding log on and off activity.

Findings:
The voting system fails to meet the test requirements.

<table>
<thead>
<tr>
<th>1st Review</th>
<th>2nd Review</th>
<th>Supervisor Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>T. Bishop</td>
<td>Michael L. Cooper</td>
<td>John Gardner</td>
</tr>
<tr>
<td>Printed name</td>
<td>Printed name</td>
<td>Printed name</td>
</tr>
<tr>
<td>Signature</td>
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<td>Signature</td>
</tr>
<tr>
<td>Date</td>
<td>Date</td>
<td>Date</td>
</tr>
<tr>
<td>9/26/07</td>
<td>10/2/07</td>
<td>10/3/07</td>
</tr>
</tbody>
</table>
State of Colorado
Department of State
1700 Broadway
Suite 250
Denver, CO 80290

Mike Coffman
Secretary of State

Holly Lowder
Director of Elections

CDOS Certification Number: 2007-CDOS-HAR-001-0404
Manufacturer: Hart Intercivic
Application Date: 04/04/2007

Test Number

CF1-P3 - 106
2007-CDOS-HAR-001-0404

The voting system shall be capable of producing electronic and printed audit logs of system operation and system operators actions which shall be sufficient to allow all operations and input commands to be audited.

Purpose:
The purpose of this test is to verify that audit logs show all operation and system operators activities as required herein.

Test Procedures:
Use testing and machine setup from DB1-P3-110. Document the findings of audit log printout after votes have been cast on the device.

Prerequisites:
DB1-P3-110

Variance Used During Testing:
N/A

System produces electronic and printed logs that are concise and detailed allowing all operations and input commands to be audited.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, stop and restoring the system as necessary.
The voting system fails to meet the requirements.

FAIL

<table>
<thead>
<tr>
<th>Test Review</th>
<th>2nd Review</th>
<th>Supervisor Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tim Bishop</td>
<td>Michael L. Gardner</td>
<td>John Gardner</td>
</tr>
</tbody>
</table>

**Printed name**

**Date**

**Signature**
Observations:
See attached evidence bag# 0924-HAR-O-31. The voting system provides an audit log, however the detail of the audit log does not include enough detailed information to allow all operations and input commands to be audited.

Findings:
The voting system fails to meet the test requirements.
State of Colorado
Department of State
1700 Broadway
Suite 250
Denver, CO 80290

Mike Coffman
Secretary of State

Holly Lowder
Director of Elections

CDOS Certification Number: 2007-CDOS-HAR-001-0404

Manufacturer: Hart Intercivic

Application Date: 04/04/2007

Text Number

CF1-P3 - 107
Purpose:
The purpose of this test is to verify that the system saves and produces the necessary audit records as required herein.

Prerequisites:
DB1-P3-112
CP1-P3-159

Test Procedures:
See notes and voting instructions from DB1-P3-112. Document the permanent paper record created by the device.

Variance Used During Testing:
N/A

Expected Outcome:
Voting system components have paper records for audit capacity. This may include paper ballots, V-VPAT records, or printed audit forms.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, stop and restoring the system as necessary.
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Operation</th>
<th>Items Inspected</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Documents (list all documents)</td>
<td>No</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Videos (list all videos)</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Photos (list all photos)</td>
<td>No</td>
</tr>
</tbody>
</table>

Test does not meet expected outcome

1st Review: T. Bishop
2nd Review: Jerome Lewis
Supervisor Approved: John Gardner

Signature: [Signature]
Date: 5/2/07

Signature: [Signature]
Date: 10/3/07

Signature: [Signature]
Date: 10/3/07

Created by the Colorado Secretary of State's Office
Observations:
The voting system does not produce audit records sufficient for manual audit capacity. See CF1-P3-106.

Findings:
Voting system does not meet the requirements of this test.
State of Colorado
Department of State
1700 Broadway
Suite 250
Denver, CO 80290

Mike Coffman
Secretary of State

Holly Lowder
Director of Elections

CDOS Certification Number: 2007-CDOS-HAR-001-0404

Manufacturer: Hart Intercivic

Application Date: 04/04/2007

Test Number

CF2-P3 - 201
The voting system shall track and maintain audit information of the following voting system application events: Printing activity (where applicable).

<table>
<thead>
<tr>
<th>Purpose:</th>
<th>Prerequisites:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of this test is to verify that audit logs show all printing activity where applicable.</td>
<td>DB2-P3-203.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Procedures:</th>
<th>Variances Used During Testing:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use voting from DB2-P3-203 to setup the machine. Document the findings of printing the audit log from the device and/or memory card as applicable after votes have been cast on the device.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Audit logs show printing activity, where applicable. At a minimum this should include all printing of reports, V-VPATs, and ballots.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retaining, stop and restoring the system as necessary.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Operator</th>
<th>Maintenance and Trouble</th>
<th>Incident Reports</th>
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</table>

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<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Operator</th>
<th>Notes and Comments</th>
<th>Incident Reports</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

**Documents**
- No □ Yes □

Documents
- (list all documents)
  - C924-HAR-O-32

**Videos**
- No □ Yes □

Videos
- (list all videos)
  - DB2-P3-203

**Photos**
- No □ Yes □

Photos
- (list all photos)

The voting system meets the test requirements.

PASS

**1st Review**
- Tim Bishop
  - Printed name
  - Signature
  - Date: 8/26/01

**2nd Review**
- Michael L. Chadwell
  - Printed name
  - Signature
  - Date: 10/22/09

**Supervisor Approval**
- John Gardner
  - Printed name
  - Signature
  - Date: 12/17
Observations:

See audit log stored in evidence bag# 0924-HAR-O-32. The voting system captures the necessary audit information. The audit log contains information such as lines for "report printed", although the specific report being printed is identified with a code. Codes for reports being printed are identified in "eScan Functional Specification..doc" provided by the vendor.

Findings:

The voting system meets the test requirements.
State of Colorado
Department of State
1700 Broadway
Suite 250
Denver, CO 80290

Mike Coffman
Secretary of State

Holly Lowder
Director of Elections

CDOS Certification Number: 2007-CDOS-HAR-001-0404
Manufacture: Hart Intercivic
Application Date: 04/04/2007

Test Number
CF2-P3 - 202
The voting system shall track and maintain audit information of the following voting system application events:
Hardware events – add hardware, remove hardware, initialize hardware and change hardware properties.

**Purpose:**
The purpose of this test is to verify that audit logs show specific hardware events required herein.

**Test Procedures:**
Use voting from DB2-P3-203 to setup the machine. Document the findings of printing the audit log from the device and/or memory card as applicable after votes have been cast on the device.

**Prerequisites:**
DB2-P3-203.

**Variance Used During Testing:**
N/A
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, returing, step and restoring the system as necessary.
The voting system fails to meet the requirements.

Tim Bishop

Michael L. Carranza

John Gardner

FAIL
Additional Observations and Findings

Observations:
See audit log stored in evidence bag# 0924-HAR-O-32. The voting system fails to capture the necessary audit information. The only hardware devices documented in the audit log is the power up and power off information.

Findings:
The voting system fails to meet the test requirements.
CDOS Certification Number: 2007-CDOS-HAR-001-0404
Manufacturer: Hart Intercivic
Application Date: 04/04/2007

Test Number
CF2-P3 - 203
2007-CDOS-HAR-001-0404

Rule or Statute
45.5.2.5.3(d) The voting system shall track and maintain audit information of the following voting system application events:
Election events - setup, set for election, unset for election, open polls, close polls, end election, upload devices, download devices, create ballots, create precincts, create districts, create poll places (or Vote Centers), initialize devices, backup devices, and voting activity;

Test Number
CF2-P3-203

Test Date
9/25/2007

Test End Date/Time
9/26/2007

Test Type (DF40)
Functional

EQ Type
PCOS

Equipment Model
eScan

Serial Number
G7793

Manufacturer
Hart Intervivic

Purpose:
The purpose of this test is to verify that audit logs show the events required herein.

Prerequisites:
DB2-P3-203.

Test Procedures:
Use voting from DB2-P3-203 to setup the machine. Document the findings of printing the audit log from the device and/or memory card as appliable after votes have been cast on the device.

Variance Used During Testing:
N/A

Audit logs show all election events described in this requirement.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retaring, step and restoring the system as necessary.
## Documents

- No [ ]
- Yes [X]

(documents)
- C924-HAR-O-32

## Videos

- No [ ]
- Yes [X]

(videos)
- DB2-P3-203

## Photos

- No [X]
- Yes [ ]

(photos)

## Results Summary

The voting system fails to meet the requirements.

FAIL

### 1st Review

- **Tim Bishop**
  - Printed name
  - Signature: [Signature]
  - Date: [Date]

### 2nd Review

- **Michael L. Chadwell**
  - Printed name
  - Signature: [Signature]
  - Date: [Date]

### Supervisor Approved

- **John Gardner**
  - Printed name
  - Signature: [Signature]
  - Date: [Date]
Additional Observations and Findings

Observations:
See audit log stored in evidence bag# 0924-HAR-O-32. The voting system fails to capture the necessary audit information. The only election events detected were the statements "Election Mode" on the device.

Findings:
The voting system fails to meet the test requirements.

T. Bishop
Printed name
Signature Date 5/26/07

Michael L. Chadwick
Printed name
Signature Date 6/22/07

John Gardner
Printed name
Signature Date 10/3/07
CDOS Certification Number: 2007-CDOS-HAR-001-0404
Manufacturer: Hart Intercivic
Application Date: 04/04/2007

Test Number
CF2-P3 - 204
Purpose:
The purpose of this test is to verify that audit logs show application start and stop events.

Prerequisites:
DB2-P3-203.

Test Procedures:
Use voting from DB2-P3-203 to setup the machine. Document the findings of printing the audit log from the device and/or memory card as applicable after votes have been cast on the device.

Variances Used During Testing:
N/A

Audit logs show application start and stop
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retaring, stop and restoring the system as necessary.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Operator</th>
<th>Activities and Outcome</th>
<th>Incident Reports</th>
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</table>

Continue to next page...
The voting system fails to meet the requirements.

Tim Bishop
Printed name

Michael L. Chadwell
Printed name

John Gardner
Printed name

Signature
Date

Signature
Date

Signature
Date
Observations:
See audit log stored in evidence bag# 0924-HAR-O-32. The voting system fails to capture the necessary audit information. The audit log does not indicate any application information for start and stops.

Findings:
The voting system fails to meet the test requirements.
CDOS Certification Number: 2007-CDOS-HAR-001-0404
Manufacturer: Hart Intercivic
Application Date: 04/04/2007

Test Number: CF2-P3 - 205
The voting system shall track and maintain audit information of the following voting system application events:
Log on and log off activity.

**Purpose:**
The purpose of this test is to verify that the audit log reports log on and log off activity as required herein.

**Prerequisites:**
DB2-P3-203.

**Test Procedures:**
Use voting from DB2-P3-203 to setup the machine. Document the findings of printing the audit log from the device and/or memory card as applicable after votes have been cast on the device.

**Variance Used During Testing:**
N/A

**Test Expected Outcome:**
Audit log shows all log on and log off information.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, stop and restoring the system as necessary.
The voting system fails to meet the requirements.

FAIL

Tim Bishop
Printed name

Michael L. bracelet
Printed name

John Gardner
Printed name

Signature 9.26.07  Signature 8.99.07  Signature 10.2.07
Date Date Date
Observations:
See audit log stored in evidence bag# 0924-HAR-O-32. The voting system fails to capture the necessary audit information. The audit log does not indicate log on and log off activity.

Findings:
The voting system fails to meet the test requirements.
CDOS Certification Number: 2007-CDOS-HAR-001-0404
Manufacturer: Hart Intercivic
Application Date: 04/04/2007
2007-CDOS-HAR-001-0404

No electronic or electromechanical voting system shall be certified by the secretary of state unless such system saves and produces the records necessary to audit the operation of the electronic or electromechanical voting system, including a permanent paper record with a manual audit capacity.

Purpose:
The purpose of this test is to verify that the system saves and produces the necessary audit records as required herein.

Test Procedures:
Use DB2-P3-220 for machine setup and voting. Document the findings for the device when closing polls and printing abstracts.

Prerequisites:
DB2-P3-220
CF2-P3-206

Variance Used During Testing:
N/A

Test System Certification - Testing Log rev. 2.1
Approved 05/05/07

Created by the Colorado Secretary of State's Office
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, step and restoring the system as necessary.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Question</th>
<th>Activities and Errors</th>
<th>Incident Report</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

Continue to next page...
## Test Log

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Operator</th>
<th>Environment</th>
<th>Test Log</th>
<th>Final Test Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

### Attachments

- **Documents (list all documents)**
  - No [ ]
  - Yes [ ]
  - **Additional Note:** See CFE-P3-207

- **Videos (list all videos)**
  - No [ ]
  - Yes [ ]

- **Photos (list all photos)**
  - No [ ]
  - Yes [ ]

---

## Results Summary

**TEST DOES NOT MEET EXPECTED OUTCOME**

**1st Review:**
- **T. Bishop**
  - Printed name
  - Signature 8/26/07
  - Date

**2nd Review:**
- **Swayne Lourie**
  - Printed name
  - Signature 10/3/07
  - Date

**Supervisor Approval:**
- **John Gardner**
  - Printed name
  - Signature 10/3/07
  - Date
Observations:
The voting system does not produce audit records sufficient for manual audit capacity. See CF2-P3-207.

Findings:
Voting system does not meet the requirements of this test.
State of Colorado
Department of State
1700 Broadway
Suite 250
Denver, CO 80290

Mike Coffman
Secretary of State

Holly Lowder
Director of Elections

CDOS Certification Number: 2007-CDOS-HAR-001-0404
Manufacturer: Hart Intercivic
Application Date: 04/04/2007

Test Number
CF2-P3 - 207
Purpose:
The purpose of this test is to verify that audit logs show all operation and system operators activities as required herein.

Prerequisites:
DB2-P3-203.

Test Procedures:
Use voting from DB2-P3-203 to setup the machine. Document the findings of printing the audit log from the device and/or memory card as appliable after votes have been cast on the device.

Variances Used During Testing:
N/A

System produces electronic and printed logs that are concise and detailed allowing all operations and input commands to be audited.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, stop and restoring the system as necessary.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Operator</th>
<th>Activity and Status</th>
<th>Included Reports</th>
</tr>
</thead>
</table>

Continue to next page
The voting system fails to meet the requirements.

**FAIL**

<table>
<thead>
<tr>
<th>Documents</th>
<th>Videos</th>
<th>Photos</th>
</tr>
</thead>
<tbody>
<tr>
<td>No ☐</td>
<td>Yes ☒</td>
<td>No ☐</td>
</tr>
</tbody>
</table>

**Acceptable Compensating Controls**

<table>
<thead>
<tr>
<th>1st Review</th>
<th>2nd Review</th>
<th>Supervisor Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tim Bishop</td>
<td>Michael L. Chadwell</td>
<td>John Gardner</td>
</tr>
</tbody>
</table>

**Date**

Tim Bishop: 9-26-07
Michael L. Chadwell: 10-02-07
John Gardner: 10-17
Observations:
See audit log stored in evidence bag# 0924-HAR-O-32. The voting system fails to capture the necessary audit information to sufficiently allow all operations and input commands to be audited.

Findings:
The voting system fails to meet the test requirements.
CDOS Certification Number: 2007-CDOS-HAR-001-0404

Manufacturer: Hart Intercivic

Application Date: 04/04/2007

Test Number

CF3-P3 - 301
No electronic or electromechanical voting system shall be certified by the secretary of state unless such system: Saves and produces the records necessary to audit the operation of the electronic or electromechanical voting system, including a permanent paper record with a manual audit capacity.

**Purpose:**

The purpose of this test is to verify that the system saves and produces the necessary audit records as required herein.

**Test Procedures:**

Verify the use of permanent paper records for use as recount.

**Prerequisites:**

DHA3M  
CF3-P3-305

**Variances Used During Testing:**

N/A

**Test Expected Outcomes:**

Voting system components have paper records for audit capacity. This may include paper ballots, V-VPAT records, or printed audit forms.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, stop and restoring the system as necessary.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Operator</th>
<th>Activities and Status</th>
<th>Incident Reports</th>
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<tbody>
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</table>

Continue to next page...
<table>
<thead>
<tr>
<th>Documents (list all documents)</th>
<th>No ☑</th>
<th>Yes ☒</th>
<th>Videos (list all videos)</th>
<th>No ☑</th>
<th>Yes ☒</th>
<th>Photos (list all photos)</th>
<th>No ☑</th>
<th>Yes ☒</th>
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<tbody>
<tr>
<td><strong>See CRS-P3-506</strong></td>
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**Test Result**

**Test Number**

**Post Election**

**Date**

**Result Summary**

**TEST DOES NOT MEET EXPECTED OUTCOME**

**Final Test Status**

**Fall**

**Reviewers**

**T. Bishop**

**Seana Luardo**

**John Gardner**

**Printed name**

**Signature**

**Date**

**Date**

**Date**
Observations:
The voting system does not produce audit records sufficient for manual audit capacity. See BB3-P3-305.

Findings:
Voting system does not meet the requirements of this test.

T. Bishop  
Printed name

Sue Lewko  
Printed name

John Gardner  
Printed name

Signature  
Date

Signature  
Date

Signature  
Date
CDOS Certification Number: 2007-CDOS-HAR-001-0404

Manufacturer: Hart Intercivic

Application Date: 04/04/2007

Test Number
CF3-P3 - 302
The voting system shall track and maintain audit information of the following voting system application events:
Election events - setup, set for election, unset for election, open polls, close polls, end election,
upload devices, download devices, create ballots, create precincts, create districts, create poll places
(or Vote Centers), initialize devices, backup devices, and voting activity;

<table>
<thead>
<tr>
<th>Purpose:</th>
<th>Prerequisites:</th>
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<tbody>
<tr>
<td>The purpose of this test is to verify that audit logs show the events required herein.</td>
<td>DB3-P3-307</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Procedures:</th>
<th>Variances Used During Testing:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use test DB3-P3-307 for machine setup and voting. Document the findings of the device after processing ballots and printing reports.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Audit logs show all election events described in this requirement.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, stop and restoring the system as necessary.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Operation</th>
<th>Activities and Remarks</th>
<th>Incident Reports</th>
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<tr>
<th>Date</th>
<th>Time</th>
<th>Operator</th>
<th>Test Runs</th>
<th>Initial Report</th>
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**2007-CADOS-HAR-001-0404**

**Documentations**
- **No** ☐  **Yes** ☐  **Videos**
  - **No** ☐  **Yes** ☐  **Photos**
  - **No** ☐  **Yes** ☐

- **Documents**
  - (list all documents)
    - 0926-HAR-O-45; 0926-HAR-O-42

- **Videos**
  - (list all videos)
    - DBS-P3-307

- **Photos**
  - (list all photos)

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**Attendees/Compliance/Comments**

**Results Summary**

**FAIL**

<table>
<thead>
<tr>
<th>1st Review</th>
<th>2nd Review</th>
<th>Supervisor Approval</th>
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<tbody>
<tr>
<td>Tim Bishop</td>
<td>Michael L. Chadwell</td>
<td>John Gardner</td>
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</table>

**Printed name**

**Signature**

**Date**

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**Voting Systems Certification Program**

**Created by the Colorado Secretary of State's Office**
Observations:

See audit log in the evidence bags referenced for details on the audit report. The voting device does provide an audit log, however the required specific audit information for election events is not contained in the log. The only captured information is voting activity.

Findings:

The voting system fails to meet the test requirements.
CDOS Certification Number: 2007-CDOS-HAR-001-0404

Manufacturer: Hart Intercivic

Application Date: 04/04/2007
The voting system shall track and maintain audit information of the following voting system application events: Printing activity (where applicable).

**Purpose:**
The purpose of this test is to verify that audit logs show all printing activity where applicable.

**Test Procedures:**
Use test DB3-P3-307 for machine setup and voting. Document the findings of the device after processing ballots and printing reports.

**Prerequisites:**
DB3-P3-307

**Variances Used During Testing:**
N/A

Audit logs show printing activity, where applicable. At a minimum this should include all printing of reports, V-VPATs, and ballots.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retaining, stop and restoring the system as necessary.

<table>
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<tr>
<th>Date</th>
<th>Time</th>
<th>Operation</th>
<th>Activities and Status</th>
<th>Testing Reports</th>
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</table>

Continue to next page...
The voting system fails to meet the requirements.

FAIL

<table>
<thead>
<tr>
<th>Tim Bishop</th>
<th>Michael L. Cowper</th>
<th>John Gardner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printed name</td>
<td>Printed name</td>
<td>Printed name</td>
</tr>
<tr>
<td>Signature: 9-26-07</td>
<td>Michael L. Cowper: 10-02-07</td>
<td>Signature: 10-02-07</td>
</tr>
</tbody>
</table>

Accepted: Compiling Counts
Observations:
See audit log in the evidence bags referenced for details on the audit report. The voting device does provide an audit log, however the required specific audit information for printing activity is not contained in the logs. References to viewing reports is contained, but no references to printing any reports is identified.

Findings:
The voting system fails to meet the test requirements.
CDOS Certification Number: 2007-CDOS-HAR-001-0404

Manufacturer: Hart Intercivic

Application Date: 04/04/2007

Test Number: CF3-P3 - 304
2007-CDOS-HAR-001-0404

Purpose:
The purpose of this test is to verify that audit logs show application start and stop events.

Prerequisites:
DB3-P3-307

Test Procedures:
Use test DB3-P3-307 for machine setup and voting. Document the findings of the device after processing ballots and printing reports.

Variance Used During Testing:
N/A

Audit logs show application start and stop.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, stop and restoring the system as necessary.
The voting system fails to meet the requirements.

<table>
<thead>
<tr>
<th>Documents</th>
<th>No ☐ Yes ☐</th>
<th>Videos</th>
<th>No ☐ Yes ☐</th>
<th>Photos</th>
<th>No ☐ Yes ☐</th>
</tr>
</thead>
<tbody>
<tr>
<td>(list all documents) 0926-HAR-O-43; 0926-HAR-O-42</td>
<td>(list all videos) DE3-P3-307</td>
<td>(list all photos)</td>
<td></td>
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</tr>
</tbody>
</table>

| Acceptable Compensation Controls |

<table>
<thead>
<tr>
<th>1st Review</th>
<th>2nd Review</th>
<th>Supervisor Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tim Bishop</td>
<td>Michael L. Chipps</td>
<td>John Gardner</td>
</tr>
</tbody>
</table>

Printed name

Signature | Date

Created by the Colorado Secretary of State's Office
Observations:

See audit log in the evidence bags referenced for details on the audit report. The voting device does provide an audit log, however the required specific audit information for application start and stop events.

Findings:

The voting system fails to meet the test requirements.
State of Colorado
Department of State
1700 Broadway
Suite 250
Denver, CO 80290

Mike Coffman
Secretary of State

Holly Lowder
Director of Elections

CDOS Certification Number: 2007-CDOS-HAR-001-0404
Manufacturer: Hart Intercivic
Application Date: 04/04/2007

Test Number
CF3-P3 - 305
The voting system shall be capable of producing electronic and printed audit logs of system operation and system operators actions which shall be sufficient to allow all operations and input commands to be audited.

**Purpose:**
The purpose of this test is to verify that audit logs show all operation and system operators activities as required herein.

**Test Procedures:**
Use test DB3-P3-307 for machine setup and voting. Document the findings of the device after processing ballots and printing reports.

**Prerequisites:**
DB3-P3-307

**Variance Used During Testing:**
N/A
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, stop and restoring the system as necessary.
The voting system fails to meet the requirements.

<table>
<thead>
<tr>
<th>Documents</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>(list all documents)</td>
<td>0326-HAR-O-43; 0926-HAR-O-42</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Videos</th>
<th>No</th>
<th>Yes</th>
</tr>
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<tbody>
<tr>
<td>(list all videos)</td>
<td>DB3-P3-307</td>
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<table>
<thead>
<tr>
<th>Photos</th>
<th>No</th>
<th>Yes</th>
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<tbody>
<tr>
<td>(list all photos)</td>
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</table>

**Result Summary:** FAIL

**1st Review**

Tim Bishop

**2nd Review**

M. Gardner

**Supervisor Approval**

John Gardner

Date: 8/26-07
Signature: [Signature]

Date: 10/02/07
Signature: [Signature]
Observations:
See audit log in the evidence bags referenced for details on the audit report. The voting device does provide an audit log, however the required information is not sufficient for an operator to audit all the events.

Findings:
The voting system fails to meet the test requirements.
CDOS Certification Number: 2007-CDOS-HAR-001-0404

Manufacturer: Hart Intercivic

Application Date: 04/04/2007
The voting system shall track and maintain audit information of the following voting system application events:
Hardware events – add hardware, remove hardware, initialize hardware and change hardware properties.

<table>
<thead>
<tr>
<th>Purpose:</th>
<th>Prerequisites:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of this test is to verify that audit logs show specific hardware events required herein.</td>
<td>DB3-P3-307</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Procedures:</th>
<th>Variances Used During Testing:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use test DB3-P3-307 for machine setup and voting. Document the findings of the device after processing ballots and printing reports.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Audit logs show hardware events such as: add hardware, remove hardware, reset hardware and change hardware properties.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, retarding, step and restoring the system as necessary.

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<th>Date</th>
<th>Time</th>
<th>Start-up</th>
<th>Activities and Entries</th>
<th>Incident reports</th>
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Additional Observations and Findings

Observations:
See audit log in the evidence bags referenced for details on the audit report. The voting device does provide an audit log which contains the applicable hardware commands for initializing hardware and changing hardware properties.

Findings:
The voting system meets the applicable test requirements.

1st Review
T. Bishop
Printed name
Signature 9-26-07

2nd Review
Michael L. Catrow
Printed name
Signature 10-02-07

Supervisor Approval
John Gardner
Printed name
Signature 12-5-07
CDOS Certification Number: **2007-CDOS-HAR-001-0404**

**Manufacturer:** Hart Intercivic

**Application Date:** 04/04/2007

Test Number: **CF3-P3 - 307**
2007-CDOS-HAR-001-0404

Purpose:
The purpose of this test is to verify that the audit log reports log on and log off activity as required herein.

Prerequisites:
DB3-P3-307

Test Procedures:
Use test DB3-P3-307 for machine setup and voting. Document the findings of the device after processing ballots and printing reports.

Variance Used During Testing:
N/A

Audit log shows all log on and log off information.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, rerating, step and restoring the system as necessary.

<table>
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<tr>
<th>Date</th>
<th>Time</th>
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</table>

Documents (list all documents):
- 0926-HAR-O-43
- 0926-HAR-O-42

Videos (list all videos):
- DES-P3-307

Photos (list all photos):
- No

Acceptable Computing Capable

The voting system meets the test expected outcome.

PASS

First Review:
Tim Bishop
Printed name:
Signature: 9-26-07
Date:

Second Review:
Michael L. Chadwell
Printed name:
Signature: 9-22-07
Date:

Supervisor Approval:
John Gardner
Printed name:
Signature: 10-3-07
Date:
Additional Observations and Findings

Observations:

See audit log in the evidence bags referenced for details on the audit report. The voting device does provide an audit log which contains information on log on and log off activity.

Findings:

The voting system meets the test requirements.
CDOS Certification Number: 2007-CDOS-HAR-001-0404
Manufacturer: Hart Intercivic
Application Date: 04/04/2007
No electronic or electromechanical voting system shall be certified by the secretary of state unless such system: Saves and produces the records necessary to audit the operation of the electronic or electromechanical voting system, including a permanent paper record with a manual audit capacity.

**Purpose:**

The purpose of this test is to verify that the system saves and produces the necessary audit records as required herein.

**Test Procedures:**

Use DB1-P3-101, DB2-P3-220, and DB3-P3-307 for testing, voting and collecting data. Document the findings included in the audit log for the device.

**Prerequisites:**

CF4-P3-401

**Variance Used During Testing:**

N/A
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, stop and restoring the system as necessary.
The voting system fails to meet the requirements.

<table>
<thead>
<tr>
<th>1st Review</th>
<th>2nd Review</th>
<th>Supervisor Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tim Bishop</td>
<td>Michael A. Cherry</td>
<td>John Gardner</td>
</tr>
</tbody>
</table>

Tim Bishop
Printed name
Signature
Date

Michael A. Cherry
Printed name
Signature
Date

John Gardner
Printed name
Signature
Date

The voting system fails to meet the requirements.
Observations:
See notes on CF4-P3-401. The voting system does provide for audit logs, however these logs are not detailed enough to audit the operations of the device as required.

Findings:
The voting system fails to meet the test requirements.
State of Colorado
Department of State
1700 Broadway
Suite 250
Denver, CO 80290

Mike Coffman
Secretary of State

Holly Lowder
Director of Elections

CDOS Certification Number: 2007-CDOS-HAR-001-0404
Manufacturer: Hart Intercivic
Application Date: 04/04/2007

Test Number
CF4-P3 - 402
All transaction audit records of the database shall be maintained in a file outside or separate from the database which is not accessible by standard user/operator accounts.

Purpose:
The purpose of this test is to verify that the audit records are not accessible to standard (non-administrative) user accounts. (Screen shots may be attached to show denial of access)

Prerequisites:
CD4-P3-401

Test Procedures:
See notes on CD4-P3-401 for test setup and generating audit data. Document findings of the system meeting the attached audit requirements.

Variance Used During Testing:
N/A

Audit logs are maintained separate from the database. Logs are not accessible by standard user/operator accounts.
The test log shall contain procedural steps used to conduct and evaluate the test. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, stop and restoring the system as necessary.
The voting system fails to meet the requirements.

FAIL

Tim Bishop
Printed name
Signature 
Date

Michael L. Chadwell
Printed name
Signature
Date

John Gardner
Printed name
Signature
Date
Observations:
The audit records are accessed by standard user/operators. Additionally, the data files for the audit logs reside within the databases of the voting system.

Findings:
The voting system fails to meet the test requirements.
CDOS Certification Number: 2007-CDOS-HAR-001-0404

Manufacturer: Hart Intercivic

Application Date: 04/04/2007
## Purpose:

The purpose of this test is to verify that audit logs show specific hardware events required herein.

## Test Procedures:

Use DB1-P3-101, DB2-P3-220, and DB3-P3-307 for testing, voting and collecting data. Document the findings included in the audit log for the device.

## Prerequisites:

DB1-P3-101, DB2-P3-220, and DB3-P3-307.

## Variances Used During Testing:

N/A

Audit logs show hardware events such as: add hardware, remove hardware, reset hardware and change hardware properties.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, returing, stop and restoring the system as necessary.
The voting system fails to meet the requirements.
Observations:
See attached evidence bags 0927-HAR-O-49 through 0927-HAR-O-54. The BOSS system does not provide the required information in the audit log.

Findings:
The voting system fails to meet the test requirements.
State of Colorado
Department of State
1700 Broadway
Suite 250
Denver, CO 80290

Mike Coffman
Secretary of State

Holly Lowder
Director of Elections

CDOS Certification Number: 2007-CDOS-HAR-001-0404

Manufacturer: Hart Intercivic

Application Date: 04/04/2007

Test Number

CF4-P3 - 404
The voting system shall track and maintain audit information of the following voting system application events:
Election events – setup, set for election, unset for election, open polls, close polls, end election, upload devices, download devices, create ballots, create precincts, create districts, create poll places (or Vote Centers), initialize devices, backup devices, and voting activity.

Purpose:
The purpose of this test is to verify that audit logs show the events required herein.

Prerequisites:
DB1-P3-101, DB2-P3-220, and DB3-P3-307.

Test Procedures:
Use DB1-P3-101, DB2-P3-220, and DB3-P3-307 for testing, voting and collecting data. Document the findings included in the audit log for the device.

Variance Used During Testing:
N/A

Audit logs show all election events described in this requirement.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, stop and restoring the system as necessary.

<table>
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<tr>
<th>Date</th>
<th>Time</th>
<th>Operation</th>
<th>Activities and Notes</th>
<th>Incident Reports</th>
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Continue to next page...
### Documents (list all documents)
See references in observations.

### Videos (list all videos)
DB1-P3-101, DB2-P3-220, and DB3-P3-307.

### Photos (list all photos)

### Result Summary
The voting system fails to meet the requirements.

### 1st Review
- **Tim Bishop**
- Printed name
- **Signature**
- 9.27.07

### 2nd Review
- **Michael L. Chadwick**
- Printed name
- **Signature**
- 10.02.07

### Supervisor Approval
- **John Gardner**
- Printed name
- **Signature**
- 10.31.07
Observations:
See attached evidence bags 0927-HAR-O-49 through 0927-HAR-O-54. The BOSS system does not provide the required information in the audit log.

Findings:

The voting system fails to meet the test requirements.
CDOS Certification Number: 2007-CDOS-HAR-001-0404
Manufacturer: Hart Intercivic
Application Date: 04/04/2007
2007-CDOS-HAR-001-0404

Purpose:
The purpose of this test is to verify that audit logs show all printing activity where applicable.

Prerequisites:
DB1-P3-101, DB2-P3-220, and DB3-P3-307.

Test Procedures:
Use DB1-P3-101, DB2-P3-220, and DB3-P3-307 for testing, voting and collecting data. Document the findings included in the audit log for the device.

Variances Used During Testing:
N/A

Audit logs show printing activity, where applicable. At a minimum this should include all printing of reports, V-VPATs, and ballots.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, stop and restoring the system as necessary.

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<tr>
<th>Date</th>
<th>Time</th>
<th>Operator</th>
<th>Activities and Remarks</th>
<th>Incident Report</th>
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Continue to next page...
The voting system fails to meet the requirements.

FAIL

Tim Bishop

Michael L. Cottrell

John Gardner

Tim Bishop 5/22/2007
Michael L. Cottrell 10/02/2007
John Gardner 10/02/2007
Additional Observations and Findings

Observations:
See attached evidence bags 0927-HAR-O-49 through 0927-HAR-O-54. The BOSS system does not provide the required information in the audit log.

Findings:
The voting system fails to meet the test requirements.

T. Bishop                        Michael L. Chappell                        John Gardner
Printed name                      Printed name                              Printed name

Signature  02-27-07               Signature  Michael L. Chappell  10-02-07
Date                                               Date

1st Review                           2nd Review                             Supervisor Approval

Voting Systems Certification - Testing Log rev. 2.1
approved 04/03/07
Created by the Colorado Secretary of State's Office
CDOS Certification Number: 2007-CDOS-HAR-001-0404

Manufacturer: Hart Intercivic

Application Date: 04/04/2007
2007-CDOH-HAR-001-0404

Purpose:
The purpose of this test is to verify that audit logs show application start and stop events.

Test Procedures:
Use DB1-P3-101, DB2-P3-220, and DB3-P3-307 for testing, voting and collecting data. Document the findings included in the audit log for the device.

Prerequisites:
DB1-P3-101, DB2-P3-220, and DB3-P3-307.

Variance Used During Testing:
N/A

Audit logs show application start and stop.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, stop and restoring the system as necessary.

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### 2007-CDOS-HAR-001-0404

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<th>Results</th>
<th>Positional Integrity</th>
<th>Positional Accuracy</th>
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**Attachments:**

- **Documents (list all documents):**
  - No [ ] Yes [X]
  - See references in observations.

- **Videos (list all videos):**
  - No [ ] Yes [X]
  - DB1-P3-108, DB2-P3-220, and DB3-P3-307.

- **Photos (list all photos):**
  - No [ ] Yes [ ]

**Acceptable Compensation Controls:**

**Results Summary:**

- The voting system fails to meet the requirements.

**FAIL**

**1st Review:**

- **Tim Bishop**
  - Printed name
  - Signature
  - Date: 9-27-07

**2nd Review:**

- **Severine Lovato**
  - Printed name
  - Signature
  - Date: 10-31-07

**Supervisor Approval:**

- **John Gardner**
  - Printed name
  - Signature
  - Date: 10-31-07

**Voting Systems Certification Program**

Created by the Colorado Secretary of State's Office
Observations:
See attached evidence bags 0927-HAR-O-49 through 0927-HAR-O-54. The BOSS system does not provide the required information in the audit log.

Findings:
The voting system fails to meet the test requirements.
CDOS Certification Number: 2007-CDOS-HAR-001-0404
Manufacturer: Hart Intercivic
Application Date: 04/04/2007
The voting system shall track and maintain audit information of the following voting system application events:
Log on and log off activity.

Purpose:
The purpose of this test is to verify that the audit log reports log on and log off activity as required herein.

Prerequisites:
DB1-P3-12T, DB2-P3-220, and DB3-P3-307.

Test Procedures:
Use DB1-P3-12T, DB2-P3-220, and DB3-P3-307 for testing, voting and collecting data. Document the findings included in the audit log for the device.

Variance Used During Testing:
N/A

Audit log shows all log on and log off information.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, step and restoring the system as necessary.
### Acceptable Compromising Controls

The voting system fails to meet the requirements.

#### Document
- **Videos**
  - DB1-P3-227, DB2-P3-220, and DB3-P3-307.

#### Result Summary

<table>
<thead>
<tr>
<th>1st Review</th>
<th>2nd Review</th>
<th>Supervisor Approval</th>
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</thead>
<tbody>
<tr>
<td>Tim Bishop</td>
<td>Serena Lunds</td>
<td>John Gardner</td>
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Created by the Colorado Secretary of State's Office

Voting Systems Certification Program
### Observations:

See attached evidence bags 0927-HAR-O-49 through 0927-HAR-O-54. The BOSS system does not provide the required information in the audit log.

### Findings:

The voting system fails to meet the test requirements.

### Signature and Date Details

<table>
<thead>
<tr>
<th>1st Review</th>
<th>2nd Review</th>
<th>Supervisor Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>T. Bishop</td>
<td>Javane Lovato</td>
<td>John Gardner</td>
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<tr>
<td>Printed name</td>
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<tr>
<td>Date: 9-27-07</td>
<td>Date: 10-31-07</td>
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Created by the Colorado Secretary of State's Office

Voting Systems Certification - Testing Log rev. 2.1
approved 10/05/07
CDOS Certification Number: 2007-CDOS-HAR-001-0404
Manufacturer: Hart Intercivic
Application Date: 04/04/2007

Test Number
CF4-P3 - 408
2007-CDOH-HAR-001-0404

The voting system shall be capable of producing electronic and printed audit logs of system operation and system operators actions which shall be sufficient to allow all operations and input commands to be audited.

Purpose:
The purpose of this test is to verify that audit logs show all operation and system operators activities as required herein.

Prerequisites:
DB1-P3-104, DB2-P3-220, and DB3-P3-307.

Test Procedures:
Use DB1-P3-104, DB2-P3-220, and DB3-P3-307 for testing, voting and collecting data. Document the findings included in the audit log for the device.

Variances Used During Testing:
N/A

Test Expected Outcome:
System produces electronic and printed logs that are concise and detailed allowing all operations and input commands to be audited.
The test log shall contain procedural steps used to conduct and evaluate the tests. At a minimum, these procedural steps shall include any items related to the setup, start, process, measurements, shut down, restarting, stop and restoring the system as necessary.
### 2007-CDOS-HAR-001-0404

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Operator</th>
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**Documents** (list all documents)

- Yes
- No

See references in observations.

**Videos** (list all videos)

- DB1-P3-19*
- DB2-P3-220, and DB3-P3-307.

**Photos** (list all photos)

- Yes
- No

### Results Summary

The voting system fails to meet the requirements.

**FAIL**

### Signature

**Tim Bishop**

- Printed name
- Signature
- Date: 9/22/07

**Jerome Lande**

- Printed name
- Signature
- Date: 10/21/08

**John Gardner**

- Printed name
- Signature
- Date: 10/5/07
Additional Observations and Findings

Observations:
See attached evidence bags 0927-HAR-O-49 through 0927-HAR-O-54. The BOSS system does not provide the required information in the audit log.

Findings:
The voting system fails to meet the test requirements.