

STATE OF COLORADO
Department of State

1700 Broadway, Suite 270
Denver, CO 80290



Mike Coffman
Secretary of State

Holly Lowder
Director, Elections

Kassie Gram
Hart Intercivic
1650 Coal Creek Drive
Lafayette, CO 80026

October 4, 2007

Re: 2007-CDOS-HAR-001-0404 – Request for Items

As previously discussed we have compiled a list of outstanding items which require resolution to move forward with the conclusion of processing your voting system application for certification. We have requested a meeting with your office on Tuesday, October 9, 2007 to discuss the items. We have indicated in the attached table the specific location where the request for the items is a requirement under either Colorado Statute, Secretary of State Rules, or in some cases both.

Please keep in mind that the attached list of items is current as of today, and may be incomplete or changing based on the findings of follow up items presented to the testing board. Additionally, the testing board specifically is calling attention to items with severity 5 as they are primarily items that are preventing the certification process from moving forward. Items that involve impact to your customers (financially or procedurally) are included in the list, but the details of the impact are still be researched and evaluated by the testing board to make a determination how to mitigate the shortcomings of the system requirements as allowable by law.

In accordance with the previous letter to your attention from Secretary Coffman on August 29th, 2007, we anticipate a response and resolution to the attached list of items no later than November 4th, 2007.

Please contact me directly if you have any questions regarding the attached list of items, and confirm your availability to meet and/or discuss the list of items with the testing board on October 9th.

Sincerely,

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Voting Systems Program Manager
Colorado Department of State
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Hart Open Issues
09.05.07

1. Significant Failure Observances.

<u>Phase</u>	<u>Description</u>	<u>Statute or Rule</u>	<u>Severity</u>	<u>Impact</u>
Application:	<ul style="list-style-type: none"> No Issues to address 			
Document Review:	<ul style="list-style-type: none"> Escrow of Voting System Software 	Rule 11.8.1	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> Escrow of Voting System Software 	Rule 11.8.2	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> Escrow of Voting System Software 	Rule 11.8.3	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> Escrow of Voting System Software 	Rule 11.8.4	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> Escrow of Voting System Software 	Rule 11.8.6	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> Escrow of Voting System Software 	Rule 11.8.7	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> Escrow of Voting System Software 	Rule 11.8.8	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> Escrow of Voting System Software 	Rule 11.8.9	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> Application Procedure <ul style="list-style-type: none"> BOSS (Voting System Design, Functionality, Test and Verification Specs, Personnel Deployment.) TALLY/SERVO/RALLY (Voting System Design, Test and Verification Specs, Personnel Deployment.) Eslate (Accessibility, 	Rule 45.4.4	5	Required for recommendation of system for certification.

	<ul style="list-style-type: none"> - Test and Verification Specifications, Personnel Deployment). - Escan (Hardware Specifications, Security, Test Verification, Personnel Deployment). - Ballot Now (Voting System Design, Test Verification, Personnel Deployment). - eCM Manager (Voting System Design, Method of Operation, Hardware Specifications, Test and Verification, Personnel Deployment). 			
	<ul style="list-style-type: none"> • Federal Standards (All) 	Rule 45.5.1.1, 1.5.601.5	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Federal Standards (eSlate/JBC Only) 	Rule 45.5.1.2(a)	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Federal Standards 	Rule 45.5.1.2(b)	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Federal Standards 	Rule 45.5.1.2(c)	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Physical and Design Characteristics 	Rule 45.5.2.3.16b	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Physical and Design Characteristics 	Rule 45.5.2.3.16(a)	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Documentation Requirements 	Rule 45.5.2.4.2	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Documentation Requirements 	Rule 45.5.2.4.4a	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Audit Capacity 	Rule 45.5.2.5.2a	5	Required for recommendation of system for certification.
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	<ul style="list-style-type: none"> • Security Requirements 	Rule 45.5.2.6.3c	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Security Requirements 	Rule 45.5.2.6.3e	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Security Requirements 	Rule 45.5.2.6.3f	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Security Requirements 	Rule 45.5.2.6.3g	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Telecommunications Requirements 	Rule 45.5.2.7.10a	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Telecommunications Requirements 	Rule 45.5.2.7.10b	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Telecommunications Requirements 	Rule 45.5.2.7.10c	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Telecommunications Requirements 	Rule 45.5.2.7.10d	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Accessibility Requirements 	Rule 45.5.2.8.2b	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Accessibility Requirements 	Rule 45.5.2.8.2c	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Accessibility Requirements 	Rule 45.5.2.8.2i	5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Physical and Design Characteristics 	Rule 45.5.2.3.13d	3	
	<ul style="list-style-type: none"> • Telecommunications Requirements 	Rule 45.5.2.7.2b	2	
	<ul style="list-style-type: none"> • Physical and Design Characteristics 	Rule 45.5.2.3.13b	1	
	<ul style="list-style-type: none"> • Physical and Design Characteristics 	Rule 45.5.2.3.13c	1	

	<ul style="list-style-type: none"> Physical and Design Characteristics 	Rule 45.5.2.3.18	1	
Demonstration:	<ul style="list-style-type: none"> No Issues to address 			
Trusted Build:	<ul style="list-style-type: none"> Anti-Virus software -provide proper software for testing. 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> Minimum Services - provide accurate list of minimum services. 		5	Required for recommendation of system for certification.
Functional Tests:	<ul style="list-style-type: none"> Ballot Processing - Count correctly (eScan, Central Count) 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> Ballot Process - Provide election definition programming (Recall / Coordinated) 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> Accessibility -DRE Display Provide correct display size -DRE Audio Ballot Provide programming to allow required items 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> Closing -DRE Abstracts 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> Hardware Diagnostics Testing DRE -Provide programming to allow required items 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> Multiple Page Ballots - Provide programming to allow required items (eScan, Central Count) 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> Voting - Provide correct tabulation programming (Recall / Coordinated) 		5	Required for recommendation of system for certification.
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	<ul style="list-style-type: none"> • V-VPAT - Provide programming to allow required font size (DRE) 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Recount - Central Count - Provide required reports 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Security Testing -OS/Security – Antivirus missing 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Security Testing -Removable Media – Antivirus missing 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • System Access - Provide documentation/programming admin/database access 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Audit - Provide programming to allow required items (DRE) 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • DRE Processing - Provide programming to allow required items -Closing Reports 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Reports - Provide programming to allow required items 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • System - Provide election definition programming (Recall / Coordinated) 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • System, Audit Logs - Provide programming to allow required items (All) 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • System, Ballots - Provide election definition programming (Recall / Coordinated) 		5	Required for recommendation of system for certification.
	<ul style="list-style-type: none"> • Security Testing -Networks, Communications Communications encryption (missing documentation to allow testing) 		3	

	<ul style="list-style-type: none"> System <ul style="list-style-type: none"> - Serial number display (Central Count) 		3	
	<ul style="list-style-type: none"> Performance, Battery Life <ul style="list-style-type: none"> - Provide procedure for alternate power source/re-test existing battery capacity 		3	

2. Failure Incidence Rate. (Functional Testing Only)

<u>Category</u>	<u>Description</u>	<u>Records (~247 total)</u>	<u>Rate (%)</u>
Ballot Process	Invalid / Inaccurate Programming	43	17.40%
Voting	Tabulation Errors	31	12.50%
Audit	Inability to perform audits	25	10.10%
Reports	Missing Data Fields	25	10.10%
Provisional	Directed to not test	18	7.30%
Networks, Communications	Protocols and documentation	15	6.10%
Performance, Battery Life	Insufficient capacity	14	5.60%
System, Audit Logs	Missing Required fields	13	5.30%
Voting, Ballots	Invalid / Inaccurate Programming	11	4.50%
Closing	Missing Required Fields	8	3.20%
System	Election definition	8	3.20%
Accessibility	DRE display, audio ballot	7	2.80%
Ballot Processing	Incorrect Tabulation	4	1.60%
Multiple Page Ballots	Programming required	4	1.60%
V-VPAT	Missing required information	4	1.60%
Hardware Diagnostics Testing	Inaccurate reporting of results	3	1.30%
System Access	Documentation required	3	1.30%
System, Ballots	Election definition	3	1.30%
DRE Processing	Missing closing reports information	2	0.80%
Performance	Insufficient internal battery capacity	2	0.80%
OS/Security	Antivirus Software missing	1	0.40%
Recount	Missing required reports	1	0.40%
Recount - Central Count	Missing required reports	1	0.40%
Removable Media	Missing Antivirus Software and system setup	1	0.40%
Total Failure Records	(functional tests only)	~247	...100%

3. Table of Scale.

<u>Significance</u>	<u>Value</u>	<u>Impact</u>
SEVERE	5	Impeding Certification
SERIOUS	3 – 4	Requiring Impact to Customers – FISCAL
CONDITIONAL	2	Requiring Impact to Customers – PROCEDURAL
ADVISABLE	1	See ADVISEMENTS Section

4. ADVISEMENTS – Recommendations for Implementation Consideration.