



Contract Review Sheet

CO-997-11 (5)

Contract for Services #: CO-997-11 Amendment #: 5

Contact: Toby Giddings Department: Clerk's Office

Phone #: x5047 Date Sent: Thursday, May 26, 2022

Title: Vote Tabulation System Purchase Agreement

Contractor's Name: HART Intercivic, Inc.

Term - Date From: June 22, 2011 Expires: June 30, 2024

Contract Total: \$ 1,169,667.20 Amendment: \$ 150,000.00 New Total: \$ 1,319,667.20

☐ Incoming Funds ☐ Federal Funds ☐ Reinstatement ☐ Retroactive ☐ Amendment greater than 25%

Source Selection Method: RFP CMS # dated 6/10/2009

Description of Services or Grant Award

Maintenance and services of software and hardware for the vote tabulation system.

Desired BOC Session Date: 6/22/2022 BOC Planning Date: 6/9/2022

Files submitted in CMS: 6/1/2022 Printed packet & copies due in Finance: 6/7/2022

BOC Session Presenter(s) Bill Burgess

FOR FINANCE USE

Date Finance Received: 5/26/2022 Date Legal Received: _____

Comments: Y

REQUIRED APPROVALS

Finance - Contracts _____ Date _____ Contract Specialist _____ Date _____

Legal Counsel _____ Date _____ Chief Administrative Officer _____ Date _____



MARION COUNTY BOARD OF COMMISSIONERS

Board Session Agenda Review Form

Meeting date: 6/22/2022

Department: Clerk Agenda Planning Date: 6/9/2022 Time required: 5

☐ Audio/Visual aids none

Contact: Toby Giddings Phone: x5047

Department Head Signature:

TITLE	Vote Tabulation System Purchase Agreement
Issue, Description & Background	Amendment 5 is an extension of the June 22, 2011 contract between Marion County and Hart InterCivic, Inc. Amendment 5 extends the term through June 30, 2024 and adds and additional \$150,000 to cover maintenance and support of the hardware and software for the vote tabulation system.
Financial Impacts:	\$1500,000
Impacts to Department & External Agencies	none
Options for Consideration:	none
Recommendation:	1) approve Amendment 5 2) do not approve Amendment 5 3) take no action at this time
List of attachments:	Original Agreement, Amendment 1, Amendment 2, Amendment 3, Amendment 4, Contract Review Sheet
Presenter:	Bill Burgess

Copies of completed paperwork sent to the following: (Include names and e-mail addresses.)

Copies to: Bill Burgess, bburgess@co.marion.or.us; Connie Higgins, chiggins@co.marion.or.us; Toby Giddings, tgiddings@co.marion.or.us



AMENDMENT 5 to CO-997-11
the CONTRACT FOR SERVICES
between
MARION COUNTY and HART INTERCIVIC, INC.

This Amendment No. 5 to the Contract for Services (as amended from time to time, the "Contract"), dated June 22, 2011 between Marion County, a political subdivision of the State of Oregon, hereafter called County, and Hart Intercivic, Inc., hereafter called HART.

The Contract is hereby amended as follows (new language is indicated by underlining and deleted language is indicated by brackets):

2.0 Compensation and Payment Provisions

The Client shall make payments to HART for the Hart Voting System and related services in the amount and at such times as are set forth in the payment schedule attached hereto as Exhibit "B". Client shall pay invoices within thirty (30) days of issuance. After such thirty (30) day period, late charges 1.5% per month of the amount of such invoice remaining unpaid shall also become payable to HART. Failure of the Client to make any payment within forty-five (45) days of receipt of invoice shall be deemed to be a material breach of this Agreement and shall be sufficient cause for termination of the Agreement. The Total Purchase Price for the Hart Voting System and related services set forth in Exhibit B-1 is non-refundable and non-cancellable, except to the extent set forth in Section 10.

Total contract value is not to exceed [\$1,169,667.20] \$1,319,667.20.

3.0 Term

The Agreement shall commence upon the signature of both parties and shall remain in effect until June 30, [2022] 2024. The Agreement may be extended beyond the original contract period upon mutual agreement of both Parties and is subject to the limits of available funding. The Warranty, Support and License Agreement, attached and incorporated as Exhibit E, shall continue on an annual basis on the anniversary date as set forth in the Warranty, Support, and License Agreement.

Except as expressly amended above, all other terms and conditions of the original contract are still in full force and effect. Contractor certifies that the representations, warranties and certifications contained in the original Contract are true and correct as of the effective date of this Amendment and with the same effect as though made at the time of this Amendment.

**MARION COUNTY SIGNATURES
BOARD OF COMMISSIONERS:**

Chair Date

Commissioner Date

Commissioner Date

Authorized Signature: _____
Department Director or designee Date

Authorized Signature: _____
Chief Administrative Officer Date

Reviewed by Signature: _____
Marion County Legal Counsel Date

Reviewed by Signature: _____
Marion County Contracts & Procurement Date

HART INTERCIVIC, INC. SIGNATURE

Authorized Signature: _____
Date

Title: _____



AMENDMENT 4 to the
CONTRACT FOR SERVICES CO-997-11
between
MARION COUNTY and HART Intercivic, Inc.

This Amendment No. 4 to the Contract for Services (as amended from time to time, the "Contract"), dated [date] between Marion County, a political subdivision of the State of Oregon, hereafter called County, and HART Intercivic, Inc., hereafter called Contractor.

The Contract is hereby amended as follows (new language is indicated by underlining and deleted language is indicated by brackets):

2.0 Compensation and Payment Provisions

The Client shall make payments to HART for the Hart Voting System and related services in the amount and at such times as are set forth in the payment schedule attached hereto as Exhibit "B". Client shall pay invoices within thirty (30) days of issuance. After such thirty (30) day period, late charges of 1.5% per month of the amount of such invoice remaining unpaid shall also become payable to HART. Failure of the Client to make any payment within forty-five (45) days of receipt of invoice shall be deemed to be a material breach of this Agreement and shall be sufficient cause for termination of the Agreement. The Total Purchase Price for the Hart Voting System and related services set forth in Exhibit B-1 is nonrefundable and non-cancellable, except to the extent set forth in Section 10.

Total contract value is not to exceed [\$1,034,667.20] \$1,169,667.20

Exhibit H

**APPENDIX II TO PART 200—CONTRACT PROVISIONS FOR NON-FEDERAL ENTITY
CONTRACTS UNDER FEDERAL AWARDS**

(A) Contracts for more than the simplified acquisition threshold currently set at \$150,000, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.

(B) All contracts in excess of \$10,000 must address termination for cause and for convenience by the non-Federal entity including the manner by which it will be effected and the basis for settlement.

(C) Equal Employment Opportunity. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment

Opportunity, Department of Labor.”

(D) Davis-Bacon Act, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, “Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction”). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland “Anti-Kickback” Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, “Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States”). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

(E) Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708). Where applicable, all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

(F) Rights to Inventions Made Under a Contract or Agreement. If the Federal award meets the definition of “funding agreement” under 37 CFR §401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.

(G) Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended—Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

(H) Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), “Debarment and Suspension.” SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

(I) Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

(J) See §200.322 Procurement of recovered materials.

(K) Audit Requirements of 2 CFR §200.5XX (Subpart F)

i. Contractor must comply, and require any subcontractor to comply, with applicable audit requirements and responsibilities set forth in this Contract and applicable state or federal law.

ii. If Contractor expends federal awards in excess of \$750,000 in a fiscal year, Contractor is subject to audit conducted in accordance with the provisions of 2 CFR part 200, subpart F. Copies of all audits must be submitted to County within 30 days of completion.

iii. Contractor must save, protect and hold harmless County from the cost of any audits or special investigations performed by the Secretary of State with respect to the funds expended under this Contract. Contractor acknowledges and agrees that any audit costs incurred by Contractor as a result of allegations of fraud, waste or abuse are ineligible for reimbursement under this or any other agreement between Contractor and State.

(L) System for Award Management. Contractor must comply with applicable requirements regarding the System for Award Management (SAM), currently accessible at <https://www.sam.gov>. This includes applicable requirements regarding registration with SAM, as well as maintaining current information in SAM. Contractor must also comply with applicable

restrictions on subawards ("subgrants") to first tier subrecipients (first-tier "subgrantees"), including restrictions on subawards to entities that do not acquire and provide (to the Grantee) the unique entity identifier required for SAM registration.

(M) Whistleblower Protection Act. Contractor must comply, and ensure the compliance by subcontractors or subgrantees, with 41U.S.C. 4712, Program for Enhancement of Employee Whistleblower Protection. Contractor must inform subrecipients, contractors and employees, in writing, in the predominant language of the workforce, of the employee whistleblower rights and protections under 41 USC § 4712.

(N) Conflict of Interest. Contractor will prohibit any employee, governing body, subcontractor or organization from participating if the employee or entity has an actual or potential conflict of interest with regards to funds provided under this agreement. In addition, Contractor must disclose in a timely manner and in writing to the County all violations of Federal criminal law involving fraud, bribery, or gratuity potentially affecting funds provided under the a

[78 FR 78608, Dec. 26, 2013, as amended at 79 FR 75888, Dec. 19, 2014]

MARION COUNTY SIGNATURE

BOARD OF COMMISSIONERS:

Kin Cramer 2.17.2021
Chair Date

Dw TS 2-17-2021
Commissioner Date

Colin LeBlanc 2/17/2021
Commissioner Date

[Signature] 2/2/2021
Authorized Signature: Bill Bunker Date
Department Director or designee County Clerk

[Signature] 2/11/21
Authorized Signature: [Signature] Date
Chief Administrative Officer

Jane S. Vetto 2/8/21
Reviewed by Signature: [Signature] Date
Marion County Legal Counsel

Cambou Senlag 2/5/21
Reviewed by Signature: [Signature] Date
Marion County Contracts & Procurement

HART INTERCIVIC, INC

[Signature] Date: February 24, 2021
Authorized Signature:

Title: CFO



Marion County
OREGON

AMENDMENT No. 3 to the
CONTRACT FOR SERVICES CO-997-11
between
MARION COUNTY and HART INTERCIVIC, INC.

This Amendment No. 3 to the Contract for Services (as amended from time to time, the "Contract"), dated June 22, 2011 between Marion County, a political subdivision of the State of Oregon, hereafter called Client, and Hart Intercivic, Inc., hereafter called HART.

The Contract is hereby amended as follows (new language is indicated by underlining and deleted language is indicated by brackets):

2.0 Compensation and Payment Provisions

The Client shall make payments to HART for the Hart Voting System and related services in the amount and at such times as are set forth in the payment schedule attached hereto as Exhibit "B". Client shall pay invoices within thirty (30) days of issuance. After such thirty (30) day period, late charges 1.5% per month of the amount of such invoice remaining unpaid shall also become payable to HART. Failure of the Client to make any payment within forty-five (45) days of receipt of invoice shall be deemed to be a material breach of this Agreement and shall be sufficient cause for termination of the Agreement. The Total Purchase Price for the Hart Voting System and related services set forth in Exhibit B-1 is non-refundable and non-cancellable, except to the extent set forth in Section 10.

Total contract value is not to exceed [\$950,547.20] \$1,034,667.20.

3.0 Term

The Agreement shall commence upon the signature of both parties and shall remain in effect until June 30, [2020] 2022. The Agreement may be extended beyond the original contract period upon mutual agreement of both Parties and is subject to the limits of available funding. The Warranty, Support and License Agreement, attached and incorporated as Exhibit E, shall continue on an annual basis on the anniversary date as set forth in the Warranty, Support, and License Agreement.

Except as expressly amended above, all other terms and conditions of the original contract and Amendment No. 1 are still in full force and effect. HART certifies that the representations, warranties and certifications contained in the original Agreement are true and correct as of the effective date of this Amendment and with the same effect as though made at the time of this Amendment.

Signature Page Follows

MARION COUNTY SIGNATURE

BOARD OF COMMISSIONERS:

Charles Lillie 6/3/2020
Chair Date

Samuel A. Best 6-3-20
Commissioner Date

Kim Cameron 6.3.2020
Commissioner Date

[Signature] 5/20/2020
Authorized Signature: Department Director or designee Date

[Signature] 5/28/20
Authorized Signature: Chief Administrative Officer Date

[Signature] 5/22/2019
Reviewed by Signature: Marion County Legal Counsel Date

[Signature] May 22, 2019
Reviewed by Signature: Marion County Contracts & Procurement Date

HART INTERCIVIC, INC.

[Signature] 6/12/2020
Authorized Signature: Date:

CFO
Title:



Marion County

OREGON

**AMENDMENT No. 2 to the
CONTRACT FOR SERVICES**

between

MARION COUNTY and HART INTERCIVIC, INC.

This Amendment No. 2 to the Contract for Services (as amended from time to time, the "Contract"), dated June 22, 2011 between Marion County, a political subdivision of the State of Oregon, hereafter called Client, and Hart Intercivic, Inc., hereafter called HART.

The Contract is hereby amended as follows (new language is indicated by underlining and deleted language is indicated by brackets):

2.0 Compensation and Payment Provisions

The Client shall make payments to HART for the Hart Voting System and related services in the amount and at such times as are set forth in the payment schedule attached hereto as Exhibit "B". Client shall pay invoices within thirty (30) days of issuance. After such thirty (30) day period, late charges 1.5% per month of the amount of such invoice remaining unpaid shall also become payable to HART. Failure of the Client to make any payment within forty-five (45) days of receipt of invoice shall be deemed to be a material breach of this Agreement and shall be sufficient cause for termination of the Agreement. The Total Purchase Price for the Hart Voting System and related services set forth in Exhibit B-1 is non-refundable and non-cancellable, except to the extent set forth in Section 10.

Total contract value is not to exceed \$950,547.20.

3.0 Term

The Agreement shall commence upon the signature of both parties and shall remain in effect until June 30, [2016] 2020. The Agreement may be extended beyond the original contract period upon mutual agreement of both Parties and is subject to the limits of available funding. The Warranty, Support and License Agreement, attached and incorporated as Exhibit E, shall continue on an annual basis on the anniversary date as set forth in the Warranty, Support, and License Agreement.

Except as expressly amended above, all other terms and conditions of the original contract and Amendment No. 1 are still in full force and effect. HART certifies that the representations, warranties and certifications contained in the original Agreement are true and correct as of the effective date of this Amendment and with the same effect as though made at the time of this Amendment.

Signature Page Follows

MARION COUNTY SIGNATURE

BOARD OF COMMISSIONERS:

K. Conner 7-7-16
Chair Date

Sam A. Bost 7-7-16
Commissioner Date

Yanet Larson 7-7-16
Commissioner Date

Authorized Signature: *William J. Hayes* 6/17/16
Department Director or designee Date

Authorized Signature: _____
Chief Administrative Officer Date

Reviewed by Signature: *[Signature]* 6/27/16
Marion County Legal Counsel Date

Reviewed by Signature: *Camber Schlegel* June 26, 2016
Marion County Contracts & Procurement Date

HART INTERCIVIC, INC.

Authorized Signature: *[Signature]* 6/15/16
Date

Title: CFOLCOO

>>> "Morris, Justin" <jmorris@hartic.com> 12/14/2015 3:23 PM >>>

Hello Connie,

Thank you for the call today. Per your request I have revised the quote with an expiration date of December 29th. Additionally, your question regarding the purchase of Commercial off the Shelf equipment is listed below:

- You can buy own your own hardware, however we charge you \$5,000 for each image loaded and will only be performed by Hart. Verity is certified to work on specific hardware and specific firmware that has been certified by our VSTL laboratory and the EAC.
- We configure all printers and scanners specific to Verity - should you choose to purchase elsewhere we cannot guarantee support of those specific items.

I hope this information helps, please let me know if you have additional questions.

Thank you,

Justin Morris

Director of Sales, West Region

Hart InterCivic

303.957.7426

jmorris@hartic.com | www.hartintercivic.com

This message (including any attachments) is intended only for the use of the individual or entity to which it is addressed and may contain information that is non-public, proprietary, privileged, confidential, and exempt from disclosure under applicable law or may constitute as attorney work product. If you are not the intended recipient, you are hereby notified that any use, dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, notify us immediately by telephone and (i) destroy this message if a facsimile or (ii) delete this message immediately if this is an electronic communication. Thank you.



Marion County
OREGON

AMENDMENT #1 to the
CONTRACT FOR SERVICES
between
MARION COUNTY and HART Intercivic, Inc.

This Amendment No. 1 to the Contract for Services (as amended from time to time, the "Contract"), dated June 22, 2011 between Marion County, a political subdivision of the State of Oregon, hereafter called County, and HART Intercivic, Inc., hereafter called Contractor.

The Contract is hereby amended as follows (new language is indicated by underlining and deleted language is indicated by brackets):

Contractor will provide hardware, software, licensing, support and service implementation for system upgrade as stated in quote totaling \$187,014.24 dated 12/14/15 -exhibit A.

Except as expressly amended above, all other terms and conditions of the original contract are still in full force and effect. Contractor certifies that the representations, warranties and certifications contained in the original Contract are true and correct as of the effective date of this Amendment and with the same effect as though made at the time of this Amendment.

MARION COUNTY SIGNATURE

BOARD OF COMMISSIONERS:

Janet Furler 12-23-15
Chair Date

Kim Cameron 12-23-15
Commissioner Date

Samuel A. Deane 12-23-15
Commissioner Date

Authorized Signature: [Signature] 12/15/15
Bill Burgess, County Clerk Date

Authorized Signature: n/a
Chief Administrative Officer Date

Reviewed by Signature: [Signature] 12/16/15
Marion County Legal Counsel Date

Reviewed by Signature: [Signature] 12/16/15
Marion County Contracts & Procurement Date

[CONTRACTOR]

Authorized Signature: [Signature] Date: 1/4/16
Title: CEO



Hart Voting System Acceptance

Customer

Marion County, Oregon

Service Type (Check One)

- ☐ Administrative Staff Training
- ☐ Poll Worker Training
- ☐ Onsite Protection Plan
- ☐ Consultation
- ☒ Project Management
- ☐ Election Day Support
- ☐ Other Service Order (date and description) _____

Date(s) Services Provided

6/29-6/30/11	Received, installed and tested, all HVS PCs, Printers, and Scanners

Comments

Included in this shipment were 16 PCs, 4 i660 Scanners, 5 HP 3015 Printers, 1 OKI C9650 Printer, 91 MBBs, 9 eCMs, 9 Hart Card Readers, 2 copies of each BOSS, Ballot Now, Tally Training and Operations Manuals, 13 24" Dell Monitors, 8 17" Dell Monitors, 1 Ballot Now Overlay Set, 1 Trans Headset, . Dup Finder installed on BN Station 1, BAT installed on County "Server" PC.

By signing below, customer acknowledges receipt of the service(s) listed above and authorizes Hart InterCivic to bill for those services as specified in the previously approved quote and/or contract signed by both Hart and Customer.

Sharon Ricks

Signature

Elections Supervisor

Title

June 30, 2011

Date

INTERNAL USE ONLY

Project Code

Service Order/Contract Date

Service Order/Contract Description



Marion County, Oregon

52 91

--

June 30, 2011
Date



eSlate System Version Verification

Client Name: Marion County, Oregon

Original System Install Date: 6.30.11

System Version: 6.2.1

Date Upgraded to Current Version: 6.30.11

Application Versions:

Hart Voting System Applications				
Application	Version Installed		Application	Version Installed
BOSS	4.3.13		SERVO	4.2.10
Tally	4.3.10		eCM Manager	1.1.7
Ballot Now	3.3.11			
BNIP	3.3.11			
Rally	1.2.0			
TRANS	2.1			

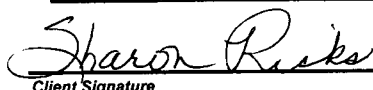
Hart Custom Applications		
Description	Version	Install Date
Fusion	3.04.05	6/16/2011
Dup Finder	N/A	6/29/2011
Ballot Now Audit Tool (BAT) (external PC)	1.1	6/29/2011

Software Applications:

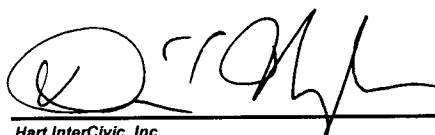
Service Tag / Serial No.	Date Last Configured	Manu- facturer	Model	Equipment Type	BOSS	TALLY	BN	BNIP	SERVO	RALLY	RESET	TRANS	Fusion	Dup Finder	BAT	eCM Manager
5N7RXF1	6/16/11	Dell	Opt 740	PC	Y							Y				Y
C6PLRF1	6/16/11	Dell	Opt 740	PC		Y										
22Z31F1	6/16/11	Dell	Opt 740	PC									Y			
5ONSHD1	6/16/11	Dell	Opt 740	PC			Y	Y						Y		
BDM31F1	6/16/11	Dell	Opt 740	PC				Y								
78550G1	6/16/11	Dell	Opt 740	PC				Y								
14Z31F1	6/16/11	Dell	Opt 740	PC			Y	Y								
6G0GPD1	6/16/11	Dell	Opt 740	PC				Y								
HG0GPD1	6/16/11	Dell	Opt 740	PC				Y								
7H0GPD1	6/16/11	Dell	Opt 740	PC			Y	Y								
6GZ31F1	6/16/11	Dell	Opt 740	PC				Y								
JLR11F1	6/16/11	Dell	Opt 740	PC				Y								
2W6MYD1	6/16/11	Dell	Opt 740	PC			Y	Y								
8H0GPD1	6/16/11	Dell	Opt 740	PC				Y								
HLV65D1	6/16/11	Dell	Opt 740	PC				Y								
1HZ31F1	6/16/11	Dell	Opt 740	PC	Y	Y	Y	Y				Y	Y			Y

Firmware:

	Firmware Version Installed	Total Number of Units with this Firmware
JBCs	2.2.1	0
DAUs	2.0.13	0
eSlates	2.0.13	0
VBO Printer	N/A	0
eScan	N/A	0

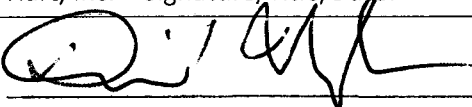


Client Signature

June 30, 2011
Date Signed


Hart InterCivic, Inc.



Track Acceptance Document

Track or Milestone Name/Number:	Track 4 – Hardware and Software Installation
Date Completed:	6/30/2011
Hart Deliverables Actually Produced, & Dates Delivered:	Delivery, installation, validation, and testing of all software applications, scanners, PCs, monitors, printers, Hart Card Readers, MBBs, manuals, eCM tokens.
Exceptions to Statement of Work:	
Additions to Statement of Work:	
Notes:	
Hart, Inc. – Signature/Title/Date:	
	PROJECT MANAGER 7/6/11
NAME	TITLE DATE
Marion County Acceptance – Signature/Title/Date:	
	COUNTY EXECUTIVE PM 7/6/2011
COUNTY EXECUTIVE PM	TITLE DATE

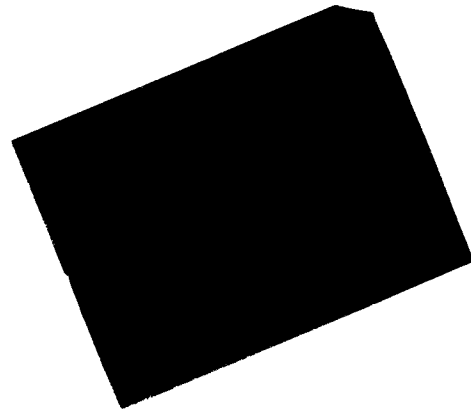
**AGREEMENT FOR PROFESSIONAL SERVICES
BETWEEN HART INTERCIVIC, INC.
AND MARION COUNTY**

THIS AGREEMENT for a vote tabulation system and services (hereafter the "Agreement") is entered into by and between Marion County, Oregon, a political subdivision of the State of Oregon (hereafter referred to as the "Client"), and Hart InterCivic, Inc., a Texas corporation with its principal place of business located at 15500 Wells Port Drive, Austin, Texas 78728 (hereafter referred to as "HART"), referred to individually as Party and collectively as Parties as of June 22, 2011 ("Effective Date").

WHEREAS, the Client has reviewed and evaluated the proposals submitted and has identified HART as the proposed award recipient; and

WHEREAS, the Client and HART now wish to enter into a contract to deliver the proposed vote tabulation system consisting of commercial off the shelf hardware ("COTS Hardware") and HART manufactured hardware ("HVS Hardware") (the COTS Hardware and HVS Hardware, collectively, the "Hardware"), and Third Party Software (defined in Section 1.3 below) and HART Proprietary Software (defined in Section 1.2 below) (the Hardware, Third Party Software, and HART Proprietary Software, collectively, the "Hart Voting System," "System" or "HVS") and services in accordance with the terms of the following Exhibits, hereto attached and incorporated into this Agreement:

- | | |
|-------------|---|
| Exhibit A | Statement of Work |
| Exhibit A-1 | Hart's Response to Best and Final Offer dated June 15, 2010 |
| Exhibit A-2 | Marion County Best and Final RFP dated May 17, 2010 |
| Exhibit B | Compensation and Milestone Payment Provisions |
| Exhibit B-1 | Hart's Letter dated 7/29/10 |
| Exhibit B-2 | Hart's Letter dated 1/7/11 |
| Exhibit C | Software |
| Exhibit C-1 | Conditional Acceptance of Refurbished Hardware |
| Exhibit D | Project Implementation Plan and Schedule |
| Exhibit D-1 | Sample Project Implementation Plan |
| Exhibit D-2 | Project Schedule/Timeline |
| Exhibit D-3 | Sample Business (Work) Process Analysis |
| Exhibit D-4 | Hart's Ballot Now Implementation Diagram Scenario 4 |
| Exhibit E | Warranty, Support and License Agreement – HART |
| Exhibit F | Backup and Disaster Recovery Agreement |
| Exhibit G | Insurance Requirements |



NOW, THEREFORE, in consideration of the foregoing and of the mutual promises and covenants herein the Parties hereto agree as follows:

1.0 Products and Services

1.1 Work Requirements: In consideration for the payments described in Section 2.0 hereof, unless sooner terminated, HART will provide Client with the products and services described in the statement of work and schedule incorporated hereto as Exhibit "A".

1.2 Application System Software: HART shall deliver to Client the HART-owned application system software described in Exhibit "C" (hereafter the "HART Proprietary Software"), which is

licensed to Client pursuant to the terms of the Warranty, Support and License Agreement of same date herewith, attached and incorporated as Exhibit E ("Warranty, Support, and License Agreement").

1.3 Third-Party Software: Exhibit "C" fully sets out the third-party software components associated with this Agreement ("Third Party Software"). Rights to commercial-off-the-shelf software products provided by third-party software vendors may be subject to licensing provisions of those third-party software vendors, which licenses the Client hereby accepts.

2.0 Compensation and Payment Provisions

The Client shall make payments to HART for the Hart Voting System and related services in the amount and at such times as are set forth in the payment schedule attached hereto as Exhibit "B". Client shall pay invoices within thirty (30) days of issuance. After such thirty (30) day period, late charges of 1½% per month of the amount of such invoice remaining unpaid shall also become payable to HART. Failure of the Client to make any payment within forty-five (45) days of receipt of invoice shall be deemed to be a material breach of this Agreement and shall be sufficient cause for termination of the Agreement. The Total Purchase Price for the Hart Voting System and related services set forth in Exhibit B-1 is non-refundable and non-cancellable, except to the extent set forth in Section 10.

3.0 Term

The Agreement shall commence upon the signature of both parties and shall remain in effect until June 30, 2016. The Agreement may be extended beyond the original contract period upon mutual agreement of both Parties and is subject to the limits of available funding. The Warranty, Support and License Agreement, attached and incorporated as Exhibit E, shall continue on an annual basis on the Anniversary Date as set forth in the Warranty, Support and License Agreement.

4.0 Data Backup

Client will be responsible for backing up all software and data contained in the System on a regular basis, and prior to HART providing warranty or maintenance services under this Agreement as further defined in Exhibit A, Statement of Work. HART will provide complete instructions during Tracks 7 and 8, as more particularly described in Exhibit A, Statement of Work, on backup and restoring HART software and data. HART will provide assistance to Marion County with backup and restore until an agreed upon process is completed and verified by both parties to meet mutual expectations.

5.0 Indemnification

5.1 Indemnification by HART

HART shall agree to defend, indemnify and hold harmless Marion County, its officers, agents, volunteers and employees from damages arising out of the following tortious acts of HART, its officers, agents, and employees acting within the scope of their employment and duties in performance of this agreement:

- (a) HART's breach of its obligations with respect to the Client's Confidential Information, subject to Oregon public records law;
- (b) Any willful or fraudulent misconduct of HART, its employees, subcontractors or agents.

5.2 Indemnification by Client

Marion County shall agree to defend, indemnify and hold harmless HART, its officers, agents, and employees from damages arising out of the following tortious acts of Marion County, its officers, agents, volunteers and employees acting within the scope of their employment and duties in performance of this agreement, subject to the limitations and conditions of the Oregon Tort Claims Act, ORS 30.260 through 30.300, and the Oregon Constitution, Article XI, Section 7:

- (a) The Client's breach of its obligations with respect to HART's Confidential Information, subject to Oregon public records law; and
- (b) Any willful or fraudulent misconduct of the Client, its employees, contractors or agents.

5.3 Mutual Indemnification for Injury to Persons or Property

Each Party will indemnify, defend and hold harmless the other Party, and its respective officers, directors, employees, volunteers, agents, successors and assigns, from and against all direct losses from the bodily injury or death of any person, or from the damage to, or destruction of any real or tangible personal property, to the extent that such loss is caused by the negligent conduct or omission of the indemnitor, its officers, agents, employees, volunteers, or contractors. The Parties agree that neither shall be liable to the other under this indemnification for any action or failure to act which constitutes negligence or willful misconduct on the part of the Party seeking indemnification.

6.0 Insurance

Throughout the term of this Agreement, HART shall maintain at all times commercial general liability insurance and property damage insurance, covering its activities and operations under this Agreement. HART SHALL add Marion County, its officers/officials, agents, employees, and volunteers as additional insureds for general liability and property damage insurance coverage and an Endorsement shall be issued by the company showing Marion County as an Additional Insured and containing a 30-day Notice of Cancellation endorsement. Such insurance shall be in the forms and amounts not less than set forth in ORS 30.260-30.300, as requested in the attached Exhibit G, Insurance Requirements. All insurance shall be evidenced by a Certificate of Insurance and Endorsement provided to Marion County, indicating coverages, limits and effective dates, by an insurance company licensed to do business in the State of Oregon.

Marion County, pursuant to applicable provisions of ORS 30.260 to 30.300, maintains a self-insurance program which provides property damage and personal injury coverage.

HART shall obtain and maintain at all times during the term of this agreement, workers' compensation insurance with statutory limits and employers' liability insurance. HART shall provide Marion County with evidence that it is a carrier-insured or self-insured employer in full compliance with the requirements of ORS Chapter 656, or that it employs no persons subject to the requirements of ORS 656, Workers' Compensation Coverage.

7.0 Force Majeure

Neither Party shall be responsible for delays or failures in performance as a result of an Act of God, war, civil disturbance, labor dispute, or other cause beyond the reasonable control of such Party.

8.0 Ownership of Data and Software

Client will retain all title, rights, and ownership of all data, and other data created and/or acquired by use of the System. Client may duplicate the data entered into the System on any media. Client will retain ownership of all data created by the use of the System as stored on any media. HART retains all rights to its software, and Client may only use such software pursuant to this Agreement. HART does not have any obligation to convert or transfer any data to any other format other than as set forth in Exhibit A, Statement of Work, or to allow use of its software other than as set forth in the Warranty, Support and License Agreement attached hereto as Exhibit E.

9.0 Confidential Information

The Parties acknowledge that in the course of performing its responsibilities under this Agreement, they may be exposed to or acquire information which is proprietary and confidential to the other Party or its affiliated companies or its agents. Any and all information of one Party in any form obtained by the other Party or its employees, agents or representatives in the course of performing this Agreement shall be deemed to be proprietary and confidential information of such Party, subject to the Oregon public records law. Client shall inform HART of any public records request for Hart proprietary or confidential information prior to releasing any such information and reasonably cooperate with HART in identifying and claiming exemptions under the Oregon public records law. The Parties agree to hold such information in strict confidence and not to copy, reproduce, sell, assign, license, market, transfer, give or otherwise disclose such information to third-parties or to use such information for any purposes whatsoever, without the express written permission of the other Party, other than for the provision of services hereunder, and to advise each of its employees, agents and representatives of the obligations to keep such information confidential. All such confidential and proprietary information described herein and any deliverable provided hereunder, in whatever form, are hereafter collectively referred to as "Confidential Information." The Parties shall use reasonable efforts to assist each other in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limitation of the foregoing, the Parties shall use reasonable efforts to advise each other immediately in the event that either learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Agreement, and will reasonably cooperate in seeking injunctive relief against any such person.

Notwithstanding the obligations set forth in the previous paragraph, the confidentiality obligations of the Parties shall not extend to information that:

- (a) is, at the time of its disclosure, or thereafter becomes part of the public domain through a source other than the receiving Party;
- (b) was known to the receiving Party as of the time of its disclosure;
- (c) is independently developed by the receiving Party;
- (d) is subsequently learned from a third party not under a confidentiality obligation to the providing Party; or

- (e) is required to be disclosed pursuant to court order or other governmental authority, whereupon the receiving Party shall provide notice to the disclosing Party so as to allow the disclosing Party to take appropriate steps to protect its interests.

10.0 Termination

- 10.1 Default by HART:** If HART defaults in the performance of any of its obligations under this Agreement for a period of forty-five (45) days after the sending of notice to the address on this Agreement that it is in default, Client may, at its option, terminate the Agreement by delivering written notice to HART at the address in this document, and paying HART all sums that may be due under this Agreement as detailed in Exhibit B-1.
- 10.2 Default by Client:** If Client defaults in the performance of any of its obligations under this Agreement for a period of forty-five (45) days after receiving notice of default from HART, HART may, at its option, terminate the Agreement at the end of that period. HART may terminate this Agreement by delivering written notice of termination to Client. In such event any unpaid portion of the Total Purchase Price, and any additional fees for services performed shall become due and payable.
- 10.3 Mutual Consent/Convenience:** All or part of this Agreement may be terminated by mutual consent of both parties, in which case, outstanding fees for services performed or otherwise will be as mutually agreed in writing as part of the mutual consent to terminate; or by either party at any time for cause, upon sixty (60) days' notice in writing and delivered by certified mail. All or part of this contract may be terminated by Marion County at the County's convenience upon sixty (60) days' notice in writing and delivered by certified mail to the parties identified in Section 11.4 below. In such event any unpaid portion of the Total Purchase Price, and any additional fees for services performed shall become due and payable.
- 10.4 Funding Out:** If the Board of Commissioners of Marion County reduces, or eliminates the funding for any of the services identified, HART agrees to abide by any such decision, including termination of service. In such event, no further payments shall be due except for services performed through notice of cancellation.
- 10.5 Miscellaneous:** Marion County may also terminate all or part of this contract for the following reasons, in which case, no further payments shall be due except for services performed through notice of cancellation:
- a. With ten (10) days' notice, if funding to Marion County from federal, state, or other sources is not obtained or is not continued at levels sufficient to allow for purchase of the indicated quantity and quality of services. Marion County will give more notice whenever possible.
 - b. With thirty (30) days' notice, if federal or state regulations are modified or changed in such a way that the services are no longer allowable for purchase under this contract.
 - c. Upon notice of denial, revocation or non-renewal of any licensee or certification required by law or regulation to be held by HART to provide a service under this contract, which such denial, revocation or non-renewal is not corrected within 45 days thereof.

Such termination shall be without prejudice to any obligations or liabilities of either party accrued to such termination.

11.0 Miscellaneous

- 11.1 Governing Law and Venue:** All questions concerning the validity, interpretation and performance of this Agreement will be governed by and decided in accordance with the laws of the State of Oregon. The Parties hereby submit and consent to the exclusive jurisdiction of any state or federal court located within the State of Oregon and irrevocably agree that all actions or proceedings relating to this Agreement will be litigated in such courts, and each of the Parties waives any objection which it may have based on improper venue or *forum non conveniens* to the conduct of any such action or proceeding in such court.
- 11.2 Equitable Remedies:** The Parties agree that in the event of any breach or threatened breach of any provision of this Agreement concerning (i) Confidential Information, (ii) intellectual property rights or (iii) other matters for which equitable rights may be granted, money damages would be an inadequate remedy. Accordingly, such provisions may be enforced by the preliminary or permanent, mandatory or prohibitory injunction or other order of a court of competent jurisdiction.
- 11.3 Integration:** This Agreement and the attached exhibits constitute the entire agreement between the Parties with respect to the subject matter described herein. No agreements, representations, or warranties other than those specifically included in this Agreement and the attached exhibits shall be binding on either of the Parties. In case of a conflict between the terms of this Agreement and any attached exhibit, the terms of this Agreement shall prevail. Notwithstanding the foregoing, in the event of any conflict between the terms of this Agreement and the Warranty, Support and License Agreement attached hereto as Exhibit E, the terms of the Warranty, Support and License Agreement shall prevail
- 11.4 Notices:** Any notices or reports required by this Agreement to be given by one Party to the other Party shall be made in writing. The writing shall be delivered personally or mailed by United States Mail, postage prepaid, certified mail, return receipt requested. Notices shall be addressed to that Party at the address shown below or at such other address as that Party may designate in writing. Notice is deemed to have been given immediately if delivered in person, or on the third day following mailing.

Notice to HART:	Hart InterCivic, Inc. Attn: Phillip W. Braithwaite 15500 Wells Port Drive Austin TX 78728
Notice to Client:	Marion County Clerk Attn.: Bill Burgess
Street Address	4263 Commercial St. SE #300 Salem OR 97302
Mailing Address	PO Box 14500 Salem OR 97309

- 11.5 Assignment:** This Agreement shall be binding on the Parties hereto and its respective successors and assigns. Except for HART's right to assign the performance of this Agreement to a HART Corporate Affiliate or in connection with a merger, acquisition, consolidation, reorganization or sale

of substantially all of its assets or of the business to which this Agreement pertains, neither Party may, or shall have the power to, assign this Agreement without the prior written consent of the other. Such consent shall not be unreasonably withheld.

- 11.6 Modification:** This Agreement may only be modified by written amendment formally signed by both Parties.
- 11.7 Waiver:** A waiver of any part of this Agreement shall not be a waiver of the entire Agreement.
- 11.8 HART Responsibility for Taxes:** For so long as the Client is exempt from property, sales and use taxes, such taxes shall not be included in invoices submitted to the Client pursuant to this Agreement.
- 11.9 Delivery:** HART shall arrange for delivery of all Hardware to the appropriate Client installation site(s) in accordance with the Statement of Work (Exhibit "A"). Shipment of the Hardware shall be F.O.B. the Client's receiving point at the installation site(s). HART shall pay all reasonable transportation and insurance charges for the Hardware up to the Client's receiving point at the installation site(s).
- 11.10 Risk of Loss & Title:** HART shall bear the risk of loss or damage to the Hardware while in transit to the Client's premises and the installation site(s). The Client shall bear all risk of loss or damage to the Hardware after delivery to the installation site(s), unless such loss or damage is due to the negligence or willful acts of HART, its employees, agents, representatives or subcontractors. HART shall transfer title to the Hardware to the Client upon the Client's full payment for said Hardware in accordance with Exhibit B.
- 11.11 Independent Contractor Status:** HART is, and shall remain at all times, an independent contractor with respect to activities and conduct while engaged in the performance of the services for Client under this Agreement. The County conducts open employment recruitment process when filling regular county positions. Any individual employed by HART and providing services to the County under this agreement would be eligible to apply for any open recruitment at Marion County and accept a position if offered by the County, through the normal county employment recruitment process. The County will not hire anyone employed under this agreement outside of its open recruitment process.
- 11.12 Attachments:** Attached to and made part of the Agreement are the following:

Exhibit A	Statement of Work
Exhibit A-1	Hart's Response to Best and Final Offer dated June 15, 2010
Exhibit A-2	Marion County Best and Final RFP dated May 17, 2010
Exhibit B	Compensation and Milestone Payment Provisions
Exhibit B-1	Hart's Letter dated 7/29/10
Exhibit B-2	Hart's Letter dated 1/7/11
Exhibit C	Equipment and Software
Exhibit C-1	Conditional Acceptance of Refurbished Equipment
Exhibit D	Project Implementation Plan and Schedule
Exhibit D-1	Sample Project Implementation Plan
Exhibit D-2	Project Schedule/Timeline
Exhibit D-3	Sample Business (Work) Process Analysis
Exhibit D-4	Hart's Ballot Now Implementation Diagram Scenario 4

Exhibit E	Warranty, Support and License Agreement – HART
Exhibit F	Backup and Disaster Recovery Agreement
Exhibit G	Insurance Requirements

- 11.13 Further Documentation:** The Parties agree to promptly execute such other and further documents and agreements as may be reasonably necessary or advisable to effectuate the terms of this Agreement.
- 11.14 Survival:** The terms of Sections 12 (Limitation of Liability), and 8 (Ownership of Data and Software) shall survive expiration or termination of this Agreement indefinitely. Section 9 (Confidential Information) hereof shall survive the expiration or termination of this Agreement for a period of six (6) years. The Warranty, Support and License Agreement shall survive in accordance with its terms.
- 11.15 Civil Rights:** HART agrees to comply with the Civil Rights Act of 1964, and 1991, Americans with Disabilities Act of 1990, and Section 504 of the Rehabilitation Act of 1973, and Title VI as implemented by 45 CFR 80 and 84 which states in part, No qualified person shall on the basis of disability, race, color, sex or national origin be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity which received or benefits from federal financial assistance.
- 11.16 Wages:** As required for public contracts subject to ORS Chapter 279B, the following conditions concerning hours of labor shall apply:

HART shall not employ any person performing work under this contract for more than ten hours in any one day, or 40 hours in any one week, except in cases of necessity, emergency, or where the public policy absolutely requires it. HART shall pay all individuals performing work under this contract at least time-and-a-half pay:

- a. For all overtime in excess of eight hours a day or 40 hours in any one week when the work week is five consecutive days, Monday through Friday; and
- b. For all overtime in excess of 10 hours a day or 40 hours in any one week when the work week is four consecutive days, Monday through Friday; and
- c. For all work performed on Saturday or Sunday and on any legal holiday specified in ORS 279B.020.

HART must give notice to employees who work on a public contract in writing, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work.

Any contractor or subcontractor or contractor's or subcontractor's surety that violates the provisions of this section is liable to the affected employees in the amount of unpaid overtime wages and in an additional amount equal to the unpaid overtime wages as liquidated damages. If the violation results from willful falsification of payroll records, the contractor or subcontractor or contractor's or subcontractor's surety is liable to the

affected employees in the amount of unpaid overtime wages and an additional amount equal to twice the unpaid overtime wages as liquidated damages.

As required specifically under ORS 279B.235, the following provisions shall apply for conditions concerning hours of labor:

For a contract for personal services as defined in ORS 279A.055, the HART shall pay all individuals performing personal services under this contract at least time and a half for all overtime worked in excess of 40 hours in any one week, except for individuals under personal services contracts who are excluded from receiving overtime under ORS 653.010 to 653.261 or under 29 USC 201 to 209.

For a contract for services, persons employed under this contract shall receive at least time and a half pay for work performed on the legal holidays specified in a collective bargaining agreement or in ORS 279B.020 (1)(b)(B) to (G) and for all time worked in excess of 10 hours in any one day or in excess of 40 hours in any one week, whichever is greater.

12. Limitation of Damages:

- 12.1 EXCLUSIVE REMEDY.** HART DOES NOT ACCEPT ANY LIABILITY FOR WARRANTIES BEYOND THE REMEDIES SET FORTH IN SECTION 1 OF THE WARRANTY, SUPPORT AND LICENSE AGREEMENT. HART'S ENTIRE LIABILITY AND CLIENT'S EXCLUSIVE REMEDY FOR ANY CLAIM CONCERNING THIS AGREEMENT AND THE SYSTEM AND SERVICES PROVIDED UNDER THIS AGREEMENT ARE SET FORTH IN THIS SECTION.
- 12.2 DISCLAIMER.** CLIENT IS RESPONSIBLE FOR ASSURING AND MAINTAINING THE BACKUP OF ALL CLIENT DATA. UNDER NO CIRCUMSTANCES WILL HART BE LIABLE TO CLIENT OR ANY THIRD PARTY FOR THE LOSS OF OR DAMAGE TO CLIENT DATA.
- 12.3 LIMITATION.** NOTWITHSTANDING ANYTHING TO THE CONTRARY IN THIS AGREEMENT, TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, HART, HART'S LICENSORS, AND ANY PARTY INVOLVED IN THE CREATION, MANUFACTURE, OR DISTRIBUTION OF THE HARDWARE AND SOFTWARE AND THE PERFORMANCE OF SERVICES UNDER THIS AGREEMENT WILL NOT BE LIABLE TO CLIENT FOR ANY SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS) OR FOR LOST DATA SUSTAINED OR INCURRED IN CONNECTION WITH THE SYSTEM, SERVICES, OR THIS AGREEMENT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, REGARDLESS OF THE FORM OF ACTION AND WHETHER OR NOT SUCH DAMAGES ARE FORESEEABLE. IN ADDITION, HART'S TOTAL LIABILITY TO CLIENT FOR DIRECT DAMAGES ARISING OUT OF OR RELATING TO THE SYSTEM, SERVICES, AND THIS AGREEMENT WILL IN NO EVENT EXCEED THE TOTAL AMOUNT ACTUALLY PAID BY CLIENT TO HART UNDER THIS AGREEMENT. HART IS NOT LIABLE FOR DAMAGES CAUSED IN ANY PART BY CLIENT'S NEGLIGENCE OR INTENTIONAL ACTS OR FOR ANY CLAIM AGAINST CLIENT OR ANYONE ELSE BY ANY THIRD PARTY.

SOME STATES (OR JURISDICTIONS) DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO CLIENT.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the day and year first above written.

MARION COUNTY
BOARD OF COMMISSIONERS:

HART INTERCIVIC, INC.

Chair

Name: Phillip W. Braithwaite

Commissioner

Signature

Date
06/10/11

Commissioner

Date: 6/22/11

Tax ID# 95-3248916

Recommended by:

Bill Burgess

Date

Marion County Clerk

APPROVED AS TO FORM:

Marion County Legal Counsel

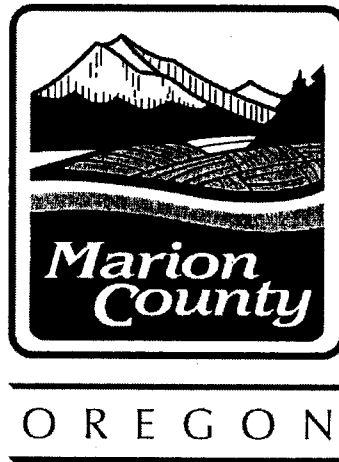
Date

Marion County Contracts

Date

EXHIBIT "A"
STATEMENT OF WORK

Attached as a Separate Document



STATEMENT OF WORK

EXHIBIT A TO THE
PROFESSIONAL SERVICES AGREEMENT
BETWEEN
HART INTERCIVIC, INC.
AND
MARION COUNTY, OREGON
CONTRACT # _____

DATED JUNE 22, 2011

Marion County
1115 Commercial Street NE
Salem, Oregon 97301

Hart InterCivic, Inc.
15500 Wells Port Drive
Austin, TX 78728

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TRACK 1. INTRODUCTION TO STATEMENT OF WORK (SOW)

This document contains the overall approach and Statement of Work ("SOW") for the planning, best fit analysis, data conversion, custom programming, training, and go-live project activities.

The Statement of Work is an attachment to the Professional Services Agreement signed by Hart InterCivic, Inc., herein referred to as 'Hart', and Marion County, herein referred to as 'County', and all actions directed herein shall be performed in accordance with the Professional Services Agreement. In the event of any conflict between this Statement of Work and the Best and Final Offer, RFP, any Hart correspondence specifically responsive to proposal inquiries, and ancillary Hart response documents (collectively, the "RFP and Response Documents"), the RFP and Response Documents shall prevail.. Capitalized terms not otherwise defined herein shall have the meanings set forth in the Professional Services Agreement.

TASK 1.1. SCOPE OVERVIEW

The purpose of this project is to install and implement the System.

Marion County evaluated solutions proposed in response to a solicitation of the Best and Final Phase for a Vote Tabulation System which was released on May 17th, 2010 by the County. The County anticipates Hart's System will meet all the defined requirements detailed within the RFP and Response Documents, subject to any objections and exceptions by Hart set forth therein and all additional requirements identified and agreed to by Hart and the County during the Work Process Analysis Phase to the extent the parties agree to meet such additional requirements pursuant to additional Work Orders as set forth below. The System will be tested and then moved into production.

This System is vitally important to the operations of the County.

TASK 1.2. DEFINITIONS

All definitions contained in the Professional Services Agreement apply to this Statement of Work. Additional business, project management, or technical definitions are contained below. For any discrepancies found between the Professional Services Agreement and the Statement of Work, the Professional Services Agreement shall prevail.

1. **"Acceptance"** shall mean that a signed Deliverable Acceptance Statement in the form attached hereto as Attachment 1 from the County has been sent to Hart indicating that a Deliverable has met the acceptance criteria set forth hereinafter, as determined by the parties in good faith.
2. **"Artifacts"** are items/activities that are required for project success but are not subject to acceptance.

3. **"Billing Milestone Deliverable"** shall mean a Deliverable set forth below in this statement of work which requires a payment for professional services rendered as set forth in Exhibit B (Compensation and Milestone Payment Provisions) and Exhibit B-1 Letter dated 7/29/10 Schedule A - Marion County, OR BAFO 7/29/10 Revision Equipment and Pricing, of the Professional Services Agreement.
4. **"Business Day"** shall mean one regular work-day (Monday through Friday) as defined by the County's business calendar.
5. [intentionally omitted]
6. **"Day/Days"** shall mean, unless noted otherwise, a "day" equals one calendar day.
7. **"Deliverable"** shall mean any product, service, document, software, data, or other item produced by Hart and provided to the County for HVS Acceptance Testing as set forth in this Statement of Work.
8. **"Failure"** shall mean incorrect results from a user's activity.
9. **"WPA"** shall mean Work Process Analysis
10. **"Work Process Analysis"** shall mean the body of work needed to understand the variance between the County RFP functional requirements and the Hart Proprietary Software.
11. **"Go Live Date"** shall be the date that County and Hart establish as the date Hart's System will replace the County's existing system as the day-to-day operational system, at which time the County will cease daily use of the former system.
12. [intentionally omitted]
13. **"Issue"** any event which currently materially adversely affects the ability of the System to produce the results described in the System documentation and this Statement of Work.
14. [intentionally omitted]
15. **"Onsite"** shall mean the activity shall be conducted at County facilities.
16. **"PM"** shall mean Project Manager.
17. **"Pre Production Testing"** shall have the same meaning as User Acceptance Testing and shall mean the user testing the functionality of the HVS System from end to end using realistic test cases likely to be seen in production. The goal of UAT testing is to ensure that the System permits the user to obtain predicted results using the System and contains no Failures.
18. **"Remote"** shall mean the activity shall be conducted at a location other than County facilities.
19. [intentionally omitted]
20. [intentionally omitted]
21. **"SME"** shall mean Subject Matter Expert.
22. **"System"** shall have the definition set forth in the Professional Services Agreement.

23. **“System Test Plan”** shall mean end-to-end testing plan composed of installation, configuration, module, business cycle, data and data integrity testing.
24. **“Task”** shall mean an activity in this Statement of Work that describes how one or more Deliverables should be created and delivered.
25. **“Text Scripts”** shall mean a series of actions, functions or commands documented for the purpose of execution during applicable Acceptance testing. Hart will provide the framework for such actions.
26. **“Track”** shall mean a group of related Tasks in this Statement of Work.
27. **“Work Order”** shall mean a document that communicates a set of requirements that coherently define what capabilities, characteristics, and qualitative factors a software component should deliver in order to meet the functional needs of an organization, and the cost (if any) which Hart proposes to charge to perform the work defined in the work order if the work order is approved by the County.
28. **“Data Conversion”** shall mean the district/precinct and precinct split layers within the County. Data Conversion does not include historical election results that will be required to be read by the Hart Voting System.

TASK 1.3. GOALS AND OBJECTIVES

1.3.1. General Goals and Objectives

1. To implement the Hart Voting System in accordance with the specifications set forth in this Statement of Work (subject to the first paragraph of Track 1 above) and RFP and Response Documents.

1.3.2. Implementation Service Objectives

1. Quality Assurance
 - a. Hart will be Onsite for testing the Elections process to ensure the System meets the specifications set forth in this Statement of Work (subject to the first paragraph of Track 1 above) and the RFP and Response Documents. Any goals and objectives set forth in any documents shall be for informational purposes only.
 - b. Hart will be Onsite for the first official election (November 2011) and the first official countywide election (May 2012 primary) to ensure the implementation is completed right the first time.

1.3.3. Data Conversion Objectives

Convert all legacy districts/ precincts and precinct splits information from the Oregon Centralized Voter Registration & Election Management (OCVR) system.

1.3.4. Project Management Objectives

1. Implementation
 - a. Implement with minimum impact to customers;
 - b. Tightly manage overall delivery scope to minimize timeline impact and testing risk.
2. Organizational Management
 - a. Assess and plan for the ongoing staffing needs necessary to maintain and operate the new system(s), including the knowledge, skills and abilities of staff, and the number, training and timing of staffing resources;
 - b. Assess and plan for continued and uninterrupted service to existing customers;
 - c. Forecast and prepare for future and expanded customers and customers' use.

1.3.5. Information Services Objectives

1. Operational Alignment
 - a. Replace existing vote tally system;
 - b. Ensure successful knowledge transfer to the functional and technical support staff.
2. Sustainability
 - a. Implement high-quality, ubiquitous technology, with proven standards for infrastructure and data management;

TASK 1.4. ROLES

1.4.1. Primary Hart & County Stakeholders

1. Hart and County Project Staff

Hart and County will appoint a team of staff members for the duration of the project. The project team is composed of the following positions and responsibilities:

Role	Responsibilities
Hart Project Manager	<ul style="list-style-type: none"> - Support Hart financial and resource commitments - Included on the Hart change board for all cost and scope changes - Maintain Issue log - Coordinates all project activities for all Hart project staff - Works in close collaboration with County project management and County staff - Has overall responsibility for the execution of all Hart tasking - Has primary responsibility for project management activities as defined in Track 2 Project Management

Project Director	<ul style="list-style-type: none"> - Protecting the project from external risk - Providing general corporate oversight - Participating in the change management process
County Project Sponsor	<ul style="list-style-type: none"> - The primary County Project Sponsor is the County Clerk.
County Project Manager	<ul style="list-style-type: none"> - Project management support will be provided by Marion County Information Technology (IT) staff.

TASK 1.5. ASSUMPTIONS

It is assumed that:

1. County shall make resources available to assist with all project activities.
2. An adequate number of qualified staff with the appropriate skills and experience will be furnished by Hart and the County for each meeting, analytical session, or other review activities, whether Onsite or conducted remotely.
3. Adequate space will be provided by the County for the training of end users.
4. All Issues found—whether by Hart or the County—will be logged by the Hart PM in a mutually agreed upon location.
5. The County will make County Project Team members available for meetings, discussions and conference calls upon request by Hart. Hart will identify when information is needed and the County's PM will confirm the availability of County resources to meet that timeframe or negotiate an alternative timeframe, to minimize delays in the project.

TASK 1.6. FUNDING FOR PROJECT SERVICES

The County has appropriated sufficient funds to cover the purchase and installation of the HVS Voting System.

TASK 1.7. TRAVEL POLICY

Hart will assume all Hart personnel travel expenses.

TRACK 2. PROJECT MANAGEMENT

TASK 2.1. GENERAL MANAGEMENT

2.1.1. Scope Management

Project scope is broadly defined as the work that is needed to deliver the product and services meeting all functional and performance specifications as detailed in the Professional Services Agreement. The Technical Scope as outlined in Exhibit A-1 Hart's Response to the Best and Final Offer Phase Voting System Requirement by Category (01 Appendix 1 as supplied by Hart) contain the functional and performance requirements for the HVS Voting System. The project scope will be further defined (subject to agreement on additional change orders) during the Work Process Analysis in order to deploy software that meets both statutory and contractual requirements. Any variations to the scope of the project, including changes made through change orders as may be identified as part of the WPA, will be handled via a formal change management process as defined in 2.1.3.

2.1.2. Issue Management

The Issue Management process ensures that each Issue identified within the project environment is documented, prioritized and resolved within an appropriate timeframe.

1. Issue Identification

Once the Hart Project Manager or the County Project Manager identifies an Issue, according to the description above, the issue will be tracked by Hart in a Issue Log using a mutually agreed upon format and location.

2. Issue Review

The Issue Log will be reviewed by the project team in status meetings where a course of action and an owner will be determined.

3. Implement Issue Actions through Completion.

The Issue is tracked through resolution and closed when complete.

2.1.3. Change Management

The change management process ensures that each change introduced to the project environment is appropriately defined, evaluated and approved prior to implementation.

The change process starts after the contract has been signed and there is a change request which affects scope, time, cost or other agreements made in the contract. The type of change will dictate what resources are required to approve and sign-off on the change. The Hart PM has authority to approve changes that do not affect payment milestones. Other changes should be

brought to the change board. The change board is responsible for approval/rejection of change requests and for prioritization of approved changes. The change process is in effect through the implementation process; once the project is handed off to Hart Customer Support (CS) for post Go-Live support all requests will be handled through the support process. As decisions are made, the PMs on each project team are responsible to disseminate the information to their stakeholders.

Change board members	Hart Project Manager, Hart Project Director, Marion County Project Manager, and the County Clerk or designee.
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1. Change Identification

Changes can be identified in different ways, e.g., through conversations in a meeting, through email communication, etc. Once a need is identified, a review of the change is scheduled.

2. Review Change Request and Feasibility

This process allows the appropriate parties to review the change for need and feasibility. The change board will be included in all decisions that affect costs or scheduled payments. The project PMs will schedule a mutually agreeable time for the review and invite the appropriate parties for participation. The change review will result in a denial of the change or an approval to move forward with the change. Hart will have no obligation to agree to any change which will incur additional person hours or costs unless the parties have mutually agreed to on fees (either fixed or on a time and materials basis) therefor.

3. Approve Change Order

A formal change order in the form of Attachment 2 (no cost change) or Attachment 3 (cost change) will be generated that documents the details and is signed by the project manager and/or sponsors.

4. Change Order Templates

The change order includes the project name, date, change order number, change summary, reason for change, effect to cost/payments, effect on schedule/milestones, and other impacts and related details.

2.1.4. Communication Management Plan

The following strategies have been established to promote effective communication within and about this project.

1. Meetings

Regularly scheduled meetings will be hosted by Hart. Other meetings may be scheduled as a result of a specific issue that needs to be addressed outside the forum of the static meetings.

Meeting Type	Purpose	Attendees	Frequency	Results
Status Meeting	Provide high level status update	TBD	Weekly	Minutes will be recorded and posted to Share Point or similar shared document storage location.
Work Process Analysis	Review RFP functional requirements to demonstrate current functionality and identify gaps resulting in Work Orders or Change Management Decisions	TBD	TBD	Results in WPA Gap Analysis document, which is signed off by Hart and the County.
Conversion Meeting	Detailed discussions and decision making on conversion of data	TBD	TBD	Notes will be recorded and posted to Share Point or similar shared document storage location.

2. Status Reports: Will be achieved by regular review of the project schedule and regular project status meetings. Reports will be submitted to respective personnel defined herein.
3. Monthly Status Reports. The Hart PM will provide a written high level monthly status report spotlighting:
 - Accomplishments
 - Goals Not Met
 - Goals for the following month
 - Needs from management

The monthly status report will be sent via email to:

The County	County Clerk, Elections Supervisor, and Project Manager
Hart	Not applicable (Hart will be sending the report)

4. Other Issues

For any issue that is a concern to either team with regards to resource allocation, unprofessional behavior, cost issues, and timeline concerns, or any other issue affecting the project, the project manager or the team member's supervisor should be notified immediately for appropriate action.

2.1.5. Procurement Management

The contract dollars will be paid as per the payment schedule in the Professional Services Agreement, Exhibit B Compensation and Milestone Payment Provisions. Any increase or decrease in funds that are required to perform the Agreement must be approved through the formal change management process and approved by both Parties by written amendment to the Agreement. Notwithstanding the foregoing, the parties acknowledge and agree that the Tasks to

be performed hereunder shall be performed on a time and material basis, and Hart shall have no obligation to complete Tasks not completed within the person days purchased by the County.

2.1.6. Resource Management

Resources with the required expertise will be assigned to the project by each project team. If there are concerns with regards to the skill set, availability of resource, inappropriate behavior, or any other concern, these issues should be handled according to the communication plan.

Roles and responsibilities for Hart:

Name	Role	Email	(800) nnn- nnnn	Responsibility to Project
PETER LICTENHELD	DIRECTOR OF OPERATIONS	PLICTENHELD@HARTIC.COM	800-223-6400	EXECUTIVE SPONSOR
RICH GEPPERT	MANAGER, PROFESSIONAL SERVICES	RGEPPERT@HARTIC.COM	800-223-6400	PROJECT DIRECTOR
DAVID MAGEDSON	CONSULTANT, PROJECT MANAGER	DMAGEDSON@HARTIC.COM	800-223-6400	PROJECT MANAGER
JACK CRUZ	CONSULTANT TECHNICAL SERVICES	JCRUZ@HARTIC.COM	800-223-6400	SME
CUSTOMER SERVICE CENTER	CUSTOMER SERVICE	HARTSUPPORT@HARTIC.COM	800-223-6400	CUSTOMER SERVICE AND SUPPORT CENTER

Roles and responsibilities for the county:

Name	Role	Email	Phone	Responsibility to Project
Bill Burgess	County Clerk	BBurgess@co.marion.or.us	503-588-3579	Project Sponsor
Sharon Ricks	Elections Supervisor	SRICKS@co.marion.or.us	503-576-7171	SME
Stephen Craigen	Elections	SCRAIGEN@co.marion.or.us	503-588-5041	SME
Peggy Mitchell	Contracts	PMITCHELL@co.marion.or.us	503-588-5047	Contract compliance
Grace McDonald	IT Manager	GMCDONALD@co.marion.or.us	503-576-7169	Project Management
Gary Christofferson	Project Manager	gchristofferson@co.marion.or.us	503-566-3965	Project Management
Steve Frank	Facilities	SFrank@co.marion.or.us	503-584-7717	Marion County Facilities coordination

2.1.7. Quality Management

Project Quality

During the implementation phase the project team is monitoring the project to determine if current processes are working or if corrective action is required. Project quality is a team effort where everyone's input is valuable and encouraged.

Product Quality

Hart's product quality approach (strategies, methods, tracking, reporting, and tools).

2.1.8. Schedule Management

The project timeline records the tasks to be performed, the duration of time allotted for the task and who is responsible for performing the task. The timeline will be reviewed and accepted by the project sponsors; any changes will be handled within the change management process.

2.1.9. Risk Management

Hart and the County acknowledge that risks exist and may impose a negative impact on the project in scope, cost or time. We agree as a team to address each risk in advance if we are able or otherwise to come together in mutual agreement and team spirit to deal with each situation as it arises. At a minimum, the Risk Register will include the following information.

#	Date	Risk Type	Author	Description	Likelihood	Severity	Action Plan	Status
	Date the risk was identified	Internal, External	The person reporting the risk	A brief description of the risk and its impact upon the project	High, Medium, Low	High, Medium, Low	A brief description of mitigation	Open, Closed

2.1.10. Project Closure

1. Administrative closure procedure

This process includes updating contract records to reflect final results and archiving that information for future use.

Hart PM

- Gather documentation (both paper and electronic) including, but not limited to, change orders, sign-off documents, meeting notes, timelines and lessons learned.
- Organize and store documentation according to internal processes.
- Supply any necessary copies of documentation to customer.
- Support customer's administrative closure procedures.

Client Project Sponsor

- Perform administrative closure procedures as dictated by its office.

- Support Hart's administrative closure procedures.

2. Contract closure procedure

This process includes activities needed to settle and close any contract agreements as well as ensure all work is completed correctly and satisfactorily as per the contract.

Hart PM

- Send documentation to customer outlining completion of contracted products and services including related change orders.
- Notify customer of outstanding payments.
- Notify Hart Accounting department to invoice for final payment.
- Hold internal hand-off meeting with Hart Customer Service department.
- Hold lessons learned meeting with customer.

Client Project Sponsor

- Perform contract closure procedures as dictated by its office.
- Support Hart's contract closure procedures.
- Support prompt payment of outstanding and final invoices.

TASK 2.2. GENERAL RESPONSIBILITIES, HART AND COUNTY

2.2.1. Hart Responsibilities

The list below describes Hart's responsibilities that may not be listed elsewhere in this Statement of Work, during the implementation of this Project.

1. Ensure the System meets the Best and Final Submission Requirements supplied by Hart during the RFP process.
2. Hart will ensure the terms of the Professional Services Agreement are adhered to during the implementation of this project.
3. The Hart PM will manage the activities of Hart staff, as specified in this Statement of Work.
4. Hart will have responsibility for Hart's Project Tasks outlined in this Statement of Work. Contractual and administrative communications will flow through the County's PM and the Hart PM. The Hart PM will coordinate the Hart's hardware and software configuration, testing tasks, and will manage Hart's day-to-day technical activities related to implementation of the System.
5. Identify logistics needs for Onsite meetings to the County (conference room, projector, access to System, etc.)

6. Ensure Hart communicates the desired County attendees for invitation in advance, and that Hart is present, for all applicable meetings.
7. Provide an adequate number of copies of agendas, handouts and presentation handouts for any meeting that Hart is leading (Onsite or remotely). If the meeting is to be conducted remotely, then only one electronic copy of any materials needs to be delivered, and copies will be made at County facilities.
8. Create, review, and update all documents within the timeframe specified in the review process for all draft documents.
9. Convert all legacy data as defined in Task 1.2 Definitions #28.
10. Assist the County in the on-going export of ballot style information from OCVR to BOSS for the election creation process.

2.2.2. County Responsibilities

County recognizes that Hart's work and the completion thereof are conditioned upon County's timely performance and completion of certain activities to be performed by County as set forth in this Statement of Work, if any, and this Section 2.2.2 below. The list below describes County's responsibilities that may not be listed elsewhere in this Statement of Work, during the implementation of this project.

1. Make arrangements to satisfy Hart's requested logistics of all the Onsite meetings (conference room, projector, access to System, etc.).
2. Ensure facility is ready prior to the receipt of and Onsite installation of the HVS Voting System, including, but not limited to: equipment location, adequate space, power, and HVAC conditions, as well as any needed furniture for equipment placement.
3. Review and provide feedback on all draft documents; in general, the County should attempt to provide feedback within five (5) Business Days of receiving the documents, or more quickly if called for in the mutually agreed upon project plan. Any delay in providing feedback or other required information, or in performing testing or other required County Activities and responsibilities, may result in delays to the project schedule for which Hart is not responsible.
4. Ensure County attendees are invited in advance and are present, or accounted for via a suitable replacement if necessary, for all applicable meetings.
5. Provide resources at the start of an Onsite visit by Hart Team for the installation of software needed for the visit.
6. Provide adequate departmental resources to support the project timeline while taking into consideration daily and periodic departmental work requirements.
7. Provide adequate facilities and equipment for Training.

8. The County shall have responsibility for overall Project management and direction of County resources.
9. The County will provide a final Elections facilities layout to Hart as set forth in Exhibit D-4 Hart's Ballot Now Implementation Diagram Scenario 4 of the Professional Services Agreement.
10. Provide, as needed, personnel knowledgeable in the current applicable County systems.
11. Provide, as needed, administrators or subject matter experts.
12. Provide, unless otherwise agreed to in writing, all test cases, test data, procedures, and personnel needed to conduct User Acceptance Testing and County's responsibilities for HVS Acceptance Testing of the System.
13. Provide necessary work site access to OCVR. Assume responsibility for management of all non-Hart managed vendors.
14. Provide details of all relevant policies and standards which may have a bearing on the design, testing or implementation of any new technology.
15. Ensure all applicable County personnel cooperate in good faith to facilitate the successful implementation of the System.
16. Prompt and timely completion of all County Activities as set forth below.

TASK 2.3. REVIEW OF HART DELIVERABLES

In general, all Hart Deliverables shall be made ready after all related tasking is completed, and Hart has communicated to the County, via email or paper correspondence, that the Deliverable is ready for review and Acceptance. Once notified, the County shall take all reasonable means to review the Deliverable in accordance with the criteria listed in this Statement of Work.

Comments shall be promptly provided back to Hart so that corrections to the Deliverable can be made, or other tasking begun.

TASK 2.4. AUTHORIZATIONS

All contract and money related changes must be approved by:

County	Elected officials and/or department head per County policy
Hart	Rich Geppert

Typical payment process includes the following:

Step	Description	Owner	Recipient
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1	Hart and County jointly confirm that a payment milestone has been reached	County Hart	
2	Hart submits invoice for milestone payment	Hart	County Project Sponsor
3	County confirms completion of milestones	County Project Management	Hart, County Project Sponsor and Project Manager
4	County authorizes Payment	County	
5	County processes invoice payment	County	Hart

TRACK 3. PROJECT PLANNING

TASK 3.1. PROJECT PREPARATION

Project Preparation describes the collaboration between the County and Hart to make preparations to begin the project.

3.1.1. Hart Activities

Upon execution of the Professional Services Agreement between the County and Hart, the Hart team will initiate the project and start preparation and mobilization of its resources in accordance with the requirements defined in this Statement of Work. The County and Hart will determine a project start date, and activities will include the following:

1. Prepare agenda, presentation, and handouts for Task 3.2 Project Kickoff. Agenda shall include:
 - a. Project timeline and activities overview
 - b. Presentation of the Hart staff
 - c. Project goals
 - d. Summary presentation of the overall project scope
2. Coordinate with the County's Project Manager on logistics.

Activities listed above will be completed as a joint effort between the Hart Project Manager, the County's Project Manager, and Project Team, and will be accomplished at each Project Manager's facility.

3.1.2. County Activities

The County will support meeting and planning preparation activities

3.1.3. Acceptance Criteria for Hart Deliverables

1. Meeting materials conform to reasonable business standards and include the topics agreed upon by the County and Hart.
2. Schedule for all TRACKS accommodates County priorities and needs.

3.1.4. Task Summary

Activity Duration: per project timeline

Activity Location: N/A

Appropriate expertise and people, as needed

Hart Artifacts

- A1. Kickoff meeting agenda
- A2. Kickoff meeting participant handouts

Hart Deliverables:

- D1. Kickoff meeting PowerPoint presentation
- D2. Detailed project timeline

County Deliverables

None

TASK 3.2. PROJECT KICKOFF

The project kick-off allows the Hart and County project teams the opportunity to communicate the project plan to the County staff and to create support for the project.

3.2.1. Hart Activities

Lead and participate in the kickoff meeting.

3.2.2. County Activities

Provide meeting room facilities to accommodate the kickoff meeting and participate in the kickoff meeting. Provide appropriate resource scheduling to staff the office and ensure kickoff meeting participation.

3.2.3. Acceptance Criteria for Hart Deliverables

1. Completion of the Kickoff meeting and completion of any related goals.

3.2.4. Task Summary

Activity Duration:	One (1) Business Day
Activity Location:	Onsite
	Appropriate expertise and people, as needed

Hart Artifacts

None

Hart Deliverables:

- D3. Kickoff meeting facilitation

County Deliverables

- C1. Participate in kickoff meeting

TASK 3.3. REVIEW/REVISE PROJECT SCHEDULE

This task describes the effort needed to conduct the first detailed planning session since contract signing. All Tasks, resource needs, facilities and logistics, etc., should be addressed.

3.3.1. Hart Activities

Hart will finalize a detailed project management plan and timeline that will identify each specific Deliverable and milestone as well as intermediate tasks and Deliverables as necessary for effective project scheduling and control. The project management plan will provide details for managing the project from kick-off to completion. The timeline will identify each of the phases/Tasks, milestones and Deliverables associated with each Task, estimated duration of each phase/Task, and the type and level of participation of Hart and County staff necessary to achieve the plan objectives. The timeline will also address training in each required capacity.

Hart will develop the project management plan and timeline, as described above. All changes to the project management plan and timeline will be handled through a formal change management process.

3.3.2. County Activities

1. Participate in project planning meetings.
2. Review and approve project management plan and timeline. All changes to the plan and timeline will be handled through a formal change management process.
3. Inform Hart of applicable County technical standards and preferred practices.

3.3.3. Acceptance Criteria for Hart Deliverables

1. Project management plan and timeline is complete and schedules provide reasonable time to perform tasks.
2. Schedule of Deliverables and Payments is consistent with the project timeline.

3.3.4. Task Summary

Activity Duration:	Multiple meetings will be held to review and complete the project timeline.
Activity Location:	Onsite and/or Remote
Hart Staff Count:	Appropriate expertise and people, as needed

Hart Artifacts

None

Hart Deliverables:

- D4. Project Planning Meeting facilitation
- D5. Project management plan and timeline

County Deliverables

- C2. Attendance at Project Planning Session
- C3. Communication detailing County technical standards

TRACK 4. HARDWARE & SOFTWARE INSTALLATION (BILLING MILESTONE DELIVERABLE)

TASK 4.1. ORDER & RECEIVE REFURBISHED COTS HARDWARE, NEW COTS HARDWARE, NEW HVS HARDWARE, OS AND DATABASE SOFTWARE

4.1.1. Hart Activities

Order and receive all hardware and software for the Hart HVS System as set forth in the Professional Services Agreement.

4.1.2. County Activities

1. Order Hardware, Operating Systems, Database Management Software for platform
2. Receive all ordered items.

4.1.3. Acceptance Criteria for Hart Deliverables

None

4.1.4. Task Summary**Hart Deliverables:**

New hardware OS and database software. Because new COTS PCs are not available, Hart will substitute refurbished PCs as detailed in Professional Services Agreement, Exhibit C-1 Conditional Acceptance of Refurbished Equipment. Scanners and printers will be new.

County Deliverables

- C4. Receive all items

TASK 4.2. INSTALL, TEST AND VALIDATE SOFTWARE

Hart shall install, test and validate ALL Software related to the Hart HVS.

4.2.1. Hart Activities

1. Install, test and validate ALL Software related to the Hart HVS.

4.2.2. County Activities

1. Answer questions and assist in solving issues which may arise from County during installation

4.2.3. Acceptance Criteria for Hart Deliverables

None

4.2.4. Task Summary

Hart Deliverables:
None
County Deliverables
C5. All items installed and confirmed

TASK 4.3. TASK ACCEPTANCE (DECISION TO MOVE TO NEXT PHASE)

4.3.1. Hart Activities

Prepare and deliver Track Acceptance form.

4.3.2. County Activities

Complete Track Acceptance form and return to Hart.

4.3.3. Acceptance Criteria for Hart Deliverables

1. Track Acceptance form format and use is in accordance with this Statement of Work.

4.3.4. Task Summary

Hart Deliverables:
D6. Track Acceptance form for Milestone 1 as set forth in Exhibit B Compensation and Milestone Payment Provisions of the Professional Services Agreement.
County Deliverables
None

TRACK 5. FIT GAP ANALYSIS (WORK PROCESS ANALYSIS)

The purpose of this Track is to review the County's functional requirements to determine what differences exist between the legacy system or desired functionality, and the new system. The Fit Gap or Work Process Analysis will help determine if there should be a change in the business process or the Hart System to accommodate the gap.

TASK 5.1. GENERAL ACTIVITIES

5.1.1. Hart Activities

1. Schedule a series of meetings according to the project timeline and individual schedules.
2. Meetings may be held Onsite and/or via Web as per the budget and time constraints.
3. Hart will use a standard WPA template as the starting point. RFP requirements will be brought into the discussion as appropriate. The WPA records if the requirement is met, if there is a gap, adds notes for set up, integration, and conversion, and provides additional gap analysis comments.

5.1.2. County Activities

1. Identification of roles.
 - a. Distribute list of roles and responsibilities to all team members.
2. Gather documents used for best fit analysis.
3. Provide a list of the business processes that are performed in the office with a description of the steps used to perform each process. An example of all forms or reports used in each business process should be included in this documentation.

5.1.3. Acceptance Criteria for Hart Deliverables

1. Fit Gap Analysis meeting schedule allows for County staff attendance.
2. Shell or template WPA is delivered in a form ready for use in WPA sessions.

5.1.4. Task Summary

Activity Duration:	As defined in the project timeline
Activity Location:	Onsite/Remote
Hart Staff Count:	Appropriate expertise and people, as needed

Hart Artifacts

None

Hart Deliverables:

D7. Best fit analysis meeting scheduled

D8. Shell best fit analysis document (WPA)

County Deliverables

- C6. All existing process flows/maps that may apply to this Task
C7. All related technical, data, or functional information required by Hart

TASK 5.2. BEST FIT PROCESS START

This task describes the best fit process and how the decisions made in the best fit sessions are documented.

5.2.1. Hart Activities

Hart will demonstrate and/or explain how the requirement will be met in the new software.

1. Does, or will, the base software meet the RFP requirement?
 - a. If so, the requirement is marked as met.
 - b. If not, the requirement is marked as a gap and will go through the change management process as defined in 2.1.3 above.
2. Does, or will, the base software meet the RFP requirement, but not in the way the County wants?
 - a. If so, the requirement is marked as met, and if County requests a change, it will go through the change management process as defined in 2.1.3 above.
3. Does, or will, the base software meet the RFP requirement, but with a change to the business process?
 - a. If so, the requirement is marked as met and the County is responsible for documenting the new business process.

5.2.2. County Activities

1. Prior to each best fit analysis session, the County will research and come prepared with current policy, procedures, and expected System outcomes for the given topic Review draft WPA and any other best fit analysis documents for clarity and completeness.
2. Attend best fit sessions.

5.2.3. Acceptance Criteria for Hart Deliverables

1. One best fit meeting has been held.

5.2.4. Task Summary

Activity Duration:	Portions or all of 1 business day
Activity Location:	Onsite or Remote as mutually agreed
Hart Staff Count:	1 PM and/or 1 Subject Matter Experts

Hart Artifacts:

None

Hart Deliverables:

D9. Best fit meetings have started

County Deliverables

None

TASK 5.3. DRAFT FIT GAP DOCUMENT (WPA)**5.3.1. Hart Activities**

1. Holds best fit meetings.
2. Verifies all functional requirements have documented resolutions.
3. Prepares and delivers the draft WPA to project SharePoint or other similar shared document storage site.

5.3.2. County Activities

1. Prior to each best fit analysis session, the County will research and come prepared with current policy, procedures, and expected System outcomes for the given topic. Review draft WPA and any other best fit analysis documents for clarity and completeness.
2. Attend best fit sessions.

5.3.3. Acceptance Criteria for Hart Deliverables

1. A draft WPA has been delivered to the County. Draft may take the form of spreadsheets or other preliminary formats.

5.3.4. Task Summary

Activity Duration:	As per project timeline
Activity Location:	The draft WPA will be uploaded to the project SharePoint or other similar shared document storage site.
Hart Staff Count:	1 PM
Hart Artifacts:	
None	
Hart Deliverables:	
D10. Draft WPA delivered	
County Deliverables	
None	

TASK 5.4. FINAL FIT GAP DOCUMENT (WPA)

5.4.1. Hart Activities

1. Schedules WPA review session/s.
2. Attends WPA review session/s with the County.
3. Edits the WPA based on one iteration.
4. Provides final WPA.

5.4.2. County Activities

1. Attend WPA review sessions.
2. Provide one iteration of feedback/comments on WPA.
3. Review and approve final WPA, not to be unreasonably withheld or delayed.

5.4.3. Acceptance Criteria for Hart Deliverables

1. A final WPA has been delivered to the County.

5.4.4. Task Summary

Activity Duration:	As per project timeline
Activity Location:	The final WPA will be uploaded to the project site.
Hart Staff Count:	1 PM or 1 SME

Hart Artifacts:

None

Hart Deliverables:

D11. Final WPA delivered

County Deliverables

None

TASK 5.5. TRACK ACCEPTANCE BILLING MILESTONE DELIVERABLE

5.5.1. Hart Activities

Prepare and deliver Track Acceptance form.

5.5.2. County Activities

Complete Track Acceptance form, and return to Hart.

5.5.3. Acceptance Criteria for Hart Deliverables

Prepare and deliver Track Acceptance form.

5.5.4. Task Summary

Hart Deliverables:
D12. Track Acceptance form
County Deliverables
None

TRACK 6. DATA CONVERSION

This Track describes activities performed to migrate / convert data as defined in Section 1.2 Definitions #28 from the County's legacy application/s to the new System.

TASK 6.1. DATA CONVERSION ANALYSIS / PLAN

6.1.1. Hart Activities

Hart will complete the import routine/s from OCVR and/or manually input such data with assistance from the County.

6.1.2. County Activities

Work with Hart and verify the successful data conversion.

6.1.3. Task Summary

Activity Duration:	One (1) day
Activity Location:	Remote or Onsite
Hart Staff Count:	PM or appropriate expertise and people, as needed
Hart Artifacts:	
A3. Data conversion planning meeting agenda	
Hart Deliverables:	
D13. Define Data Conversion Process	
County Deliverables	
C8. Approval Data Conversion Process	
C9.	

TASK 6.2. WORK THE DATA CONVERSION PLAN

This Task describes the preparation and extraction of the legacy data.

6.2.1. Hart Activities

1. Create a conversion schedule that supports the timeline.
2. Assist the County to determine data sources that should be included in conversion.
3. Hart will convert legacy data.
4. Assist County to confirm legacy data accuracy.
5. Request County approval of sign-off documents.

6.2.2. County Activities

1. Provide access to OCVR system for Hart to obtain electronic data extractions in an intermediate file format as provided by Hart.
2. Correct (if needed) all data clean-up requests submitted by Hart. This may require manual or programmatic efforts or may also be collaboratively determined to be more advantageous for Hart to do.
3. Review and approve sign-off documents.

6.2.3. Acceptance Criteria for Vendor Deliverables

1. Hart will complete the conversion of county legacy data.
2. The sign-off documents have been signed by the County.

6.2.4. Task Summary

Activity Duration:	As defined in the timeline
Activity Location:	N/A
Hart Staff Count:	PM, Appropriate expertise and people, as needed
Hart Artifacts	
Updates to Data Conversion Plan	
Hart Deliverables:	
D14. Delivery of Conversion with audit reports	
D15. UAT conversion iteration delivered.	
County Deliverables	
C10. Signature on all data conversion sign-off documents	

TASK 6.3. TRACK ACCEPTANCE (BILLING MILESTONE DELIVERABLE)

6.3.1. Hart Activities

Prepare and deliver Track Acceptance form.

6.3.2. County Activities

Sign Track Acceptance form.

6.3.3. Acceptance Criteria for Hart Deliverables

Track Acceptance form format and use is in accordance with this Statement of Work.

6.3.4. Task Summary

Hart Deliverables:

D16.	Track Acceptance form
County Deliverables	
C11.	None

TRACK 7. TRAINING

This Track addresses the analysis, development and delivery of training to end-users.

TASK 7.1. TRAINING ANALYSIS & PLANNING

This Task addresses whom to train, how training will be conducted, logistics, and training topics. Training may be jointly instructed by County and Hart staff. Hart's instructor is needed to supply the detailed knowledge of the applications being taught, and a County's SME may be needed to bring the detailed knowledge of the County's processes and policy to the classroom. Hart's instructor will lead the instruction and the County's SME, when applicable, will assist.

If, while creating the training plan, the County determines additional sessions would be in the best interest of the County, Hart will provide a quote for the additional requested training and the County will work with Hart to approve all or a part of the additional training.

7.1.1. Hart Activities

1. Determine topics for training by group, and determine the number and types of courses needed.
2. Create Training Syllabus (course outline, instructor guide, student materials as needed). A Training Syllabus will be developed for each proposed course. The Syllabus will list the course objectives, describe each functionality point that will be covered with the students, and outline the examples to be used as instructional aides.
3. Determine instructor resource needs to include classroom materials, data for student exercises, learning aids (e.g., charts), etc.
4. Determine number of training classrooms and course schedules.
5. Collaborate with the County to produce a separate training database, and strategy for the County to refresh the data, as needed, to support training.

7.1.2. County Activities

1. Collaborate with Hart to analyze training needs for County personnel.
2. Prepare training classrooms and provide equipment necessary for training.
3. Schedule County staff as needed.
4. Review and edit preliminary training plan.

7.1.3. Acceptance Criteria for Hart Deliverables

1. Training plan covers all County staff, is comprehensive, and is achievable in the time allotted. It should include:
 - a. Course syllabus/outlines
 - b. Student materials

- c. Course schedules
 - d. Rosters – by name, or by position, as applicable to each training class
 - e. Separate training database with data, where the source of the data will be agreed upon by the County.
2. Training syllabus is detailed enough to be usable by either County or Hart, and has sufficient materials and support data to be effective.

7.1.4. Task Summary

Activity Duration:	As defined in the timeline
Activity Location:	N/A
Hart Staff Count:	1 PM and/or 1 Training Manager
Hart Artifacts:	
None	
Hart Deliverables:	
D17.	Training plan
D18.	Training syllabus
County Deliverables	
C12.	Confirm training requirements
C13.	Course co-instructors
C14.	Classrooms, computers and other logistics support

TASK 7.2. TRAINING MATERIAL DEVELOPMENT

This Task describes the activities that will be performed to develop materials needed for various training classes once the training needs have been determined.

7.2.1. Hart Activities

Develop all materials needed to support training plan.

7.2.2. County Activities

Support Hart training development activities as needed, particularly in the area of County policy and procedure changes.

7.2.3. Acceptance Criteria for Hart Deliverables

1. Training materials support the training plan and are of sufficient detail to allow use by County staff.

7.2.4. Task Summary

Activity Duration:	As defined in the project timeline
Activity Location:	N/A
Hart Staff Count:	PM or SME(s)
Hart Artifacts:	
None	
Hart Deliverables:	
D19. All training materials as detailed by the training plan	
County Deliverables	
None	

TASK 7.3. CONDUCT TRAINING

7.3.1. Hart Activities

1. Conduct training sessions per training plan.
2. Monitor student progress on subject matter.
3. Report any training deficiencies to County.

7.3.2. County Activities

1. Provide students and facility resources as agreed upon to include adequate training facilities to accommodate attendees and computer accessibility.
2. Provide the management of training plan, schedule, etc.

7.3.3. Acceptance Criteria for Hart Deliverables

1. Training is conducted in accordance with the training plan; training objectives are acceptably met.

7.3.4. Task Summary

Activity Duration:	As defined in the project timeline
Activity Location:	Onsite/Remote
Hart Staff Count:	As defined in the training plan
Hart Artifacts:	
None	
Hart Deliverables:	
D20. Delivery of end user training courses per schedule	
County Deliverables	

C15. Staff roster for classroom training sessions, Subject Matter Experts as agreed upon

TASK 7.4. TRACK ACCEPTANCE (BILLING MILESTONE DELIVERABLE)

7.4.1. Hart Activities

Prepare and deliver Track Acceptance form.

7.4.2. County Activities

Complete Track Acceptance form, and return to Hart.

7.4.3. Acceptance Criteria for Hart Deliverables

1. Track Acceptance form format and use is in accordance with this Statement of Work.

7.4.4. Task Summary

Hart Deliverables:
D21. Track Acceptance form
County Deliverables
None

TRACK 8. PRE-PRODUCTION (USER ACCEPTANCE) TESTING

The Pre-Production Testing.

- The converted data is tested by the County with the use of mapping documents and other outputs from the conversion process.
- The Software will be tested to verify the base functionality of the Software along with its integrated components (Design Documents) using the converted data (conversion).
- Pre-Production Testing verifies the readiness of the Software for use as the system of record.

The following are the prerequisites for Pre-Production Testing:

- Simulate a production environment, as practical, agreed to by Hart and the County. This is the County's responsibility to set up.
- Pre-Production Testing, which triggers the decision for Go-Live, will be performed on the Go-Live version of the HVS suite of products.

TASK 8.1. CONVERSION TESTING

Conversion testing ensures that the data is converted as per the approved mapping documents. The timeline allows for multiple opportunities for the County to verify the data prior to final conversion.

8.1.1. Hart Activities

1. Hart delivers the converted data at the intervals as defined by the project timeline.
2. Support County testing efforts.
3. Provide response mechanism for County input.

8.1.2. County Activities

1. Verify accuracy of converted data.
2. Record errors according to defined communication for data verification feedback.
3. Schedule resources to complete data verification within the timeframe dictated by the project timeline.

8.1.3. Acceptance Criteria for Hart Deliverables

1. As per Section 6 deliverables, the final conversion is complete and the County and Hart agree on a Go decision for Go-Live.

8.1.4. Task Summary

Activity Duration:	As defined in the project timeline
Activity Location:	Remote
Hart Staff Count:	Project Manager, Subject Matter Expert, Conversion Lead
Hart Artifacts:	
None	
Hart Deliverables:	
D22. As per Section 6	
County Deliverables	
C16. As per Section 6	

TASK 8.2. BASE PRODUCT TESTING

Base product testing ensures that the non-customized, base software is functioning according to the Hart documentation.

8.2.1. Hart Activities

1. Collaborate with County to create a Test Plan.
2. Support County testing efforts.
3. Provide response mechanism for County feedback.
4. Provide resolution plan for reported Issues.

8.2.2. County Activities

1. Perform testing on base functionality according to Test Plan.
2. Record errors according to defined communication for County feedback.
3. Schedule resources to complete base product testing within the timeframe dictated by the project timeline.

8.2.3. Acceptance Criteria for Hart Deliverables

1. The County and Hart agree on a resolution plan and a Go decision is given for Go-Live.

8.2.4. Task Summary

Activity Duration:	As defined in the project timeline
Activity Location:	Remote/Onsite
Hart Staff Count:	Project Manager or Subject Matter Expert
Hart Artifacts:	
None	

Hart Deliverables:	
D23.	Test Plan for base Software
County Deliverables	
C17.	Approved Test Plan for base Software
C18.	Record testing feedback
C19.	Approve resolution plan and provide Go decision for Go-Live

TASK 8.3. REVISE/CORRECT ISSUES

8.3.1. Hart Activities

1. Conduct one or more Issue triage meetings to prioritize and agree upon the resolution for all Issues logged to date. Log results in Hart's issue tracking system. Issues are logged according to the following:

SEV1

- Description – Prevents critical business process from functioning or causes data corruption. Legislative related or deadline oriented. There is no work around.
- Response Time – Hart will respond within 4 business hours by phone or email to County to communicate an action plan for qualified SEV1 issues. If immediate response is required, County should follow up with a phone call to Hart once ticket has been entered.
- Resolution Time – Resolution turnaround will depend on the complexity of the issue. SEV1 issues are forwarded to the Programming department, prioritized based on other issues on the priority list and worked until completed. Hart will keep the County informed of status on a regular basis.

SEV2

- Description – Prevents or impedes non-critical business process from functioning. A non-reproducible issue that prevents a critical business process from functioning. A data-related issue that cannot be recreated at Hart. An acceptable short-term work around exists.
- Response Time – Hart will provide a prompt response by phone or email to assist County with a possible workaround until a future release can resolve the issue.
- Resolution Time – The resolution turnaround will depend on the complexity of the issue, generally in a minor release. Hart will communicate with the County to confirm projected delivery.

SEV3

- Description – Prevents or impedes lower impact non-critical business processes. A lower impact customer specific issue related to a customization for that customer.
- Response time – Hart will contact County via email and keep County informed on status of issue.
- Resolution Time – The resolution of an issue will be subject to Hart’s development schedule.

SEV4

- Description – Usability, Training/How-To, or documentation issues. Any issue that has a non-intrusive long-term work around.
 - Response Time – Hart will contact County via email and keep County informed on status of issue.
 - Resolution Time – The resolution of an issue will be subject to Hart’s development schedule.
2. Develop resolution plan.
 3. Review resolution plan with County.
 4. Re-deliver software per agreed resolution plan.

8.3.2. County Activities

1. Conduct all County activities identified with the System Test Plan.
2. Log all Issues and comments into Hart’s issue tracking system according to the Severity level criteria listed in 9.4.1.
3. Review, provide feedback, and come to agreement on resolution plan.

8.3.3. Acceptance Criteria for Hart Deliverables

1. Delivery of agreed upon resolution plan.
2. Delivery of tasks associated with approved resolution plan that support Go-Live.

8.3.4. Task Summary

Activity Duration:	As defined in the project timeline
Activity Location:	N/A
Hart Staff Count:	Hart Project Manager
Hart Artifacts:	
None	
Hart Deliverables:	
D24. Delivery of resolution plan and associated tasks that support Go-Live	

County Deliverables

C20. Support activities related to resolution plan and associated tasks

TASK 8.4. TRACK ACCEPTANCE (BILLING MILESTONE DELIVERABLE)

8.4.1. Hart Activities

Prepare and deliver Track Acceptance form.

8.4.2. County Activities

Complete Track Acceptance form, and return to Hart.

8.4.3. Acceptance Criteria for Hart Deliverables

1. Track Acceptance form format and use is in accordance with this Statement of Work.

8.4.4. Task Summary

Hart Deliverables:

D25. Track Acceptance form

County Deliverables

C21. Final Go decision for Go-Live

TRACK 9. GO-LIVE

TASK 9.1. DEVELOP GO-LIVE PLAN

9.1.1. Hart Activities

Collaborate with the County to create and deliver the Go-Live Plan. The following topics or sections shall be addressed:

1. Issue triage plan.
2. Support roles for County and Hart personnel involved in the plan.
3. Support assignments and schedule for County and Hart personnel.
4. Go-live specific communication activities.
5. Other plan needs as identified during this Task.

9.1.2. County Activities

1. Collaborate with Hart to produce the Deployment Plan.
2. Activities associated with any business process changes.

9.1.3. Acceptance Criteria for Hart Deliverables

1. Plan appears to meet the support needs of the County.

9.1.4. Task Summary

Activity Duration:	As defined in the timeline
Activity Location:	N/A
Hart Staff Count:	PM
Hart Artifacts:	
None	
Hart Deliverables:	
D26. Deployment Plan	
County Deliverables	
None	

TASK 9.2. GO-LIVE ACTION (BILLING MILESTONE TASK)

9.2.1. Hart Activities

Provide the following level of support.

1. Hart will be Onsite during the Go-Live election week for the duration of the election ballot counting process.

9.2.2. County Activities

1. Perform Go-Live: Activate the System and user activity such that the System is in regular production use by County employees.
2. Support Hart in performing Go-Live support.

9.2.3. Acceptance Criteria for Hart Deliverables

Hart software is used as the system of record.

9.2.4. Task Summary

Activity Duration:	As defined in the project timeline
Activity Location:	Onsite
Hart Staff Count:	Sufficient resources and skills to provide support as needed
Hart Artifacts:	
None	
Hart Deliverables:	
D27. Hart software is used as the system of record	
County Deliverables	
C22. Perform the Go-Live action and institute the System as the System in use within the County.	

TASK 9.3. POST GO-LIVE SUPPORT (BILLING MILESTONE TASK)

9.3.1. Hart Activities

1. Hold internal Hart handoff meeting to Hart Customer Support (CSC) Department.

9.3.2. County Activities

1. Use Hart PM as point of contact for all remaining contract issues.

9.3.3. Final Verification Criteria

The County is provided with post Go-Live support instruction.

9.3.4. Task Summary

Activity Duration:	As defined in the project timeline
--------------------	------------------------------------

Activity Location:	N/A
Hart Staff Count:	1 PM,
Hart Artifacts:	
None	
Hart Deliverables:	
D28. Post Go-Live support instruction	
County Deliverables	
None	

TASK 9.4. REVISE/CORRECT ISSUES

9.4.1. Hart Activities

1. Conduct one or more Issue triage meetings to prioritize and agree upon the resolution for all Issues logged to date. Log results in Hart's issue tracking system.
2. Issues are logged according to the Issue severity level descriptions detailed in Section 9.4.1.
3. Update user and technical documentation to reflect changes.
4. Re-deliver software per agreed resolution.

9.4.2. County Activities

1. Conduct all County activities identified with the System Test Plan.
2. Log all Issues and comments into Hart's issue tracking system according to the Issue severity level defined in Section 9.4.1.

9.4.3. Acceptance Criteria for Hart Deliverables

1. Severity level 1 issues - Hart will create resolution plans that will allow the County to complete all legislatively required processes within legally required dates. Partial retainage payment may be withheld in the event that the County is unable to successfully perform a legislatively required process within legally mandated dates.

9.4.4. Task Summary

Activity Duration:	As defined in the project timeline
Activity Location:	N/A
Hart Staff Count:	Hart Project Manager
Hart Artifacts:	
None	

Hart Deliverables:

- D29. Delivery of resolution plan
- D30. Delivery of Severity level 1 fixes

County Deliverables

- C23. Support activities related to resolution plan and associated tasks

TASK 9.5. TRACK ACCEPTANCE (BILLING MILESTONE TASK)

This task will need to be repeated for each of the following milestones for retainage release associated with the Final Acceptance Milestone set forth in the Professional Services Agreement. The milestones are detailed in Exhibit B, Compensation and Milestone Payment Provisions Schedule as retention payouts. The following is the acceptance criteria to be applied to each respective milestone:

Milestone 1 – Hart to provide itemized list of all items specified in Milestone 1 to County for signature and acceptance.

Milestone 2, including 2.1, 2.2 and 2.3 - Hart to provide itemized list of all items specified in Milestone 2 to County for signature and acceptance.

Milestone 3 – Hart to provide itemized list of all items specified in Milestone 3 to County for signature and acceptance.

Milestone 4 – Certification of the first official countywide election (May 2012 primary) using the new Hart Voting System.

Estimated completion dates for the milestones above can be found in the Exhibits D-1 and D-2, Project Management Plan and Project Schedule/Timeline.

9.5.1. Hart Activities

Prepare and deliver Track Acceptance form.

9.5.2. County Activities

Complete Track Acceptance form and return to Hart.

9.5.3. Acceptance Criteria for Hart Deliverables

Track Acceptance form format and use is in accordance with this Statement of Work.

9.5.4. Task Summary

Release of Go-Live Milestone in Accordance with Exhibit B, Compensation and Milestone Payment Provisions Schedule.

Form, Track or Milestone Acceptance

The information for Track Acceptance shall be filled out by Hart and presented to the County for approval after all actions for a given Track have been completed. If in agreement, the County will then sign the form, and return it to Hart for signature. Hart will sign the form, and return one (1) copy to the County.

Track or Milestone Name/Number:		
Date Completed:		
Hart Deliverables Actually Produced, & Dates Delivered:		
Exceptions to Statement of Work:		
Additions to Statement of Work:		
Notes:		
Hart, Inc. – Signature/Title/Date:		
_____	_____	_____
NAME	TITLE	DATE
Marion County Acceptance – Signature/Title/Date:		
_____	_____	_____
COUNTY PROJECT MANAGER	TITLE	DATE
_____	Bill Burgess	_____
COUNTY PROJECT SPONSOR	MARION COUNTY CLERK	DATE

Attachment 2
Form, Non-Cost Change to the Statement of Work

This form should be used to effect any change to the Statement of Work between Hart and the County that WILL NOT result in a payment change to Hart as prescribed in the Professional Services Agreement, Section 5 Payment Terms. If changes to the Statement of Work are required, and they also require a change in the payment amount, arrangements, or other means of compensation, then the change process defined in the Professional Services Agreement shall be followed.

The information below shall be filled out by Hart and presented to the County. If in agreement, the County will then sign the form, and return it to Hart for signature. Hart will sign the form, and return one (1) copy to the County.

Task (s) to be changed		
Effective Date		
New language or Change:		
Hart Activities		
County Activities		
Hart Deliverables		
County Deliverables		
Acceptance Criteria for Hart Deliverables		
Reason for Change/Notes:		
Hart, Inc. Agreement – Signature/Title/Date:		
Name	Title	Date
Marion County Agreement – Signature/Title/Date:		
COUNTY PROJECT MANAGER	TITLE	DATE
COUNTY PROJECT SPONSOR	Bill Burgess MARION COUNTY CLERK	DATE

Attachment 3

Form, Cost Change to the Statement of Work

This form should be used to effect any change to the Statement of Work between Hart and the County that WILL result in a payment change to Hart as prescribed in the Professional Services Agreement, Section 5 Payment Terms. If changes to the Statement of Work are required, and they also require a change in the payment amount, arrangements, or other means of compensation, then the change process defined in the Professional Services Agreement shall be followed, and this form will be used.

The information below shall be filled out by Hart and presented to the County. If in agreement, the County will then sign the form, and return it to Hart for signature. Hart will sign the form, and return one (1) copy to the County.

Task (s) to be changed		
Effective Date		
New language or Change:		
Hart Activities		
County Activities		
Hart Deliverables		
County Deliverables		
Acceptance Criteria for Hart Deliverables		
Reason for Change/Notes:		
Additional or Changed Fees and Payment Schedule		
<i>Hart, Inc. Agreement – Signature/Title/Date:</i>		
Name	Title	Date
<i>Marion County Agreement – Signature/Title/Date:</i>		
COUNTY PROJECT MANAGER	TITLE	DATE
COUNTY PROJECT SPONSOR	Bill Burgess MARION COUNTY CLERK	DATE

Exhibit A-1 Hart's Response



MARION COUNTY, OREGON
BEST & FINAL
ELECTIONS VOTE TABULATION SYSTEM



Attachment A – To be completed, signed and returned with proposal.

PROPOSAL FORM

BEST AND FINAL PHASE TO PROVIDE

Vote Tabulation System

Proposal Due Date: 3:00 PM on June 15, 2010

The undersigned Proposer declares that the only persons or parties interested in this proposal are those named herein; that this proposal is, in all respects, fair and without fraud; that it is made without collusion with any official of the county; and that the proposal is made without any collusion with any person making another Proposal on this Contract. The Proposer warrants that it has carefully examined the Best & Final Phase Vote Tabulation System documents for providing the services described as follows:

Vote Tabulation System

The Proposer offers and agrees to provide a **Vote Tabulation System** in Salem, Oregon.

The Proposer certifies that it does not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, handicap, financial ability, age or other non-job-related factors as per ORS 659 and USC 42 2000e.

The Proposer warrants that it has made such investigation as is necessary to determine the complexities and requirements of Marion County and, if its proposal is accepted, it will contract with Marion County. The contract will be in the form of the Marion County Contract. Proposer will provide the required services as specified in the terms and conditions contained within the RFP document, which by reference are incorporated herein in their entirety, and which may be incorporated into any contract resulting from award of this procurement and that those terms and conditions take precedence over any conflicting terms and conditions in the Proposer's proposal.

The Proposer submits its proposal as required within the Best & Final Phase document. This proposal shall be effective for a period of sixty (60) days from the **Best & Final Phase for Vote Tabulation System** closing date.

The Proposer further agrees that if the proposal is accepted, it will, WITHIN ten (10) calendar days after notification of acceptance, execute the contract with Marion County on the contract form, an example of which was included in the original RFP document. The Proposer will, at

the time of execution of the contract, deliver to Marion County the insurance certificate documentation required within the original RFP document; and will, to the extent of its proposal, satisfy all requirements necessary to provide a Vote Tabulation System for Marion County.

The Proposer understands that any false statement may disqualify this proposal from further consideration or be cause for contract termination.

The Proposer agrees to furnish all equipment, labor and materials necessary to complete the services as specified herein and further attests that they have carefully considered and acknowledge any addenda issued by the County for this solicitation below:

Addendum # 1, dated June 9, 2010 Addendum # , dated
Addendum # , dated Addendum # , dated

FIRM NAME: Hart InterCivic, Inc. PHONE: 512.252.6400

ADDRESS: 15500 Wells Port Drive Austin TX 78728 FAX NO: 512.252.6466
street city state zip

BY: Phillip W. Braithwaite TITLE: SVP & General Manager

BY: [Signature] DATE: June 10, 2010

Proposer Options for Requirements Document (Appendix 1) (check one that applies)

- ☐ Original responses to Requirements document (Appendix 1) stands – no changes submitted
- X Modified/updated responses in a new Requirements document (Appendix 1)
- ☐ New system proposed with new Requirements document (Appendix 1)

This proposal form must be completed, signed in ink and returned with the proposal.



Attachment B – To be completed, signed and returned with Proposal

**MARION COUNTY, OREGON
BEST & FINAL PHASE
Vote Tabulation System**

NON-DISCLOSURE FORM

Each individual page(s) or specific section(s) of the proposal that I have marked "THIS MATERIAL IS TO BE HELD CONFIDENTIAL!" is to be kept confidential to the extent permissible under the law. This data shall not be disclosed outside the County or be duplicated, used or disclosed in whole or part for any purpose other than to evaluate the proposal; provided that, if a contract is awarded to this Proposer as a result of or in connection with the submission of such information, the County shall have the right to duplicate, use, or disclose this information to the extent provided in the contract. This restriction does not limit the County's right to use information contained herein if it is obtained from other sources.

This restriction does not apply to cost or price information, which must remain public information.

By completing and signing this form, I acknowledge that I have marked the appropriate confidential and/or proprietary information according to instructions provided in the Best & Final Phase.

If there is not confidential information marked, please check the box below, sign and return the form with the proposal.

☐ I have not identified any confidential information in my proposal response.

By: _____

Signature

Phillip W. Braithwaite

(Print or Type Name)

SVP & GM, Hart Voting Systems

Title

Date: June 10, 2010

For: Hart InterCivic, Inc.

(Firm Name)

This non –disclosure form must be completed, signed in ink and returned with the proposal.



Attachment C – To be completed, signed and returned with proposal.

COOPERATIVE PURCHASING (REQUIRED)

MARION COUNTY

**BEST & FINAL PHASE
Vote Tabulation System**

Pursuant to ORS 279A and Marion County's procurement rules, other public agencies may have the ability to establish contracts or price agreements under the terms, conditions and prices of the original contract established from this solicitation.

Any such purchases shall be between the Contractor and the participating public agency and shall not impact the Contractor's obligation to Marion County. Any estimated purchase volumes listed herein do not include other public agencies and Marion County makes no guarantee as to their participation.

Any proposer, by written notification included with their solicitation response, may decline to extend the prices and terms of this solicitation to other public agencies.

Will your company extend pricing and terms to other public agencies?

☐ Yes ☒ No

**THIS FORM MUST BE COMPLETED AND RETURNED WITH THE PROPOSAL
PACKET.**

Exhibit A-1 Hart's Response



MARION COUNTY, OREGON
BEST & FINAL
ELECTIONS VOTE TABULATION SYSTEM



I. Best & Final Submission Requirements

1. Certification

1.1 The digital equipment submitted for consideration must be certified by the National Association of State Election Directors (NASED) and/or the Election Assistance Commission (EAC) by the best and final submission deadline of 3:00PM on Tuesday, June 15, 2010. The digital equipment must be certified by the Oregon Secretary of State's Office or obtain certification from the Oregon Secretary of State's Office prior to the date set for execution of the contract. Proofs of current certification must be included in the proposal. If the digital equipment is federally certified, but not currently certified by the State of Oregon, then the proposal must include a statement of intent to obtain Oregon certification.

Hart Response

The proposed Hart Voting System version 6.2.1 complies with the Federal Election Commission's 2002 Voting System Standards. The National Association of State Election Directors (NASED), following qualification testing by the federally approved independent testing authorities (ITAs), has certified every version of the Hart Voting System released over the last six years. For almost a decade, Hart has assigned specific individuals dedicated to maintaining federal and state certification.

Certification documents, including the independent testing authority (ITA) certification by Ciber Labs; Wyle ITA qualification documents; and the State of Oregon's certification, may be found immediately following this page. The Wyle ITA qualification document reflects certification for the Hart Voting System version 6.0. The modifications from version 6.0 to version 6.2.1 were restricted to the software; therefore, the hardware did not require re-certification.



Hart InterCivic Software Qualification Test Report

Original Report for Hart InterCivic System 6.2 created 06/16/06
Revision 1 created July 12, 2006
Revision 2 for Hart InterCivic System 6.2.1 created August 02, 2006
Revision 3 created August 11, 2006
0807/06 NASED Number N-1-04-22-22-006 (2002)

Prepared For:

The National Association of State Election Directors

Prepared By:

CIBER, Inc.
Independent Test Authority

ciber

CIBER, Inc.
2501 South Memorial Parkway
Suite 107
Huntsville, AL 35802

Proprietary



3 SYSTEM IDENTIFICATION

The system submitted by Hart InterCivic for qualification testing consisted of the following software, hardware and documentation:

Software

- BOSS version 4.3.13
- BossUtil 2.5.8
- Translate DLL 1.8.2
- Ballot Now version 3.3.11
- Rally version 2.3.7
- Tally version 4.3.10
- eCM Manager 1.1.7
- Servo 4.2.10
- HartLib 4.0
- COTS software: MS Windows 2000 Professional, Service Pack 4

Hardware

- computer Tally-workstation, Dell PC
- computer-Rally workstation, Dell PC
- computer-Boss workstation, Dell PC
- JBC Firmware Version 4.3.1 *
- eSlate Firmware Version 4.2.13
- eScan Firmware Version 1.3.14
- VBO Firmware Version 1.8.3
- COTS Scanner Fujitsu 4097
- COTS Scanner Kodak i660
- COTS Scanner Kodak 3520
- COTS Scanner Kodak 1500
- COTS Scanner Kodak i830
- COTS Scanner, Fujitsu M4099D
- COTS HP LaserJet 2420D

*Changes per additional testing in Appendix F



The Hart InterCivic System 6.2 source code review consisted of the following components:

- BOSS version 4.3.13
- BossUtil 2.5.8
- Translate DLL 1.8.2
- Ballot Now version 3.3.11
- Rally version 2.3.7
- Tally version 4.3.10
- Servo 4.2.10
- VBO 1.8.3
- HartLib 4.0
- PVS (eSlate/JBC) 4.2.13
- eScan 1.3.14

It was determined that Hart InterCivic System 6.2 meets the standards required by the 2002 VSS.



MARION COUNTY, OREGON
BEST & FINAL
ELECTIONS VOTE TABULATION SYSTEM



wyle
laboratories

Wyle Laboratories, Inc.
7800 Highway 20 West
Huntsville, Alabama 35896
Phone (256) 837-4411 • Fax (256) 830-2109
www.wylelabs.com

REPORT NO.: 53097-01
WYLE JOB NO.: 53097
CLIENT P.O. NO.: 0029-1588
CONTRACT: N/A
TOTAL PAGES (INCLUDING COVER): 160
DATE: March 31, 2006

TEST REPORT

HARDWARE QUALIFICATION

TESTING

OF THE

POLLING PLACE SYSTEM 6.0

(ESCAN FIRMWARE VERSION 1.0.10)

(JBC/ESLATE FIRMWARE VERSION 4.0.19)

(VBO PRINTER FIRMWARE VERSION 1.7.5)

For
Hart InterCivic
1650 Coal Creek Drive, Suite E
Lafayette, CO 80026

STATE OF ALABAMA
COUNTY OF MADISON }

Robert D. Hardy, being duly sworn, deposes and says: The information contained in this report is the result of complete and carefully conducted testing and is to the best of his knowledge true and correct in all respects.

Robert D. Hardy
SUBSCRIBED and sworn to before me this 17th day of April, 2006

Elyse L. McQuinn
Notary Public in and for the State of Alabama at Large
My Commission expires Sept-15-2007

Wyle shall have no liability for damages of any kind to person or property, including special or consequential damages, resulting from Wyle's providing the services covered by this report.

PREPARED BY: *Wendy Owens* 3/31/06
Wendy Owens, Project Engineer Date

APPROVED BY: *Devin Lee* 04/05/06
Devin Lee, Project Engineer Date

WYLE Q.A.: *Raul F. Terceiro* 4/7/06
Raul F. Terceiro, Q. A. Manager Date

(sh)



Cert. # 845 01

WH-1404, Rev. Feb '07



Page No. 5
Test Report No. 53097-01

1.0 INTRODUCTION

1.1 Scope

This report presents the test results for Hardware Qualification Testing of the Hart InterCivic System 6.0, Firmware Version 1.0.10.

1.2 Objective

The objective of this test program was to ensure that the eScan Optical Scan Polling Place System, and Voting Machine Firmware, Version 1.0.10, complied with the hardware requirements of the Voting Systems Standards, April 2002.

1.3 Summary

Qualification testing included: the selective in-depth examination of machine resident firmware; the inspection and evaluation of hardware documentation; tests of hardware under conditions simulating the intended storage, operation, transportation, and maintenance environments; and operational tests verifying system performance and function under normal and abnormal conditions. Qualification testing was limited to the eScan and resident machine firmware.

The eScan and associated Machine Firmware, Version 1.0.10, was subjected to Reliability and Functional Tests. It was demonstrated that the eScan and associated Machine Firmware successfully met the hardware qualification test requirements of the Voting Systems Standards, April 2002. Qualification testing (in-depth source code review and functional tests) was limited to the firmware and hardware used at the precinct level and did not include any election management software, which typically resides on a personal computer and is used for ballot definition, absentee, and report canvassing activities. Testing of the election management software including end-to-end system level testing was performed by a Software ITA, CIBER, Inc, Huntsville, AL, which will issue the results of such testing under a separate report.

Due to the varying requirements of individual jurisdictions, it is recommended by the Voting Systems Standards that local jurisdictions perform pre-election logic and accuracy tests on all systems prior to their use in an election within their jurisdiction.

WYLE LABORATORIES, INC.
Huntsville Facility



CERTIFICATE OF APPROVAL

Hart InterCivic 6.2.1:
Ballot Now Release 3.3.11
BOSS Release 4.3.13
Rally Release 2.3.7
Tally Release 4.3.10
SERVO Release 4.2.10
eScan, version 1.3.14
VBO, version 1.8.3
eCM Manager 1.1, Release 1.1.7

Pursuant to ORS 246.560 representatives of Hart InterCivic, 1850 Coal Creek Drive, Suite E, Lafayette, Colorado 80026 requested that the Secretary of State publicly examine that company's voting system: Hart InterCivic 6.2.1: Ballot Now Release 3.3.11, BOSS Release 4.3.13, Rally Release 2.3.7, Tally Release 4.3.10, SERVO Release 4.2.10, eScan, version 1.3.14 VBO, version 1.8.3, eCM Manager 1.1, Release 1.1.7 for possible certification of same for sale, lease or use by county elections officials in the State of Oregon. The Hart InterCivic 6.2.1 voting system was publicly examined on March 26-30, 2007, in Salem, Oregon. The system presented for examination was identified as the Hart InterCivic 6.2.1: Ballot Now Release 3.3.11, BOSS Release 4.3.13, Rally Release 2.3.7, Tally Release 4.3.10, SERVO Release 4.2.10, eScan, version 1.3.14 VBO, version 1.8.3, eCM Manager 1.1, Release 1.1.7 with the following scanners: Kodak i660 and Kodak i830. Attached to this original certificate is the Certification test report and documents describing the programming and operating features of the subject system.


The Secretary of State employed Steven V. Freeman of Freeman, Craft, McGregor Group, Inc. to examine the Hart InterCivic Voting System. Mr. Freeman did make a detailed examination of the subject equipment and system.

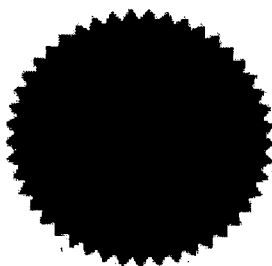
FINDINGS: Based upon this examination and the written reports submitted by Mr. Freeman, I conclude that the Hart InterCivic 6.2.1: Ballot Now Release 3.3.11, BOSS Release 4.3.13, Rally Release 2.3.7, Tally Release 4.3.10, SERVO Release 4.2.10, eScan, version 1.3.14 VBO, version 1.8.3, eCM Manager 1.1, Release 1.1.7 with the following scanners: Kodak i660 and Kodak i830 does comply with the legal requirements set forth in ORS 246.560.

THEREFORE, I issue this Certificate of Approval for the sale, lease or use of the Hart InterCivic 6.2.1: Ballot Now Release 3.3.11, BOSS Release 4.3.13, Rally Release 2.3.7, Tally Release 4.3.10, SERVO Release 4.2.10, eScan, version 1.3.14 VBO, version 1.8.3, eCM Manager 1.1, Release 1.1.7 with the following scanners: Kodak i660 and Kodak i830 for employment in any elections held in the State of Oregon. This approval is limited by and with the stipulation that the equipment and system must be used in compliance with the provisions of applicable Oregon statutes and all Secretary of State, Election's Division rules and directives concerning the testing and use of vote tally equipment.

This Certificate of Approval does not constitute a recommendation of the above described voting tally system over other voting or counting machines heretofore or hereafter approved for sale, lease or use in this state, but rather does set forth the fact that the Hart InterCivic 6.2.1: Ballot Now Release 3.3.11, BOSS Release 4.3.13, Rally Release 2.3.7, Tally Release 4.3.10, SERVO Release 4.2.10, eScan, version 1.3.14 VBO, version 1.8.3, eCM Manager 1.1, Release 1.1.7 with the following scanners: Kodak i660 and Kodak i830 does comply with ORS 246.560.

Dated: June 21, 2007


Brenda Bayva, Deputy Director
Secretary of State, Elections Division





2. Vote Tabulation Overview Needs, Requirements and Specifications.

2.1 *Proposer's response must include a complete equipment configuration, detailing all components: firmware, hardware, software, and any third party software licenses necessary to operate the vote Tabulation system (including, but not limited to, the number of ballot scanners and issue resolution/adjudication workstations) necessary to achieve and sustain a combined throughput rate based on the scenario below:*

- *9,000 all-folded ballots (one page/double-sided) per hour for a sustained period of 16 consecutive hours. The County's current ballot size is 15" long by 9 3/4" wide, double-sided, 3 column ballots, containing over 60 different contests. A sample ballot from the November 2008 general election is included for reference in Appendix 3.*
- *Oregon law now allows the scanning of ballot seven days prior to Election Day, however, ballot counts/results are not tabulated until Election Day. The election jurisdiction must not stop counting ballots on Election Day until it has counted all ballots in its possession as of the close of the polls on the election evening.*

Hart Response

Hart's proposed solution for Marion County includes software, hardware, and services, addresses the unique characteristics and technical design of the Hart Voting System. The Hart Voting System provides:

- Paper ballots for absentee/by-mail voting that are provided by Hart's Ballot Now component. With Ballot Now, Marion County can effectively manage the printing, scanning, and resolution of by-mail paper ballots; begin processing/scanning returned ballots seven days before Election Day; and conduct a full audit of ballot resolution. In addition, ballots can be printed on-demand by the County or in volume by a third-party print vendor.
- A comprehensive election management software solution that uses an industry-standard operating system and tools. This solution provides database-driven power with maximum flexibility for application enhancement, integration with other systems, interoperability among components, and upgrade capability.
- A complete package of services that includes professional project management; a well documented, professional training program encompassing local elections staff and poll workers; onsite support for acceptance testing and installation, pre-election, Election Day, and post-election support; and a warranty program.
- A digital scanning system that yields increased efficiency and accuracy. This element negates the need for sorting ballots; allows vote exceptions to be viewed post-scanning via on-screen display; and provides for resolution of exceptions through the digital image, leaving the original ballots unaltered.
- The PCs, printers, and scanners used in the paper ballot voting process are standard, commercial products from industry leaders such as Dell, Kodak, Fujitsu, Okidata and Hewlett Packard. Hart's application software unites these components into a powerful and cost-efficient voting system.



- A high degree of versatility in both ballot style and ballot printing options. The Hart Voting System allows ballots to be printed either in-office or commercially, at the choice of the County. The ballot styles supported by Hart also allow a considerable amount of freedom for the County.

Hart Voting System Overview

To assist in the County's understanding of the Hart Voting System, we provide the following introduction to its components and how each is used:

- **Ballot Origination Software System™ (BOSS).** The Hart Voting System software application that enables users to build election databases and to create paper ballot styles based on jurisdiction- and election-specific information supplied by the user. After ballot generation, BOSS digitally writes the election data file (including all ballot styles) to the Mobile Ballot Box memory cards. This data file is used with Ballot Now to print paper ballots for by-mail voting.
- **Ballot Now™.** The Hart Voting System software application that allows election officials to print, scan, and resolve by-mail ballots on standard-sized paper that requires no preformatting. Ballot Now provides for on-demand, in-house printing, and it digitally images voted ballots. Ballots with questionable voter marks can be resolved through an innovative on-screen resolution process. When all ballots have been scanned and resolved, Ballot Now also captures Cast Vote Records. A Mobile Ballot Box memory card is used to transfer data between BOSS and Ballot Now.
- **Tally™.** The Hart Voting System software application that tabulates and reports Cast Vote Records (CVRs) from voted Mobile Ballot Boxes containing CVRs from Ballot Now digitally imaged paper ballots. Once the CVRs have been read and tabulated, Tally can produce a variety of official reports and data exports in several formats, including PDF and HTML.
- **System for Election Records and Verification of Operations™ (SERVO).** The Hart Voting System election records archiving and asset management system software application that provides for secure backup of election data.
- **eSlate Cryptographic Module (eCM).** A physical, universal serial bus security device. This electronic "key" is required for access to secure functions in the BOSS, Ballot Now, Tally, and SERVO applications.
- **Fusion™.** A software utility used to map election data from one system to another safely, and to report election results from multiple databases or systems using a wide variety of custom reports and data exports.
- **Ballot Now Audit Tool™.** A software utility that creates reports from election results based on search criteria designated in the filters of the Ballot Now Audit Tool 1.0 window. The report lists the serial numbers of all ballots found whose characteristics match the search criteria.
- **Duplicate Finder.** A software utility that can identify duplicate ballots scanned across multiple Ballot Now stations.
- **Mobile Ballot Box™ (MBB).** The flash memory card (PC card) that carries the election database and formatted ballots between the Ballot Now, BOSS,



and Tally applications. MBBs also store Cast Vote Records and audit information.

The configuration, as proposed and priced to Marion County includes four Ballot Now stations, eight BNIP PCs, one Fusion station, one Tally station and one BOSS station. The use of four Ballot Now stations is proposed to the County with some redundancy and back-up in the fourth scan station. We assume an extra large ballot format and workflow processing that is up to the 3,000 (with an 11x17 ballot) ballots per hour metric.

As stated in the Kodak i660 has a throughput of 120 pages per minute (ppm).

Kodak i660

- Certified as part of the Hart Voting System
- Weight: 85 lbs
- Dimensions: 15.7"h x 23.9"w x 30.3" d
- Hart practical application throughput with 11x17 ballots as shown in the live demonstration in August 2009: up to 3,000 11x17 ballots per hour per scanner. Three scan stations would meet the 9,000 per hour specification; however a fourth Ballot Now station will offer throughput redundancy and back-up if necessary. Each Ballot Now station proposed to the County will have an extra resolve station attached to it.

2.2 Proposer's may submit more than one digital solution if available or offer different equipment configurations of the proposed digital solution that would meet the County's needs. If more than one solution or system configuration is proposed, separate costs must be included as detailed in Subsection #4 below.

Hart Response

Hart is proposing one digital solution with one equipment configuration to meet the County's needs.

3. Voting System Requirements Document, Appendix 1.

3.1 The original RFP for Elections Vote Tabulation Equipment included a Voting System Requirements by Category document. Proposers were required to propose a complete software and operational system meeting the functional requirements included, but not limited to, the capabilities listed in Appendix 1, Voting System Requirements by Category. Requirements are not shown in any priority order and are arranged in major functional categories. The Requirements ID numbers are purely for organizational and tracking purposes. The complete Requirement document for each system proposed must include page numbers on each page.

Hart Response

Hart understands this requirement. Page numbers are listed on each page of the Best and Final Phase Proposal submission.



3.2 If a proposer is offering a new software and operational system solution in the Best and Final round, a new Requirements document must be fully completed and submitted with the Best and Final package. If a proposer submits the same software and operational system as provided in its original response to the County's RFP, the proposer has the option to modify and/or update its prior responses to the Requirements document by completing a new document or indicate that its prior submission of the Requirements document has not changes and will stand on its original submission. The Proposal form, Exhibit A, has a box to indicate whether the proposer's Requirements document is for a new voting system, has been modified, or it will stand on its original submission.

Hart Response

Hart understands this requirement. Hart is submitting the same software and operational system as provided in our original response to the County's RFP. Any additional modification or updates to our prior responses are for clarification purposes only. A completed Attachment A is included with this submission.

3.3 Proposals must respond in a point-by-point format to each and every one of these requirements listed in this document. They must state whether or not the proposed solution meets the requirement now (and will be provided with the RFP's cost proposal) or will be customized to meet each requirement (and will be provided with the RFP's cost proposal) and discuss how it meets or will meet each requirement. If the proposed solution does not meet the requirement or will not be delivered to Marion County within the total cost proposal, proposers should mark the "no" response for that requirement. Proposals must contain comments for each of the requirements.

Hart Response

Hart understands this requirement.

3.4 Failure to provide a clearly noted response to all requirements and sufficient narrative to assist the evaluation team in assessing the merit of the response might result at least in a lowered evaluation score for the proposal and may result in the proposal being deemed non-responsive to the Request for Proposals.

Hart Response

Hart understands this requirement.

3.5 To assist proposers in preparing their proposal and meeting this requirement of responding to each of the requirements, the requirements are contained in two separate files, named REQUIREMENTS.RTF and REQUIREMENTS.TXT. Proposers should find one or the other version of this file capable of being imported into most popular word processing packages. If you need to receive copies of either of these files by email attachment, please notify the Point of Contact in Subsection 12 below.



Hart Response

Hart understands this clarification.

4. Cost Proposal

4.1 Costs for the proposed equipment configuration will be submitted using the attached Cost Proposal format, Appendix 2. If multiple solutions/systems or equipment configurations are proposed, a separate Cost Proposal form must be submitted for each system or configuration. Refer to Section II Required Format and Manner of Response for submission instructions for Cost Proposal(s).

Hart Response

Hart understands this requirement.

5. Installation Updates

5.1 Proposers shall provide a list of all new and completed installations by their firms since May 2009 to present. The list shall include jurisdiction name, contact person's name, telephone and email address for contact person, number of voter registration records in jurisdiction's database, project start and end dates, project cost and number of voting devices delivered to the jurisdiction.

Hart Response

Cowlitz County, Washington is a new and completed installation which took place in December 2009/January 2010.

Jurisdiction Name: Cowlitz County, Washington

Contact Name: Ms. Kristi Swanson

Telephone Number: 360-442-7097

Email Address: elections@co.cowlitz.wa.us

Number of Registered Voters: 55,700

Project Start/End Dates: December 2009 – projected end date of November 2010

Project Cost: Approximately \$240,000.00

Number of Voting Devices Delivered: 2 JBCs; 2 eSlate DAUs; 2 VBOs; 2 Ballot Now stations with used scanners.

5.2 Proposers shall provide a list of clients who have purchases and are waiting for installation of the system being proposed. The list shall include jurisdiction name, contact person's name, telephone and email address for contact person, number of voter registration records in jurisdiction's database, number of voting devices proposed to be installed and a projected installation date.

Hart Response

Currently there are no customers who have purchased the Hart Voting System and are waiting for installation.



6. Financial Changes/Updates

6.1 Proposers shall provide a narrative on any changes (increases/decreases) to their budget/financial line items provided in the original Request for Proposal for research and development (R&D) and revenues from May 2009 to present.

Hart Response

Included with this response is updated financial information for Hart. The information includes our 2009 Federal Extension and our audited financial statement for the period of November 2008 through December 2008. Coupled with Hart's financial information submitted with the original response, the County now has Hart's financial information for fiscal years 2006 and 2007; stub year 2007; audited calendar year 2008; and our 2009 Federal Extension.

There have been no major changes to our financial line items other than the normal cyclical business experienced in the election industry.

7. License/Maintenance Agreements

7.1 Proposers shall provide a copy of their current software license and maintenance agreements for County review. The proposer awarded the contract will be expected to execute a professional services agreement as included in the original RFP. The license and maintenance agreements will be a part of the final contract document.

Hart Response

Included with this response are Hart's current Hart Voting System Master Agreement and Hart Voting System Warranty, Support and License Agreement.

8. Work Plan

8.1 The proposal must contain, but shall not be limited to, a response stating the understanding of the work to be performed and proposing an approach to work with Marion County in completing the project in a timely manner. The updated work plan shall indicate a delivery of all goods and services in sufficient time for complete use of the proposed system in all election-related activities for a countywide election as early as January 2011.

Hart Response

The Project Schedule and Project Management Plan Template include tasks and the schedule for implementing the Hart Voting System hardware and software components, and the associated ancillary services as requested by the County. The schedule also reflects specific 2011 election dates and deadlines using the Schedule of Key Actions as published in the Best and Final Phase Proposal.

The following describes tasks and timetables, as well as the roles of Hart and the County.



Tasks and Timetables

The proposed project schedule provides a description of the tasks and timelines for installing and preparing the Hart Voting System for operation in the County.

An important concept in managing this project is *progressive elaboration*, which will result in refinement of the project plan, especially concerning the workflow processes the County will use with the new Hart Voting System. Progressive elaboration means continuously improving and detailing a plan as specific information and more accurate estimates become available as the project progresses. This process produces more accurate and complete plans that result from the successive iterations of the planning process. Using the implementation plan as a strong foundation, as the project progresses, additional detail can be added to the currently proposed workflow and to the division of labor between the County and Hart personnel. The basis for the proposed workflow is found in the project schedule and the detailed information that follows.

Hart's Roles and Responsibilities

The following describes Hart's role and responsibilities on the County's voting system equipment project.

Project Management

Hart uses a project management approach that is based on the Project Management Institute (PMI) framework. This approach is enhanced through customization and application of "best practices" tested and proven during our extensive experience managing technology deployment for government agencies. In this proposal, customization and application of "best practices" reflect our specific recent experience in managing and supporting the various implementations across the State of Oregon for multiple election cycles.

The Program Manager facilitates the creation of a comprehensive project plan and then works with cross-functional teams to plan and manage customer programs using proven "best practice" methodologies.

Throughout the project/implementation, the Program Manager serves as the primary contact for any operational matters related to the project. The Program Manager ensures compliance with established project parameters and schedules, and provides the scheduling and coordination of all assigned resources.

The project is managed in the three following overlapping phases:

- Phase I: Plan/Design
- Phase II: Build/Deploy
- Phase III: Manage/Support

Phase I: Plan/Design

Phase I: Plan/Design begins during proposal/negotiation activities where the scope and approach are planned and described. At contract award, the Program Manager reviews the final



proposal/agreement and begins scheduling project setup/initiation activities. The Program Manager coordinates a project kickoff meeting with the County's designated Program Manager/Team and begins compiling the following components of the project work plan and schedule:

- **Scope Definition.** Summary of the scope of the project as defined in the final proposal/agreement documents, identifying all the components necessary to meet the County's requirements.
- **Project Team.** Identification of key individuals, including their roles/responsibilities.
- **Communication Plan.** Contact information for project team members and management, proposed schedule/format for standing project management meetings, escalation protocol for critical communications, proposed schedule/format of written communications, such as meeting notes, required reports, and so forth.
- **Issue Management Plan.** Procedures for identification, tracking, and resolution of project issues including escalation protocol, as well as identification of known open issues.
- **Risk Management Plan.** Initial identification of known risks, risk mitigation strategies, and contingency plans.
- **Integration Plan.** Identification of "work packages/processes" necessary based on defined scope and any related requirements/expectations including the following:
 - Shipping/delivery
 - Asset management
 - System acceptance
 - Deployment planning
 - Polling place set up
 - On-site support
 - Equipment retrieval (post-election)
 - Equipment processing (post-election)
 - Equipment maintenance
- **Schedule.** Identification of known timeframes and key milestone.
- **Test Plan.** Procedures for ensuring that the software integration operates successfully in a countywide environment.
- **Quality Management Plan.** Identification of performance standards, triggers, remedies, and escalation protocol.
- **Change Control Plan.** Procedures for identification, review, and approval of changes to the project plan.

The project work plan and schedule provides guidance for managing the project and developing detailed activities, tasks, and a detailed work plan to manage the project. The project work plan and schedule is revised as necessary to properly manage the project. A working draft of the



project work plan and schedule is reviewed in the project kickoff meeting to promote refinement and mutual acceptance of the draft project plan.

The Program Manager is responsible for engaging the appropriate resources necessary to execute the project work plan and schedule, and for the implementation of custom processes necessary to meet the County's requirements.

Successful deployment of a new voting system depends on a mutual understanding of current processes and the County's objectives for the new voting system. Therefore, County elections staff will be involved in planning the project in a collaborative effort. These activities are necessary to establish a detailed integration plan that addresses all aspects of the project. The results of these planning activities are used to develop a migration plan, which defines each step necessary to incorporate the use of the Hart Voting System in the County's election activities, while addressing risk areas and carrying out mitigation activities defined by the risk management plan.

Phase II: Build/Deploy

While planning/design activities may continue throughout the project, Phase I ends with placement of initial orders for equipment/services. Phase II: Build/Deploy includes placement of orders, manufacturing and shipping of equipment, delivery, and customer acceptance. During this phase, Hart's Program Manager works closely with the County's Program Manager to implement the project work plan and schedule, identify and resolve issues, manage risks, monitor Hart performance, and ensure clear communication with the entire project team.

Specific to elections solutions, this phase includes initial training of personnel. Other key activities include system initial configuration, acceptance testing, and pre-election data entry and validation. This continues through the first scheduled election event.

Phase III: Manage/Support

Following acceptance, the project enters Phase III: Manage/Support. Attention turns to election-specific data management, ballot production, deployment plans, final training, Election Day support, tabulation and reporting, data archiving and management, and storage and warehousing.

During this phase, the Program Manager focuses initially on resolving any issues that remain open and ensuring stable ongoing support processes. Upon completion of the first 2011 Election, Hart's Program Manager coordinates with the County's Program Manager to prepare and conduct a project review. The project review will summarize the project work plan and schedule; review project team performance; review project highlights, key issues/resolutions, lessons learned/best practices; and recognize key contributors.

During the Manage/Support phase, major election events recycle through the Plan/Design and Build/Deploy phases as appropriate. The Manage/Support phase also includes project closeout activities for termination of the project/program at the appropriate time.



The County's Role and Responsibilities

As described in Phase I above, the County's designated Program Manager and Project Team attend a project kickoff meeting with Hart's Program Manager. They work together to compile the project work plan and schedule.

During Phase II, the County's Program Manager will work closely with Hart's Program Manager to implement the project work plan and schedule, identify and resolve issues, manage risks, monitor Hart performance, and ensure clear communication with the entire project team. Timely provision of election-specific data, accomplishment of ballot proofing tasks, and identification of any ballot-related issues are key responsibilities of the County's Project Team.

During Phase III, the County's Program Manager will coordinate with Hart's Program Manager to ensure County stakeholders are fulfilling their responsibilities, and cooperating as necessary with the Hart project team. In addition, the County Program Manager will assist the Hart Program Manager to prepare and conduct a project review.

Hardware and Software Production, Delivery and Installation

When specific County configuration requirements are determined, the Hart Voting System components and software, application hardware and peripherals, and third-party components are ordered.

Hart Voting System hardware is also delivered to the County and undergoes acceptance testing. Upon successful acceptance of hardware components, a representative from the County signs a document of successful installation, configuration, and testing of the new system. Equipment is then configured and deployed where it is set up, tested, and readied for training.

This task completes the installation and configuration of the system components. The specified checklist is completed and signed by the appropriate representative from the County to confirm that the requirements of this deliverable are met.

Ballot Printing

Ballot Now provides paper ballots in a variety of templates that use standard paper sizes of 8.5 inches x 11 inches, 8.5 inches x 14 inches, 8.5 inches x 17 inches, and 11 inches x 17 inches. Single-sided and double-sided ballots are supported, as well as multi-page ballots. All of these different sizes of ballots, however, may be folded into the same size standard ballot envelope. Because ballots can be printed on standard paper sizes, trimming is not required.

Paper ballot print files can be produced in an electronic file and provided to local Oregon commercial print vendors for volume ballot production. Small quantities can be printed on demand by County election officials using standard COTS printers.



Ballots are printed on Hart's proprietary security paper that features an "Official Ballot" watermark. Ballots are mailed to voters in standard sized envelopes according to the requirements of the County.

Testing

The Hart Voting System is continually tested, from comprehensive tests during manufacturing to automatic self-tests and other diagnostic tests during operation. Each component maintains a complete audit trail, recording all system operations including test activities. These automatic system diagnostics, audit trails, and summary reports help ensure data completeness and integrity.

Acceptance Testing

Hart will assist the County to coordinate and conduct required system acceptance testing of voting equipment and software by providing administrative and technical support. Acceptance testing will consist of the setup and operation of both hardware and software components.

Upon delivery of Hart Voting System components, the Program Manager and the County Program Manager will establish the specific events and schedule associated with acceptance testing.

An end-to-end (round-trip) test of the election management software (BOSS and Tally) is normally included in acceptance testing to verify the system software.

Logic and Accuracy Testing

Hart will provide comprehensive logic and accuracy testing procedures to validate the integrity of the election database and the accuracy of the Hart Voting System. These procedures will encompass pre-election testing, as well as Election Day parallel and post-election testing, if required.

Logic and accuracy data are retained by the MBBs used specifically for the test. Results are stored in the test database as part of the Tally database application and are available for future reference.

To protect against error, all test tabulations are done using MBBs and databases identified specifically for the test function. This assures that the data will not be confused or interfere with actual election data. Election databases created for test purposes are deleted easily from BOSS or Tally applications. When deleted, these database or election files are no longer available and cannot accidentally be accessed.

A Hart manual, detailing procedures for managing logic and accuracy testing on the Hart Voting System, is available on request.



Personnel Training

Staff training is conducted according to the agreed program and schedule. Staff are trained on all aspects of the Hart Voting System to ensure they are knowledgeable of how the system operates and the functionality provided. County elections staff members may accomplish multiple sessions of this training simultaneously or in sequence to encompass participation. The staff will also be trained on the setup and operation of all components of the Hart Voting System.

Additionally, multiple sessions of the Train-the-Trainer, election official training sessions may be accomplished simultaneously or in sequence to encompass participation by County elections staff members.

9. Proposer Profile and Ability to Execute

9.1 The proposer's ability to meet requirements and provide a successful system is of critical importance. The proposal must include detailed information for the following:

9.1.1 Primary responsibility for completion of work: proposer's proposal shall specify the primary responsible party for completion of the work. This is the party who is responsible for ensuring (a) the requirements and deliverables of the RFP are met and (b) that all tasks are completed. Only one company may be specified as the primary responsible party, even if a consortium is proposed to implement the project. It is Marion County's preference that the prime vendor and primary responsible party is a vendor that manufactures supplies and services the vote tabulation system proposed for use in Marion County.

Hart Response

Hart is the primary responsible party for completion of the proposed work. As described in Item 8. Work Plan, the Hart Program Manager serves as the primary contact for any operational matters related to the project. The Program Manager ensures compliance with established project parameters and schedules, and provides the scheduling and coordination of all assigned resources.

9.1.2 Locations: Identify all locations that will be used to support this project and the operations handled from these locations. Indicate which ones are centrally coordinated or wholly owned, franchised or locally controlled.

Hart Response

The locations used to support this project are Austin, Texas (Hart's corporate headquarters) and Marion County, Oregon (customer site). Hart's Austin site is wholly owned.



9.1.3 Resources: State the number of employees and subcontractors broken down by their status (employee, subcontractor, or independent contractor) who will be assigned to this project. Provide the résumés of the key project members and executives who will be assigned to the project. Marion County Elections retains the right to accept or reject the vendor's resource personnel at the time of contract negotiation. After entering into an agreement with a vendor, the Marion County Elections shall retain the sole right to insist on removal and replacement of any of the vendor's resource persons at any time during the term of the Contract. After entering into an agreement with the County, the vendor shall not substitute personnel assigned to this project without receiving prior, written authorization to do so by the Marion County Elections, which authorization shall not be unreasonably withheld.

Hart Response

Hart's resources assigned to the project total five and are all full time employees of Hart.

The proposed key personnel for the Marion County project are shown in the following table.

Name	Address	Telephone Number	E-mail Address
Pete Lichtenheld Operations Director, Election Solutions	15500 Wells Port Dr. Austin, Texas 78728	512-252-6578	plichtenheld@hartic.com
Rich Geppert Manager, Professional Services	15500 Wells Port Dr. Austin, Texas 78728	512-252-6632	rgeppert@hartic.com
Pam Cardenas Project Manager	15500 Wells Port Dr. Austin, Texas 78728	512-252-6813	pcardenas@hartic.com
David Magedson Training Specialist	15500 Wells Port Dr. Austin, Texas 78728	512-252-6801	dmagedson@hartic.com
David Patino Training Specialist	15500 Wells Port Dr. Austin, Texas 78728	512-252-6818	dpatino@hartic.com

Resumes of the above individuals begin on the next page.



Peter Lichtenheld
Director of Operations

Responsibilities

As Director of Operations for Elections at Hart InterCivic, Pete Lichtenheld oversees and coordinates timely and accurate delivery of numerous customer-critical services. His management of product supply chain, Ballot Production Services, technical services and the Customer Support Center is key to customers receiving the voting system components and on-going support they need.

Relevant Experience

Prior to coming to Hart, Mr. Lichtenheld gained more than 20 years of experience in training people of every level, from kindergarten to doctoral level students. This experience was valuable to his development of Hart's comprehensive voting system training programs that benefit election officials, poll workers, and technicians in thousands of jurisdictions across the country. Mr. Lichtenheld has worked as team leader in all aspects of Hart's elections business. He was instrumental in organizing Hart's Election Day help desk, and carried that successful structure to the Customer Support Center. His hands-on work with product documentation led to recording and improving Hart's supply chain and equipment management procedures.

Professional History

Hart InterCivic, Austin, Texas – 2001 to present

- Director of Operations – 2008
- Director of Customer Care – 2007
- Director of Consulting and Training – 2005 to 2007
- Hart Voting System Training Program Manager – 2001 to 2005

Texas School for the Blind and Visually Impaired, Teacher, Austin, Texas – 1988 to 1990

Austin Independent School District (AISD), Teacher, Professional Development Trainer, Computer Liaison, Mentor Teacher, Austin, Texas – 1982 to 2001

Education

M.A., Instructional Technology, University of Texas at Austin, Austin, Texas

B.A., Religious Studies and Philosophy, Beloit College, Beloit, Wisconsin

**Certifications/
Professional
Participation**

American Society for Training and Development

American Marketing Association

International Association of Clerks, Recorders, Election Officials & Treasurers

Pragmatic Marketing Certified

Texas Technology CD Project

Texas Certification in Elementary Education



Richard M. Geppert, PMP, CERA
Manager, Election Services

Qualifications

Rich Geppert brings over a decade of experience with election and project management to his role as Manager of Election Services for Hart InterCivic. Mr. Geppert oversees all aspects of the installation process, including project management, work process integration oversight of all project deliverables, and management of timetables. He has considerable experience with election law and voting system administration.

Relevant Experience

Mr. Geppert has been the Project Manager for over 30 Hart Voting System installations, including:

- Harris County, Texas
- San Mateo County, California (voting system and voter registration)
- Orange County, California
- Implementations throughout Illinois, Texas, and Hawaii.

Mr. Geppert has been responsible for administering more than 100 elections using the Hart Voting System.

Professional History

Hart InterCivic, Austin, Texas – 2000 to present

- Manager, Election Services, 2008 to Present
- Project Manager – 2007
- Account Manager – 2000 to 2006

Travis County, Assistant Elections Manager, Austin, Texas – 1995 to 2000

- Managed all facets of the elections process, including elections project management, Election Day, Early Voting by-mail, poll worker recruitment and training, and legislative work
- Administered Early Voting Program, Central Counting Station, and Early Voting Ballot Board

Education

M.P.A., Baylor University, Waco, Texas

B.A., Political Science, Baylor University, Waco, Texas

**Certifications/
Professional
Organizations**

Certified Elections/Registration Administrator (CERA), Election Center
Project Management Professional (PMP) certification



Pamela Cardenas, PMP, CERV
Project Manager

Qualifications

Pamela Cardenas is a Project Manager responsible for the planning and management of new Hart Voting System implementations. Prior to joining Hart, Ms. Cardenas worked for the Travis County Clerk's office as an elections and records management supervisor. She has extensive experience with project management, policy development, and the implementation of business systems.

Professional History

Hart InterCivic, Austin, Texas – 2005 to present

- Project Manager – 2007 to present
 - Provide project management for Hart Voting System implementations; recent projects include the City and County of Honolulu, Maui County, Hawaii, Nevada County, California and Yamhill County, Oregon.
 - Provide ongoing support for mature Hart Voting System customers, including customers in Illinois, Ohio, California, Washington, Pennsylvania, Colorado, Texas, and Oregon.
- Account Manager, 2005 to 2007
 - Led and supported over twenty Hart Voting System implementations in five states.
 - Provided ongoing support for mature Hart Voting System customers

Travis County Clerk, Austin, Texas – 1997 to 2005

- Records Analyst – 2003 to 2005
- Elections Coordinator – 2003
- Election Management Coordinator – 2000 to 2002
- Administrative Specialist – 1997 to 2000

B.A., Government, University of Texas, Austin, Texas

**Certifications/
Professional
Organizations**

Project Management Professional (PMP) certification through the Project Management Institute

Certified Elections and Registration Vendor (CERV) certification through the Election Center



David Magedson
Training Specialist/Consultant

Qualifications

David Magedson is a Training Specialist and Consultant for Hart's election customers. He has developed and implemented Hart Voting System training programs for election officials and poll workers, as well as provided project management in Hawaii and California. Previously, he was an Account Manager for customers in Arizona, California, Hawaii, Oregon, Washington, and Utah. Mr. Magedson brings real-world elections experience and extensive project management expertise to his position.

Relevant Experience

Prior to joining Hart InterCivic, Mr. Magedson was a Hart customer. He worked with the Hart Voting System for three years while employed as troubleshooting coordinator by Travis County, Texas. In addition, Mr. Magedson has broad experience managing people and resources for elections and other major projects.

Professional History

Hart InterCivic, Account Manager, Austin, Texas – 2005 to present

- Training Specialist/Consultant – 2007 to present
 - Manages the full training spectrum and client relationships during the course of an implementation
 - Manages and organizes information and documentation
 - Conducts training sessions using classroom, Web-based, and multimedia presentations; assists in demonstrations
- Account Manager – 2007
- Voting System Training Specialist – 2005 to 2007

Travis County, Texas Elections Department, Troubleshooting Coordinator, Austin, Texas – 2002 to 2005

- Created highly detailed troubleshooting field manuals, procedures, and problem tracking database
- Managed, scheduled, and trained staff of technical troubleshooters
- Coordinated and zoned technical support distribution to more than 270 polling locations

MTS, Inc, Shift Supervisor/Shipping & Receiving Coordinator, Austin, Texas – 2000 to 2002

- Managed consignment department and developed strong rapport with Austin-based musicians and artists
- Supervised daily store functions including bookkeeping, deposits, and task delegation

U.A. Activities, Co-Owner, San Francisco, California – 1997 to 1999

- Designed and maintained computer-operated receiving/distribution department for unique, politically oriented, Internet-based business
- Successfully organized numerous off-site events and gatherings geared toward building a stronger customer base



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Technical Experience

Proficient with Mac OS 9 and X; Windows 98, NT, ME, 2000 and XP; Microsoft suite (Word, Excel, Access, Outlook, PowerPoint), Adobe Photoshop, and PageMaker

Education

Music Major, College of Marin, Kentfield, California



David Patino
Training Specialist II/Consultant

Qualifications

David Patino is a Training Specialist who trains election officials and poll workers to use the Hart Voting System. He also serves as the Documentation Lead for the Hart Voting System training documentation.

Relevant Experience

Prior to joining Hart InterCivic, Mr. Patino was a troubleshooter for the Travis County Clerk's Elections Division, where he worked first-hand with the Hart Voting System. In addition to having a thorough understanding of the elections process, he is an experienced manager who has dealt with diverse populations.

Professional History

Hart InterCivic, Training Specialist, Austin, Texas – 2005 to present

- Manages the full training spectrum and client relationships during the course of an implementation
- Manages and organizes information and documentation for implementation
- Conducts training sessions using classroom, Web-based, and multimedia presentations
- Assisted San Mateo County, California, in day-to-day elections activities

Travis County Clerk, Elections Division Troubleshooter, Austin, Texas – 2004 to 2005

- Reconciled voter registration database for multiple elections
- Trained election judges and technical troubleshooters on election law and online voter verification systems
- Coordinated and zoned technical support to more than 270 polling locations
- Diagnosed voting equipment and software issues

Mr. Patino also has more than four years of experience as a retail manager.

CorelDraw/PhotoPaint, Adobe Illustrator/Photoshop/PageMaker, Microsoft Office suite, Macintosh operating system

Education

Undergraduate studies, Studio Art, University of Texas, Austin, Texas



9.1.4 Strategic relationships for work on this project: List all subcontractors (both by name of company and resource personnel) and outsourced services to be used in providing the vote tabulation system and related services to Marion County Elections. For each major subcontractor provide a profile of the subcontractor, an indication of the firm's ability to perform on this project, and the nature of the relationship between the prime contractor and the subcontractor (such as 1099, contractual partnership, partial ownership, or cross-ownership). Proposals shall contain a statement from each and every subcontractor and proposal team member agreeing to the terms, conditions, and requirements of the proposal and any subsequent contract made with Marion County pursuant to this procurement.

Hart Response

All work and services proposed by Hart for the County's project will be completed by Hart employees. No subcontractors or outsourced services will be used in providing the vote tabulation system and related services to Marion County Elections. Hart does have professional relationships with local Oregon print facilities that have the technology and expertise to print the Hart ballot on their digital print presses.

Hart and its employees agree to the terms, conditions and requirements of the proposal and any subsequent contract made with Marion County pursuant to this procurement.

01 Appendix = Technical Requirements



MARION COUNTY, OREGON
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Voting System Requirements by Category

Certification/compliance

Requirement 3

Certification: continued hardware/firmware certification.

Vendors' proposals shall contain a written description of the vendor's action plan to maintain software, hardware, and firmware certifications by Independent Testing Authorities (ITAs) or Voting Systems Test Laboratories (VSTLs) selected by National Association of State Election Directors and/or the Election Assistance Commission of the proposed central-count ballot scanning system.

Item status: MANDATORY

☒ YES, the proposal meets this requirement

☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

The proposed Hart Voting System version 6.2.1 complies with the Federal Election Commission's 2002 Voting System Standards. The National Association of State Election Directors (NASED), following qualification testing by the federally approved independent testing authorities (ITAs), has certified every version of the Hart Voting System released over the last six years. For almost a decade, Hart has assigned specific individuals dedicated to maintaining federal and state certification.

Hart is continuing its development of a new Hart Voting System that will meet the latest Voluntary Voting System Guidelines (VVSG) and incorporate other changes that may be mandated by federal legislation. The new system will also continue to meet customer requirements, as well as regulatory requirements. It is anticipated the next generation Hart Voting system will not be available until after 2012. Pricing for the next generation of the Hart Voting System has not been established. However, Hart will extend an optional migration for the EMS (software only) of Hart's next generation voting system for a fee not to exceed \$.70 per registered voter. It is anticipated the current proposed hardware could be used with the next generation product. Migrating to the new system is optional and not required.

Hart is continuing its development of a new Hart Voting System that will meet the latest Voluntary Voting System Guidelines (VVSG) and incorporate other changes that may be mandated by federal legislation. The new system will also continue to meet customer requirements, as well as regulatory requirements.

In the meantime, it is important to remember that previous certification by NASED or the EAC under the 2002 VSS is not nullified by the EAC's promulgation of the current VVSG or by the EAC's move to using the VVSG as their standard for new certifications.



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Certification documents, including the independent testing authority (ITA) certification by Ciber Labs; Wyle ITA qualification documents; and the State of Oregon's certification, may be found immediately following this page. The Wyle ITA qualification document reflects certification for the Hart Voting System version 6.0. The modifications from version 6.0 to version 6.2.1 were restricted to the software; therefore, the hardware did not require re-certification.



Hart InterCivic Software Qualification Test Report

Original Report for Hart InterCivic System 6.2 created 06/16/06
Revision 1 created July 12, 2006
Revision 2 for Hart InterCivic System 6.2.1 created August 02, 2006
Revision 3 created August 11, 2006
0807/06 NASED Number N-1-04-22-22-006 (2002)

Prepared For:

The National Association of State Election Directors

Prepared By:

CIBER, Inc.
Independent Test Authority

ciber

CIBER, Inc.
7501 South Memorial Parkway
Suite 107
Huntsville, AL 35802

Proprietary



3 SYSTEM IDENTIFICATION

The system submitted by Hart InterCivic for qualification testing consisted of the following software, hardware and documentation:

Software

- BOSS version 4.3.13
- BossUtil 2.5.8
- Translate DLL 1.8.2
- Ballot Now version 3.3.11
- Rally version 2.3.7
- Tally version 4.3.10
- eCM Manager 1.1.7
- Servo 4.2.10
- HartLib 4.0
- COTS software: MS Windows 2000 Professional, Service Pack 4

Hardware

- computer Tally-workstation, Dell PC
- computer-Rally workstation, Dell PC
- computer-Boss workstation, Dell PC
- JBC Firmware Version 4.3.1 *
- eSlate Firmware Version 4.2.13
- eScan Firmware Version 1.3.14
- VBO Firmware Version 1.8.3
- COTS Scanner Fujitsu 4097
- COTS Scanner Kodak i660
- COTS Scanner Kodak 3520
- COTS Scanner Kodak 1500
- COTS Scanner Kodak i830
- COTS Scanner, Fujitsu M4099D
- COTS HP LaserJet 2420D

*Changes per additional testing in Appendix F



The Hart InterCivic System 6.2 source code review consisted of the following components:

- BOSS version 4.3.13
- BossUtil 2.5.8
- Translate DLL 1.8.2
- Ballot Now version 3.3.11
- Rally version 2.3.7
- Tally version 4.3.10
- Servo 4.2.10
- VBO 1.8.3
- HartLib 4.0
- PVS (eSlate/JBC) 4.2.13
- eScan 1.3.14

It was determined that Hart InterCivic System 6.2 meets the standards required by the 2002 VSS.



MARION COUNTY, OREGON
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wyle
Laboratories

Wyle Laboratories, Inc.
7800 Highway 20 West
Huntsville, Alabama 35896
Phone (256) 837-4411 • Fax (256) 830-2109
www.wylelabs.com

REPORT NO.: 53097-01
WYLE JOB NO.: 53097
CLIENT P.O. NO.: 0029-1588
CONTRACT: N/A
TOTAL PAGES (INCLUDING COVER): 180
DATE: March 31, 2006

TEST REPORT

HARDWARE QUALIFICATION
TESTING
OF THE
POLLING PLACE SYSTEM 6.0
(ESCAN FIRMWARE VERSION 1.0.10)
(JBC/ESLATE FIRMWARE VERSION 4.0.19)
(VBO PRINTER FIRMWARE VERSION 1.7.5)

For
Hart InterCivic
1650 Coal Creek Drive, Suite E
Lafayette, CO 80028

STATE OF ALABAMA }
COUNTY OF MADISON }

Robert D. Hardy being duly sworn, deposes and says: The information contained in this report is the result of complete and carefully conducted testing and is to the best of his knowledge true and correct in all respects.

Robert D. Hardy
SUBSCRIBED and sworn to before me this 12th day of April 2006
Elizabeth M. Davis
Notary Public in and for the State of Alabama at Large

My Commission expires Sept 15, 2007

Wyle shall have no liability for damages of any kind to person or property, including special or consequential damages, resulting from Wyle's providing the services covered by this report.

PREPARED BY: *Wendy Owens* 3/31/06
Wendy Owens, Project Engineer Date

APPROVED BY: *David Lee* 04/05/06
David Lee, Project Engineer Date

WYLE Q.A.: *Raul F. Tardeno* 4/7/06
Raul F. Tardeno, Q.A. Manager Date

(sh)



WH-1004, Rev. Feb '07



Page No. 5
Test Report No. 53097-01

1.0 INTRODUCTION

1.1 Scope

This report presents the test results for Hardware Qualification Testing of the Hart InterCivic System 6.0, Firmware Version 1.0.10.

1.2 Objective

The objective of this test program was to ensure that the eScan Optical Scan Polling Place System, and Voting Machine Firmware, Version 1.0.10, complied with the hardware requirements of the Voting Systems Standards, April 2002.

1.3 Summary

Qualification testing included: the selective in-depth examination of machine resident firmware; the inspection and evaluation of hardware documentation; tests of hardware under conditions simulating the intended storage, operation, transportation, and maintenance environments; and operational tests verifying system performance and function under normal and abnormal conditions. Qualification testing was limited to the eScan and resident machine firmware.

The eScan and associated Machine Firmware, Version 1.0.10, was subjected to Reliability and Functional Tests. It was demonstrated that the eScan and associated Machine Firmware successfully met the hardware qualification test requirements of the Voting Systems Standards, April 2002. Qualification testing (in-depth source code review and functional tests) was limited to the firmware and hardware used at the precinct level and did not include any election management software, which typically resides on a personal computer and is used for ballot definition, absentee, and report canvassing activities. Testing of the election management software including end-to-end system level testing was performed by a Software ITA, CIBER, Inc, Huntsville, AL, which will issue the results of such testing under a separate report.

Due to the varying requirements of individual jurisdictions, it is recommended by the Voting Systems Standards that local jurisdictions perform pre-election logic and accuracy tests on all systems prior to their use in an election within their jurisdiction.

WYLE LABORATORIES, INC.
Huntsville Facility



CERTIFICATE OF APPROVAL

Hart InterCivic 6.2.1;
Ballot Now Release 3.3.11
BOSS Release 4.3.13
Rally Release 2.3.7
Tally Release 4.3.10
SERVO Release 4.2.10
eScan, version 1.3.14
VBO, version 1.8.3
eCM Manager 1.1, Release 1.1.7

Pursuant to ORS 246.560 representatives of Hart InterCivic, 1650 Coal Creek Drive, Suite E, Lafayette, Colorado 80026 requested that the Secretary of State publicly examine that company's voting system: Hart InterCivic 6.2.1; Ballot Now Release 3.3.11, BOSS Release 4.3.13, Rally Release 2.3.7, Tally Release 4.3.10, SERVO Release 4.2.10, eScan, version 1.3.14 VBO, version 1.8.3, eCM Manager 1.1, Release 1.1.7 for possible certification of same for sale, lease or use by county elections officials in the State of Oregon. The Hart InterCivic 6.2.1 voting system was publicly examined on March 26-30, 2007, in Salem, Oregon. The system presented for examination was identified as the Hart InterCivic 6.2.1; Ballot Now Release 3.3.11, BOSS Release 4.3.13, Rally Release 2.3.7, Tally Release 4.3.10, SERVO Release 4.2.10, eScan, version 1.3.14 VBO, version 1.8.3, eCM Manager 1.1, Release 1.1.7 with the following scanners: Kodak 1660 and Kodak 1830. Attached to this original certificate is the Certification test report and documents describing the programming and operating features of the subject system.

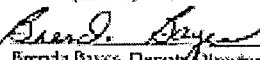
The Secretary of State employed Steven V. Freeman of Freeman, Craft, McGeuer Group, Inc. to examine the Hart InterCivic Voting System. Mr. Freeman did make a detailed examination of the subject equipment and system.

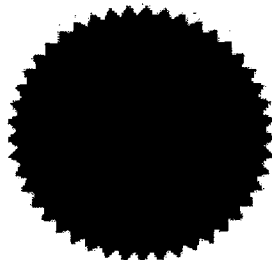
FINDINGS: Based upon this examination and the written reports submitted by Mr. Freeman, I conclude that the Hart InterCivic 6.2.1; Ballot Now Release 3.3.11, BOSS Release 4.3.13, Rally Release 2.3.7, Tally Release 4.3.10, SERVO Release 4.2.10, eScan, version 1.3.14 VBO, version 1.8.3, eCM Manager 1.1, Release 1.1.7 with the following scanners: Kodak 1660 and Kodak 1830 does comply with the legal requirements set forth in ORS 246.560.

THEREFORE, I issue this Certificate of Approval for the sale, lease or use of the Hart InterCivic 6.2.1; Ballot Now Release 3.3.11, BOSS Release 4.3.13, Rally Release 2.3.7, Tally Release 4.3.10, SERVO Release 4.2.10, eScan, version 1.3.14 VBO, version 1.8.3, eCM Manager 1.1, Release 1.1.7 with the following scanners: Kodak 1660 and Kodak 1830 for employment in any elections held in the State of Oregon. This approval is limited by and with the stipulation that the equipment and system must be used in compliance with the provisions of applicable Oregon statutes and all Secretary of State, Election's Division rules and directives concerning the testing and use of vote tally equipment.

This Certificate of Approval does not constitute a recommendation of the above described voting tally system over other voting or counting machines heretofore or hereafter approved for sale, lease or use in this state, but rather does set forth the fact that the Hart InterCivic 6.2.1; Ballot Now Release 3.3.11, BOSS Release 4.3.13, Rally Release 2.3.7, Tally Release 4.3.10, SERVO Release 4.2.10, eScan, version 1.3.14 VBO, version 1.8.3, eCM Manager 1.1, Release 1.1.7 with the following scanners: Kodak 1660 and Kodak 1830 does comply with ORS 246.560.

Dated: June 21, 2007


Brenda Bayes, Deputy Director
Secretary of State, Elections Division





Requirement 4 **Certification in the State of Oregon.**

Vendors' proposals shall contain documentary evidence indicating certification of the proposed system for sale and use in the State of Oregon.

Item status: MANDATORY

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

The State of Oregon certification may be found immediately following this page.



MARION COUNTY, OREGON

BEST & FINAL

ELECTIONS VOTE TABULATION SYSTEM



CERTIFICATE OF APPROVAL

Hart InterCivic 6.2.1;
Ballot Now Release 3.3.11
BOSS Release 4.3.13
Rally Release 2.3.7
Tally Release 4.3.10
SERVO Release 4.2.10
eScan, version 1.3.14
VBO, version 1.8.3
eCM Manager 1.1, Release 1.1.7

Pursuant to ORS 246.530 representatives of Hart InterCivic, 1650 Coal Creek Drive, Suite E, Lafayette, Colorado 80026 requested that the Secretary of State publicly examine that company's voting system: Hart InterCivic 6.2.1; Ballot Now Release 3.3.11, BOSS Release 4.3.13, Rally Release 2.3.7, Tally Release 4.3.10, SERVO Release 4.2.10, eScan, version 1.3.14 VBO, version 1.8.3, eCM Manager 1.1, Release 1.1.7 for possible certification of same for sale, lease or use by county elections officials in the State of Oregon. The Hart InterCivic 6.2.1 voting system was publicly examined on March 26-30, 2007, in Salem, Oregon. The system presented for examination was identified as the Hart InterCivic 6.2.1; Ballot Now Release 3.3.11, BOSS Release 4.3.13, Rally Release 2.3.7, Tally Release 4.3.10, SERVO Release 4.2.10, eScan, version 1.3.14 VBO, version 1.8.3, eCM Manager 1.1, Release 1.1.7 with the following scanners: Kodak 1660 and Kodak 830. Attached to this original certificate is the Certification test report and documents describing the programming and operating features of the subject system.

The Secretary of State employed Steven V. Freeman of Freeman, Craft, McGregor Group, Inc. to examine the Hart InterCivic Voting System. Mr. Freeman did make a detailed examination of the subject equipment and system.

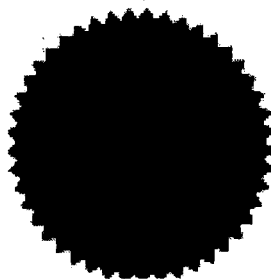
FINDINGS: Based upon this examination and the written reports submitted by Mr. Freeman, I conclude that the Hart InterCivic 6.2.1; Ballot Now Release 3.3.11, BOSS Release 4.3.13, Rally Release 2.3.7, Tally Release 4.3.10, SERVO Release 4.2.10, eScan, version 1.3.14 VBO, version 1.8.3, eCM Manager 1.1, Release 1.1.7 with the following scanners: Kodak 1660 and Kodak 830 does comply with the legal requirements set forth in ORS 246.560.

THEREFORE, I issue this Certificate of Approval for the sale, lease or use of the Hart InterCivic 6.2.1; Ballot Now Release 3.3.11, BOSS Release 4.3.13, Rally Release 2.3.7, Tally Release 4.3.10, SERVO Release 4.2.10, eScan, version 1.3.14 VBO, version 1.8.3, eCM Manager 1.1, Release 1.1.7 with the following scanners: Kodak 1660 and Kodak 830 for employment in any elections held in the State of Oregon. This approval is limited by and with the stipulation that the equipment and system must be used in compliance with the provisions of applicable Oregon statutes and all Secretary of State, Election's Division rules and directives concerning the testing and use of vote tally equipment.

This Certificate of Approval does not constitute a recommendation of the above described voting tally system over other voting or counting machines heretofore or hereafter approved for sale, lease or use in this state, but rather does set forth the fact that the Hart InterCivic 6.2.1; Ballot Now Release 3.3.11, BOSS Release 4.3.13, Rally Release 2.3.7, Tally Release 4.3.10, SERVO Release 4.2.10, eScan, version 1.3.14 VBO, version 1.8.3, eCM Manager 1.1, Release 1.1.7 with the following scanners: Kodak 1660 and Kodak 830 does comply with ORS 246.560.

Dated: June 21, 2007


Brenda Bayva, Deputy Director
Secretary of State, Elections Division





Requirement 5 **Maintenance of certification in the State of Oregon**

Vendors' proposals shall contain a written description of the vendor's action plan to maintain software, hardware, and firmware certifications of the proposed central-count ballot scanning system in the State of Oregon.

Item status: MANDATORY

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

The Hart Voting System includes both firmware (hardware) and software components that are upgraded easily by software updates. Hart InterCivic makes all software modifications.

Future versions of the Hart Voting System will be provided to Marion County under the terms of the Hart Voting System Warranty, Support, and License Agreement. After certification is complete, upgrades will be retrofitted to the software and firmware that Hart has implemented for Marion County.

Releases will be deployed as follows:

- **Software Applications.** New releases of the software applications require that the County install the software application as described in the release notes. Software upgrades are installed on the PCs running the Hart Voting System applications (BOSS, Ballot Now, Tally, Rally, and SERVO). This typically involves running an installation program from the distribution media and following the on-screen prompts. Included with all releases of software is a "Change Document" detailing the specific changes included in the release. The County also receives hard and soft copy of the corresponding Operations Manual. The typical timeline for this process is one person for 20 minutes per PC.
- **Firmware.** In the proposal for Marion County, Hart manufactured hardware is limited only to MBB card reader. However firmware upgrades to COTS hardware may be needed to PCs and scanners to maintain certification status for the new updates in voting system versions. These COTS firmware updates will be implemented to the COTS manufacturer's procedures and those procedures approved by the Federal and State certification process.
- **Software and firmware** for the proposed Hart Voting System are governed by the Federal and State certification process. Consequently, any changes would require re-certification.

The software and firmware for the proposed Hart Voting System are governed by the Federal and State certification process. Consequently, any changes would require re-certification.



Requirement 34 **Election law compliance.**

Vendors' proposals shall contain detailed narrative (a) affirming that the firm's authorized representatives have read and understand all applicable Federal, State, and local election and information technology laws and regulations, (b) affirming specifically that the firm's authorized representatives have read, understood, and agree to comply with the requirements of the Help America Vote Act of 2002, (c) affirming that the proposed system and functionality provided by the election management system and all voting devices shall comply with all provisions of Federal and Oregon election and information technology laws and regulations, and future modifications to those laws and regulations, and (d) describing actions the firm will take to keep the proposed voting system supplied to Marion County in compliance with all applicable election laws and regulations.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart and its authorized representatives have read and understand all applicable Federal, State and local election information technology laws and regulations. Hart and its authorized representatives have read, understood and agree to comply with the requirements of the Help America Vote Act of 2002.

Version 6.2.1 is the most recent version of the Hart Voting System and is the system proposed for Marion County. It was federally certified by NASED and certified by the State of Oregon Secretary of State. The NASED number for Hart Voting System version 6.2.1 is N-1-04-22-22-006 (2002).

The Hart Voting System provides a solution to address the requirements of the Help America Vote Act of 2002 (HAVA) for accessibility for voters with disabilities and individuals who need additional assistance. In addition, the proposed Hart Voting System version 6.2.1 complies with the Federal Election Commission's 2002 Voting System Standards. The National Association of State Election Directors (NASED) following qualification testing by the federally approved independent testing authorities (ITAs), has certified every version of the Hart Voting System released over the last six years.

Future versions of the Hart Voting System will be provided to Marion County under the terms of the Hart Voting System Warranty, Support, and License Agreement. Upgrades will be retrofitted to the software and firmware that Hart has implemented for Marion County.



Hart maintains ongoing communication with the Oregon Secretary of State's office in order to keep the voting system in compliance with election laws and regulations. The software and firmware for the proposed Hart Voting System are governed by the federal certification process. Consequently, any changes would require re-certification.

The proposed Hart system and functionality comply with all provisions of the Federal and Oregon election laws and regulations that were in place at the time of the certification process. Future modifications to the Hart Voting System will comply with Federal and Oregon election laws and regulations at the time the System is certified.

Changes to the Hart Voting System may be required because of changing federal or state election laws and regulations. Such requirements are added to the product roadmap and assigned to the Hart InterCivic Development Center, to be incorporated into the appropriate component of the Hart Voting System. This includes requirements such as those that might arise for additional "audit trails," mandated upgrades, or unit printouts. These capabilities that are required to maintain compliance with standards are incorporated into the system, presented for certification, and delivered to customers under the terms of the of the Hart Voting System Warranty, Support, and License Agreement.

Features and enhancements suggested by customers are incorporated into the planning process for future system releases. Once a client-specific feature or enhancement has been accepted for development, it will be included in the appropriate future release that allows completion of all required engineering and testing, and subsequent certification and deployment tasks. Customers are sent a change document that lists the enhancements/changes included in each release. Content of new system releases for the Hart Voting System is provided to customers in two forms:

- A software change document is provided that details specific changes in the new release.
- Customers will also be provided one hard copy and one electronic copy (on CD) of the applicable operating manual(s) for the new software release.

The County may participate in the Hart Users Group, where customers share ideas, benefit from each other's experience, and offer valuable feedback and suggestions that help us achieve our goal of continuous improvement.

Configuration Control

Hart InterCivic has a formal documentation management program (according to Hart Procedure # 6060-589 Procedure - Configuration Management) that is defined in the Hart Quality Manual and is ISO certified. Hart InterCivic's ISO 9001 Registration requires that strict processes for documentation be maintained.

Hart manages firmware and software source and object (executable) code in the same manner using our own internal configuration management process. ITA-witnessed object code (install



files) and source code are driven by an Engineering Change Order (ECO) and managed with an industry-standard Borland StarTeam system, which has been used at Hart since 2002. Our ECO drives the proper firmware revision to our manufacturing partner who loads it into a GenRad 2286 in-circuit test and programming station. This machine can store only one set of object code, ensuring only the proper version is utilized. Application software installation is managed by authorized Hart personnel, who utilize the released install files from StarTeam appropriate to the customer's application.

Requirement 96 **Legal actions and de-certification actions.**

Vendors' proposals shall include narrative descriptions of the following:

- (a) any outstanding legal actions or potential claims against the prime vendor, prime vendor's owners, prime vendor employees or any party associated with the vendor's proposal and a brief description of any such action,
- (b) any settled or closed legal actions or claims against the prime vendor and all subcontractors over the past five (5) years,
- (c) determinations or rulings against the prime vendor or any subcontractors in a Federal, state or local court of law in a court case involving the use of any of its voting systems,
- (d) decertification of any of the vendor's systems, equipment, or software by any Federal, state, or local jurisdiction and the reason for decertification,
- (e) debarment actions taken by any state or local government against the prime vendor and all subcontractors during the past five (5) years.

Item status: MANDATORY

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

The Avante suit mentioned in the previously submitted response has been settled.

A Qui Tam Complaint has been brought against Hart InterCivic alleging Hart made false statements regarding the accuracy, testing, reliability, and security of its voting system, in an effort to secure federal monies allocated to the states pursuant to HAVA. Hart vigorously states that neither Hart's management nor Hart as a corporate entity has ever knowingly engaged in fraud or manipulation of any sort as a business practice and has operated and continues to operate in a truthful and transparent manner in all business relationships. Hart has not been



served with any paperwork in the matter and the Federal Government has declined to join the action. Further information is available for review at www.co.uscourts.gov.

On April 30, 2004, the California Secretary of State decertified all electronic voting systems. This action was in response to widespread problems and use of uncertified software by another election system vendor. On June 10, 2004, the Hart Voting System was re-certified for use by the California Secretary of State's office. Hart Voting System re-certification did not require any technical changes to the system.

Hart InterCivic was the second vendor to be re-certified in California. Our Hart Voting System client, Orange County, was the first large county approved to resume use of electronic voting for November 2004.

In December 2005, the North Carolina Secretary of State decertified all electronic voting systems. This action was in response to new legislation regarding voting equipment and management. After careful review, Hart InterCivic determined that the required terms and conditions for continuing to do business were punitive, and therefore we chose not to pursue re-certification.

Hart has not had any debarment actions taken by any government entity during the past five years.

Requirement 290 **Software modifications policy.**

Vendors' proposals shall describe their policy regarding software modifications required to meet any special needs of the Marion County Clerk's Office Elections Division, including a statement regarding whether County staff can make these modifications.

Item Status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

The Hart Voting System includes both firmware (hardware) and software components that are upgraded easily by software updates. Hart InterCivic makes all software modifications.

Future versions of the Hart Voting System will be provided to Marion County under the terms of the Hart Voting System Warranty, Support, and License Agreement. Upgrades will be retrofitted to the software and firmware that Hart has implemented for Marion County.

Releases will be deployed as follows:

- **Software Applications.** New releases of the software applications require that the County install the software application as described in the release



notes. Software upgrades are installed on the PCs running the Hart Voting System applications (BOSS, Ballot Now, Tally, Rally, and SERVO). This typically involves running an installation program from the distribution media and following the on-screen prompts. Included with all releases of software is a "Change Document" detailing the specific changes included in the release. The County also receives hard and soft copy of the corresponding Operations Manual. The typical timeline for this process is one person for 20 minutes per PC.

- Firmware.** In the proposal for Marion County, Hart manufactured hardware is limited only to MBB card readers. However firmware upgrades to COTS hardware may be needed to PCs and scanners to maintain certification status for the new updates in voting system versions. These COTS firmware updates will be implemented to the COTS manufacturer's procedures and those procedures approved by the Federal and State certification process.

The software and firmware for the proposed Hart Voting System are governed by the federal certification process. Consequently, any changes would require re-certification.



Documentation

Requirement 1 **System manufacturing quality certifications.**

Vendors' proposals shall include a list of all manufacturing process certifications (such as the ISO 9000-family of certifications) that it has obtained specifically for its (1) voting system manufacturing operations and/or (2) software design, programming, maintenance, and documentation.

Item Status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's narrative:

In May 2004, Hart InterCivic received the prestigious BS 7799 Information Security Certification, making us the first election systems vendor to achieve this recognition. BS 7799 is an international standard recognizing excellence in all aspects of information security, including security policy, personnel security, physical and environmental security, computer and network management, system access control, and system development and maintenance.

Other markets with high-value information, such as banking and healthcare, share the recent concerns raised in the election industry regarding threats to information security. Companies worldwide, in these and other high-security industries, are turning to BS 7799 as a means to communicate to their customers the security embodied in their products and services.

The BS 7799 certification demonstrates the Hart InterCivic commitment to election integrity, customer satisfaction, and product quality. Further information about BS 7799 can be obtained from British Standards Institute at
<http://www.bsiamericas.com/InformationSecurity/Standards/index.xalter>.

In July 2007, Hart attained certification under the ISO 27001:2005 standard for information security. ISO 2700:2005 specifies the requirements for establishing, implementing, operating, monitoring, reviewing, maintaining, and improving a documented Information Security Management System within the context of the organization's overall business risks.

The importance of disciplined processes and a pervasive commitment to quality and completeness cannot be overstated. This ethic is why Hart InterCivic continues to follow development and manufacturing processes using ISO 9001 quality standards. The Hart Voting System software was developed and is maintained under certified procedures where compliance is regularly audited by an independent agency. This procedure ensures uniformity and repeatability across projects and personnel – a cornerstone of sound engineering practices.

Hart's critical manufacturers meet the rigorous ISO 9001 standards for quality. Hart's emphasis on world-class manufacturing and process engineering support, from prototype to volume



production, has resulted in a highly scalable production line for Hart Voting System components with a demonstrated product yield consistently exceeding 99.7 percent.

Requirement 59 Error messages and fault detection.

The vendor's proposed systems shall provide election workers with a method to detect immediately if a vote tabulation device is not operating properly.

Vendors' proposals shall contain a detailed list and description of the error messages and/or audible alarms that will appear on the voting devices, the controller (if any), and any required peripheral equipment to indicate that a component has failed or is malfunctioning.

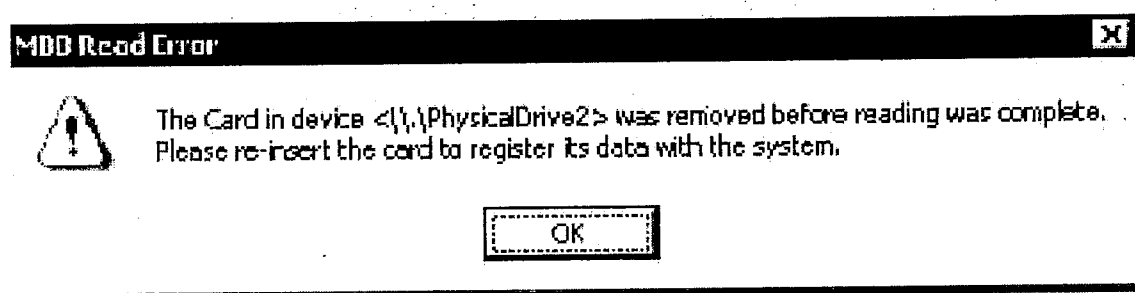
Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Error messages throughout the Tally application are displayed via a windows driven dialog box. Each box includes a short description of the error as well as associated error codes, if any. Below is an example of an error that may be displayed in the Tally application:



The table below reflects the error messages associated with the ECM key, an electronic "key" needed for the Tally software application.

ecm error code	Cause
ecm0001	The eCM was not programmed successfully for some reason, or has become corrupted.
ecm0002	The key programming application did not erase the eCM prior to programming it, so there is more than one valid key on the eCM.
ecm0003	The eCM has not been programmed.
ecm0004	The eCM is un-initialized-direct from the factory.
ecm0005	The user has entered the wrong password 5 times.
ecm0006	The eCM is at the wrong revision in order to talk to this application.



Requirement 66

References--1

Vendors' proposals shall provide the institutional name of the largest government "county installed site" at which they have completed implementation of the same central-count vote tabulation system they are proposing to Marion County. "Largest" in the previous sentence refers to the county installed site that had the largest number of active and inactive registered voters in their voter registration databases for the 2008 General Election.

For this reference, vendors must provide:

- (a) Client Name,
- (b) Number of total voter registration records in the county's database,
- (c) Client Key contact,
- (d) Key contact phone number and address,
- (e) Overview of the client organization,
- (f) List of deliverables for the project,
- (g) Project start and end dates,
- (h) Description of the approach and activities used in both project management and transfer of knowledge to the county election staff,
- (i) Any additional information that will help the evaluation team understand the scope and complexity of the engagement, such as dollar value of the project or the number of voting devices delivered to the county,
- (j) Specific knowledge and/or experience required by the engagement in design and implementation of systems with a very high level of system security.

For each of these references, the vendor must state clearly if there is any financial partnership, joint marketing agreement, royalty payment, or other mutually beneficial financial arrangement between the vendor and the reference site or any of its employees.

Vendors must provide the institutional names of ALL government installed sites at which they have been involved with an implementation of a new central-count, ballot-scanning vote tabulation system in the past five (5) years. For each site reference, vendors must provide:

- (1) Client Name,
- (2) Client Key contact,
- (3) Key contact phone number and address,
- (4) Overview of the client organization.

Representatives or agents of Marion County and its voting system evaluation team members might call any or all of these reference organizations. We strongly suggest that you notify them of that possibility.

Item status: MANDATORY

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement



Vendor's Narrative:

Largest Government County installed site:

(a) Client Name: Orange County, California

Please note: Orange County is identified as the largest government "county installed site" based on vote by mail totals (Orange County is Hart's largest vote by mail customer). Harris County, Texas, also a Hart customer, has the most registered voters however it has considerably less (75% less) vote-by-mail voters than Orange County, CA.

(b) Number of total voter registration records in the county's database: 1,599,614

(c) Client Key contact: Neal Kelley

(d) Key contact phone number and address: Phone: 714-567-5139; 1300 S Grand Ave, Bldg C, Santa Ana, CA 92705

(e) Overview of the client organization: Orange County is the nation's fifth-largest county with over 1,500,000 registered voters and 2,200 precincts. The Hart Voting System installation for Orange County covers every facet of the elections process including by-mail voting, Early Voting, and Election Day balloting in five languages: English, Spanish, Vietnamese, Korean, and Chinese. It is one of the largest electronic voting system installations in the country.

(f) List of deliverables for the project: For this installation, Hart InterCivic provided 9,000 eSlate voting terminals and voting booths, with 1,750 modified with Disabled Access Units; 1,750 Judge's Booth Controllers; and all associated hardware. Software provided includes Hart's comprehensive ballot management solution (BOSS and Tally) and Ballot Now, a fully integrated by-mail voting solution. Additionally, Pitney Bowes, a leading provider of mailstream solutions, developed a mail handling system designed to integrate with Hart's by-mail election process.

In addition to the numerous polling place voting units, Hart provided our comprehensive ballot management solution (BOSS and Tally) and Ballot Now, our fully integrated by-mail voting solution.

In the November 2006 General Election, 503,046 absentee ballots were issued – representing 33.60 percent of registered voters. Additionally, Pitney Bowes, a leading provider of mailstream solutions, integrated a mail handling system designed to integrate with Hart's by-mail election process.

Since the initial installation in 2003, the County has purchased VBO units to provide a voter verifiable paper audit trail of each vote cast on the eSlate electronic voting units.



(g) Project start and end dates: 2003 – ongoing (Hart continues to supply additional equipment and election supplies to Orange County)

(h) Description of the approach and activities used in both project management and transfer of knowledge to the county election staff: Hart InterCivic teamed with MAXIMUS to provide Orange County a package of services to support the installation of the Hart Voting System, including comprehensive project management and support, training, warehouse management, and voter education and outreach services. Service deliverables were designed to address the specific needs of Orange County's large number of registered voters and diverse population.

(i) Any additional information that will help the evaluation team understand the scope and complexity of the engagement, such as dollar value of the project or the number of voting devices delivered to the county: Hart provided integration between Orange County's legacy election management software (EIMS from DFM Associates) and BOSS. Hart developed a custom utility application allowing integration between Hart's Ballot Now application, Pitney Bowes automated envelope inserter and the DFM EIMS application. Additionally, Hart provided integrated electronic reporting from our Tally application to the state's CalVoter reporting system. The total dollar value of the project exceeded \$25 million and the total units of voting equipment delivered were over 10,000 units.

(j) Specific knowledge and/or experience required by the engagement in design and implementation of systems with a very high level of system security: Included with our original proposal response was a case study on the Orange County California installation, procedural and voting experience. At the time of the study, Steve Rodermund then the Orange County Registrar of Voters stated, "the new system [Ballot Now] allows us to use our resources more wisely while making sure that ballots are mailed by the state deadline. Even more important, however, are the additional security features that allow us to track each ballot and to audit every function of the system. This is the first time that we have been able to know where each ballot is in the system and to guarantee that the correct ballots are counted – once and only once. It is the most secure absentee balloting system I have seen."

There is no financial partnership, joint marketing agreement, royalty payment, or other mutually beneficial financial arrangement between Hart and Orange County, CA or any of its employees.

All Government Ballot Now installed sites:

County	Contact	Title	Phone	Street	City	State	Zip
Archer	Ms Karren Winter	County Clerk	940-574-4302	112 E Walnut	Archer City	TX	76351
Bandera	Ms Toba Perez	Election Administrator	830-796-8146	403 12th Street	Bandera	TX	78003
Benton	Mr Stuart Holmes	Election Supervisor	509-736-3085	620 Market Street	Prosser	WA	99350



MARION COUNTY, OREGON

BEST & FINAL
ELECTIONS VOTE TABULATION SYSTEM



Brazoria	Ms Janice Evans	Elections Director	979-864-1371	451 N. Velasco St., Ste 140	Angleton	TX	77515
Cass	Ms Beth Liming	County Clerk	574-753-7740	200 Court Park, Ste 103	Logansport	IN	46947
Chelan	Ms Nissa Burger	Director of Elections	509-667-6808	350 Orondo Ave, Level 3	Wenatchee	WA	98801
City of Falls Church	Ms Margarette Shovlin	Chair, Electoral Board	703-532-2084	300 Park Ave, Room 101E	Falls Church	VA	22046
City of Long Beach	Ms Rebecca Burleson	Bureau Manager, Elections	562-570-6244	333 W Ocean Blvd	Long Beach	CA	90802
City of Peoria	Mr Tom Bride	Board of Elections Commission	309-494-8683	542 SW Adams St	Peoria	IL	61602-1553
Clallam	Ms Shoona Radon	Elections Supervisor	360-417-2217	223 East 4th St, Ste 1	Port Angeles	WA	98362
Clark	Mr Tim Likness	Supervisor of Elections	360-397-2345	1408 Franklin St	Vancouver	WA	98666
Columbia	Ms Naedene Shearer	Elections Supervisor	509-382-4541	341 E Main	Dayton	WA	99328
Cowlitz	Ms. Kris Swanson	County Auditor	360-442-7097	207 North 4 th Avenue	Kelso	WA	98626
Curry	Ms Reneé Kolen	County Clerk	541-247-3295	29821 Ellensburg Ave	Gold Beach	OR	97444
Dawson	Ms Gloria Vera	County Clerk	806-872-3778	400 S 1st St, Room 205	Lamesa	TX	79331
Deaf Smith	Mr David Ruland	County Clerk	806-363-7077	235 East 3rd, Room 203	Hereford	TX	79045-5542
Delta	Ms Ann Eddins	County Clerk	970-874-2150	501 Palmer St, Ste 211	Delta	CO	81416
Denton	Mr Don Alexander	Elections Administrator	940-349-3200	401 West Hickory, Suite 125	Denton	TX	76201
Douglas	Mr Jack Arrowsmith	County Clerk & Recorder	303-660-7417	301 Wilcox St	Castle Rock	CO	80104
Eastland	Ms Cathy Jentho	County Clerk	254-629-1583	100 West Main, Suite 102	Eastland	TX	76448
Ector	Ms Mitzi Scheible	Elections Administrator	432-498-4030	1010 E. 8Th Street, Ste 200	Odessa	TX	79761
Ferry	Ms Liz Stinson	Elections Supervisor	509-775-5200	350 East Delaware #2	Republic	WA	99166



MARION COUNTY, OREGON
BEST & FINAL
ELECTIONS VOTE TABULATION SYSTEM



Gaines	Ms Vicki Phillips	County Clerk	432-758-4003	101 South Main, Room 107	Seminole	TX	79360
Galveston	Ms Mary Ann Daigle	County Clerk	409-766-2210	600 59th St., Ste 2001	Galveston	TX	77551
Garfield	Ms Jean Alberico	County Clerk & Recorder	970-945-2377	109 8th St. #200	Glenwood Springs	TX	81601
Garfield	Ms Donna Deal	County Auditor	509-843-1411	789 Main Street	Pomeroy	WA	99347
Gregg	Ms Kathryn Nealy	Elections Administrator	903-237-2852	101 East Methvin, Suite 112	Longview	TX	75601
Hamilton	Ms Sherry Poland	Elections Administrator	513-632-7088	824 Broadway	Cincinnati	OH	45202-1345
Harris	Mr John German	Elections Administrator	713-755-3551	1001 Preston, 4th Floor	Houston	TX	77002
Harrison	Ms Pam Brock	Elections Administrator	903-935-4822	200 W. Houston, Room 107	Marshall	TX	75670
Hays	Ms Joyce Cowan	Elections Administrator	512-393-7310	401-C Broadway Street	San Marcos	TX	78666
Hunt	Ms Almina Cook	Elections Administrator	903-454-5467	2217-A Washington	Greenville	TX	75401
Island	Ms Loanne Gulick	Elections Supervisor	360-679-7366	1 NE 7th Street	Coupeville	WA	98239
Kane	Ms Linda Mitchell	Director of Elections	630-232-5993	719 S. Batavia Ave., Bldg B	Geneva	IL	60134
Kaufman	Ms Jeanelle Bolton	Deputy Voter Registrar	972-932-0298	100 N Washington	Kaufman	TX	75142
Kittitas	Ms Sue Higginbotham	Deputy Supervisor	509-962-7631	205 W 5Th Ave, Suite 105	Ellensburg	WA	98926
Klickitat	Ms Brandie Sullivan	Election Administrator	509-773-4001	205 S. Columbus Stop 2	Goldendale	WA	98620
Lewis	Ms Mariann Zumbuhl	Elections Supervisor	360-740-1164	351 NW North Street	Chehalis	WA	98532
Lincoln	Ms Tina Brown	Elections Supervisor	509-725-4971	450 Logan Street	Davenport	WA	99122
Llano	Ms Bette Sue Hoy	County Clerk	325-247-4455	107 W. Sandstone	Llano	TX	78643
Marion	Ms Betty Smith	County Clerk	903-665-3971	102 W. Austin, Room 205	Jefferson	TX	75657



MARION COUNTY, OREGON

BEST & FINAL
ELECTIONS VOTE TABULATION SYSTEM



Mason	Ms Amber Cervantes	Elections Supervisor	360-427-9670	411 North 5th St.	Shelton	WA	98584
McLennan	Ms Kathy Van Wolfe	Elections Administrator	254-757-5043	214 N. 4th St, Ste 300	Waco	TX	76703
Milam	Ms Barbara Vansa	County Clerk	254-697-7049	107 W. Main	Cameron	TX	76520
Montgomery	Ms Carol Galtney	Elections Administrator	936-539-7843	9159 FM 1484	Conroe	TX	77303
Montrose	Ms Debbie Rudy	Elections Supervisor	970-249-3362	320 S. 1st Street	Montrose	CO	81401-4580
Nevada	Mr Greg Diaz	Clerk and Recorder	530-265-1297	950 Maidu Avenue	Nevada City	CA	95959
Nueces	Ms Rochelle Limon	Election Manager	361-888-0483	901 Leopard St Rm 201	Corpus Christi	TX	78403
Okanogan	Ms Mila Jury	Elections Supervisor	509-422-7244	149 3rd Avenue North	Okanogan	WA	98840
Orange	Mr Neal Kelley	Registrar of Voters	714-567-5139	1300 S Grand Ave, Bldg C	Santa Ana	CA	92705
Pacific	Ms Pat Gardner	County Auditor	360-875-9317	300 Memorial Ave.	South Bend	WA	98586
Parker	Mr Robert Parten	Elections Administrator	817-598-6185	1112 Santa Fe Drive	Weatherford	TX	76086
Peoria	Ms Lyn Schmidt	Elections Administrator	309-672-6059	324 Main St., Room 101	Peoria	IL	61602
Randall	Ms Renee Calhoun	County Clerk	806-468-5508	2305 Russell Long Blvd Ste 101	Canyon	TX	79015
Red River	Ms Lorie Moose	County Clerk	903-427-2401	200 North Walnut Street	Clarksville	TX	75426
Rio Blanco	Ms Nancy Amick	County Clerk & Recorder	970-878-9460	555 Main St	Meeker	CO	81641
Routt	Ms Vicki Weber	Election Supervisor	970-870-5558	522 Lincoln Avenue	Steamboat Springs	CO	80477
San Juan	Ms Doris Schaller	Election Supervisor	360-378-3357	350 Court St. 1st Floor	Friday Harbor	WA	98250
San Mateo	Mr Warren Slocum	Chief Election Officer & Assessor	650-312-5222	40 Tower Road	San Mateo	CA	94402
Skagit	Mr David Cunningham	Elections Supervisor	360-336-9426	700 S Second St, Room 201	Mount Vernon	WA	98273
Skamania	Mr David O'Brien	Elections Director	509-427-3730	240 N.W. Vancouver, Room 27	Stevenson	WA	98648



Tarrant	Mr Steve Raborn	Elections Administrator	817-831-6463	2700 Premier Street	Fort Worth	TX	76111
Taylor	Ms Kristi Allyn	Elections Administrator	325-674-1216	300 Oak Street	Abilene	TX	79602
Tom Green	Ms Vona McKerley	Elections Administrator	325-659-6541	113 West Beauregard Ave	San Angelo	TX	76903
Travis	Ms Gail Fisher	Elections Supervisor	512-854-9193	5501 Airport Blvd, # 108	Austin	TX	78751
Upshur	Ms Joanna Stanfield	Elections Clerk	903-843-4001	100 W Tyler Street	Gilmer	TX	75644-0730
Wilbarger	Ms Jana Kennon	County Clerk	940-552-5486	1700 Wilbarger St., Rm 15	Vernon	TX	76384
Williams	Ms Stephanie Shook	Director of Elections	419-636-1854	228 S. Main	Bryan	OH	43506
Wise	Mr Lannie Noble	Elections Administrator	940-626-4453	200 North Trinity	Decatur	TX	76234
Yakima	Ms Nancy Tongate	Elections Manager	509-574-1345	128 N 2nd St Room 117	Yakima	WA	98901
Yamhill	Ms Becky Stern Doll	County Clerk	503-434-7518	414 NE Evans St.	McMinnville	OR	97128-4607
Yuma	Ms Beverly Wenger	County Clerk & Recorder	970-332-5809	310 Ash Street	Wray	CO	80758

All of the organizations listed in the above table are County or City governments. The registered voters served by Hart's election equipment range from several thousand to almost 1.6 million.

Requirement 68

Quality assurance documentation.

Vendors' proposals shall specify their firm's internal quality assurance and configuration management policies and practices.

Specifically, the proposals shall discuss steps taken to assure that (a) their system will meet the County's business and functional requirements when delivered, installed, and accepted, (b) their system will continue to meet those requirements as they change, and (c) vendor-provided updates will not "regress" or otherwise interfere with the Marion County Clerk's Office Elections Division's operations.

The proposals shall present a detailed listing, with examples, of quality assurance, configuration management, and company-prepared system test documentation that will be provided to the Marion County Clerk's Office Elections Division with each new hardware, firmware, or software release and upgrade to demonstrate points (a), (b), and (c) in the above paragraph.



Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Quality Assurance

Absolute quality is at foundation the Hart Voting System, from design to manufacturing. Hart's Engineering and Development facility has achieved the prestigious ISO 9001 certification. All Hart Voting System hardware is manufactured at manufacturing facilities that also are ISO 9001 certified. Our emphasis on world-class manufacturing and process engineering support from prototype to volume production has resulted in a highly scalable production line for the Hart Voting System with a demonstrated product yield consistently exceeding 99.7%.

Hart has also focused on continual quality improvement programs, evidenced by its process assessments to meet stringent software development and management standards promulgated by leading organizations such as the International Standards Organization (ISO), the Institute of Electrical and Electronics Engineers (IEEE), and the Software Engineering Institute at Carnegie Mellon University.

Quality is one of the fundamental principles of the Hart business model. However, the only way to ensure quality is to design it into the project plan for the lifecycle of a project.

Hart's approach to quality assurance and control encompasses the practices of planning and prevention, the use of senior-level experienced staff, and maintaining focus on client-based requirements. We measure quality in three broad areas: project management, system development, and documentation. It is the Project Director's responsibility to ensure that all project elements (hardware/software, documentation, training and support services) are developed and delivered in the most complete and professional form. A "two-man" rule is applied for all reviews and crosschecks to help ensure quality. The quality control procedures for projects are described below.

Hart Project Managers produce written status reports on a regular basis. These status reports document project accomplishments by task, expected results, and issues. On a quarterly basis at a minimum, these status reports are reviewed with the Project Corporate Liaison to determine if project management is adequately addressing issues, meeting client expectations, and managing to the schedule.

All project correspondence is tracked through our Correspondence Control System. This ensures that documents exchanged between the County and Hart are available in an orderly fashion. If



questions arise regarding any aspect of the project, Hart and the County can reconstruct a history of events to reach a resolution in a timely manner.

On a monthly basis, Project Managers must present the status of their project to the Project Corporate Liaison. Overdue action items, unresolved client problem reports or issues, or budget variances are all indications that project activities and the project plan are not in alignment. Hart uses such detailed reporting to spot troubled projects early in the cycle. If a “red flag” is raised, the most senior Hart managers become involved immediately.

Hart believes strongly that quality must extend to how a company does business. In 2002, Hart InterCivic was presented with The Samaritan Center Ethics in Business Award honoring “good Samaritans” who practice the highest ethical principles in their daily business. The award was based on interviews with customers, suppliers, employees, management, and community organizations. We are proud of the Samaritan Center award, because we believe it symbolizes the kind of business practices that a county should expect from its vendors.

Configuration Management

System revisions are released periodically. Prior to release, revisions with new features and functions are submitted for federal and state certification. Upon certification, new versions are delivered to the County in accordance with the standard provisions of the Hart Voting System Warranty, Support, and License Agreement. Marion County will receive all software and firmware upgrades under the terms of the Hart Voting System Warranty, Support, and License Agreement.

Changes to the Hart Voting System may be required because of changing federal or state election laws and regulations. Such requirements are added to the product roadmap and assigned to the Hart InterCivic Development Center, to be incorporated into the appropriate component of the Hart Voting System. This includes requirements such as those that might arise for additional “audit trails,” mandated upgrades, or unit printouts. These capabilities that are required to maintain compliance with standards are incorporated into the system, presented for certification, and delivered to customers under the terms of the of the Hart Voting System Warranty, Support, and License Agreement.

Features and enhancements suggested by customers are incorporated into the planning process for future system releases. Once a client-specific feature or enhancement has been accepted for development, it will be included in the appropriate future release that allows completion of all required engineering and testing, and subsequent certification and deployment tasks. Customers are sent a change document that lists the enhancements/changes included in each release. Content of new system releases for the Hart Voting System is provided to customers in two forms:

- A software change document is provided that details specific changes in the new release.
- Customers will also be provided one hard copy and one electronic copy (on



CD) of the applicable operating manual(s) for the new software release.

The County may participate in the Hart Users Group, where customers share ideas, benefit from each other's experience, and offer valuable feedback and suggestions that help us achieve our goal of continuous improvement.

Configuration Control

Hart InterCivic has a formal documentation management program (according to Hart Procedure # 6060-589 Procedure - Configuration Management) that is defined in the Hart Quality Manual and is ISO certified. Hart InterCivic's ISO 9001 Registration requires that strict processes for documentation be maintained.

Hart manages firmware and software source and object (executable) code in the same manner using our own internal configuration management process. ITA-witnessed object code (install files) and source code are driven by an Engineering Change Order (ECO) and managed with an industry-standard Borland StarTeam system, which has been used at Hart since 2002. Our ECO drives the proper firmware revision to our manufacturing partner who loads it into a GenRad 2286 in-circuit test and programming station. This machine can store only one set of object code, ensuring only the proper version is utilized. Application software installation is managed by authorized Hart personnel, who utilize the released install files from StarTeam appropriate to the customer's application.

Requirement 84 Technical and end user documentation.

The vendor's proposed system shall include a complete hardcopy set of (a) technical documentation, (b) database and application documentation, and (c) end user documentation that will be delivered and considered as an integral part of the system.

The Marion County Clerk's Office Elections Division requires that the vendor deliver one (1) complete set of this documentation to Marion County on request prior to vendor demonstrations.

In addition to the vendor's description of the documentation content, vendors' proposals shall contain a detailed description of the firm's procedures and frequencies for providing updates to the documentation as hardware, software, network, and operational changes occur.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:



Hart will deliver one complete set of documentation to Marion County on request prior to our product demonstration. Our documentation includes Operations Manuals, Training Manuals, and a variety of other media, including videos and graphic presentations on the Hart Voting System.

The update procedure for our system documentation is triggered by our certification process. When a new version of the Hart Voting System is federally certified (ie., Version 6.2 is updated to 6.2.1), our entire documentation library is updated. Customers upgrading versions receive the appropriate documentation at the time of the upgrade.

It is also Hart's standard practice to supply customers with Knowledge Base articles, Service Bulletins and other documentation updates (i.e., Best Practices) on a regular basis. This information is delivered via electronic media and may also be found on Hart's TeamTrack tool.

Requirement 85 **Online help feature.**

The vendor's proposed election management and vote tabulation system shall include an online, indexed "help" capability to assist users and administrators in finding information relative to system and application functions and operations.

All online documentation shall be resident on the Marion County Clerk's Office Elections Division's servers and/or client workstations.

(Vendors shall indicate in their narrative responses the degree to which their proposed system contains an online, context-sensitive "help" capability. Provision of a context-sensitive "help" capability is NOT mandatory.)

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

TeamTrack is Hart's browser-based tracking tool used for support functions. This tool contains all Knowledge Base articles, Hart Voting System manuals and enables customers to determine the status of their support call, 24 hours a day, 7 days a week. Customers can submit items via the browser interface. All users who submit items via the browser interface must have a TeamTrack user account and appropriate privileges. Individuals who have a TeamTrack user account can also submit items via e-mail.

Knowledge Base articles, Best Practices information and other support information that is posted to the TeamTrack tool may be copied by Marion County and posted to its servers and/or workstations.



Requirement 470

References--2.

Vendors' proposals shall provide the institutional names of the three "county installed sites" at which they have completed implementation of the same central-count vote tabulation system they are proposing to the Marion County Clerk's Office Elections Division and which have processed a minimum of 100,000 folded absentee ballots in a public election.

For this reference, vendors must provide:

- (a) Client Name,
- (b) Number of total voter registration records in the county's database,
- (c) Client Key contact,
- (d) Key contact phone number and address,
- (e) Overview of the client organization,
- (f) List of deliverables for the project,
- (g) Project start and end dates,
- (h) Description of the approach and activities used in both project management and transfer of knowledge to the county election staff,
- (i) Any additional information that will help the evaluation team understand the scope and complexity of the engagement, such as dollar value of the project or the number of voting devices delivered to the county,
- (j) Specific knowledge and/or experience required by the engagement in design and implementation of systems with a very high level of system security.

For each of these references, the vendor must state clearly if there is any financial partnership, joint marketing agreement, royalty payment, or other mutually beneficial financial arrangement between the vendor and the reference site or any of its employees.

Item status: MANDATORY

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

Orange County, California

(a) Client Name: Orange County, California

(b) Number of total voter registration records in the county's database: 1,599,614

(c) Client Key contact: Neal Kelley

(d) Key contact phone number and address: Phone: 714-567-5139; 1300 S Grand Ave, Bldg C, Santa Ana, CA 92705



(e) Overview of the client organization: Orange County is the nation's fifth-largest county with over 1,500,000 registered voters and 2,200 precincts. The Hart Voting System installation for Orange County covers every facet of the elections process including by-mail voting, Early Voting, and Election Day balloting in five languages: English, Spanish, Vietnamese, Korean, and Chinese. It is one of the largest electronic voting system installations in the country.

(f) List of deliverables for the project: For this installation, Hart InterCivic provided 9,000 eSlate voting terminals and voting booths, with 1,750 modified with Disabled Access Units; 1,750 Judge's Booth Controllers; and all associated hardware. Software provided includes Hart's comprehensive ballot management solution (BOSS and Tally) and Ballot Now, a fully integrated by-mail voting solution. Additionally, Pitney Bowes, a leading provider of mailstream solutions, developed a mail handling system designed to integrate with Hart's by-mail election process.

In addition to the numerous polling place voting units, Hart provided our comprehensive ballot management solution (BOSS and Tally) and Ballot Now, our fully integrated by-mail voting solution.

In the November 2006 General Election, 503,046 absentee ballots were issued – representing 33.60 percent of registered voters. Additionally, Pitney Bowes, a leading provider of mailstream solutions, integrated a mail handling system designed to integrate with Hart's by-mail election process.

For the November 2008 election, Orange County processed 521,348 vote by mail ballots, as reflected in the Election Results posted on the county's website.

Since the initial installation in 2003, the County has purchased VBO units to provide a voter verifiable paper audit trail of each vote cast on the eSlate electronic voting units.

(g) Project start and end dates: 2003 – ongoing (Hart continues to supply additional equipment and election supplies to Orange County)

(h) Description of the approach and activities used in both project management and transfer of knowledge to the county election staff: Hart InterCivic teamed with MAXIMUS to provide Orange County a package of services to support the installation of the Hart Voting System, including comprehensive project management and support, training, warehouse management, and voter education and outreach services. Service deliverables were designed to address the specific needs of Orange County's large number of registered voters and diverse population.

(i) Any additional information that will help the evaluation team understand the scope and complexity of the engagement, such as dollar value of the project or the number of voting devices delivered to the county: Hart provided integration between Orange County's legacy election management software (EIMS from DFM Associates) and BOSS. Additionally, Hart



provided integrated electronic reporting from our Tally application to the state's CalVoter reporting system.

(j) Specific knowledge and/or experience required by the engagement in design and implementation of systems with a very high level of system security: Included with our original proposal response was a case study on the Orange County California installation, procedural and voting experience. At the time of the study, Steve Rodermund the then Orange County Registrar of Voters stated, "the new system [Ballot Now] allows us to use our resources more wisely while making sure that ballots are mailed by the state deadline. Even more important, however, are the additional security features that allow us to track each ballot and to audit every function of the system. This is the first time that we have been able to know where each ballot is in the system and to guarantee that the correct ballots are counted – once and only once. It is the most secure absentee balloting system I have seen."

Hamilton County, Ohio

(a) Client Name: Hamilton County, Ohio

(b) Number of total voter registration records in the county's database: 605,634

(c) Client Key contact: Sherry Poland

(d) Key contact phone number and address: Phone: 513-632-7088; 824 Broadway, Cincinnati, Ohio 45202

(e) Overview of the client organization: Hamilton County chose to use paper ballots in the polling place to serve its over 600,000 registered voters. In its effort to comply with the Help America Vote Act of 2002 (HAVA), the Hamilton County Board of Elections researched current election technology and tested a variety of voting systems before selecting the Hart Voting System. The County's purchase of the Hart Voting System allowed voters to cast their ballots on new voting technology for the first time in 30 years.

(f) List of deliverables for the project: the County purchased Hart's eScan digital, ballot-imaging units in March 2006, as well as eSlate voting units equipped with DAU modules and VBO units for accessible voting. Absentee-by-mail ballots are provided through Hart's Ballot Now application.

For the November 2008 election, Hamilton County processed 108,192 absentee ballots as reflected in the Election Results posted on the county's websites.

(g) Project start and end dates: 2006 – ongoing (Hart continues to supply additional equipment and election supplies to Hamilton County)



(h) Description of the approach and activities used in both project management and transfer of knowledge to the county election staff: Hart InterCivic teamed with MAXIMUS to provide Hamilton County a package of services to support the installation of the Hart Voting System, including comprehensive project management and support, training, warehouse management, and voter education and outreach services. Service deliverables were designed to address the specific needs of Hamilton County's voters.

(i) Any additional information that will help the evaluation team understand the scope and complexity of the engagement, such as dollar value of the project or the number of voting devices delivered to the county: The County recently started producing their own paper ballots for all elections except November General Elections. Hart has developed a Ballot Production Procedures document and provided this to the County for guidance on best practices. The County continues to become more self-sufficient in managing its elections.

(j) Specific knowledge and/or experience required by the engagement in design and implementation of systems with a very high level of system security: Hamilton County's purchase of the Ballot Now system was in 2006 therefore Hart had performed numerous installations across the country of our Hart Voting System. The project management approach, including transfer of knowledge and security practices was well honed by this time and followed accordingly during the County's installation.

San Mateo County, California

(a) Client Name: San Mateo County, California

(b) Number of total voter registration records in the county's database: 339,758

(c) Client Key contact: Warren Slocum

(d) Key contact phone number and address: Phone: (650) 363.4988; 555 County Center, Redwood City, CA 94063

(e) Overview of the client organization: The Chief Elections Officer administers all County and Municipal elections. The City holds elections for elective officers of the County, School Districts and other municipality elections in even and odd numbered years.

(f) List of deliverables for the project: The County purchased the Hart Election Management Software System suite, the eSlate DAU VBO hardware suite and Kodak scanners.

For the November 2008 election, the County processed 140,856 Absentee ballots as reflected in the Election Results posted on the county's website.

(g) Project start and end dates: 2006 – ongoing (Hart continues to supply election supplies to the County)



(h) Description of the approach and activities used in both project management and transfer of knowledge to the county election staff: The County's purchase of the Ballot Now system was in 2006 therefore Hart had performed numerous installations across the country of our Hart Voting System. The project management approach, including transfer of knowledge and security practices was well honed by this time and followed accordingly during the County's installation.

(i) Any additional information that will help the evaluation team understand the scope and complexity of the engagement, such as dollar value of the project or the number of voting devices delivered to the county: The County's purchase of the HVS system was in 2006 and the total dollar value of the project has exceeded \$9 million. San Mateo has 350,000 registered voters, manages up to 450 precincts with over 2,000 pieces of voting equipment. Geographically situated as part of the Bay Area, the County is diverse in culture with multi language ballot needs. Hart implemented a robust project management approach for the County including training and partnering on voter education. The transfer of knowledge and best practices to the County has gone well as they have full control of their elections and rely on Hart for minor system support as needed. In the 2008 General, the County processed more than 140,000 vote-by-mail ballots. The growth and popularity of vote-by-mail has trended upward in the County prompting less demand at the polls on Election Day.

(j) Specific knowledge and/or experience required by the engagement in design and implementation of systems with a very high level of system security: The entire HVS system brought a new level of system integration and security from where the County had been before. The legacy system the County had used did not employ imbedded system security and required separate actions to program the ballot tabulators. Ballot production and chain of custody of print files was performed manually and relied only on process and procedures. The HVS system brought to San Mateo a new level of audit capability in all aspects of the voting solution with enhanced audit functions on electronic ballot boxes, print production, ballot on demand, resolution/adjudication and tabulation.

There are no financial partnerships, joint marketing agreements, royalty payments, or other mutually beneficial financial arrangements between Hart and the three counties listed above or any of their employees.

Other Hart customer processing vote by mail ballots during the November 2008 election also included Clark County, Washington with 184,698 ballots (Clark County established countywide vote by mail years ago).



Election Management System

Requirement 20

Handling multi-member districts.

Vendors' proposals shall describe in detail the firm's internal testing steps taken to assure that the proposed systems accurately receive and tabulate results from multi-member districts where multiple votes are cast for more than one office in the same election.

Vendors' proposals shall describe in detail the steps required to (1) set up the systems and their ballots to handle multi-member districts and (2) tabulate and report results in multi-member districts.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

BOSS will automatically create the necessary ballot styles for the election from the combination of the precincts or districts assigned to each contest defined in the Contests tab of the Jurisdiction window and the list of precincts assigned to each polling place in the Polling Places tab of the Jurisdiction windows.

Contest definitions have four parts:

- Contest title (name)
- Precinct(s) or district(s) that use the contest
- Contest type
- Contest options

The Contests tab of the Jurisdiction window will be used to define the:

- Contest titles (names) as they will be used on the ballots for the Election
- The contest type
- Precinct(s) or district(s) assigned to the contests

Options for each votable contest, such as voting choices, candidate details, and the text for contest instructions and propositions will be defined using the Active Contests window and its related windows. The Active Contests window can also be used to open the Contest Details window and define a contest's type. The Contest Details window is shown below, reflecting the users' ability to define the contests as needed.



Contest Details

Define Contest Details

* Contest Title:

Contest Description:

Contest Type:

Primary Party Affiliation:

Enable Section: ☒

Include in Straight Party: ☒

Cumulative: ☐

Fractional Cumulative: ☐

Common Contest: ☐

Include in Marked Ballot History: ☐

Number of Valid Choices:

Number of Write-Ins:

State Contest Position

☒ No Force

☐ Force to New Column

☐ Force to New Page

Ballot Now Contest Position

☒ No Force

☐ Force to New Column

☐ Force to New Page

The ballot generation feature in BOSS creates ballot styles based on the jurisdiction- and election-specific information the user supplies. Ballot generation creates a single data file that is written to the MBB and that is used to conduct the election for by-mail voting. The same MBB is used to return the Cast Vote Records (CVRs) captured in paper ballot scanning workstation to the counting station for tabulation by Tally.

One method of testing that results have been accurately received and tabulated includes the Logic and Accuracy test. Suggested logic and accuracy testing procedures consist, in part, of the following steps:

1. Create logic and accuracy MBBs in the "test" mode in BOSS.
2. Use one of the MBBs for Ballot Now to open an election and print a predetermined number of test ballots.
3. Mark the test ballots.
4. Scan, save, and resolve the ballots for Ballot Now. Save the votes as CVRs to the MBB.
5. Read the MBBs into the Tally application.
6. Compare the Tally tabulation to the predefined results from the test deck and the or Ballot Now test deck.
7. Use one of the MBBs for Ballot Now to open an election and print a predetermined number of test ballots (or otherwise the MBBs retain the logic and accuracy data used specifically for the test).



Logic and accuracy data are retained by the MBBs used specifically for the test. Results are stored in the test database as part of the Tally database application and are available for future reference.

Before scanning the ballots with Ballot Now, a report is generated from the system indicating no batches have been scanned and no votes have been recorded.

To protect against error, all test tabulations are done using MBBs and databases identified specifically for this function. This process assures that the data will not be confused or interfere with actual election data. Election databases created for test purposes are easily deleted from BOSS or Tally applications. When deleted, these database or election files are no longer available and cannot accidentally be accessed.

Hart follows the steps outlined on in "Oregon Logic and Accuracy Testing Hart Paper (Ballot Now)" submitted with the original response. This testing including the Ballot Proofing Test, the Internal L&A Test, the Public Certification Test and the Second Public Certification Test.

Requirement 39 Devices and ballot designs supported.

The vendor's proposed software shall list all ballot designs, including sizes and formats of ballots, that its automated ballot layout software will prepare for use with ballots that will be read by its proposed vote tabulation devices.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Ballot styles, along with other election data, are written on Mobile Ballot Boxes (MBBs). MBBs are standard Advanced Technology Attachment (ATA) PC cards. Hart provides 128MB MBBs as the standard with the system, which can hold in excess of 200,000 ballot styles. In the Orange County, California, November 2004 General Election the Hart Voting System supported over 121,000 ballot styles.

Standard dimensions for paper ballots used for by-mail voting are 8.5x11 inches, 8.5x14 inches, 8.5x17 inches, and 11x17 inches.

Standard templates are below. However, customized templates are available if there is a need for a template we have not worked with before in Oregon.

List of standard templates (ballot designs):



- 8.5x11, two column, without stub
- 8.5x11, two column, with stub
- 8.5x14, two column, without stub
- 8.5x14, two column, with stub
- 8.5x14 three column, without stub
- 8.5x14 three column, with stub
- 11x17 three column, without stub
- 11x17 three column, with stub
- 11x17 four column, without stub
- 11x17 four column, with stub

Requirement 40 **Spanish language support for ballot management.**

The vendor's proposed ballot management system shall provide all necessary ballot layout functions to prepare ballots in the Spanish language (such as the Spanish language character set). Vendors' proposals shall list all additional languages, other than English and Spanish, currently supported by the proposed ballot management system.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart Voting System provides alternative language accessibility in accordance with the requirements of Section 203 of the Voting Rights Act of 1965. Hart has deployed our voting system in many jurisdictions requiring multiple languages on the ballot. We have provided ballots in up to five languages, and have the capability to provide up to ten languages for a given election. To date, Hart has provided ballot text for English, Spanish, Chinese, Japanese, Korean, Vietnamese, Russian, Armenian, Tagalog, and Ilocano.

English language ballot content is entered directly into BOSS. For languages other than English, BOSS is supplemented by the Translation Recording and Normalization Software (TRANS) application. All ballot information is entered into BOSS in English. The English text is exported from BOSS and imported into TRANS. TRANS displays English text strings for entry of corresponding text in each additional language. When the translation procedures are complete, all TRANS data is imported into BOSS for creation of multi-language ballots. Hart also has an extensive library of Spanish text related to election nomenclature. All paper ballot sizes are supported in Spanish.

Requirement 43 **Preparation of ballot tabulation system.**



The vendor's proposed systems shall have a high level of integration between the ballot layout subsystem and the vote tabulation subsystem.

This integration shall permit and facilitate the automatic transfer of all ballot setup information from the automated ballot layout module to the single ballot tabulation system that will be used in the central count, VBM environment in Marion County.

Vendors' proposals shall contain a narrative description of the procedural steps required to prepare the ballot tabulation subsystem for use after the ballot layout has been completed and "locked down" for an election.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Ballot Origination Software System (BOSS) application manages all the jurisdiction- and election-specific data. It defines and creates the ballot formats, and writes multiple Mobile Ballot Boxes (MBBs) for processing records between the Hart Voting System software applications. Hart's Ballot Origination Software System (BOSS) creates the election ID and precinct name/number. Ballot Now assigns the sequence ID and serial number for a unique ballot.

BOSS is designed for powerful functionality and straightforward operation for the elections office staff. Data entry is a one-time event through BOSS; and data flows through to all components of the Hart Voting System. Jurisdiction and election information prepared for one election is saved as an administrative database to be used as a starting point for the next election, eliminating redundant data entry. New data may be entered into the application through intuitive data entry fields and drop-down menus or may be imported using BOSS' flexible data import capability.

The ballot generation feature in BOSS creates ballot styles based on the jurisdiction- and election-specific information the user supplies. Ballot generation creates a single data file that is written to the MBB and that is used to conduct the election for by-mail voting. The same MBB is used to return the Cast Vote Records (CVRs) captured in paper ballot scanning workstation to the counting station for tabulation by Tally.

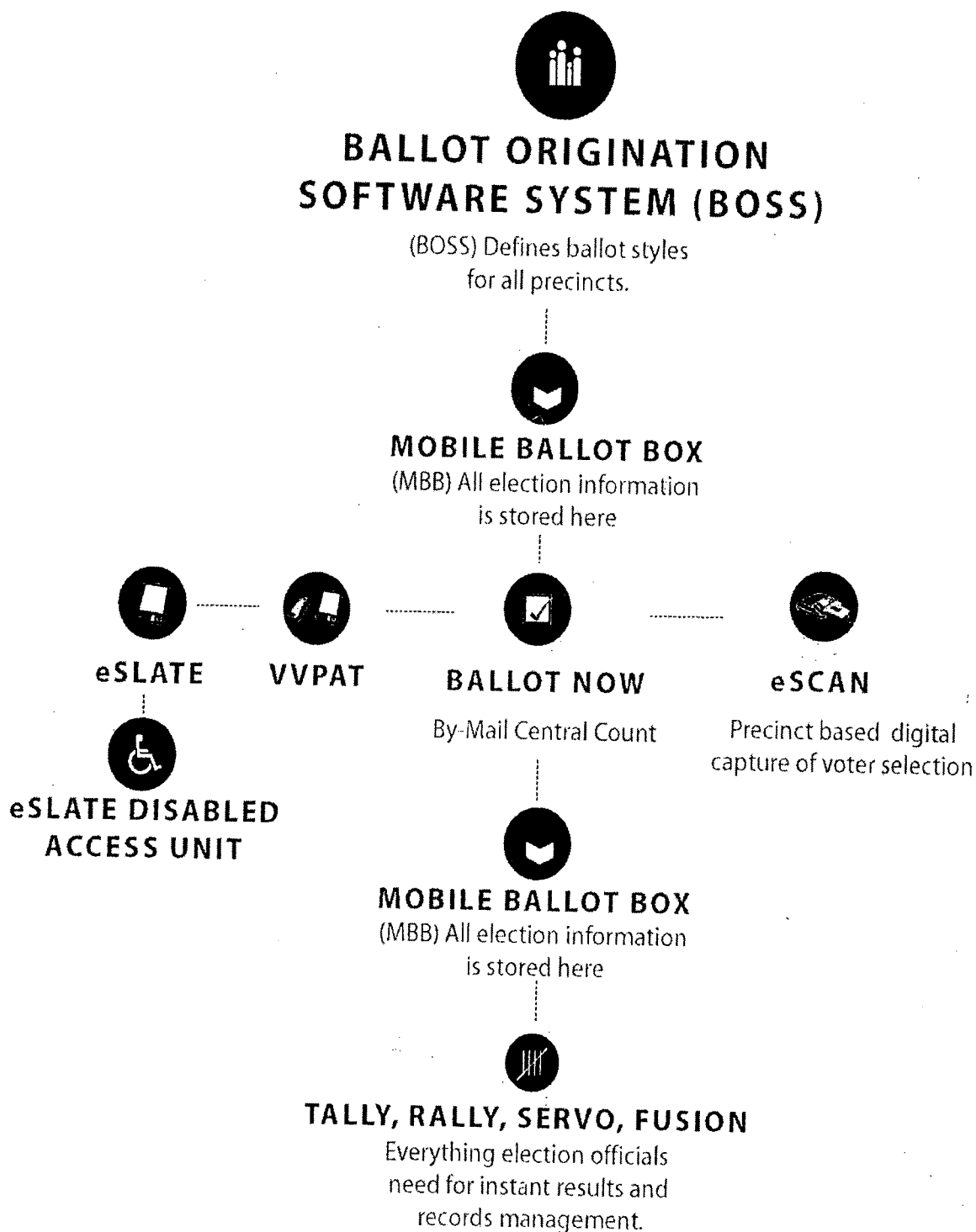
After BOSS generates the file for the MBB, the BOSS database is finalized so that no further changes can be made, thus protecting the integrity of the MBB data file. The BOSS database is subsequently used to initialize the Tally database, eliminating the need to manually re-enter the election data. Separate applications for ballot definition and tabulation functions provide much



MARION COUNTY, OREGON
BEST & FINAL
ELECTIONS VOTE TABULATION SYSTEM



more distinct and manageable audit data and provide greater flexibility for the software to evolve and keep pace with changing election requirements.





The above architecture diagram outlines the full integration of our applications from Ballot Origination to Tally. Please note Hart is proposing the Ballot Now application to Marion County however this diagram shows other Hart voting interface (precinct counters and DREs) capabilities that fit within our system architecture.

Requirement 72 **Error messages in election setup and tabulation systems-1**

The vendor's proposed election setup and tabulation software, frequently called the election management system, shall provide the system administrator and users with an ability to obtain a list of all application-related error messages on demand, including the recommended steps to clear and correct the error condition.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost
☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Error messages throughout Hart's Election Management System are displayed via a windows driven dialog box. Each box includes a short description of the error as well as associated error codes, if any. Error messages and/or codes as well as recommended correction steps are included in the Operations Manuals provided with each seat of the Election Management System software application purchased.

Requirement 104 **Ballot preparation--printing directly to ballot stock.**

The vendor's proposed election management system shall provide the capability to generate printed ballots from the ballot layout system for direct printing on standard ballot stock.

Vendors' proposals shall contain a narrative description of the proposed system's capabilities to print ballots directly on ballot stock. Vendors' proposals shall contain a list of recommended laser printers that have been used with the proposed system to print ballots directly on ballot stock in other election jurisdictions.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost
☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Ballot Now paper ballot application was designed to utilize commercially available 28- to 80-pound paper for laser printers. Laser printers approved for use with the Hart Voting System



include the HP 9050dn (high-volume), the Okidata 9650 (high-volume) and the HP 3015d (mid-volume).

Ballot Now ballots can be produced in an electronic file and provided to commercial printer vendors (such as Hart) or local printers in Oregon that are selected by the County for volume ballot production. County staff will have the capability to print on demand any ballot using COTS printers.

Ballots may be printed on standard paper stock. For quality and security reasons, we recommend that ballots are printed on Hart's proprietary security ballot paper that features an "Official Ballot" watermark. Ballots are mailed to voters in standard sized envelopes according to the requirements of the County.

Requirement 105 **Ballot preparation--generating files for printing.**

The vendor's proposed election management system shall provide the capability to generate output files from the ballot layout system for transmission to a commercial printer that will print ballots for use in the Marion County Clerk's Office Elections Division's VBM, central-count, ballot scanning operations.

Vendors' proposals shall contain a narrative description of the proposed system's capabilities to generate output files for transmission to a commercial printer, including the file format (such as PDF, InDesign, RTF, TXT, or other format).

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart Voting System can automatically generate bitmap files. These bitmap files may be converted to Adobe PDF or written to an electronic PostScript file, which can be used as camera-ready ballot layouts.

Transmission of these files to approved commercial printers can occur over secure FTP sites.

Requirement 123 **Integration with election night reporting.**

Vendors in their proposals shall describe their experience transferring results from their vote tabulation and tally systems to Oregon's election reporting system.

Item status: CONDITIONAL



☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart's Engineering and Development Team has worked with the Secretary of State's office and has completed and implemented a specific translator for file formats that export information from Hart's Tally application to Oregon's election reporting system. This eliminates any manual entry of results to the State reporting system. This is included in the Hart Voting System as proposed to Marion County.

Requirement 125 **Integration with voter registration system.**

The State of Oregon has implemented a statewide voter registration system and has selected Saber as the software provider and implementation vendor for that system. The Marion County Clerk's Office Elections Division anticipates a need to transfer certain data between the statewide voter registration system and the voting systems in the counties.

Vendors' proposals shall include descriptions of their firms' experience (1) transferring data with voter registration systems other than their own (if applicable) and (2) the research, design, testing, and implementation steps they anticipate being required to transfer data with the Saber voter registration system.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart's Engineering and Development Team has worked with the Secretary of State's office and completed a Hart specific translator for file formats which exports information directly from the OCVR to BOSS. This is included in the Hart Voting System as proposed to Marion County.

The translator includes various data converters, sorters, scripts, and filters. Precinct, district, contest, political party, candidate, registered voters, and associated files are used to populate the BOSS application.

The OCVR data is converted into import files, according to the data import specification for BOSS. This integration ensures that the County does not have to re-enter into BOSS office titles, candidate names, party names, or other data available in the voter registration database. The integration process does not interfere in any way with the operation of the certified Hart Voting



System. Additionally, operator keystrokes and errors are eliminated, a prime objective of data integration.

Requirement 140

Error messages in election setup and tabulation systems-2

The vendor's proposed election setup and tabulation software, frequently called the election management system, shall provide the system administrator and users with clear and useful error messages from an error-handling module.

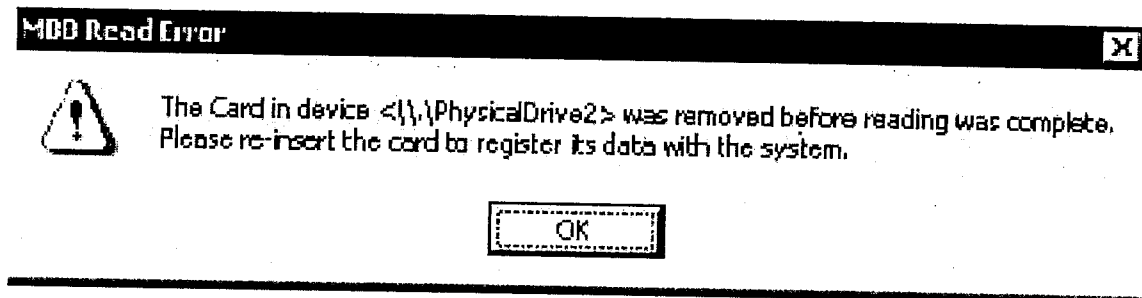
Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Error messages throughout Hart's Election Management System are displayed via a windows driven dialog box. Each box includes a short description of the error as well as associated error codes, if any. Below is an example of an error that may be displayed in the Tally application:



The table below reflects the error messages associated with the ECM key, an electronic "key" needed for the Tally software application.

ecm error code	Cause
ecm0001	The eCM was not programmed successfully for some reason, or has become corrupted.
ecm0002	The key programming application did not erase the eCM prior to programming it, so there is more than one valid key on the eCM.
ecm0003	The eCM has not been programmed.
ecm0004	The eCM is un-initialized-direct from the factory.
ecm0005	The user has entered the wrong password 5 times.
ecm0006	The eCM is at the wrong revision in order to talk to this application.



Error messages and/or codes are included in the Operations Manuals provided with each seat of the Election Management System software application purchased.

Requirement 141 **Error messages in election setup and tabulation systems-3**

The vendor's proposed election setup and tabulation software, frequently called the election management system, shall provide the system administrator and users with clear and useful warnings, informational, and notice messages.

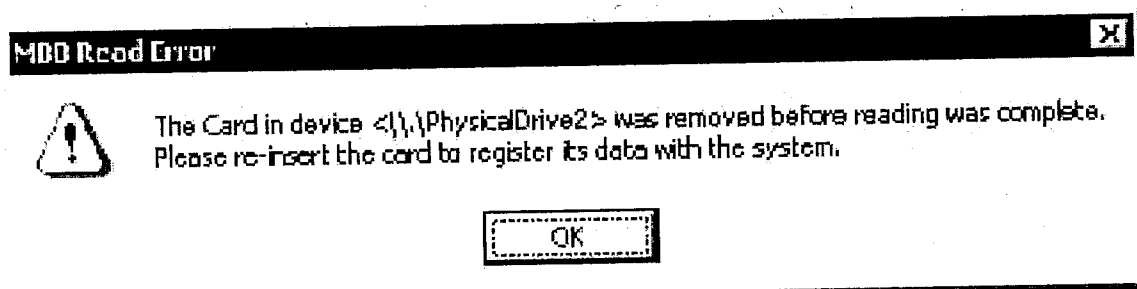
Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Error messages (warnings) throughout Hart's Election Management System are displayed via a windows driven dialog box. Each box includes a short description of the error as well as associated error codes (informational/notice messages), if any. Below is an example of an error that may be displayed in the Tally application:



The table below reflects the error messages associated with the ECM key, an electronic "key" needed for the Tally software application.

ecm error code	Cause
ecm0001	The eCM was not programmed successfully for some reason; or has become corrupted.
ecm0002	The key programming application did not erase the eCM prior to programming it, so there is more than one valid key on the eCM.
ecm0003	The eCM has not been programmed.
ecm0004	The eCM is un-initialized-direct from the factory.
ecm0005	The user has entered the wrong password 5 times.
ecm0006	The eCM is at the wrong revision in order to talk to this application.



Error messages and/or codes are included in the Operations Manuals provided with each seat of the Election Management System software application purchased.

Requirement 142 **Error messages in election setup and tabulation systems-4**

The vendor's proposed election setup and tabulation software, frequently called the election management system, shall provide the system administrator and users with an ability for the system administrator to read, search, copy and print error logs that report error conditions or system failures.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The BOSS software application provides an Audit Trail Report. This report lists the audit trail data of activity in the database. Below shows the Audit Trail Report sections within BOSS.



Header	Standard header described in Headers Printed on Reports on page 416.
Date	Here you will see the date and time of an action.
User	Here you will see which user performed the action.
Area	Here you will see which portion of the BOSS application the user was working in. Areas included are: <ul style="list-style-type: none"> ◆ Active Contest ◆ Active Contest (PLC) ◆ Ballot Templates ◆ Contest ◆ District ◆ District Contest Associations ◆ Election ◆ Instruction Text ◆ Jurisdiction Rules ◆ Options ◆ Option Details ◆ Party ◆ Poll/Precinct Associations ◆ Polling Place ◆ Precinct ◆ Precinct Contest Associations ◆ Precinct District Associations ◆ Proposition Text ◆ Session
Action	Here you will see what type of action occurred: <ul style="list-style-type: none"> ◆ Add ◆ Delete ◆ Update

The Tally software application provides an Audit Log Report. This report lists the audit trail data of activity in the database. Below shows the Audit Log Report column headers within Tally.

Entry	Sequential number of the event.
User	User name of the user logged into Tally when the event occurred.
Code	Audit code.
Date	Date the event occurred.
Time	Time of day the event occurred.
Description	Description of the event.
Data	Data associated with the event.

The Ballot Now software application provides an Election Database Audit Log Report and a Security Database Audit Log Report.

The information about the transactions listed in both Audit Log Reports include:



- Transaction record number
- User ID of the user logged in to Ballot Now when transaction occurred
- Date transaction occurred
- Time of day transaction occurred
- Code for the transaction
- Description of the transaction
- Details of the transaction

Requirement 143 **Error messages in election setup and tabulation systems-5**

The vendor's proposed election setup and tabulation software, frequently called the election management system, shall provide the system administrator and users with an ability for the system administrator to maintain, archive to backup media, and reinitialize the system error information as required for efficient system administration.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

All audit reports, audit trail documents, databases, and final reports may be archived in hard copy and/or saved electronically to CD-ROM, as needed.

Requirement 144 **Error messages in election setup and tabulation systems-6**

The vendor's proposed election setup and tabulation software, frequently called the election management system, shall provide the system administrator and users with an option for access to specified error information by authorized users, with the stipulation that no one other than the system administrator shall have the access privilege to archive, delete, or re-initialize application error logs.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:



Administration tasks for BOSS are available in the Administration menu. Certain non-election tasks can be performed from the Administration menu when no Election database is open. Non-election tasks affect the BOSS security database instead of the current Election database. These tasks include:

- Changing a user password
- Adding users, modifying a user's authority, and deleting users

The Finalize Election for Tally task is only available in the Administration menu when the current Election database is open and the ballot formats have been generated for the database.

Users have access to BOSS functions based on their level of authority. The available levels are View, Update and All. The BOSS functions and their associated levels are reflected below.

BOSS Function	View	Update	All
Create databases	No	No	Yes
Change current user password	Yes	Yes	Yes
Delete databases	No	No	Yes
Modify databases	No	Yes	Yes
Perform user maintenance	No	No	Yes
View and print election reports	Yes	Yes	Yes
View and print security audit	No	No	Yes

Tally has two levels of users:

- Operator
- Administrator

The program features available for Operator and Administrator users in Tally, as well as the database states during which each program feature is available is reflected below.



Program Feature	Administrator	Operator	Election State
User Administration	Yes	No	New, Open, Finalized
Application Configuration	Yes	No	New, Open, Finalized
Database Management			
Create/Delete databases	Yes	No	New, Open, Finalized
Import database	Yes	No	New, Open, Finalized
Select database	Yes	Yes	New, Open, Finalized
Back-up/Restore databases	Yes	Yes	New, Open, Finalized
Write-in Features			
Write-in resolution	Yes	No	New, Open, Finalized
Write-in option configuration	Yes	No	New, Open, Finalized
MBB Processing			
MBB reading	Yes	Yes	New, Open
MBB tabulation process	Yes	Yes	Open
Manual Vote Adjustment	Yes	No	Open, Finalized
Provisional Ballot Resolution	Yes	No	Open, Finalized
Tally Import	Yes	No	Open, Finalized
Tally Export	Yes	Yes	New, Open, Finalized
Reports			
Execute reports	Yes	Yes	New, Open, Finalized
Create custom reports	Yes	No	New, Open, Finalized
Delete custom reports	Yes	No	New, Open, Finalized
Retrievable Ballots	Yes	No	Open, Finalized
Rally Station	Yes		
Rally configuration	Yes	Yes	New, Open
Rally communications	Yes	Yes	New, Open
Finalize Database	Yes	No	New, Open

Note: Audit reports and audit trail documents reflect activity within the Election Management System. These reports and documents may be archived however cannot be deleted or re-initialized by anyone, regardless of their access level.

Requirement 155 **Restoration of system on backup computer.**

Vendors' proposals shall state affirmatively the right of Marion County to restore and use its licensed software on a backup system in the event the system on which the election management system was originally installed fails or otherwise becomes inoperable.

Vendor's proposals shall define and describe the procedures that Marion County and the



vendor will follow to carry out this restoration at an alternative vote tally site in the event the Marion County Clerk's Office Elections Division declares that its primary production equipment or software has failed or otherwise become inoperable.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart offers customers who are using a licensed version of its software applications the opportunity to restore and use the licensed software on a backup system, if needed.

Hart offers a backup system with back-up versions of all software installations. The system is password protected and the OS is locked down. In the event the County declares its primary equipment has failed or become inoperable, the County would contact Hart's Customer Support Center (CSC) to activate the system.

Upon system activation, the County would follow the standard Tally procedures as described in Hart's Tally Operations Manual, including copying the BOSS database to the Tally system from the BOSS database backup CD (the making of a backup CD is recommended by Hart for election best practices) and reading the election MBBs.

Once the password is used the County has 60 days to return the computer to Hart for a password reset. If the County fails to return the system within 60 days the County would be invoiced for additional seats of the software applications.

Requirement 280 **Election management and vote tally server specifications.**

Vendor's proposals shall describe and provide technical specifications and minimum configuration requirements for a computer required to support the election management software and central tabulation system, noting whether such a device is included in the vendor's cost proposal or whether Marion County can purchase the specified device itself.

Item Status: CONDITIONAL

☒ YES, the proposal meets this requirement

☐ NO, the proposal does not meet this requirement

Vendor narrative:



The PCs used for Hart's election solution to Marion County are included in the cost proposal. These PCs run the software applications including BOSS, Ballot Now, Tally and Servo are the Dell OptiPlex line. The configuration is:

Item	Description
PC form factor	Small
Processor	NTFS File System/AMD Athlon 64 x2 4000+ (2.10GHz, 512KBx2)
Operating System	Windows 2000 SP4
Memory	1 Gigabyte
Hard Drive	120 Gigabyte
Removable Storage	DVD +/- RW with Roxio
Video Card	NVIDIA Quadro NVS 210S Graphics
Monitor	Dell E178FP, 17 inch Flat Panel 17.0 inch Viewable Image Size OptiPlex
Floppy Drive	None
Speakers	No internal Speaker
Keyboard	USB Standard keyboard
Mouse	USB Standard mouse
Hart Applications for this PC	BOSS, Ballot Now, Tally, SERVO

The laptops used for Hart's software applications including Tally and Servo are the Dell Latitude line. The configuration is:

Item	Description
PC form factor	Notebook
Processor	Mobile AMD Athlon TK57 (1.90 GHz 256K) Dual Core
Operating System	Windows 2000 SP4
Memory	1.0 GB, DDR2-667 SDRAM, 2 DIMMS
Hard Drive	80 GB, 9.5MM, 5400RPM
Removable Storage	DVD +/- RW with Roxio
Video Card	ATI Integrated Graphics Radeon TM x1270



Battery	6 Cell Primary Battery
Monitor	14.1 inch Wide Screen WXGA LCD
Floppy Drive	None
Speakers	Internal
Keyboard	Internal English
Mouse	Touchpad
Hart Applications for this PC	SERVO, Tally
AC Adapter	90W

Hart is in the process of developing the next generation of the Hart Voting System – designed to meet the EAC’s latest **2005**-based Voluntary Voting System Guidelines.

Hart’s current voting system, version 6.2.1, is the solution proposed to Marion County, Oregon. Windows 2000 is the platform used in this version. PCs and laptops as configured to the specifications listed in Hart’s initial response are available from Hart with Windows 2000 installed. Hart typically manages the purchase of the COTS hardware and is responsible for the installation and configuration of firmware and software to meet the Federal and State certification guidelines.

Requirement 295 **Ballot layout design capabilities--1.**

Vendors' proposals shall describe their proposed election management system's capability of producing a computer-generated ballot layout design document in a single, integrated software system.

Proposals shall describe the process for making last minute ballot changes and the estimated timeline for making those changes for a county with 160 precincts and 350 ballot styles, using the system configuration in the vendor's proposal.

Item status: **CONDITIONAL**

☒ **YES**, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ **NO**, the proposed system does not meet this requirement

Vendor's Narrative:

The Ballot Origination Software System (BOSS) application manages all the jurisdiction- and election-specific data. It defines and creates the ballot formats, and writes multiple Mobile Ballot Boxes (MBBs) for processing records between the Hart Voting System software applications.



BOSS is designed for powerful functionality and straightforward operation for the elections office staff. Data entry is a one-time event through BOSS; and data flows through to all components of the Hart Voting System. Jurisdiction and election information prepared for one election is saved as an administrative database to be used as a starting point for the next election, eliminating redundant data entry. New data may be entered into the application through intuitive data entry fields and drop-down menus or may be imported using BOSS' flexible data import capability.

BOSS accommodates manual corrections or last minute changes to the automatically generated ballots, ballot types, and/or candidate data. The user would simply make the corrections/changes in BOSS, and save the database under a new name. The timeline for making the changes is dependent upon the scope of the change itself however should be minimal since corrections or changes are entered into the BOSS database only once, and are automatically provided to all appropriate ballot styles. The ballot generation process must be repeated for the changes to take effect.

Requirement 300 **Ballot layout design capabilities--2.**

Vendors' proposals shall describe their proposed election management system's capability of producing a computer-generated ballot layout design document by means of integrating with **any other ballot preparation software.**

Proposals shall describe the process for making last minute ballot changes and the estimated timeline for making those changes for a county with 160 precincts and 350 ballot styles, using the system configuration in the vendor's proposal.

Item status: CONDITIONAL

☐ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☒ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart Voting System as proposed to Marion County includes proprietary ballot preparation and layout design software applications.

Requirement 305 **Ballot layout design capabilities--3.**

Vendors' proposals shall describe their proposed election management system's capability of producing a computer-generated ballot layout design document by means of integrating with the Oregon Centralized Voter Registration (OCVR) Election Management System.

Proposals shall describe the process for making last minute ballot changes and the estimated timeline for making those changes for a county with 160 precincts and 350 ballot styles, using the system configuration in the vendor's proposal.



Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart's Engineering and Development Team has worked with the Secretary of State's office and completed a Hart specific translator for file formats which exports information directly from the OCVR to import into BOSS. This is included in the Hart Voting System as proposed to Marion County.

The translator includes various data converters, sorters, scripts, and filters. Precinct, district, contest, political party, candidate, registered voters, and associated files are used to populate the BOSS application.

The OCVR data is converted into import files, according to the data import specification for BOSS, before being imported to BOSS. This integration ensures that the County does not have to re-enter into BOSS office titles, candidate names, party names, or other data available in the voter registration database. The integration process does not interfere in any way with the operation of the certified Hart Voting System. Additionally, operator keystrokes and errors are eliminated, a prime objective of data integration.

BOSS accommodates manual corrections or last minute changes to the automatically generated ballots, ballot types, and/or candidate data. The user would simply make the corrections/changes in BOSS, and save the database under a new name. The timeline for making the changes is dependent upon the scope of the change itself however should be minimal since corrections or changes are entered into the BOSS database only once, and are automatically provided to all appropriate ballot styles. The ballot generation process must be repeated for the changes to take effect.

Requirement 315 **Vote totals from multiple precincts, multiple ballot styles.**

Vendors' proposed software shall be capable of processing vote totals from a single memory device containing results from multiple precincts with multiple ballot styles for accumulating county wide results.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement



Vendor's Narrative:

The Mobile Ballot Box (MBB) is Hart Voting System's reusable, portable PC memory card. The MBB is used to store election information and transport that data between commercial desktop PCs running BOSS, Ballot Now, and Tally. Because the MBB uses solid-state, nonvolatile flash memory, no batteries or constant power supplies are required to maintain data. Each MBB is uniquely serialized for each election and tracked by the BOSS and Tally software applications. Election database information and Cast Vote Records (CVRs) can only be written to, or read from, MBBs with appropriate components of the Hart Voting System.

The MBB is the link among all components and applications of the voting system. Its use in the system gives greater flexibility to the staff setting up the election, promotes the redundant and secure storage of cast votes, and is the seamless interface for by-mail tabulation and reporting. This interface architecture, built around the uniform MBB data structure, allows the seamless upgrading of individual components and introduction of new technologies without affecting other parts of the system. This architectural approach provides the greatest flexibility available for voting system evolution.

The ballot generation process in the Ballot Origination Software System (BOSS) application creates and formats the file that is written to the MBBs. Each MBB contains the following elements of information:

- All possible ballot styles for the election in the languages required by the County (with the capacity to hold tens of thousands of styles per MBB)
- Ballot format information for paper ballot production
- Passwords for Hart Voting System software applications

Ballot Now accesses the formatted ballot data on the MBB, which facilitates the ballot delivery and vote collection functions. At the close of processing and scanning operations, the MBBs are returned to Tally for downloading of Cast Vote Record information.

Requirement 320

Election results with random ballot positions--splits.

The vendor's proposed software shall process results from and deliver election reports based on random alphabet ballot positions and split districts/precincts.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

For split precincts, the Hart Voting System provides for the tabulation of votes cast in split precincts, where all voters residing in one precinct are not voting the same ballot style. The



election databases are created in BOSS. BOSS accommodates ballot design for any variation of political boundaries and generates correct ballot combinations/formats for each subdivision, including splitting precincts and crossing boundary lines.

Data can either be imported from the OCVR or manually entered. Among the data entered in BOSS is information about each precinct, including any splits that may be necessary. An identifier is attached to each of the splits within a precinct, for example, Precinct 123A and Precinct 123B or 123.01 and 123.02.

Programming split precincts in BOSS follows the same process as programming other precincts. Precincts may be split by selecting the "Split" option in BOSS' Precinct window, renaming the split portion of the precinct and assigning the number of registered voters accordingly.

The BOSS database is subsequently used to initialize the Tally database, therefore the split precinct "logic" used in BOSS flows into Tally.

The Cumulative Report in Tally has voting results and summary totals for each contest with in a jurisdiction. It also includes statistics by the number of precincts and by the number of votes for each contest. The sort order for the Cumulative Report is contest in order of appearance on the ballot.

Requirement 325 **Voter turnout statistics by splits, random ballot placement.**

The vendor's proposed software shall calculate voter turnout statistics by split districts/precincts and candidates by Oregon's random alphabet requirement, alphanumeric method, and in order of vote results (such as highest vote total first, second highest vote total second, and so forth).

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart's Engineering and Development Team has worked with the Secretary of State's office and has developed an import capability with the most current voter registration data. This data is transferred directly from the OCVR to the Hart Tally application. This import occurs on Election Day so the voter registration statistics are as current as possible for the final Tally reporting on the evening of Election Day. This capability will be available as a feature in the Hart Voting System as proposed to Marion County.



A standard Tally report includes the Precinct Turnout Report (on which there is an option to separate or consolidate split precincts). This report lists the voter turnout for the precincts in the election from the following vote sources: all voting (absentee, early and Election Day), Election Day voting only, early voting only, and absentee voting only. The report also lists number of ballots cast in the precinct and total number of ballots cast in the election.

The Precinct Turnout Report in Tally lists the voter turnout for the precincts in the Election from the following vote sources:

- All voting (Absentee, Early, and Election Day)
- Election Day voting only
- Early voting only
- Absentee voting only

The sort order for the Precinct Turnout report is precinct name.

Report column headings include:

Precinct Name	The name of the precinct.
Split Name	The name of the precinct split (if precincts weren't consolidated).
Reg Voters	The number of registered voters in the precinct.
# Ballots	The number of ballots cast in the precinct.
% Turn Out	The percentage of ballots cast in the precinct out of the possible registered voters in the precinct.
Totals	
Reg Voters	The total number of registered voters in the Election.
# Ballots	The total number of ballots cast in the Election.
% Turn Out	The percentage of ballots cast in the Election out of the possible registered voters.

The % Turn Out is calculated by dividing the total number of registered voters in the election by the total number of ballots cast in the election.

Requirement 335 **Menu-based query capability on election results data.**

The vendor's proposed election management system shall provide the capability to construct queries on election results data through a conditional menu approach.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement



Vendor's Narrative:

The Custom Report Wizard included in Hart's Tally application allows for the creation of custom reports. When the Custom Report Wizard is launched a sequence of Windows-driven steps becomes available. The creator will define a name for the new report to add; define the title for the new report; and select the precincts and contests that will appear on the new report. Detailed Custom Report Wizard instructions are included with Hart's Tally Operations Manual.

Fusion, Hart's software utility, may also be used to save user-defined reports. Fusion is a software utility used to map election data from one system to another safely, and to report election results from multiple databases or systems using a wide variety of custom reports and data exports.

Requirement 340 **SQL query capability on election results data.**

The vendor's proposed election management system shall provide the capability to construct queries in real time on election results data through an SQL free form approach.

Item status: CONDITIONAL

☐ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☒ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Requirement 355 **Saving user-defined report.**

The vendor's proposed election management system shall store and save user-defined reports for future editing and printing.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Custom Report Wizard included in Hart's Tally application allows for the creation of customer reports. When the Custom Report Wizard is launched a sequence of Windows-driven steps becomes available. The creator will define a name for the new report to add; define the title for the new report; and select the precincts and contests that will appear on the new report.



The Detailed Custom Report Wizard instructions are included with Hart's Tally Operations Manual.

Fusion, Hart's software utility, may also be used to save user-defined reports. Fusion is a software utility used to map election data from one system to another safely, and to report election results from multiple databases or systems using a wide variety of custom reports and data exports.

Requirement 425 **Ballot formatting voting 'targets'.**

Vendors' proposals shall list the maximum number of targets (such as boxes, ovals, or arrows) available for each of the different ballot sizes their system supports and describe whether the distance between ballot 'targets' is variable, vendor specified, or user determined.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Ballot Now ballots also do not require special preformatted "ovals" or other target marks that may or may not conform to a particular ballot's requirements.

Standard paper ballots produced by the Hart Voting System contain the following number of voting positions:

- 8.5x11 inches – 160 voting positions
- 8.5x14 inches – 234 voting positions
- 8.5x17 inches – 366 voting positions
- 11x17 inches – 384 voting positions

Each voting position will have an associated box for the voter to mark should they choose to vote for that position.

Note: The total number of voting positions available is dependent on the amount of other text (e.g., voting instructions) included on the ballot.

The voting positions identified in Hart's response were calculated based on the minimum and maximum characters allowed in the different jurisdiction, precinct district, contest, etc. definitions within BOSS.

The total number of voting positions available is dependent on the amount of other text (e.g., voting instructions) included on the ballot.



The minimum space between voting positions is system calculated based on the characters in each contest, column width and spacing on the template selected.

Requirement 435 **Alternative voting techniques.**

Vendors' proposals shall describe how their proposed systems provides for alternative and unique voting techniques, such as ranked choice voting and fusion voting.

Item status: OPTIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

Hart has documented the Ranked Choice Voting (RCV) method and the development effort needed to deploy it. Should Marion County require RCV functionality, Hart is capable of delivering this voting method with the proposed system as an add-on module.

Hart's RCV voting method would require a special ballot template and the appropriate certification steps for the different tabulation module.

Fusion voting has stalled in Oregon in the past, however if this voting method were to become law, Hart would develop a solution for this voting method and would deploy it to the County as an add-on module. This would need to occur in concert with the appropriate certification steps to implement as well as the costs associated with such a change.

Requirement 440 **Creating new voting districts.**

Vendors' proposals shall describe the process steps that the Marion County Clerk's Office Elections Division's staff will follow using their proposed system to create a proposed new voting district, either countywide or made up of several precincts in the county.

Item status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

BOSS manages all the jurisdiction- and election-specific data. It defines and creates the ballot formats, and writes multiple Mobile Ballot Boxes (MBBs) for processing records between the Hart Voting System software applications.



BOSS is designed for powerful functionality and straightforward operation for the elections office staff. Data entry is a one-time event through BOSS; and data flows through to all components of the Hart Voting System. Jurisdiction and election information prepared for one election is saved as an administrative database to be used as a starting point for the next election, eliminating redundant data entry. New data may be entered into the application through intuitive data entry fields and drop-down menus or may be imported from OCVR using BOSS' flexible data import capability.

Requirement 445 Legacy data conversion services.

Vendors' proposals shall describe the steps they will take to convert and migrate the current legacy vote tally system's data into the proposed election management system.

The legacy files are in Optech/BRC IV-C proprietary formats. Each file contains a definition of districts in a precinct and precincts in a district. There are 129 precincts in Marion County. There are currently 100 districts in Marion County.

Item status: OPTIONAL

☒ YES, the proposal meets this requirement and is included in the proposal's cost
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

An integration utility, such as Hart's Fusion and InFusion utilities, can be used to import data from other systems into the Hart Voting System applications. Infusion will, upon execution, connect to the County database and extract all relevant election data from the database, such as district and precinct definitions and convert this data into import files as per the data import specification for BOSS. This integration will ensure that BOSS office titles, candidate names, party names, or any other data or information already available in the County database will not have to be re-entered by hand. Fusion also may be used to allow jurisdictions to import voting results from other systems into Tally.

Requirement 465 Open source software.

Vendors' proposals shall discuss plans the Vendor has to convert to open source for its firm's vote tabulation systems' firmware and software.

In their discussions, vendors' proposals should discuss what they intend to provide in the open source, such as code, comments, and references. Vendors' proposals should also describe their plans for where the Open Source will be provided, verified, and stored.

Item status: OPTIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement



Vendor's Narrative:

Hart's future product plan includes the flexibility to provide the source code directly to customers who purchase the product, without the necessity to place the source code into escrow. The current version of the Hart Voting System, that which is proposed to Marion County, does necessitate the need to place the source code into escrow.

Current plans for our Open Source include following the same processes as used today for our source code – continuing our business relationship with Iron Mountain. Iron Mountain has vaults in Norcross, Georgia, and Renton, Washington.

Iron Mountain Intellectual Property Management and their escrow processes provide protection and security for Hart as the owner/developer of the software, and ensure that each account beneficiary has protection for its Hart-provided system(s) software in the event Hart cannot perform in accordance with its contractual agreement with that customer.

Hart's current voting system, version 6.2.1, is the solution proposed to Marion County, Oregon. Version 6.2.1 is not based on open source and if required by Marion County, would necessitate the need to place the source code into escrow.

Hart originally began escrowing its software with Fort Knox Escrow Services in 1998. In 2001, DSI, a nationally known escrow firm and a subsidiary to Iron Mountain Corporation acquired Fort Knox. Iron Mountain changed DSI's name to Iron Mountain Intellectual Property Management in October 2004. Iron Mountain has vaults in Norcross, Georgia, and Renton, Washington. Hart continues its business relationship with Iron Mountain today.

Iron Mountain Intellectual Property Management and their escrow processes provide protection and security for Hart as the owner/developer of the software, and ensure that each account beneficiary has protection for its Hart-provided system(s) software in the event Hart cannot perform in accordance with its contractual agreement with that customer.

With Hart's concurrence, a beneficiary (i.e., a Hart customer), is generally allowed to confirm that a certain deposit is being held by Iron Mountain. This confirmation does not include inspecting the code itself.

Access to source code (other than the confirmation mentioned above) is handled outside of the escrow arrangement. The requestor must formally apply to Hart for access. The request would be reviewed by Hart's Executive Leadership Team and attorneys. If approved, the requestor would be contacted and the appropriate steps would be taken by Hart to provide the source code to the requestor.



Requirement 475 **Ballot totals reconciliation.**

Vendor's proposals shall describe how their election results reporting module provides for Marion County's reconciliation between the election management system's ballot counting results and the OCVR returned ballot totals.

Item status: MANDATORY

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

The Tally Cumulative Report includes voter turnout boxes which reflect the number of ballots cast in the contest; the number of registered voters eligible to vote on the contest and the percentage of ballots cast in the contest out of the number of voters eligible to vote on the contest. Additionally, the Precinct Turnout Report can provide the overall total number of ballots cast for each precinct.

Ballot Now also provides reports of the number of ballots scanned by precinct.

The Tally export file to OCVR provides these vote totals. This information can be used to reconcile between the Tally results from the HVS system and the OCVR totals while providing Marion County with the option to reconcile as the County scans and/or at the end of the election.

Requirement 505 **Maximum number of districts in an election.**

Vendor's proposals shall specify the maximum number districts their proposed system allows for any one election.

Item status: MANDATORY

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

Our largest customer, Orange County, CA has used the most districts/precincts and has not reported any limitation.

District limitations are driven by precinct limitation. Hart's BOSS application has a precinct limit of 65,535.

Requirement 730 **Determination of which device results have been loaded.**



Vendors' proposed central tabulation system shall be able to determine which vote counting device results have not been loaded.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Tally is the Hart Voting System's software application that reads, stores, and tabulates the CVRs from the MBBs. Tally also provides a flexible reporting engine. One of the standard reports offered in Tally is the "MBB Status Report – MBBs Not Read." This report provides the County with a listing of all election MBBs that have not been accounted for by Tally (including identification of the MBB that has not been read and the total number of MBBs that have not been read).



Election Support Services

Requirement 65

Onsite implementation services.

Vendors' technical proposals shall contain resumes of at least two potential technicians to provide the following services to the Marion County Clerk's Office Elections Division:

- (a) assistance in conducting the user acceptance testing on all proposed hardware, firmware, software, and documentation,
- (b) assistance in receiving and testing the proposed voting system equipment,
- (c) assistance in training the Marion County Clerk's Office Elections Division election administrators in system administration tasks associated with the proposed system,
- (e) assistance in programming and setting up the proposed system for use in the first countywide election in 2010.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Resumes may be found on the following pages.



David Magedson
Training Specialist/Consultant

Qualifications

David Magedson is a Training Specialist and Consultant for Hart's election customers. He has developed and implemented Hart Voting System training programs for election officials and poll workers, as well as provided project management in Hawaii and California. Previously, he was an Account Manager for customers in Arizona, California, Hawaii, Oregon, Washington, and Utah. Mr. Magedson brings real-world elections experience and extensive project management expertise to his position.

Relevant Experience

Prior to joining Hart InterCivic, Mr. Magedson was a Hart customer. He worked with the Hart Voting System for three years while employed as troubleshooting coordinator by Travis County, Texas. In addition, Mr. Magedson has broad experience managing people and resources for elections and other major projects.

Professional History

Hart InterCivic, Account Manager, Austin, Texas – 2005 to present

- Training Specialist/Consultant – 2007 to present
 - Manages the full training spectrum and client relationships during the course of an implementation
 - Manages and organizes information and documentation
 - Conducts training sessions using classroom, Web-based, and multimedia presentations; assists in demonstrations
- Account Manager – 2007
- Voting System Training Specialist – 2005 to 2007

Travis County, Texas Elections Department, Troubleshooting Coordinator, Austin, Texas – 2002 to 2005

- Created highly detailed troubleshooting field manuals, procedures, and problem tracking database
- Managed, scheduled, and trained staff of technical troubleshooters
- Coordinated and zoned technical support distribution to more than 270 polling locations

MTS, Inc, Shift Supervisor/Shipping & Receiving Coordinator, Austin, Texas – 2000 to 2002

- Managed consignment department and developed strong rapport with Austin-based musicians and artists
- Supervised daily store functions including bookkeeping, deposits, and task delegation

U.A. Activities, Co-Owner, San Francisco, California – 1997 to 1999

- Designed and maintained computer-operated receiving/distribution department for unique, politically oriented, Internet-based business
- Successfully organized numerous off-site events and gatherings geared toward building a stronger customer base

Technical Experience



MARION COUNTY, OREGON
BEST & FINAL
ELECTIONS VOTE TABULATION SYSTEM



Proficient with Mac OS 9 and X; Windows 98, NT, ME, 2000 and XP; Microsoft suite (Word, Excel, Access, Outlook, PowerPoint), Adobe Photoshop, and PageMaker

Education

Music Major, College of Marin, Kentfield, California



	David Patino Training Specialist II/Consultant
Qualifications	David Patino is a Training Specialist who trains election officials and poll workers to use the Hart Voting System. He also serves as the Documentation Lead for the Hart Voting System training documentation.
Relevant Experience	Prior to joining Hart InterCivic, Mr. Patino was a troubleshooter for the Travis County Clerk's Elections Division, where he worked first-hand with the Hart Voting System. In addition to having a thorough understanding of the elections process, he is an experienced manager who has dealt with diverse populations.
Professional History	<p><i>Hart InterCivic</i>, Training Specialist, Austin, Texas – 2005 to present</p> <ul style="list-style-type: none">▪ Manages the full training spectrum and client relationships during the course of an implementation▪ Manages and organizes information and documentation for implementation▪ Conducts training sessions using classroom, Web-based, and multimedia presentations▪ Assisted San Mateo County, California, in day-to-day elections activities <p><i>Travis County Clerk</i>, Elections Division Troubleshooter, Austin, Texas – 2004 to 2005</p> <ul style="list-style-type: none">▪ Reconciled voter registration database for multiple elections▪ Trained election judges and technical troubleshooters on election law and online voter verification systems▪ Coordinated and zoned technical support to more than 270 polling locations▪ Diagnosed voting equipment and software issues <p>Mr. Patino also has more than four years of experience as a retail manager.</p> <p>CorelDraw/PhotoPaint, Adobe Illustrator/Photoshop/PageMaker, Microsoft Office suite, Macintosh operating system</p>
Education	Undergraduate studies, Studio Art, University of Texas, Austin, Texas



Requirement 100 Incident tracking and resolution.

Vendors' proposals shall provide details of both manual and automated procedures used by the vendor to identify, track, and resolve system problems such as (a) hardware, firmware, and software malfunctions, (b) performance problems, and (c) data corruption in a manner and timeframe that allows elections to be conducted in a reasonable and timely fashion.

Vendors' proposals shall state the name of any automated incident, issue, or problem tracking system used by the firm in providing support to its election system clients. The vendor shall provide sample reports from any automated incident, issue, or problem tracking system that the firm proposes to use in providing support services during the life of the contract with Marion County.

Item status: **CONDITIONAL**

☒ **YES**, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ **NO**, the proposed system does not meet this requirement

Vendor's Narrative:

Hart InterCivic customers log their support requests in a browser-based tracking tool, TeamTrack. This tool enables customers to determine the status of their support call, 24 hours a day, 7 days a week. All users who submit items via the browser interface must have a TeamTrack user account and appropriate privileges. Individuals who have a TeamTrack user account can also submit items via e-mail.

A sample Team Track ticket was included with the original response.

Requirement 405 Preventive maintenance.

Vendor's proposals shall describe all preventive maintenance activities and schedules covered in the Vendor's warranty and maintenance contracts.

The description shall include a statement of whether the vote scanning devices and the election management system are taken out of service during the preventive maintenance activities.

Item status: **CONDITIONAL**

☒ **YES**, the proposal meets this requirement and the functionality is included in the proposed cost

☐ **NO**, the proposal does not meet this requirement

Vendor's Narrative:



One key feature of the Hart Voting System's low-cost-of-ownership engineering is that normal maintenance activities are minimized and can be easily performed during the normal pre- and post-election activities. Maintenance activities other than the routine measures described below will normally be accomplished at a Hart operations or repair facility and are generally of a nature that is not conducive for contracting out to third parties.

All of the Hart Voting System components are nearly maintenance-free, do not require individual reprogramming for each election, and thus require only minimal measures prior to preparation for an election.

The scanners offered to the County include preventative maintenance for four years after purchase. Included with this response is Hart's Scanner Service Bulletin. It is recommended the County follow these basic best practices between the routine preventative maintenance provided by Hart.



Election/Ballot Setup

Requirement 165

Options for using commercial ballot printers.

Vendor's proposal shall state the terms and conditions required by the vendor for the Marion County Clerk's Office Elections Division to select a commercial printer of its choice for printing and distributing ballots to voters.

The proposal shall include a statement of whether Marion County's selected printer must be trained and certified by the vendor in order to print acceptable ballots for use with the vendor's vote tabulation system and equipment.

Item status: MANDATORY

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

Paper ballots for use with the Hart Voting System can be printed locally in Oregon. Paper ballots may be written to an electronic PostScript file or converted to Adobe PDF, and provided to third-party print vendors for volume ballot production. These printers must be certified and trained by Hart and must print ballots on Hart's Official Ballot Paper. We have been in discussions with local print facilities in Oregon that have the equipment and expertise to print the Hart voting system ballots to the correct specifications. The printing of ballot samples have been performed and scanning test have been successfully performed with the equipment models proposed to Marion County.

Requirement 430

Ballot preparation.

Vendors' proposals shall describe required or recommended preparation processes for each returned, voted ballot, such as inspections and ballot preparation, that should be completed prior to being placed in any hardware component for scanning.

Item status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

Hart recommends the County follow the State's Vote by Mail Procedures as revised in January 2009.

Although not meant to be comprehensive, below is a summary of steps that should be followed using the Hart system.

1. Signature verification of return envelopes.



2. Once signature verification is completed and it is E-7, officials can begin opening the return identification envelopes.
3. Process (unfold and sort) ballots by precinct or batches.
4. Keep a record number of return identification ballot envelopes.
5. Begin inspecting the ballots. As the inspection boards must determine whether ballots should be counted, rejected or duplicated. The object of ballot inspection is to ensure that all ballots are machine readable and that the voter's actual vote will be recorded accurately.
6. Ensure that a team of at least two board members of differing political party affiliation work together to determine voter intent.
7. Inspecting for questionable marks and write-in votes and then sort into ballot stacks. With the Ballot Now system write-in votes do not need to be separated. The resolution procedure will properly address write-in options.
8. The scannable stack is ready to be fed into the Ballot Now system.
9. Teams of two will feed the ballots into the Ballot Now scan station.
10. At the County's option, an operator may be dedicated to resolving batches while one or two team members scan voted ballots.

Processing and scanning of voted paper ballots begins when Ballot Now reads ballot information from the election data on the MBB created with BOSS.

Ballot Now ballots include a barcode that identifies the precinct or ballot style. It is understood precinct sorting is a recommended procedure however this identifier can eliminate the need to sort returned ballots before scanning, which eases the workload for the elections staff and speeds ballot processing.

Please see the Ballot Now Best Practices Knowledge Base article included in the original response for further information.

Requirement 455

Specific ballot information printed on ballots.

Vendors' proposals shall describe all specific information that is embedded or generated by the ballot style generation software and can be printed on the physical ballot.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost
☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:



Ballot Now ballots include barcodes with imbedded information. This information identifies valid ballots, along with the precinct identifier or ballot style, election identification, page number, sheet number and system version. It is understood precinct sorting is a recommended procedure but this identifier can eliminate the need to sort ballots before scanning, which eases the workload for the elections staff and speeds ballot processing. Barcodes prevent fraudulent ballots from being accepted.

Requirement 460 **Printed ballot identifiers.**

Vendors' proposals shall describe any identifiers that must be printed on every ballot.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Ballot Now ballots must include barcodes that identify valid ballots, along with the precinct identifier, election identification, page number, sheet number and system version. Precinct identifiers eliminate the need to sort ballots before scanning, which eases the workload for the elections staff and speeds ballot processing. Three barcodes must be present on each ballot page and must be on both sides of the ballot. The County may opt to eliminate just the human readable serial number or to eliminate the unique serial number altogether, however it is not recommended as it provides robust security, fraud prevention and system redundancy.

Requirement 500 **Maximum number of ballot styles.**

Vendor's proposals shall specify the maximum number of ballot styles their proposed system can manage for any one election, taking into consideration Oregon's closed-primary system.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Ballot styles, along with other election data, are written on Mobile Ballot Boxes (MBBs). MBBs are standard Advanced Technology Attachment (ATA) PC cards. Hart provides 128MB MBBs as the standard with the system, which can hold in excess of 200,000 ballot styles. In the Orange County, California, November 2004 General Election the Hart Voting System supported over 121,000 ballot styles.



Requirement 740 **Ballot appearance and font capabilities.**

Vendors' proposals shall provide answers to the following questions regarding ballot appearance and font capabilities.

- A. Can ballots make use of multiple fonts?
- B. Is there any limit as to the number or type of font that can be used on a ballot?
- C. Can very large and/or very small fonts be used? (Please specify the minimum and maximum font sizes that your system can use in laying out ballots.)
- D. Can shading, colors, and graphic features such as boxes or lines be used to enhance ballot appearance and readability?
- E. Can you import graphics?
- F. How many, if any, square inches are available for free form text?

Item status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

Ballot Now can make use of multiple fonts in a ballot template. The only limitation is that all text in a specific category of content (for example, all candidates, all voting instructions, etc.) has to be in the same font. Ballot Now supports font sizes ranging from 6-point to 72-point.

Ballot formatting templates allow flexibility in font size, layout, border, shading, color, graphic images, and other important aspects of ballot presentation. Ballot Now paper ballots are printed in black ink on white paper. Ballot Now allows for a selection rectangle located to either the left or the right of the name of the candidate.

The proposed version of Ballot Now allows for the import and placement of images on ballots where required, such as to designate party affiliation for each candidate.

The number of square inches that is available on a ballot for free form text varies depending on the size of the ballot, template layout and column formatting.



Financial

Requirement 6 **Insurance.**

Vendors' proposals shall contain evidence that the vendor has, or can obtain within five (5) working days of notice of the proposed contract award, sufficient current (a) general business insurance, (b) workers' compensation insurance, and (c) liability insurance to cover the cost of at least all goods and services that will be provided by the vendor under contract to Marion County.

Vendors' proposals shall contain an analysis of why the vendor believes its proposed levels of insurance are adequate to meet the requirements of Marion County.

Item status: MANDATORY

☒ YES, the vendor's insurance meets this requirement

☐ NO, the vendor's proposed insurance does not meet this requirement

Vendor's Narrative:

Hart's 2010 Insurance Accord is shown on the following page.



MARION COUNTY, OREGON
BEST & FINAL
ELECTIONS VOTE TABULATION SYSTEM



Client# 15330 CAGACQ		DATE (MM/DD/YYYY) 08/28/09
ACORD - CERTIFICATE OF LIABILITY INSURANCE		
PRODUCER USI Southwest Austin /CL 7600-B N. Capital of TX Hwy #200 Austin, TX 78731 512 451-7555		THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.
INSURED Hart InterCivic, Inc. 16600 Webb Port Drive Austin, TX 78728		INSURERS AFFORDING COVERAGE INSURER A: Great Northern Insurance Company INSURER B: Texas Pacific Indemnity Company INSURER C: Federal Insurance Company INSURER D: INSURER E:
		NAIC #

COVERAGES		POLICY EFFECTIVE DATE (MM/DD/YYYY)		POLICY EXPIRATION DATE (MM/DD/YYYY)		LIMITS	
A	GENERAL LIABILITY	35764146DAL	08/01/09	08/01/10	EACH OCCURRENCE	\$1,000,000	
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY				DAMAGE TO RENTED PREMISES (PER OCCURRENCE)	\$1,000,000	
	<input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR				VED EXP (ANY OR ALL)	\$10,000	
	<input type="checkbox"/> GEN AGGREGATE LIMIT APPLIES PER POLICY <input type="checkbox"/> PER POLICY <input type="checkbox"/> PER AGGREGATE				PERSONAL & ADV INJURY	\$1,000,000	
B	AUTOMOBILE LIABILITY	7360162B	08/01/09	08/01/10	COMBINED SINGLE LIMIT (PER OCCURRENCE)	\$1,000,000	
	<input checked="" type="checkbox"/> ANY AUTO				BODILY INJURY (PER PERSON)	\$	
	<input type="checkbox"/> ALL OWNED AUTOS				BODILY INJURY (PER OCCURRENCE)	\$	
	<input checked="" type="checkbox"/> SCHEDULED AUTOS				PROPERTY DAMAGE (PER OCCURRENCE)	\$	
B	EXCESS/UMBRELLA LIABILITY	79219771	08/01/09	08/01/10	EACH OCCURRENCE	\$16,000,000	
	<input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE				AGGREGATE	\$16,000,000	
	<input type="checkbox"/> DEDUCTIBLE					\$	
	<input checked="" type="checkbox"/> RETENTION \$0					\$	
C	WORKERS COMPENSATION AND EMPLOYERS LIABILITY	71708257	08/01/09	08/01/10	<input checked="" type="checkbox"/> EL EACH ACCIDENT	\$1,000,000	
	<input type="checkbox"/> ANY PRODUCT OR SERVICE EXCLUDED?				EL DISEASE - EACH EMPLOYEE	\$1,000,000	
	<input type="checkbox"/> SPECIAL PROVISIONS below				EL DISEASE - POLICY LIMIT	\$1,000,000	
	<input type="checkbox"/> OTHER						

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS
The State of Hawaii and the counties of Hawaii, Maui, Kauai and the city and county of Honolulu are additional insureds with respect to all operations performed for the four (4) counties and the state of Hawaii. It is agreed that any insurance maintained by the state of Hawaii will (See Attached Descriptions)

CERTIFICATE HOLDER State of Hawaii, Department of Accounting and General Services Office of Elections 802 Lehua Avenue Pearl City, HI 96782	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENT'S OR REPRESENTATIVES. AUTHORIZED REPRESENTATIVE J. W. Wagoner
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#54046247/M3980064

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Requirement 11 **Financial statement.**

Vendors' proposals shall include the most recent audited financial statement (or SEC filing 10K) of all firms included in the proposal, indicating a sound financial condition for the prime vendor and all subcontractors or partner firms included in the proposal. If this information is not available to Marion County for the past five (5) years, the vendor and the subcontractor(s) shall state the reason(s) why the information is not available.

By submitting this proposal, the vendor understands and agrees that Marion County personnel and evaluation team members will examine the financial statements closely. Marion County reserves the right to perform additional due diligence in this area, at the sole discretion of Marion County, prior to award of any contract.

Item status: MANDATORY

☒ YES, the vendor's proposal meets this requirement
☐ NO, the vendor's proposal does not meet this requirement

Vendor's Narrative:

Included with this response is updated financial information for Hart. The information includes our 2009 Federal Extension and our audited financial statement for the period of November 2008 through December 2008. Coupled with Hart's financial information submitted with the original response, the County now has Hart's financial information for fiscal years 2006 and 2007; stub year 2007; audited calendar year 2008; and our 2009 Federal Extension.

There have been no major changes to our financial line items other than the normal cyclical business experienced in the election industry.



Hardware

Requirement 58

Electrical requirements and documentation.

The vendor's proposed systems shall require a minimum number of electrical and electronic connections and shall operate off standard electrical current that is readily available in the Marion County Clerk's Office Elections Division's ballot tabulation area.

Vendors' proposals shall contain a complete, detailed description of the electrical equipment, required amperage, outlets, surge protectors, and connections required to set up one (1) high-capacity ballot scanning vote tabulation device.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Each Ballot Now computer workstation operates independently as a "standalone" unit. The estimated space and electrical power requirements for each central tabulation unit are as follows:

- Flat surface workspace approximately 6 feet by 3 feet, or various combinations of horizontal or vertical workspace totaling about 18 square feet.
- Clear work area around equipment workspace of approximately 3 feet.
- The electrical requirement for each Dell OptiPlex PC is 110-120 VAC, 6 amps; each 17" monitor is 110-120 VAC, 1.4 amps; each Kodak i660 scanner is 110-120 VAC, 6.5 amps; each HP Printer is 110-120 VAC, 3.5 amps; each Okidata Printer is 110-120 VAC, 6 amps.

Additional space that may be required for ballot processing and batch preparation, as well as ballot resolution team activities, will be dictated by local procedures and requirements.

Requirement 285

Non-provided hardware

Vendors' proposal shall describe the function of all hardware required for operation of the proposed system that is not provided and is either assumed to be already owned by the County or that will have to be acquired by the County through a third party.

Examples of such hardware might include network switches, VPN connectivity, and printers.

Item Status: CONDITIONAL

☒ YES, the proposal meets this requirement

☐ NO, the proposal does not meet this requirement

Vendor's Narrative:



MARION COUNTY, OREGON
BEST & FINAL
ELECTIONS VOTE TABULATION SYSTEM



Hart's proposal includes all equipment necessary for the by-mail system, including hardware, software and ballot printing.

Should the County choose to have ballots printed by a company other than Hart, the associated equipment needed (printers, ink, etc) is not included. Ballot marking devices (pens, pencils, etc) and mail services products (envelopes, postage, etc) are not included in Hart's proposal.



Networking

Requirement 175 **External network connections disallowed**

The vendor's proposed system shall be able to operate fully in a self-contained environment with no connection to an external network or to the Internet.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the capability is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The scanners and PCs running the Hart software applications are not connected to the Internet or any external network and the network cards are disabled on the PCs running the BOSS and Tally applications, thus eliminating the opportunity for an external hacker to gain unauthorized entry. Additionally, Hart's eSlate Cryptographic Module (eCM) electronic signing devices and valid/matching election data criteria (including passwords and user IDs) are used to prevent destructive intrusion through network connections.

Requirement 350 **Electronic distribution of reports.**

The vendor's proposed election management system shall provide the capability to distribute reports electronically throughout the Marion County Clerk's Office Elections Division's self-contained network.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart Voting System software applications produce numerous standard reports, any of which may be exported in PDF, HTML, and other standard formats, for dissemination electronically or by paper copy.



Output: File

Requirement 79

Data export facility.

The vendor's proposed election management and vote tabulation software shall provide authorized users with the capability to produce on-demand electronic files in ASCII (both comma-delimited and fixed-width) format that will contain (a) all data or (b) any user selected data elements from the database that are subject to disclosure under Oregon's public records laws.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Election information can be exported from the current BOSS Election database with the Export tab of the Import/Export window. The exported files will be delimited ASCII text files.

Files containing the following election elements can be exported:

- All – all data for the election
- Election Data – jurisdiction election information for the jurisdiction
- Party List – Political party definitions and .bmp image files
- Polling Places – Polling place names and descriptions
- Precincts – Precinct names and descriptions
- Party Precinct Voters – Registered voters in parties and non-affiliated voters
- Districts – District names
- Contests – Contest definitions and .bmp image files (Note: Selection of contest position options Force to New Column and Force to New Page are not exported in for the Ballot Now system.
- Precinct-Level Contests
- Candidates – candidate definitions
- Ballot Instructions – instructions for the ballot
- Candidate Details – candidate detail
- Polling Place/Precincts Associations
- Precinct/District Associations



- District/Contest Associations
- Precinct/Contest Associations – contests assigned to precincts
- Precinct-Level Contests/Precinct Associations

The vote tabulation data contained in the active Tally database can be exported to a comma delimited file for external reporting purposes.

The following types of export files are available:

- Landscape Vote Totals
- EDX
- Detail Vote Totals
- Provisional Ballot Status
- Retrievable Ballot Status

The File menu Export command launches the Export Wizard, which is an interactive utility that guides users through each step of creating a comma-separated-values export file of tabulation data for the active Tally database.

Requirement 86 **Non-proprietary data elements and formats.**

Vendors' proposals shall state in clear terms an understanding that all data entered into the system and database by the Marion County Clerk's Office Elections Division is and shall remain the property of Marion County.

No legal stipulation or technical feature in the vendor's proposed system shall require Marion County to obtain permission from the vendor or pay the vendor any sum in order to access and use any data entered into the system by the Marion County Clerk's Office Elections Division.

Vendors' proposals shall state in clear terms an understanding that all data entered into the system shall not be in any proprietary or encrypted format that will render it incapable of being extracted into standard ASCII file formats (or standard graphics images where applicable) by reasonably trained system administration staff of Marion County Elections using technical documentation provided by the vendor.

Vendors' proposals shall identify any data elements, other than application passwords, that are in any way stored in a format that is proprietary, encrypted, or marked with expiry keys that would render the data incapable of being extracted by trained, authorized users of the Marion County Clerk's Office Elections Division.

Item status: MANDATORY

☒_x_YES, the proposed system meets this requirement and the functionality is included in the



proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart understands all data entered into the Hart Voting System by the Marion County Clerk's Office Elections Division is the property of Marion County.

The use of the Hart Voting System will be in accordance with the provisions of the Hart Voting System Warranty, Support, and License Agreement and the Hart Voting System Master Agreement which will be signed by both parties upon award. Samples of these agreements are included with this response.

Requirement 190

Transfer results from ballot scanning to central tabulating.

Vendors' proposals shall describe the alternative means by which a system administrator or scanner operator can transfer the results from an individual ballot scanning device to a central tabulating device.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the capability is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Processing and scanning of voted paper ballots begins when Ballot Now reads ballot information from the election data on the MBB created with BOSS. After ballots are scanned, cast vote data is saved as Cast Vote Records (CVRs) on the same election's MBB(s). This MBB carries the CVRs to the Tally application for tabulation.

The MBB used in Ballot Now operations may be transported by simply removing the MBB and transporting it to the assigned central tabulating location. Official results are obtained by reading the MBBs into the Tally tabulation software application.

Voted ballots are scanned from the Ballot Now system to create CVRs which will be written to the Election MBB for tallying in the Tally System, creating the Election Results.

An alternative method – though not recommended - to the above is via manual, hand-count of the ballots. To accomplish this task, all ballots would be hand-counted and the totals for each contest would be entered into Tally via the Vote Adjustment Wizard. Please see "Chapter 8 Vote Adjustments" that was included with the original response follow-up questions for the step-



by-step process on using the Wizard. Note: The "Chapter 8 Vote Adjustments" is to be held confidential.

Requirement 360

Output to HTML files.

The vendor's proposal shall list (a) all of the system's files that can be produced in HTML format, (b) the steps required to produce these files and reports in HTML format, (c) the version of HTML file produced, and (d) any third-party software that the Marion County Clerk's Office Elections Division must purchase and use with the vendor-supplied software to generate the HTML files.

Item status: OPTIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost
☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart Voting System software applications produce numerous standard reports, any of which may be exported in PDF, HTML, and other standard formats, for dissemination electronically or by paper copy.

HTML 3.2, v4.0 and v4.01 can be accommodated.

File exports from BOSS can be provided in PDF.

File exports from Ballot Now can be provided in Access ODBC, Excel, CSV, PDF, Crystal, Word, EDX, HTML v3.2 and v4.0, RFT, Tab delimited and XML.

File exports from Tally can be provided in Access ODBC, Excel, CSV, PDF, Crystal, Word, EDX, HTML v3.2 & v4.0 and Lotus 123.

Marion County should not need to purchase any software if the capability currently exists within the County to complete file exports as desired in the formats listed above.

Requirement 365

Output to MS-Access table files.

The vendor's proposal shall list (a) all of the system's files that can be produced in MS-Access table format, (b) the steps required to produce these files and reports in MS-Access table format, (c) the version of MS-Access file produced, and (d) any third-party software that the Marion County Clerk's Office Elections Division must purchase and use with the vendor-supplied software to generate the MS-Access files.

Item status: OPTIONAL



☒_x_YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐_NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart Voting System software applications produce numerous standard reports, any of which may be exported in PDF, HTML, and other standard formats, for dissemination electronically or by paper copy.

File exports from Ballot Now can be provided in Access ODBC, Excel, CSV, PDF, Crystal, Word, EDX, HTML v3.2 and v4.0, RFT, Tab delimited and XML.

File exports from Tally can be provided in Access ODBC, Excel, CSV, PDF, Crystal, Word, EDX, HTML v3.2 & v4.0 and Lotus 123.

Marion County should not need to purchase any third party software if the capability currently exists within the County to complete file exports as desired in the formats listed above.

Requirement 370

Output to MS-Excel files.

The vendor's proposal shall list (a) all of the system's files that can be produced in MS-Excel format, (b) the steps required to produce these files and reports in MS-Excel format, (c) the version of MS-Excel file produced, and (d) any third-party software that the Marion County Clerk's Office Elections Division must purchase and use with the vendor-supplied software to generate the MS-Excel files.

Item status: OPTIONAL

☒_x_YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐_NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart Voting System software applications produce numerous standard reports, any of which may be exported in PDF, HTML, and other standard formats, for dissemination electronically or by paper copy.

File exports from Ballot Now can be provided in Access ODBC, Excel, CSV, PDF, Crystal, Word, EDX, HTML v3.2 and v4.0, RFT, Tab delimited and XML.

File exports from Tally can be provided in Access ODBC, Excel, CSV, PDF, Crystal, Word, EDX, HTML v3.2 & v4.0 and Lotus 123.



Requirement 375

Output to MS-Word files.

The vendor's proposal shall list (a) all of the system's files that can be produced in MS-Word format, (b) the steps required to produce these files and reports in MS-Word format, (c) the version of MS-Word file produced, and (d) any third-party software that the Marion County Clerk's Office Elections Division must purchase and use with the vendor-supplied software to generate the MS-Word files.

Item status: OPTIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart Voting System software applications produce numerous standard reports, any of which may be exported in PDF, HTML, and other standard formats such as Word, for dissemination electronically or by paper copy.



Output: Print

Requirement 22

Printing candidates and issues in alphanumeric format.

The vendor's proposed system shall provide the capability to print out results containing candidates and/or issues in an alphanumeric format next to the vote totals, including the ability to print out election results displaying the party identification of all candidates on the ballot.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart's Cumulative Report found in Tally provides voting results and summary totals for each contest (candidate and/or issue) in a jurisdiction. It also includes statistics by the number of precincts and by the number of votes for each contest, including number of absentee votes for the contest choice and total number of votes for the contest choice. For candidate contests the party identification is included near the candidate name. Examples of the Cumulative and Tally standard reports were provided in the original response in the "Sample Reports" section.

The sort order for the Cumulative Report is contest in order of appearance on the ballot.

Requirement 38

Reports from the automated ballot layout subsystem.

The vendor's proposed system shall generate a variety of reports for use in Marion County's ballot proofing and vendors' proposals shall include a list and description of all reports the proposed system generates for ballot proofing (such as ballot layout, and candidate order).

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Ballot content is proofed in two ways. One way is to review ballot view in BOSS to see an exact representation of how the ballot will look. The other way to accomplish ballot proofing is through BOSS reports. BOSS provides the reports detailed below to support ballot proofing. The system also prints a fully formatted ballot for proofing.

Hart can create custom reporting templates to meet any reporting requirement. Custom report templates can be integrated with the Hart Voting System installation for the County, becoming



part of the County's package of standard reports. The time required to develop a new user-defined report will vary depending upon the complexity of the report. User defined reports can include any combination of final results data.

After the content is verified, ballot generation produces the electronic ballot data file that contains all the ballot styles necessary for the election. This file is copied to the MBBs.



Name	Data Elements
Ballot Content Proof	Ballot formats Ballot styles created for a ballot format Ballot header text Precincts that will use a particular ballot style in the election Precinct/precinct split name Number of registered voters in the precinct/precinct split Number of precincts that use the ballot style Number of registered voters that use the ballot style For each active contest in each ballot style, lists in order of appearance on the ballot: <ul style="list-style-type: none">Contest typeContest nameNumber of write-ins allowed in the contestStraight Party if the contest is assigned to Straight Party
Entire Ballot Slate	Ballot text for the contest Contest name Number of write-ins allowed in the contest Contest type Number of options in the contest Straight Party if the contest is assigned to Straight Party If the contest is cumulative, displays Cumulative If the contest is dependent, displays Dependent on XXX, where XXX is the choice in the related contest that this item is dependent upon number of votes allowed in the contest Options for an Office type contest, including: <ul style="list-style-type: none">Party affiliation, name, and incumbent status (shown as (I) if is incumbent) for each candidateWrite-insDelegate names for each candidate Options for a Proposition type contest, including: <ul style="list-style-type: none">Text for the propositionFor (Yes)Against (No)

Ballot Proofing Reports. The Hart Voting System produces reports that permit fast and accurate ballot proofing.

Requirement 45

Printing the system component inventory.

The vendor's proposed system shall provide the capability to (a) print and (b) prepare an ASCII text file containing the audit trail of all devices contained in the voting system component audit log/inventory for an election.



Typically this action will occur after the final certification of an election.

Vendors' proposals shall contain a description of the printed reports available containing data from this voting system component audit log/inventory. At least one printed report shall contain a list of specific devices that were used successfully for voting during the election cycle, devices that failed during the election cycle, and devices that were not used in the election cycle.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The audit log contains information that allows election officials to reconstruct an election and verify the results without compromising ballot and voter secrecy.

A sample of Hart's Audit Log was included in the "Sample Reports" section of our original response.

BOSS Audit Log

The BOSS Audit Trail report provides audit trail data of activity in the BOSS database for an election. The date, time, event name, transaction type, and user ID is included for each event printed in the BOSS Audit Trail report.

The operator can view and/or print the BOSS Audit Trail report at any time during the creation of an election. The primary sort order for the report is alphanumeric by timestamp; the secondary sort order for the report is alphanumeric by action.

Ballot Now Audit Log

The Ballot Now Election Database Audit Log report lists the transactions users performed in Ballot Now. The Security Database Audit Log report lists security database transactions. The date, time, event name, and user ID is included for each event printed in these audit logs.

Audit messages describing all operator input to the Ballot Now application are captured in the following reports:

- Election Database Audit Log
- Security Database Audit Log
- Filtered Election Database Audit Log
- Filtered Security Database Audit Log



Tally Audit Log

The Tally application prints a real-time audit log to a system line printer (if enabled) as the events occur. The audit log is also stored in the database. The real-time audit messages include a log of the operator's activities with the Tally application and error messages presented during a session. The date, time, event name, and user ID is included for each event printed in the audit log. The audit log can also be viewed and printed in the Audit Log report in Tally.



Requirement 77

Standard reports.

Vendors' proposals shall list all standard reports that will arrive with the system when it is installed after final acceptance.

The provided lists shall indicate a short name of each report or output file, a brief description of the report's or files contents, the level of user (such as system administrator or general user) who has authorization to create the report or output file, the module or subsystem from which users generate the output, and a statement of when the report can or must be run.

Vendors shall provide samples of the reports in their proposals and during the vendor demonstrations.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

BOSS produces the following standard reports:

- **Active Contests Options List** – lists contests and their options.
- **Audit Trail** – shows audit trail data of activity in the database.
- **Ballot Content Proof** – shows precincts and contests contained in each ballot style of each ballot format; total precincts and total registered voters that use each ballot style.
- **Ballot Style List by Precinct** – shows ballot styles for precincts.
- **Ballot Style List by District** – shows ballot styles for districts and the precincts in the districts.
- **Contest List with Details** – lists all contests in the current database, the precincts they were assigned to, and the number of registered voters within each precinct/precinct split that could have the contest on their ballot.
- **Assigned Precincts** – shows precincts assigned to districts.
- **Precincts Not Assigned** – shows precincts not assigned to a district.
- **Media Production List** – lists MBB serial number, dates, typed, and modes.
- **Polling Place List – Early Voting – Detail** – lists polling places for Early Voting with their precincts/split and number of registered voters in each polling place.
- **Polling Place List – Early Voting – Summary** – lists polling places for Early Voting.
- **Polling Place List – Election Day Voting – Detail** – lists polling places for Election Day with their precincts/splits and number of registered voters in each polling place.



- **Polling Place List – Election Day Voting – Summary** - lists polling places for Election Day.
- **Precinct List** – lists precincts, precinct splits and the number of registered voters in each precinct/precinct split.
- **Security Audit** – shows all auditable events performed in BOSS since the BOSS installation.

A user can scroll through the report to view it on the screen or can send a copy of the report to the system printer. Reports are output to 8.5x11 paper.

Ballot Now produces the following standard reports:

- **Election Report** – shows Election name, Ballot Now state (opened, closed), jurisdiction, date, MBB serial number, public counter, Ballot now private counter, and total number of scan batches.
- **Election MBBs** – list of MBBs in the Election.
- **Scan Batch** – for each page of the ballots in a scan batch, lists whether Ballot now accepted or rejected the page.
- **Deleted Batches** – list of deleted batches.
- **Scan Batch Summary** – summary information for each batch of ballots scanned.
- **Printed Ballots by Precinct** – for each printing session, the precinct name and the date, time user ID, starting serial number, ballot type, language, and number of ballots printed; sorted by precinct.
- **Scanned Ballots by Precinct** – for each precinct, the scan batch IDs and numbers of scanned ballots that are unresolved, resolved, written to the MBB, and not yet processed by BNIP; sorted by precinct.
- **Scanned Ballots by Batch** – for each scan batch, the scan batch ID, the user ID, date and time associated with the scan batch, and numbers of scanned ballots that are unresolved, resolved, written to the MBB, and not yet processed by BNIP; sorted by scan batch number.
- **Resolve Status** – for each scan batch, the scan batch ID, the user ID, date and time associated with the scan batch, number of ballots unresolved, resolved, and not yet processed by BNIP; sorted by scan batch.
- **Deleted Ballots** – list of deleted ballots.
- **Certified Write-Ins** – list of certified write-ins entered for all write-in contests.
- **Election Database Audit Log** – shows actions performed within a specific Ballot Now election database (e.g., resolution actions taken by a user).
- **Security Database Audit Log** – shows actions performed in the Ballot Now application since installation (e.g., adding users).
- **Filtered Election Database Audit Log** – shows user chosen filtered information from the Election Database Audit Log.



- **Filtered Security Database Audit Log** – shows user chosen filtered information from the Security Database Audit Log.

A user can scroll through the report to view it on the screen or can send a copy of the report to the system printer. Reports are output to 8.5x11 paper.

The Election MBB does not need to be installed in the PC Card device in order to view or print Ballot Now reports. However, the appropriate Election must be open in Ballot Now before a report can be printed or viewed.

The standard Tally reports include:

- **Audit Log** – provides a log of all program events that are relative to tabulation. This information is stored in the database, and may be printed on a real-time printer (if enabled) as the events occur.
- **Ballot Status – Excluded – Provisional** – lists which provisional ballots are excluded in the tabulation. The primary sorting order is by precinct name. The information includes the source of the ballots (absentee, Early Voting, Election Day), the total number of excluded provisional ballots in the precinct, and the total number of excluded provisional ballots in all precincts.
- **Ballot Status – Included – Provisional** – lists which provisional ballots are included in the tabulation. The primary sorting order is by precinct name. The information includes the source of the ballots (absentee, Early Voting, Election Day), the total number of included provisional ballots in the precinct, and the total number of included provisional ballots in all precincts.
- **Ballot Status – Excluded – Retrievable** – lists which retrievable ballots are excluded in the tabulation. The primary sorting order is by precinct name. The information includes the source of the ballots (absentee, Early Voting, Election Day), the total number of excluded retrievable ballots in the precinct, and the total number of excluded retrievable ballots in all precincts.
- **Ballot Status – Included – Retrievable** – lists which retrievable ballots are included in the tabulation. The primary sorting order is by precinct name. The information includes the source of the ballots (absentee, Early Voting, Election Day), the total number of included retrievable ballots in the precinct, and the total number of included retrievable ballots in all precincts.
- **Blank Ballot Report** – lists the number of blank ballots cast, by precinct, during absentee, early, and Election Day voting. The primary sorting order is by precinct.
- **Canvass Report** – lists how each precinct voted for each candidate or choice in a contest, including number of absentee ballots cast in precinct, total number of ballots cast in precinct, and total number of votes cast in precinct for the contest
- **Cumulative Report** – provides voting results and summary totals for each contest in a jurisdiction. It also includes statistics by the number of precincts



and by the number of votes for each contest, including number of absentee votes for the contest choice and total number of votes for the contest choice.

- **MBB Status Report** – provides information about MBBs defined in Tally. The report can be generated for either MBBs read by Tally (including identification of MBB, total number of MBBs read at the location, and total number of ballots read at the location) or MBBs that have not been accounted for by Tally (including identification of the MBB that has not been read and the total number of MBBs that have not been read).
- **Polling Place Status** – lists the names of the polling places that have reported and the number of ballots cast at the polling place, the number of ballots cast in a polling place, the MBB identification(s) for the MBB(s) used in a polling place, and the number of MBBs used in a polling place.
- **Precinct Election Day Status** – lists the names of the precincts that have reported; number of registered votes in those precincts; the number of ballots cast in those precincts; and percent turnout in those precincts.
- **Precinct Election Day Status (with MBB IDs)** – used for precincts reporting or not reporting on Election Day. This report lists the names of the precincts that have reported; the number of registered voters in those precincts; the number of ballots cast in those precincts; and the percent turnout in those precincts.
- **Precinct Report** – lists results by precinct for every contest on a precinct's ballot, including number of absentee votes for the contest choice and total number of votes for the contest choice.
- **Precinct Turnout** – lists the voter turnout for the precincts in the election from the following vote sources: all voting (absentee, early and Election Day), Election Day voting only, early voting only, and absentee voting only. Also lists number of ballots cast in the precinct and total number of ballots cast in the election.
- **Reassigned Provisional Ballots** – lists the provisional ballots that were assigned through the Provisional Ballots tab to a different precinct party than the precinct or party assigned to them when they were cast.
- **Accepted Write-ins** – lists the contest title the accepted write-in appears in, the candidate name of the accepted write-in, alias name(s) for the accepted write-in, the number of votes for each alias name, the total number of votes for all alias names in the contest, the total number of accepted write-in votes for the contest, and the total for accepted write-in votes for the election.
- **Certified Write-ins** – lists the contest title the certified write-in appears in, the candidate name of the certified write-in, and alias name(s) for the certified write-in.
- **Rejected Write-ins** – lists the contest title the rejected write-in appears in, the candidate name of the rejected write-in, the number of votes for each rejected write-in name, the number of rejected write-in names for the contest, and the total number of rejected write-in votes for the contest.
- **Unresolved Write-ins** – lists the contest title the unresolved write-in appears



in, the candidate name of the unresolved write-in, the number of votes for each unresolved write-in name, the number of unresolved write-names for the contest, and the total number of unresolved write-in votes for the contest.

All standard Tally reports have a landscape layout.

Report samples were included in the original response.

Requirement 78 **General purpose report writer.**

The vendor's proposed system shall provide a software solution that includes a general purpose report writer that can assist in extracting data from the election management and voter tabulation database(s) and produce a wide variety of formatted reports using the extracted data.

The solution can involve a third party report writer to supplement any capabilities that are internal to the proposed election management software. In general, the preferred solution will involve an ability to query the database and select data independently from any third party report writer software. However, if a vendor's proposal includes and requires the use of third party report writer software, the proposal shall include the name of the software publisher and the name and version number of the software. (The cost of the report writer licenses for all servers and clients shall be included in any vendor's cost proposal.)

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Custom Report Wizard included in Hart's Tally application allows for the creation of customer reports. When the Custom Report Wizard is launched a sequence of Windows-driven steps becomes available. The creator will define a name for the new report to add; define the title for the new report; and select the precincts and contests that will appear on the new report. Detailed Custom Report Wizard instructions are included with Hart's Tally Operations Manual.

Fusion, Hart's software utility, may also be used to save user-defined reports. Fusion is a software utility used to map election data from one system to another safely, and to report election results from multiple databases or systems using a wide variety of custom reports and data exports.

Requirement 130 **Zero reports and precinct tally reports**

This proposed system shall provide a capability to produce accurate zero printouts before each election and an accurate precinct tally printout at the close of each election.



Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart Voting System as proposed to Marion County produces accurate zero printouts before each election and an accurate precinct tally printout at the close of each election.

Requirement 170 **XML files.**

The vendor's proposal shall list (a) all of the system's files that can be produced in XML format, (b) the steps required to produce these files and reports in XML format, (c) the version of XML file produced, and (d) any third-party software that the Marion County Clerk's Office Elections Division must purchase and use with the vendor-supplied software to generate the XML files.

Item status: OPTIONAL

☒ YES, the proposed system meets this requirement and the capability is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart Voting System applications reside off-line for security purposes, reports can be exported to a networked computer via a one-way communication link for distribution throughout the network. The Hart Voting System supports export and storage of election results in multiple formats, including Access, Adobe, Excel, HTML, ASCII, PDF, and XML file formats.

Tally and Fusion reports may be exported to XML formats. The steps for this process are included in the Operations Manuals of each application. The Tally Reporting Tab Option Window from our manual is shown below.



✓ **To view the Reporting tab of the Options window:**

1 Use one of the following methods to view the **Reporting** tab of the **Options** window:

Method 1: From the **Options** menu, select **Reporting Options** (see Figure 4-2).

Method 2: If the **Options** window is already displayed, click the **Reporting** tab.

The **Reporting** tab appears in the **Options** window (see Figure 4-1).

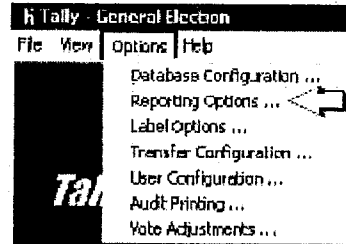


Figure 4-2 Options menu.

File exports from Ballot Now can be provided in Access ODBC, Excel, CSV, PDF, Crystal, Word, EDX, HTML v3.2 and v4.0, RFT, Tab delimited and XML.

Marion County should not need to purchase any third party software if the capability currently exists within the County to complete file exports as desired in the formats listed above.

Requirement 310 **Alphanumeric precinct report**

The vendors' proposed software shall be capable of printing an alphanumeric precinct report containing (1) the number of ballots cast, (2) the number of ballots with write ins, (3) the office title, (4) candidate names, (5) issue title, (6) vote totals for each candidate, (7) vote totals for each issue, (8) the number of over votes in each race, and the (9) number of under votes.

In completing this response, vendors should be fully aware of Oregon's closed primary system and the complexity of these precinct reports during closed primary elections.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart Voting System produces many election reports on Election Day, including various cumulative (summary) and precinct reports. Both cumulative and precinct reports show the date and time the report was run, and percentage of voters and precincts reporting. The cumulative report provides contest vote totals at the county and statewide levels. The precinct report details the party and respective candidate, and number of cast votes, over votes, write-ins and under votes for absentee voting and Election Day voting totals. It also includes the number of party, nonpartisan, and special only ballots read by type, in primary elections. Since registered voters



can also be imported by party into Tally, precinct reports can be run noting the turnout by number of eligible voters for each race for primary elections.

The Hart Voting System produces the following primary and general election statistics at the precinct, district, county, and statewide levels:

- Number of registered voters
- Number and percent of Primary Election ballots cast (total turnout)
- Number of General Election ballots cast (total turnout)
- Number and percent of ballots cast by party and nonpartisans
- Number and percent of Special Election ballots only cast
- Number and percent of total Special Election ballots cast
- Number and percent of invalidations (cross-party conditions)
- Number of absentee ballots cast
- Number of precinct ballots cast

The Tally software allows the user to either show or hide overvotes and/or blank votes (undervotes) for reporting purposes. Precinct reports are available. The show/hide undervote functionality is user-selectable. Once write-ins have been resolved, accepted write-in candidates' vote totals appear on the precinct reports. The user may select whether to report unresolved write-ins (write-ins which have not yet been processed) as undervotes or as a separate category (which may be named "unprocessed write-ins") for each race.

Requirement 345 Reports based on user-defined parameters.

The vendor's proposed election management system shall provide the capability to produce reports on election results data based on user-defined data parameters.

Item status: **CONDITIONAL**

☒ **_x_YES**, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ **__NO**, the proposed system does not meet this requirement

Vendor's Narrative:

The Custom Report Wizard included in Hart's Tally application allows for the creation of customer reports. When the Custom Report Wizard is launched a sequence of Windows-driven steps becomes available. The creator will define a name for the new report to add; define the title for the new report; and select the precincts and contests that will appear on the new report. Detailed Custom Report Wizard instructions are included with Hart's Tally Operations Manual.



Fusion, Hart's software utility, may also be used to save user-defined reports. Fusion is a software utility used to map election data from one system to another safely, and to report election results from multiple databases or systems using a wide variety of custom reports and data exports.

Requirement 380 **Print to a local printer.**

The vendor's proposed election management system shall provide the ability to direct output to a local-attached printer.

Vendors' proposals shall provide (1) a list of local-attached printers and drivers that are commonly used with its election management system and (2) a statement of who is responsible for parts and service along with consumables for those printers.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Laser printers of varying speeds and capabilities are used to print reports and by-mail ballots, among other tasks. For Marion County, we recommend a low-volume printer, such as the Hewlett Packard LaserJet 3005d, or a high-volume printer, such as the Okidata 9650 which operates with Windows drivers, thereby enabling it to integrate easily into PC platforms.

The County is responsible for parts, service and consumables for these printers.

Requirement 385 **Print to a network printer.**

The vendor's proposed election management system shall provide the ability to direct output to a network-attached printer.

Vendors' proposals shall provide (1) a list of network-attached printers and drivers that are commonly used with its election management system and (2) a statement of who is responsible for parts and service along with consumables for those printers.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:



The Hart Voting System does not connect to any network therefore there are no network-attached printers to provide direct output.

Laser printers of varying speeds and capabilities are used to print reports and by-mail ballots, among other tasks. For Marion County, we recommend a low-volume printer, such as the Hewlett Packard LaserJet 3005d, or a high-volume printer, such as the Okidata 9650 which operates with Windows drivers, thereby enabling it to integrate easily into PC platforms.

The County is responsible for parts, service and consumables for these printers.



Project Management

Requirement 70

Vendor's project team resumes.

Vendors' proposals must include names and résumés of the firm's proposed (1) project director in Marion County, (2) installation specialists, and (3) any other onsite technical support personnel who will be assigned to this project.

In submitting a proposal, vendors acknowledge Marion County's right of review and refusal of all personnel working on the voting systems project. The Marion County Clerk's Office Elections Division retains the unequivocal right to insist on replacing any project team member at any time in the project.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart's resources assigned to the project total five and are all full time employees of Hart.

The proposed key personnel for the Marion County project are shown in the following table.

Name	Address	Telephone Number	E-mail Address
Pete Lichtenheld Operations Director, Election Solutions	15500 Wells Port Dr. Austin, Texas 78728	512-252-6578	plichtenheld@hartic.com
Rich Geppert Manager, Professional Services	15500 Wells Port Dr. Austin, Texas 78728	512-252-6632	rgeppert@hartic.com
Pam Cardenas Project Manager	15500 Wells Port Dr. Austin, Texas 78728	512-252-6813	pcardenas@hartic.com
David Magedson Training Specialist	15500 Wells Port Dr. Austin, Texas 78728	512-252-6801	dmagedson@hartic.com
David Patino Training Specialist	15500 Wells Port Dr. Austin, Texas 78728	512-252-6818	dpatino@hartic.com

Resumes of the above individuals begin on the next page.



Peter Lichtenheld
Director of Operations

Responsibilities

As Director of Operations for Elections at Hart InterCivic, Pete Lichtenheld oversees and coordinates timely and accurate delivery of numerous customer-critical services. His management of product supply chain, Ballot Production Services, technical services and the Customer Support Center is key to customers receiving the voting system components and on-going support they need.

Relevant Experience

Prior to coming to Hart, Mr. Lichtenheld gained more than 20 years of experience in training people of every level, from kindergarten to doctoral level students. This experience was valuable to his development of Hart's comprehensive voting system training programs that benefit election officials, poll workers, and technicians in thousands of jurisdictions across the country. Mr. Lichtenheld has worked as team leader in all aspects of Hart's elections business. He was instrumental in organizing Hart's Election Day help desk, and carried that successful structure to the Customer Support Center. His hands-on work with product documentation led to recording and improving Hart's supply chain and equipment management procedures.

Professional History

Hart InterCivic, Austin, Texas – 2001 to present

- Director of Operations – 2008
- Director of Customer Care – 2007
- Director of Consulting and Training – 2005 to 2007
- Hart Voting System Training Program Manager – 2001 to 2005

Texas School for the Blind and Visually Impaired, Teacher, Austin, Texas – 1988 to 1990

Austin Independent School District (AISD), Teacher, Professional Development Trainer, Computer Liaison, Mentor Teacher, Austin, Texas – 1982 to 2001

Education

M.A., Instructional Technology, University of Texas at Austin, Austin, Texas

B.A., Religious Studies and Philosophy, Beloit College, Beloit, Wisconsin

**Certifications/
Professional
Participation**

American Society for Training and Development

American Marketing Association

International Association of Clerks, Recorders, Election Officials & Treasurers

Pragmatic Marketing Certified

Texas Technology CD Project

Texas Certification in Elementary Education



Richard M. Geppert, PMP, CERA
Manager, Election Services

Qualifications

Rich Geppert brings over a decade of experience with election and project management to his role as Manager of Election Services for Hart InterCivic. Mr. Geppert oversees all aspects of the installation process, including project management, work process integration oversight of all project deliverables, and management of timetables. He has considerable experience with election law and voting system administration.

Relevant Experience

Mr. Geppert has been the Project Manager for over 30 Hart Voting System installations, including:

- Harris County, Texas
- San Mateo County, California (voting system and voter registration)
- Orange County, California
- Implementations throughout Illinois, Texas, and Hawaii.

Mr. Geppert has been responsible for administering more than 100 elections using the Hart Voting System.

Professional History

Hart InterCivic, Austin, Texas – 2000 to present

- Manager, Election Services, 2008 to Present
- Project Manager – 2007
- Account Manager – 2000 to 2006

Travis County, Assistant Elections Manager, Austin, Texas – 1995 to 2000

- Managed all facets of the elections process, including elections project management, Election Day, Early Voting by-mail, poll worker recruitment and training, and legislative work
- Administered Early Voting Program, Central Counting Station, and Early Voting Ballot Board

Education

M.P.A., Baylor University, Waco, Texas

B.A., Political Science, Baylor University, Waco, Texas

**Certifications/
Professional
Organizations**

Certified Elections/Registration Administrator (CERA), Election Center
Project Management Professional (PMP) certification



Pamela Cardenas, PMP, CERV
Project Manager

Qualifications

Pamela Cardenas is a Project Manager responsible for the planning and management of new Hart Voting System implementations. Prior to joining Hart, Ms. Cardenas worked for the Travis County Clerk's office as an elections and records management supervisor. She has extensive experience with project management, policy development, and the implementation of business systems.

Professional History

Hart InterCivic, Austin, Texas – 2005 to present

- Project Manager – 2007 to present
 - Provide project management for Hart Voting System implementations; recent projects include the City and County of Honolulu, Maui County, Hawaii, Nevada County, California and Yamhill County, Oregon.
 - Provide ongoing support for mature Hart Voting System customers, including customers in Illinois, Ohio, California, Washington, Pennsylvania, Colorado, Texas, and Oregon.
- Account Manager, 2005 to 2007
 - Led and supported over twenty Hart Voting System implementations in five states.
 - Provided ongoing support for mature Hart Voting System customers

Travis County Clerk, Austin, Texas – 1997 to 2005

- Records Analyst – 2003 to 2005
- Elections Coordinator – 2003
- Election Management Coordinator – 2000 to 2002
- Administrative Specialist – 1997 to 2000

B.A., Government, University of Texas, Austin, Texas

**Certifications/
Professional
Organizations**

Project Management Professional (PMP) certification through the Project Management Institute

Certified Elections and Registration Vendor (CERV) certification through the Election Center



David Magedson
Training Specialist/Consultant

Qualifications

David Magedson is a Training Specialist and Consultant for Hart's election customers. He has developed and implemented Hart Voting System training programs for election officials and poll workers, as well as provided project management in Hawaii and California. Previously, he was an Account Manager for customers in Arizona, California, Hawaii, Oregon, Washington, and Utah. Mr. Magedson brings real-world elections experience and extensive project management expertise to his position.

Relevant Experience

Prior to joining Hart InterCivic, Mr. Magedson was a Hart customer. He worked with the Hart Voting System for three years while employed as troubleshooting coordinator by Travis County, Texas. In addition, Mr. Magedson has broad experience managing people and resources for elections and other major projects.

Professional History

Hart InterCivic, Account Manager, Austin, Texas – 2005 to present

- Training Specialist/Consultant – 2007 to present
 - Manages the full training spectrum and client relationships during the course of an implementation
 - Manages and organizes information and documentation
 - Conducts training sessions using classroom, Web-based, and multimedia presentations; assists in demonstrations
- Account Manager – 2007
- Voting System Training Specialist – 2005 to 2007

Travis County, Texas Elections Department, Troubleshooting Coordinator, Austin, Texas – 2002 to 2005

- Created highly detailed troubleshooting field manuals, procedures, and problem tracking database
- Managed, scheduled, and trained staff of technical troubleshooters
- Coordinated and zoned technical support distribution to more than 270 polling locations

MTS, Inc., Shift Supervisor/Shipping & Receiving Coordinator, Austin, Texas – 2000 to 2002

- Managed consignment department and developed strong rapport with Austin-based musicians and artists
- Supervised daily store functions including bookkeeping, deposits, and task delegation

U.A. Activities, Co-Owner, San Francisco, California – 1997 to 1999

- Designed and maintained computer-operated receiving/distribution department for unique, politically oriented, Internet-based business
- Successfully organized numerous off-site events and gatherings geared toward building a stronger customer base



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Technical Experience

Proficient with Mac OS 9 and X; Windows 98, NT, ME, 2000 and XP; Microsoft suite (Word, Excel, Access, Outlook, PowerPoint), Adobe Photoshop, and PageMaker

Education

Music Major, College of Marin, Kentfield, California



David Patino
Training Specialist II/Consultant

Qualifications

David Patino is a Training Specialist who trains election officials and poll workers to use the Hart Voting System. He also serves as the Documentation Lead for the Hart Voting System training documentation.

Relevant Experience

Prior to joining Hart InterCivic, Mr. Patino was a troubleshooter for the Travis County Clerk's Elections Division, where he worked first-hand with the Hart Voting System. In addition to having a thorough understanding of the elections process, he is an experienced manager who has dealt with diverse populations.

Professional History

Hart InterCivic, Training Specialist, Austin, Texas – 2005 to present

- Manages the full training spectrum and client relationships during the course of an implementation
- Manages and organizes information and documentation for implementation
- Conducts training sessions using classroom, Web-based, and multimedia presentations
- Assisted San Mateo County, California, in day-to-day elections activities

Travis County Clerk, Elections Division Troubleshooter, Austin, Texas – 2004 to 2005

- Reconciled voter registration database for multiple elections
- Trained election judges and technical troubleshooters on election law and online voter verification systems
- Coordinated and zoned technical support to more than 270 polling locations
- Diagnosed voting equipment and software issues

Mr. Patino also has more than four years of experience as a retail manager.

CorelDraw/PhotoPaint, Adobe Illustrator/Photoshop/PageMaker, Microsoft Office suite, Macintosh operating system

Education

Undergraduate studies, Studio Art, University of Texas, Austin, Texas



Requirement 94 **Experience of the vendor's project team.**

Vendors' proposals shall contain a narrative describing the prime vendor's experience providing vote tabulation systems and rendering services similar to those included in this RFP.

Item status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

For over 90 years, Hart InterCivic has provided election products and services to thousands of county and other government and private sector customers across the country. Hart's solid reputation for customer satisfaction and business integrity has been built through nearly a century of quality service to the public sector. Beginning in 1912, Hart has been a supplier of ballots and other election products, has sold and supported optical scan voting equipment to over 200 counties, and has provided turnkey election services in multiple states. These services include ballot formatting and generation, polling place setup, pre-Election Day and Election Day equipment support (including multi-jurisdiction Election Day Support Command Centers), tabulation room management, integration of multiple voting systems, and much more.

Having helped counties administer elections for decades, Hart understands the tremendous diversity of the public sector. We print paper ballots for Loving County, Texas – the nation's smallest county with just 67 residents. At the same time, we provide absentee and Election Day voting equipment and associated services to Orange County, California – the fifth largest county in the nation with more than 3,000,000 people.

Hart InterCivic has been an active participant in the leading organizations that serve the elections industry, including the Election Center; the National Association of County Recorders, Elections Officials and Clerks (NACRC); International Association of Clerks, Recorders, Elections Officials, and Treasurers (IACREOT); the National Association of Secretaries of State; and others.

Since introducing the unique Hart Voting System in 2000, Hart InterCivic has provided elections solutions to jurisdictions in multiple states (including California, Colorado, Hawaii, Indiana, Illinois, Kentucky, Ohio, Pennsylvania, Tennessee, Texas, Virginia, and Washington) representing over 5 million registered voters.

Hart InterCivic provides full-service elections. The foundation of our solution is Hart InterCivic's 97 years of experience in all aspects of elections. Hart entered the industry printing



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BEST & FINAL
ELECTIONS VOTE TABULATION SYSTEM



ballots for Texas counties and has grown to provide a complete range of elections products and services to a large network of counties and local governments in many states.

Marion County will be assured of a secure voting system at every stage of the election process. The Hart Voting System was designed with integrated security features, including automatic processes verifying and authenticating the output of each component through multiple, independent data paths through the system. The Hart Voting System is the only electronic voting system to combine a modern interface, highly secure components, and the convenience and integration of Windows-based election management software in the elections office.

Quality is a concern in every aspect of the Hart Voting System. To avoid quality control issues such as smart card failure, the Hart Voting System was developed under ISO 9001:2000 certified processes.

Hart InterCivic is experienced in integrating systems. We have worked with jurisdictions across the U.S. to facilitate the import and export of data to legacy systems. Hart InterCivic has integrated systems from multiple vendors for tabulation reporting. For example, our technical team successfully merged election results from ES&S systems during the 2004 and 2006 Primary and General Elections in the State of Hawaii. Other achievements in this area include merging election results from other election vendors (Diebold/Premier's AccuVote touch screen system and ES&S' M100 optical scan system) into Tally to provide consolidated totals.

The Hart Voting System is compliant with the United States Federal Help America Vote Act of 2002 (HAVA); federally qualified and is approved according to the United States 2002 Voting Systems Standards Act.

Our proposed solution for Marion County includes hardware, software, and services based on the unique characteristics and technical design of the Hart Voting System. The Hart Voting System consists of:

- Paper ballots for by mail voting that are provided by Hart's Ballot Now component. With Ballot Now, the City can effectively manage the printing, scanning, and resolution of absentee paper ballots; begin processing/scanning returned ballots before Election Day, is allowed by election law; and conduct a full audit of ballot resolution. In addition, ballots can be printed on-demand by the City or in volume by Hart.
- A comprehensive election management software solution that uses an industry-standard operating system and tools. This solution provides database-driven power with maximum flexibility for application enhancement, integration with other systems, interoperability among components, and upgrade capability.
- A complete package of services that includes professional project management; a well documented, professional training program encompassing local elections staff and poll workers; support for acceptance



testing and installation, pre-election, Election Day, and post-election support; and a warranty program.

Requirement 95 **Project status reports.**

Vendors' proposals shall include a statement of commitment to provide and deliver concise, accurate weekly reports of the project's status to the Marion County Clerk's Office Elections Division.

Item status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

A key part of our proposal is the selection of a designated Project Manager who is responsible for project performance, tasks, and deliverables, including weekly reports. The Project Manager works closely with the appropriate County staff to coordinate project events and review project progress, and to ensure achievement and documentation of compliance with the contract agreements. Joint project team (County and Hart staff) meetings to accomplish necessary communication and coordination are normally scheduled on a regular basis at mutually agreeable times and locations.

Requirement 127 **Project management plans and schedules.**

The proposal must contain, but not be limited to, a response stating the understanding of the work to be performed and proposing an approach to work with the Marion County Clerk's Office Elections Division in completing the project in a timely manner.

Item Status: MANDATORY

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's narrative:

A draft of a Project Schedule and a Project Management Plan template are included with this proposal response.



Security

Requirement 31 Configuration control and configuration management.

Vendors' proposals shall contain a detailed description of the configuration control and management software used by the vendor to assure that only correct, tested, and certified versions of firmware and software are delivered and installed in the Marion County Clerk's Office Elections Division at all times.

If the vendor uses internally developed software to manage its voting system configuration, the proposal shall state that condition and provide a general description of the software. If the vendor uses a commercial software product for its configuration control and configuration management, the proposal shall provide the name of the commercial configuration control software in use. Under either circumstance, the vendor shall state how long it has used the in-house or commercial configuration control software.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Prior to shipping any hardware to a customer, our manufacturing personnel power on every system and visually verify the correct software version is installed. During Acceptance Testing by the customer, the systems are also powered on for visual verification of the software versions.

A hash function is a reproducible method of reading a data stream to produce a number (the "hash value") that serves as a digital "fingerprint" of the data. Hash testing is a common method used to verify the integrity of installed software. The process may be used to confirm that the voting system software running locally on your Hart PC matches the software as certified by the NASED or the EAC.

To conduct hash testing, a third party program may be used to generate the hash value for installed software, and the hash value can be compared to that of the original source data to confirm that it has not been altered or corrupted. General directions for finding and downloading a third-party hash value generation tool and using that tool to verify Hart Voting System software application hash values are outlined below.

It is recommended Marion County contact your Secretary of State's office for additional information concerning hash testing requirements in your state. Consult your Information Technology department for assistance with hash tools.



Note: You will have to download the executable files and the NSRL file to a non-Hart PC and then take them to your Hart PC's.

Never connect a Hart PC or laptop to the internet.

General Instructions

For an independent explanation of "MD5 Hash Testing," go to www.dmares.com/maresware/hash_faqs.htm

Options for Hash verification tools that Hart InterCivic has tested are listed below.

Note: These tools are NOT endorsed by Hart InterCivic, but we have tested and verified their functionality.

Mares: <http://www.maresware.com/maresware/gk.htm#HASH>

AccuHash: <http://www.accuhash.com/>

HashMyFiles: <http://hashmyfiles.nirsoft-freeware.qarchive.org/>

MD5/SHA1 Hash Generator: <http://codecentral.borland.com/Item/25029>

The remaining steps provide a guide through the use of the Mares hash tool. Similar steps will be used for any of the hash verification tools listed above. For specific directions for each tool, refer to the associated website and the documentation that accompanies the tool.

Example Steps Using Mares Hash Tool

1. On a non-Hart InterCivic PC, go to <http://www.maresware.com/maresware/gk.htm#HASH>, in the "Hash" section at the bottom of the page, *right-click* on the hyperlink for "**GET the 32 bit.exe**" and select "Save Target As..." (OR follow links to purchase a CD).

2. Navigate to My Computer\Local Disk (C:\) on your non-Hart InterCivic and *click* "Save."

3. You will perform hash testing on applications located on your Hart InterCivic PCs, so you will need to copy the "hash.exe" program to the Local Disk (C:\) of each.

Note: The sample download is a demo program, and is good for a limited time and a limited number of uses.

(Steps 4 - 10 apply regardless of the particular hash tool used.)

4. On a non-Hart InterCivic PC, go to www.nsrl.nist.gov/votedata.html

Note: This is the website of the National Software Reference Library. It contains the hash values of ITA certified voting system software voluntarily submitted by vendors.

5. *Right-click* on the link for "NSRLFile.txt" and select "Save Target As...."



6. In the "File Name" field, change the name of the file to "NSRLFile.csv" (i.e., change the file extension to csv), then *click* "Save."
7. *Double-click* the .csv file you just saved, and it will open in MS Excel.
8. Select Column F, "Product Code" and sort by clicking the "a→z" (sort ascending) button. Accept the radio button to "expand the selection" and click Sort.
9. Sorted product codes in Column F are associated with the following versions of the Hart Voting System:

8776

Hart Voting System
Version 6.2.1

10. Column D, "File Name" references files on your PC that are contained within Hart applications. You can verify the authenticity of the files on your PC by running a hash test and comparing the results of the test with the certified hash value you just downloaded from the NSRL website.
11. With the Mares hash tool, for example, if you wanted to run a hash test on the "Boss.exe" file in the BOSS application on your computer, you would:
 - a. *Left-click* on the Start Menu, select Programs, navigate to the Accessories folder and *click* on Command Prompt.
 - b. Type the "hash" command and file path of the boss.exe file (on the C drive in the Boss root directory), as follows: "hash C:\boss\boss.exe" (without the quotation marks). Make sure you are at the C:\> prompt before entering path.
 - c. Press Enter.
 - d. Compare the resulting hash string with the reference value in Column B (MD5) of your "NSRLFile.csv" file. The strings should match exactly. If they do, then the file you have just evaluated on your PC matches the file version certified by the federally recognized agency.

Note: Steps for alternative hash verification tools listed above are similar to the steps for the Mares tool; in each case, simply specify the location of the executable file to be verified, and compare the results with the reference value in Column B (MD5) of the "NSRLFile.csv" file.

Hart's current voting system, version 6.2.1, is the solution proposed to Marion County, Oregon. Prior to shipping any hardware to a customer, our manufacturing personnel power on every system and visually verify the correct software version is installed. During Acceptance Testing by the customer, the systems are also powered on for visual verification of the software versions.

At any time during and after Acceptance Testing, the customer may also run independent version verification via hash testing. Options for Hash verification tools that Hart has tested are: Mares, AccuHash, HashMyFiles and MD4/SHA1 Hash Generator. Note: These tools are NOT endorsed by Hart, however we have tested and verified their functionality.



Encryption/Decryption

The Hart software applications – BOSS, Ballot Now, TALLY, Rally and Servo – require the use of Hart's eSlate Cryptographic Module (eCM) for access to secure functions within these applications. The eCM is a physical USB security device provided by Hart. The eCM provides 128-bit encryption during key tasks throughout the election process.

The eCM contains a unique signing key and PIN as created by the jurisdiction administrator. This information is transferred to the MBB at the time they are written. Only a user with an eCM that includes the matching signing key and its PIN may access secure functions in the Hart Voting System.

Requirement 56 **Backup power.**

The vendor's proposal shall identify the key components of their Vote Tally System that would need a backup electrical power supply (UPS) to support the conduct an election should a power outage or brown out occur.

The vendor's proposed backup system must provide the capability for the necessary devices to operate on backup battery power in order to safely shut down the system and make a backup of the Vote Tally Results, Coding, and Election files with the minimal loss of work.

Vendors' proposals shall provide a description of their recommended emergency shutdown procedures in the event of a loss of commercial electrical power. Vendors' proposals shall provide a description of the scanner and server restart procedures upon restoration of access to commercial electrical power.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

All hardware proposed (PCs, laptops, scanners) can be powered by a standard uninterruptible power supply (UPS).

Hart recommends that the Tally computer used for central tabulation be outfitted with a UPS to support operation in the event of a power failure. Hart also recommends that essential components of the ballot scanning and tabulation system be connected to electrical circuits that are part of, or can be linked to, emergency power sources in case of catastrophic or long-term power outage. The use of an UPS is possible for the scanning devices however commercial emergency power sources provide a more robust solution.



If power were to fail while the Tally computer is on and outfitted with a UPS, there should be no interruption in operations. If the County chooses to power down the Tally computer prior to using all the power in the UPS, the County would follow normal shut down procedures, as described in Hart's Tally Operations Manual. This includes navigating to the "Election Menu" within Tally and exiting the application.

As the vast majority of voting in Marion County will be done on paper ballots, manual hand counting can be accomplished as necessary. Hart is also prepared to provide backup software and technical assistance in the case of catastrophic events barring access to or use of the County's normal facilities. When Hart personnel are providing on-site support, they will have access to corporate and software resources that can be used for emergency backup purposes.

In the event of a loss of commercial power, the equipments' on/off switch should be turned to the off position. When power is restored, the equipments' on/off switch should be turned to the on position.

The scanner's on/off switch is located on the lower right-side. After powering up the scanner, wait until it completes the self-test. When completed, the top green indicator light will remain on and constant. Always power up the scanner to its ready state before powering up or restarting the host computer.

Requirement 74

Vote Tally Management Security.

The vendor's software solution for election management (such as election and ballot setup) and vote tabulation must provide a database security management capability that allows at least two persons, identified by Marion County, to act as security and recovery managers, controlling access and authorization privileges for all other users.

These users will be the system administrators.

It shall be the responsibility of the vendor to specify and implement this security capability during the implementation. It shall be the responsibility of the vendor to implement the database management system in such a manner that no one can circumvent the application software to gain unauthorized or unaudited access to the underlying database.

For example, the vendor's final implementation shall prohibit a computer user, who is not an authorized user of the election management and vote tabulation system, from loading a software package such as Microsoft Access or Microsoft Excel on the computer running the election management system and gaining any kind of access to the election management system, election data, or the vote tabulation system.

Item status: MANDATORY

 x YES, the proposed system meets this requirement and the functionality is included in the proposed cost



___NO, the proposed system does not meet this requirement

Vendor's Narrative:

The operating system executes on platforms that have been configured to restrict users from accessing the functions of the operating system and log users' actions. The operating system environment has three layers. Only users at the Election Administration layer can install hardware devices and control the logging of users' actions on the system. The number of Election Administrators is dependent upon how many users are given access to the password, as dictated by County procedure. For all other users, actions are logged showing the action performed and the time/date of the action. Only the Global Administrator has the ability to turn off or edit this user access level.

The Election Administration layer allows the operator to have reasonably full use of the PC, but restricts the user from installing hardware; accessing, editing, or controlling the logging; and removing or altering certain important Windows 2000 files and Hart program executables.

Only the Election Administrator may create new Restricted Users. The Restricted User layer allows no operating system access at all. The Restricted User may only operate the specified Hart Voting System application through the application interface at installation. Restricted Users may not view the file structure or access any operating system programs.

Further security measures include restricting network access at the BIOS level, and removing the "A" or floppy drive and "D" or CD drive from the boot chain. This measure removes the threat of attempting to connect the PC to a network, and the threat of anyone booting the computer to a floppy and thereby having access to the operating system. BIOS settings are secured with Administrator-level passwords.

It is recommended the County establish security protocols within the Elections office to maximize security. Examples of these protocols include:

- Computers should be operated in a room that is limited to only authorized personnel. The room should be locked except during working hours. Access to the computers should be logged and monitored.
- Computers should be locked to a desk, table, or stanchion. The cost of recreating the data lost in a stolen election computer could be many times the cost of the computer itself.
- The housing of a computer should be locked to prevent unauthorized people from accessing the computer boards, memory, and hard drives. No data is safe from talented intruders with access to the inside of the computer.
- The floppy drive and CD drive of your computer should be physically locked or tamper-evident sealed against unauthorized use. Hackers that can boot your machine onto their floppy or CD may be able to install malicious software on your computer, read your hard drive, or alter your BIOS settings.



- The computer running the Hart election software should not be connected to a computer network or a telephone line of any type. Most computer security attacks are through a network, which allows a hacker to work anonymously and provides a handy access path to your computer.
- The computer running the Hart election software should not have access to the Internet. Computer security attacks can be made through active Internet connections. In addition, even an employee innocently browsing the Web can unknowingly download malicious viruses.

Requirement 75 **Transaction audit log-1.**

The vendor's proposed election management and vote tabulation software system shall log all user transactions in a user transaction audit log including data such as "before" and "after" versions of the change.

Each audit log entry shall include additional audit trail information such as the type of change, reason for the change, date of the change, time of the change, and user making the change.

Only the system administrator, and users authorized by the system administrator, shall have any access to read, search, copy, print, archive, or reinitialize the transaction audit log.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Activity logs are available for each component of the Hart Voting System. This includes each software application (BOSS, Ballot Now, Tally, Rally, and SERVO). These logs may be viewed on-screen or printed as hard copies.

BOSS Audit Log

The BOSS Audit Trail report provides audit trail data of activity in the BOSS database for an election. The date, time, event name, transaction type, and user ID is included for each event printed in the BOSS Audit Trail report.

The operator can view and/or print the BOSS Audit Trail report at any time during the creation of an election. The primary sort order for the report is alphanumeric by timestamp; the secondary sort order for the report is alphanumeric by action. A sample of the BOSS audit trail report is shown below.



Ballot Origination Software System - SAMPLE ID 000211.06 A (2-17-06 3:13 pm)

File Election Reports Administration Help

Audit Trail

Begin: 02/06/2006 11:16:32 End: 03/06/2006 11:16:42 User: [JA] Area: [JA] Action: [JA] Retrieve Print Close

Audit Trail

Sample County — Ohio Demonstration Election 05/07/2007 — Election Locked for Tally
C:\BOSS\database\060217-151226 (BOSS 4.2.13) Page 1 3/6/2006 11:11

Date	User	Area	Action
02/11/2006	bossadm	Election	Add
12:17:46	ID=1, Election Type=GE(General Election), Date=11-FEB-2006, English Title="", English Audio ID=, BOSS Database ID=, BOSS Application ID=		
02/11/2006	bossadm	Election	Update
12:17:46	ID=1, Election Type=GE(General Election), Date=11-FEB-2006, English Title="", English Audio ID=, BOSS Database ID=1045, BOSS Application ID=1045		
12:18:40	ID=1, Election Type=GE(General Election), Date=07-MAY-2007, English Title="Ohio Demonstration Election", English Audio ID=2575, BOSS Database ID=1045, BOSS Application ID=1045		
02/11/2006	bossadm	Jurisdiction Rules	Add
12:18:40	English Jurisdiction Name= Sample County, Spanish Jurisdiction Name=, State= OH, Indicate Incumbents= N, English Write-in Title= Write-in, Spanish Write-in Title=, Vote Code Active= 30, Remote Phone Number=		
02/11/2006	bossadm	Party	Delete
12:18:42	Party Code="NP", English Name="", Internal Party ID=1, Non-Partisan=Yes, Primary Ballot Header="Non-Partisan Ballot", English Audio ID=		
02/11/2006	bossadm	Party	Add
12:18:43	Party Code="HST", English Name="Historical", Internal Party ID=3, Non-Partisan=No, Primary Ballot Header="", English Audio ID=3581		
12:18:43	Party Code="FAM", English Name="Famous", Internal Party ID=2, Non-Partisan=No, Primary Ballot Header="", English Audio ID=3580		
12:18:43	Party Code="NP", English Name="", Internal Party ID=1, Non-Partisan=Yes, Primary Ballot Header="Famous Officers", English Audio ID=		
02/11/2006	bossadm	Polling Place	Add
12:18:45	ID=1, Name="Main Library", Description=""		

Ready

Example of a BOSS Audit Trail Report. All subsystems of the Hart Voting System incorporate electronic audit trail techniques respectively matched to the particular subsystem.

Ballot Now Audit Log

The Ballot Now Election Database Audit Log report lists the transactions users performed in Ballot Now. The Security Database Audit Log report lists security database transactions. The date, time, event name, and user ID is included for each event printed in these audit logs. A sample of the Ballot Now Audit Trail report is shown below.

Audit messages describing all operator input to the Ballot Now application are captured in the following reports:

- Election Database Audit Log
- Security Database Audit Log
- Filtered Election Database Audit Log
- Filtered Security Database Audit Log



Audit Trail - Unofficial
ELECTIONS & DATA SYSTEM - MARION COUNTY, OREGON

Record	Event	Date	Time	Code	Event Name	Detail
1	System	4/20/2011	11:00:00 AM	1	System	System Initialization
2	System	4/20/2011	11:00:00 AM	2	System	System Initialization
3	System	4/20/2011	11:00:00 AM	3	System	System Initialization
4	System	4/20/2011	11:00:00 AM	4	System	System Initialization
5	System	4/20/2011	11:00:00 AM	5	System	System Initialization
6	System	4/20/2011	11:00:00 AM	6	System	System Initialization
7	System	4/20/2011	11:00:00 AM	7	System	System Initialization
8	System	4/20/2011	11:00:00 AM	8	System	System Initialization
9	System	4/20/2011	11:00:00 AM	9	System	System Initialization
10	System	4/20/2011	11:00:00 AM	10	System	System Initialization
11	System	4/20/2011	11:00:00 AM	11	System	System Initialization
12	System	4/20/2011	11:00:00 AM	12	System	System Initialization
13	System	4/20/2011	11:00:00 AM	13	System	System Initialization
14	System	4/20/2011	11:00:00 AM	14	System	System Initialization
15	System	4/20/2011	11:00:00 AM	15	System	System Initialization
16	System	4/20/2011	11:00:00 AM	16	System	System Initialization
17	System	4/20/2011	11:00:00 AM	17	System	System Initialization
18	System	4/20/2011	11:00:00 AM	18	System	System Initialization
19	System	4/20/2011	11:00:00 AM	19	System	System Initialization
20	System	4/20/2011	11:00:00 AM	20	System	System Initialization
21	System	4/20/2011	11:00:00 AM	21	System	System Initialization
22	System	4/20/2011	11:00:00 AM	22	System	System Initialization
23	System	4/20/2011	11:00:00 AM	23	System	System Initialization
24	System	4/20/2011	11:00:00 AM	24	System	System Initialization
25	System	4/20/2011	11:00:00 AM	25	System	System Initialization
26	System	4/20/2011	11:00:00 AM	26	System	System Initialization
27	System	4/20/2011	11:00:00 AM	27	System	System Initialization
28	System	4/20/2011	11:00:00 AM	28	System	System Initialization
29	System	4/20/2011	11:00:00 AM	29	System	System Initialization
30	System	4/20/2011	11:00:00 AM	30	System	System Initialization

Example of a Ballot Now Audit Trail Report. All subsystems of the Hart Voting System incorporate electronic audit trail techniques respectively matched to the particular subsystem.

Tally Audit Log

The Tally application prints a real-time audit log to a system line printer (if enabled) as the events occur. The audit log is also stored in the database. The real-time audit messages include a log of the operator's activities with the Tally application and error messages presented during a session. The date, time, event name, and user ID is included for each event printed in the audit log. The audit log can also be viewed and printed in the Audit Log report in Tally.

Requirement 76

Access privileges and authorizations for user access.

The vendor's proposed system shall provide the ability for the system administrator to establish individual levels of access permissions to the various modules in the election management and vote tabulations applications.

For example, the system administrator might decide to establish "read-level" data access for all of the application's users into the election setup module, but restrict all users other than the system administrator from being able to add, modify, or delete any data in that module. Similarly, the proposed system shall allow the system administrator to restrict all other users on the system from having any type of access to the vote tabulation module.

This requirement shall mean that the voting system software provides the system/security



administrator with the capability to establish and maintain security and access controls for individuals and persons identified with specific roles.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The operating system executes on platforms that have been configured to restrict users from accessing the functions of the operating system and log users' actions. The operating system environment has three layers. Only users at the Election Administration layer can install hardware devices and control the logging of users' actions on the system. For all other users, actions are logged showing the action performed and the time/date of the action. Only the Global Administrator has the ability to turn off or edit this user access level.

The Election Administration layer allows the operator to have reasonably full use of the PC, but restricts the user from installing hardware; accessing, editing, or controlling the logging; and removing or altering certain important Windows 2000 files and Hart program executables.

Only the Election Administrator may create new Restricted Users. The Restricted User layer allows no operating system access at all. The Restricted User may only operate the specified Hart Voting System application through the application interface at installation. Restricted Users may not view the file structure or access any operating system programs.

Further security measures include restricting network access at the BIOS level, and removing the "A" or floppy drive and "D" or CD drive from the boot chain. This measure removes the threat of attempting to connect the PC to a network, and the threat of anyone booting the computer to a floppy and thereby having access to the operating system. BIOS settings are secured with Administrator-level passwords.

Requirement 83

Application passwords and password management.

Vendors' proposals shall state a clear, unequivocal commitment that the election management and voter tabulation software user's application password is separate from and in addition to any passwords required by the network operating system, a server, and the client operating system.

The vendor's system shall support automated application password expiration at intervals specified by a central system administrator. Vendors' proposals shall discuss the degree to which the application password expiration capabilities are based on (a) the server or client's operating system, (b) the software application, or (c) both.



Vendors' proposals shall describe in detail the system's requirements for the application's password construction requirements including, but not limited to, (i) application password length requirements, (ii) required character composition of application passwords, (iii) prohibited characters in application passwords, (iv) whether the application passwords are stored in clear text or encrypted formats, (v) which industry standards, if any, were applied in the design and implementation of application password encryption algorithms, (vi) whether the application allows or prohibits application password recycling within specific time periods, and (vii) the nature of the password recycling requirements, if any, in individual user application password use.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart's commitment to setting the standard for security in the electronic voting industry is evidenced by Hart's proactive move to have a comprehensive risk assessment performed on the entire Hart Voting System by an independent, third-party firm specializing in this area.

In 2003, Hart engaged Symantec Consulting Services, the global leader in information security, to perform a review and provide recommendations on how Hart can further enhance the security features of the Hart Voting System. Hart has incorporated the findings from this review into the latest versions of software, firmware, and hardware releases. Following is a list of enhancements that were made to the Hart Voting System based on the assessment conducted by Symantec:

- eCM Manager – instituted new product features to create signing key and write to physical eSlate Cryptographic Module (eCM) device
- Passwords – changed from four characters to six – twelve characters and added password protection for additional functions
- User permissions – provided more clearly defined levels

Six to twelve lower case, alpha numeric passwords are required in the Hart EMS. No spaces or special characters are allowed. Application passwords are obfuscated. There is no mechanism for password recycling. It should be noted that since Windows 2000 computers are used with the Hart EMS, the County may choose to restrict user access to the individual computer(s) running the EMS applications. Hart recommends this practice with our current customers. Hart also has established hardening procedures for the EMS computers to minimize possible security breaches.



Election Management System

Tally, the Hart Voting System tabulation application, operates in a closed, Windows 2000 network configuration to provide a secure physical and logical environment. Data input into this closed tabulation system is only through reading the MBBs. Output data from the closed tabulation system is only through printed reports, exported files, and databases written to floppy disks or CD-ROMs.

The operating system executes on platforms that have been configured to restrict users from accessing the functions of the operating system and log users' actions. The operating system environment has three layers. Only users at the Election Administration layer can install hardware devices and control the logging of users' actions on the system. For all other users, actions are logged showing the action performed and the time/date of the action. Only the Global Administrator has the ability to turn off or edit this user access level.

The Election Administration layer allows the operator to have reasonably full use of the PC, but restricts the user from installing hardware; accessing, editing, or controlling the logging; and removing or altering certain important Windows 2000 files and Hart program executables. Only the Election Administrator may create new Restricted Users. The Restricted User layer allows no operating system access at all. The Restricted User may only operate the specified Hart Voting System application through the application interface at installation. Restricted Users may not view the file structure or access any operating system programs.

Further security measures include restricting network access at the BIOS level, and removing the "A" or floppy drive and "D" or CD drive from the boot chain. This measure removes the threat of attempting to connect the PC to a network, and the threat of anyone booting the computer to a floppy and thereby having access to the operating system. BIOS settings are secured with Administrator-level passwords.

The operating system settings are configured at installation. The configuration can be modified during the installation process according to each county's requirements as appropriate.

Hart's eSlate Cryptographic Module (eCM) security device is required for access to secure functions in the BOSS, Ballot Now, Rally, Tally, and SERVO applications. In a given election, the signing key on the eCM device is used by the BOSS application to accept the ballot formats for the election, and a matching signing key must also be present in the eCM device(s) used in the Rally, Tally, and SERVO applications. For a given election, several eCM devices should be created in order to have a separate eCM device available for use with each computer running an Hart Voting System software application.

Requirement 97

Data Audit techniques.

Vendors' proposals shall contain a description of the election results data audit techniques that are incorporated into the proposed vote tabulation system, including the election management and tabulation software.



Item status: MANDATORY

 x YES, the proposed system meets this requirement and the functionality is included in the proposed cost

 NO, the proposed system does not meet this requirement

Vendor's Narrative:

Activity logs are available for each component of the Hart Voting System. This includes each software application (BOSS, Ballot Now, Tally, and SERVO). These logs may be viewed on-screen or printed as hard copies.

BOSS Audit Log

The BOSS Audit Trail report provides audit trail data of activity in the BOSS database for an election. The date, time, event name, transaction type, and user ID is included for each event printed in the BOSS Audit Trail report.

The operator can view and/or print the BOSS Audit Trail report at any time during the creation of an election. The primary sort order for the report is alphanumeric by timestamp; the secondary sort order for the report is alphanumeric by action. A sample of the BOSS audit trail report is shown below.

Date	User	Area	Action
02/11/2006	bossadmin	Election	Add
12:17:46	ID=1, Election Type=GE(General Election), Date=11-FEB-2006, English Title=		English Audio ID=, BOSS Database ID=, BOSS Application ID=
02/11/2006	bossadmin	Election	Update
12:17:46	ID=1, Election Type=GE(General Election), Date=11-FEB-2006, English Title=		English Audio ID=, BOSS Database ID=1045, BOSS Application ID=1045
12:18:40	ID=1, Election Type=GE(General Election), Date=07-MAY-2007, English Title="Ohio Demonstration Election", English Audio ID=3575, BOSS Database ID=1045, BOSS Application ID=1045		
02/11/2006	bossadmin	Jurisdiction Rules	Add
12:18:40	English Jurisdiction Name= Sample County, Spanish Jurisdiction Name=, State= OH, Indicate Incumbents= N, English Write-in Title= Write-in, Spanish Write-in Title=, Vote Code Active= 30, Remote Phone Number=		
02/11/2006	bossadmin	Party	Delete
12:18:42	Party Code="NP", English Name="", Internal Party ID=1, Non-Partisan=Yes, Primary Ballot Header="Non-Partisan Ballot", English Audio ID=		
02/11/2006	bossadmin	Party	Add
12:18:43	Party Code="HST", English Name="Historical", Internal Party ID=3, Non-Partisan=No, Primary Ballot Header=, English Audio ID=3581		
12:18:43	Party Code="FAM", English Name="Famous", Internal Party ID=2, Non-Partisan=No, Primary Ballot Header=, English Audio ID=3580		
12:18:43	Party Code="NP", English Name="", Internal Party ID=1, Non-Partisan=Yes, Primary Ballot Header="Famous Ohioans", English Audio ID=		
02/11/2006	bossadmin	Polling Place	Add
12:18:45	ID=1, Name="Man Library", Description=		

Example of a BOSS Audit Trail Report. All subsystems of the Hart Voting System incorporate electronic audit trail techniques respectively matched to the particular subsystem.



Ballot Now Audit Log

The Ballot Now Election Database Audit Log report lists the transactions users performed in Ballot Now. The Security Database Audit Log report lists security database transactions. The date, time, event name, and user ID is included for each event printed in these audit logs. A sample of the Ballot Now Audit Trail report is shown below.



Audit messages describing all operator input to the Ballot Now application are captured in the following reports:

- Election Database Audit Log
- Security Database Audit Log
- Filtered Election Database Audit Log
- Filtered Security Database Audit Log

Serial	User	Date	Time	Code	Description	Detail
1	admin	4/20/2011	10:00:00 AM	1	Log On	Successful Log On
2	admin	4/20/2011	10:00:01 AM	2	Log On Password	Successful
3	admin	4/20/2011	10:00:02 AM	3	Log On Username	Successful
4	admin	4/20/2011	10:00:03 AM	4	Log On Password	Successful
5	admin	4/20/2011	10:00:04 AM	5	Log On Username	Successful
6	admin	4/20/2011	10:00:05 AM	6	Log On Password	Successful
7	admin	4/20/2011	10:00:06 AM	7	Log On Username	Successful
8	admin	4/20/2011	10:00:07 AM	8	Log On Password	Successful
9	admin	4/20/2011	10:00:08 AM	9	Log On Username	Successful
10	admin	4/20/2011	10:00:09 AM	10	Log On Password	Successful
11	admin	4/20/2011	10:00:10 AM	11	Log On Username	Successful
12	admin	4/20/2011	10:00:11 AM	12	Log On Password	Successful
13	admin	4/20/2011	10:00:12 AM	13	Log On Username	Successful
14	admin	4/20/2011	10:00:13 AM	14	Log On Password	Successful
15	admin	4/20/2011	10:00:14 AM	15	Log On Username	Successful
16	admin	4/20/2011	10:00:15 AM	16	Log On Password	Successful
17	admin	4/20/2011	10:00:16 AM	17	Log On Username	Successful
18	admin	4/20/2011	10:00:17 AM	18	Log On Password	Successful
19	admin	4/20/2011	10:00:18 AM	19	Log On Username	Successful
20	admin	4/20/2011	10:00:19 AM	20	Log On Password	Successful
21	admin	4/20/2011	10:00:20 AM	21	Log On Username	Successful
22	admin	4/20/2011	10:00:21 AM	22	Log On Password	Successful
23	admin	4/20/2011	10:00:22 AM	23	Log On Username	Successful
24	admin	4/20/2011	10:00:23 AM	24	Log On Password	Successful
25	admin	4/20/2011	10:00:24 AM	25	Log On Username	Successful
26	admin	4/20/2011	10:00:25 AM	26	Log On Password	Successful
27	admin	4/20/2011	10:00:26 AM	27	Log On Username	Successful
28	admin	4/20/2011	10:00:27 AM	28	Log On Password	Successful
29	admin	4/20/2011	10:00:28 AM	29	Log On Username	Successful
30	admin	4/20/2011	10:00:29 AM	30	Log On Password	Successful

Example of a Ballot Now Audit Trail Report. All subsystems of the Hart Voting System incorporate electronic audit trail techniques respectively matched to the particular subsystem.

Tally Audit Log

The Tally application prints a real-time audit log to a system line printer (if enabled) as the events occur. The audit log is also stored in the database. The real-time audit messages include a log of the operator's activities with the Tally application and error messages presented during a session. The date, time, event name, and user ID is included for each event printed in the audit log. The audit log can also be viewed and printed in the Audit Log report in Tally.

Requirement 103

Protection against tampering.

Vendor's proposals shall describe voting devices' (a) physical and (b) electronic characteristics that prevent unauthorized use and tampering when the equipment is in storage or in use during vote tabulation and tallying activities.



Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Several key principles are at the foundation of the Hart Voting System's design:

- **Multiple Layers of Defense.** Security features should be established in a manner that requires an attacker to overcome multiple obstacles to reach a target. The Hart Voting System includes several key process areas where this is the case, for example, as the system's multiple original storage of cast vote records.
- **Segmentation.** The Hart Voting System was intentionally designed with multiple, individual components that are allowed to communicate with each other only when a need to do so arises. The approach provides distributed processing of data, with each component verifying and authenticating the output of the previous component. The distributed architecture establishes multiple, independent data paths through the system that are cross-verified throughout the election process.
- **Standalone Security.** Each component of the Hart Voting System is secure on its own, and not dependent on any other component for its security. Additionally, each component maintains its own audit logs, recording each transaction that occurs and noting errors or anomalies.
- **Encryption.** Hart has implemented cryptography in all functions of Hart's election software and election data exchange points. This additional and robust layer of 128-bit encryption provides a high level of data security throughout the election process.

Over the past several years, news reports have expressed concern about the use of smart cards to activate voting devices, and the possibility that a programmer could generate "homebrew" or counterfeit cards that would permit them to cast multiple votes. The Hart Voting System does not use smart cards or any programmable devices.

Reports have also emphasized the importance of redundant storage, so votes are not lost or corrupted without the ability to recover a complete and accurate vote record from an alternate storage location. This validates another of the Hart Voting System's earliest design decisions, the creation of a "triplicate original" for each Cast Vote Record (CVR), and the storage of each CVR in independent, physically separate locations. The integrity of the voting data is preserved and is not corruptible, as it is stored in flash memory and is not susceptible to electromagnetic corruption or corruption through electrical surges or other discharges. These multiple originals provide separate, independent audit trails as a security measure.



Security Enhancements

Hart's commitment to setting the standard for security in the electronic voting industry is evidenced by Hart InterCivic's proactive move to have a comprehensive risk assessment performed on the entire Hart Voting System by an independent, third-party firm specializing in this area.

In 2003, Hart engaged Symantec Consulting Services, the global leader in information security, to perform a review of the eSlate unit and provide recommendations on how Hart can further enhance the security features of the Hart Voting System. Hart has incorporated the findings from this review into the latest versions of software, firmware, and hardware releases. Following is a list of enhancements that were made to the Hart Voting System based on the assessment conducted by Symantec:

- eCM Manager – instituted new product features to create signing key and write to physical eSlate Cryptographic Module (eCM) device
- Passwords – changed from four characters to six characters and added password protection for additional functions
- User permissions – provided more clearly defined levels

Election Management System Security Features

Tally, the Hart Voting System tabulation application, operates in a closed, Windows 2000 network configuration to provide a secure physical and logical environment. Data input into this closed tabulation system is only through reading the MBBs. Output data from the closed tabulation system is only through printed reports, exported files, and databases written to floppy disks or CD-ROMs.

The operating system executes on platforms that have been configured to restrict users from accessing the functions of the operating system and log users' actions. The operating system environment has three layers. Only users at the Election Administration layer can install hardware devices and control the logging of users' actions on the system. For all other users, actions are logged showing the action performed and the time/date of the action. Only the Global Administrator has the ability to turn off or edit this user access level.

The Election Administration layer allows the operator to have reasonably full use of the PC, but restricts the user from installing hardware; accessing, editing, or controlling the logging; and removing or altering certain important Windows 2000 files and Hart program executables. Only the Election Administrator may create new Restricted Users. The Restricted User layer allows no operating system access at all. The Restricted User may only operate the specified Hart Voting System application through the application interface at installation. Restricted Users may not view the file structure or access any operating system programs.

Further security measures include restricting network access at the BIOS level, and removing the "A" or floppy drive and "D" or CD drive from the boot chain. This measure removes the threat of attempting to connect the PC to a network, and the threat of anyone booting the computer to a



floppy and thereby having access to the operating system. BIOS settings are secured with Administrator-level passwords.

The operating system settings are configured at installation. The configuration can be modified during the installation process according to each county's requirements as appropriate.

Hart's eSlate Cryptographic Module (eCM) security device is required for access to secure functions in the BOSS, Ballot Now, Rally, Tally, and SERVO applications. In a given election, the signing key on the eCM device is used by the BOSS application to accept the ballot formats for the election, and a matching signing key must also be present in the eCM device(s) used in the Rally, Tally, and SERVO applications. For a given election, several eCM devices should be created in order to have a separate eCM device available for use with each computer running an Hart Voting System software application.

Elections Office Security

For Marion County, Hart will operate the Hart Voting System according to existing security procedures. Hart recommends that the PCs running election management applications be kept in an access-controlled room, with the ability to lock the room when the system is not in use. Additionally, application PCs are not to be connected to any network, thus eliminating the opportunity for an external hacker to gain unauthorized entry.

The Hart Voting System includes both physical and electronic intrusion detection controls, such as standard election seals and time-stamped transaction logs that record every system action related to the voting process. Data cannot be altered or changed by unauthorized personnel because the database structure is proprietary and is protected by encrypted passwords. The election officials in each jurisdiction control these passwords.

Requirement 120

Experience with source code archives.

Vendors' proposals shall discuss the firms' experience with archiving digitally signed versions of its (1) source code and (2) executable code for both firmware and software versions in nationally recognized and industry-accepted archival facilities.

The proposals shall provide a statement whether any election jurisdiction has used the digitally signed software versions to compare against versions installed in the election jurisdiction for production use.

Item status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:



Source code is maintained in an industry-standard configuration control software application, Microsoft Visual SourceSafe. This application maintains source code configuration and enforces rule-based requirements when changing, updating, and releasing software. It includes and identifies the version of all documentation that establishes the size, form, fit, and function of all components of the Hart Voting System.

Hart technical documentation is on file with the Oregon Secretary of State, including escrow of the source code. Marion County may access those materials as prescribed by the Division of Elections.

The hash codes for the Hart software and firmware executable files, which are static and do not change, are on file with the National Software Reference Library (NSRL). These hash codes are frequently referred to as the digital signature of the software/firmware. These "digital signatures" are used in the Hart security CD in California to check the hash value of the installed application files against the NSRL values.

Some customers in other states (Travis County, TX) do not have the Hart Security CD, but use a standard, accepted process to accomplish the same check. This process is included in this response (See Requirement 31). Additionally, this same process is included as part of the certified SERVO functionality and allows any customer with SERVO to verify the correct firmware is installed by simply importing the hash values into SERVO, connecting to the Hart Voting System hardware and using the function that appears in the same window with Backup and Reset. Colorado customers use this process to verify the firmware loaded on equipment that as be repaired or that the chain of custody has been interrupted.

Requirement 121 Prior security assessments.

Vendors' proposals shall contain a list of all election jurisdictions that have conducted security risk assessments, security management assessments, or source code security reviews of the vendors' proposed voting systems or their components.

The list shall include reviews conducted by election jurisdictions, whether by internal election staff or by independent third-party agents. The proposals shall discuss actions taken to mitigate security vulnerabilities and risks that those reviews identified.

Item status: MANDATORY

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

Issues identified in the State of Ohio's Everest Report were generated by three different analysis teams: a consulting and test team from SysTest Laboratories, Inc.; an academic team that included participants from Pennsylvania State University, University of Pennsylvania and WebWise Security, Inc.; and a technical team from Microsolved, Inc.



The focus of the SysTest Labs team was on producing an independent assessment of the risk that the State of Ohio electronic voting processes and systems will operate reliably and produce accurate results. Unlike the other two systems tested, the SysTest team "did not identify any significant or critical risks to election integrity when using the Hart InterCivic voting system", and also did not have any "Suggestions for Improvement" for the Hart Voting System.

The other two analysis teams delved almost exclusively into reviewing system security. The academic team's analysis focused on confirming the findings published in the California Top-to-Bottom Review (TTBR) Report and pursuing essentially the same avenues to "attack" the system and identify "Hart New Issues". The issues identified by this team were, therefore, primarily extensions of the original TTBR issues and thus were assigned mitigation actions that fall under the umbrella of those assigned to the original TTBR issues, as discussed below.

The Microsolved team created a 12-step framework of what they considered "industry standard best practices" and evaluated the system against this framework. Although conducted against different standards, the Microsolved team's analysis also did not unveil any new additional issues that do not fall under the general umbrella of the TTBR results. The bulk of the Everest Report was on vendor security issues, but no specific actions were requested of the certified voting system vendors. Hart has, however, taken steps on many security related items based on the State of California's "Top to Bottom" Review and the California Secretary of State Rulings on August 3, 2007.

The California Top to Bottom Review found thirty six conditions for re-certification/use of System 6.2.1, the System proposed for Cuyahoga County. These conditions were in the following categories:

- 12 Standard conditions for certification/use in California
- 2 California Secretary of State actions
- 14 Customer Operations and Training Requirements/Restrictions
- 5 Joint Hart/Customer Security Measures
- 3 Hart specific System Security Measures

As related to the eight Hart Security Measures, the following actions were completed:

- Additional measures to prevent propagation of malicious software
- Additional operating system (Win 2000) lock-down and automated configuration verification
- Procedures for accomplishing operating system updates
- Additional methods for maintaining physical and logical security



- Additional procedures to prevent or detect unauthorized access
- Additional procedures for voting results auditing and reconciliation
- Type and placement of tamper-evident seals
- Re-burn all software and firmware prior to February 2008 Primary

Hart continues its dedication to providing secure, accurate, reliable, accessible, and manageable voting solutions for the public and the elections officials we serve.

Requirement 126 **Internal security assessments and security management.**

Vendors' proposals shall list and discuss (1) the nature of annual, internal security audits undertaken of their voting systems software and voting systems software development processes and (2) quality process and security certifications held by their staff members who have direct responsibility for work on or with the voting system software development and maintenance team.

Item status: MANDATORY

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

The following provides information about the standards organizations that have certified Hart InterCivic and its products and processes. Additional information is provided regarding a security review of the Hart Voting System and the environmental standards under which the system is tested.

British Standards Institute

Founded in 1901, the British Standards Institute (BSI) now has more than 60,000 certificate locations in over 100 countries. As the world's first national standards body, and a founding member of the International Organization for Standardization (ISO), BSI facilitated and published the first commercial standards to address quality management systems, environmental management systems, occupational health and safety management systems, and project management. Operating worldwide, BSI provides organizations with independent assessment and certification of their management systems.

BS 7799 is the organization's information security management standard. It provides a process model as part of developing, implementing, and improving the effectiveness of an organization's information security management system within the context of the organization's overall business risk. Requirements are also specified for implementing security controls that can be customized to the needs of individual organizations. The standard includes a code of practice for



information security management. For additional information about the British Standards Institute and BS7799, please visit www.bsi-global.com/en/ or www.bsiamericas.com.

The BS 7799 certification demonstrates Hart InterCivic's commitment to election integrity, customer satisfaction, and product quality.

International Organization for Standardization

The International Organization for Standardization (ISO) is the world's largest developer of standards. ISO – a non-governmental organization – is a federation of the national standards bodies of 157 countries (as of August 2006) from all regions of the world. ISO identifies the International Standards required by business, government, and society. ISO develops these standards in partnership with the sectors that will put them to use, adopts them by transparent procedures based on national input, and delivers them to be implemented worldwide. ISO standards distill an international consensus from the broadest possible base of stakeholder groups. Because of this, although voluntary, ISO standards are widely respected and accepted by public and private sectors internationally.

The ISO 9000 family of international quality management standards and guidelines has earned a global reputation as the basis for establishing quality management systems. ISO 9001:2000 specifies requirements for a quality management system for any organization that needs to demonstrate its ability to consistently provide products that meet customer and applicable regulatory requirements and aims to enhance customer satisfaction. For additional information about ISO and its standards, please visit www.iso.org.

The Hart Voting System software was developed and is maintained under ISO 9001-certified procedures where compliance is regularly audited by an independent agency. This procedure ensures uniformity and repeatability across projects and personnel – a cornerstone of sound engineering practices.

Symantec

Symantec Consulting Services is a division of Symantec Corporation. This organization implements and maintains comprehensive, customized security and availability solutions that enable organizations to protect and manage critical business assets. Their consultants perform assessment, design, implementation, on-site staff augmentation, and incident planning and forensics services for enterprises around the globe. Symantec provides a full range of services to assist organizations in assessing, architecting, implementing, supporting, and maintaining their security, storage, and infrastructure software solutions. Headquartered in Cupertino, California, Symantec has operations in 40 countries. For additional information about Symantec, please visit www.symantec.com.

In 2003, Hart engaged Symantec Consulting Services to perform a review of our eSlate unit and provide recommendations on how Hart could further enhance the security features of the Hart Voting System. The enhancements to the overall Hart Voting System design and implementation



provide a consistent, yet powerful security level across all hardware and software. Hart has also applied Symantec's recommendations to our election software engineering process, ensuring that security is a key driver in the ongoing development of the Hart Voting System.

Military Standards

Military standards are specifications approved by the U.S. Department of Defense to ensure uniformity of test conditions. The purpose of U.S. Military Standard 810 (MIL-STD-810) is to establish uniform methods for environmental tests for determining the resistance of equipment to the deleterious effects of natural and induced environments. The test methods are intended to specify laboratory conditions that will give test results similar to actual service conditions and to obtain reproducibility of the test results. This document also serves as a guide for those engaged in preparing the environmental test portions and tailoring the environmental tests to end-item equipment applications.

Testing of the Hart Voting System is a continuous process, conducted during the design phase at Hart InterCivic, at independent labs, and finally at the manufacturing facility. The eSlate voting unit meets the stringent testing requirements of MIL-STD-810 for environmental ruggedness, including humidity, vibration, and drop height. To ensure reliability, the eSlate has been tested in temperature extremes through hot-cold chamber testing and salt fog testing, and is water resistant. Complete mechanical and environmental testing has also been performed on the Verifiable Ballot Option (VBO) and eScan units to ensure reliable continued use in all phases of operation.

Internal Security

Hart InterCivic performs background checks on all potential employees to ensure that security risks are minimized. All employees are issued card keys and picture identification cards. The card keys allow employees access to the building and electronically record each entry. The picture identification is displayed at all times an employee is in the building.

All Hart InterCivic employees undergo a criminal background check as a normal part of the hiring process.

Our Engineering Department includes software, hardware and quality engineers; manufacturing specialists and others dedicated to constant improvement, security and innovation in the Hart Voting System. Using ISO 9001 guidelines, this team keeps the product compliant with statutory changes and aligned with individual customer requirements.

The majority of our Engineering and Professional Services team members hold a Professional Management Professional certification through the Professional Management Institute. Hart is also one of the only voting equipment providers to have multiple individuals hold the Certified Elections and Registration Vendor (CERV) certification through the Election Center. Both of these types of certifications incorporate security management into their curriculum.



Requirement 195

Encryption and decryption techniques-2

Vendors' proposals shall provide narrative describing in detail ALL uses of data encryption/decryption in the proposed system as the techniques apply to (1) data storage on vote tabulation devices, (2) data storage on services running the election management software, and (3) transfer of data from the ballot scanning subsystem to the election management system.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart InterCivic Engineering and Development group is responsible for implementing cryptography in all functions of our election software and election data exchange points. This additional and robust layer of 128-bit encryption provides a high level of data security throughout the election process.

The eSlate Cryptographic Module (eCM) is a physical USB security device provided by Hart InterCivic. It is required for access to secure functions in the BOSS, Ballot Now, Tally, Rally, and SERVO applications.

Using Hart's eCM Manager application, a jurisdiction administrator creates a unique signing key (i.e., an encrypted code), which is written onto the eCM device. At the same time that the signing key is created, the user selects a PIN to regulate access to the eCM.

The signing key and PIN on the eCM is then transferred to MBBs at the time that MBBs are written, thereby creating a means to authenticate MBBs at critical points in the election process. Only a user with an eCM that includes the matching signing key may access secure functions in the Hart Voting System. In addition to having the eCM device, the authorized user must know its PIN in order to perform secure functions.

In order to create a new signing key, the authorized user enters a one- or two-digit Key ID of his/her preference. Like a filename, the Key ID is simply used as a reference name for the unique signing key being created. When the user enters a new Key ID, eCM Manager automatically generates a random, 128-bit encrypted signing key, which is not visible. However, the encrypted signing key is then encrypted again, resulting in a visible "hash", which indicates to the user that a new signing key has been successfully generated. Before the signing key is written to the eCM, the user must select a PIN (password) to regulate access to that eCM.

Hart's current voting system, version 6.2.1, is the solution proposed to Marion County, Oregon.



Prior to shipping any hardware to a customer, our manufacturing personnel power on every system and visually verify the correct software version is installed. During Acceptance Testing by the customer, the systems are also powered on for visual verification of the software versions.

At any time during and after Acceptance Testing, the customer may also run independent version verification via hash testing. Options for Hash verification tools that Hart has tested are: Mares, AccuHash, HashMyFiles and MD4/SHA1 Hash Generator. Note: These tools are NOT endorsed by Hart, however we have tested and verified their functionality.

Examples of the hash testing steps a customer may take can be found in Hart's RFP response, Requirement 31.

Encryption/Decryption

The Hart software applications – BOSS, Ballot Now, TALLY, Rally and Servo – require the use of Hart's eSlate Cryptographic Module (eCM) for access to secure functions within these applications. The eCM is a physical USB security device provided by Hart. The eCM provides 128-bit encryption during key tasks throughout the election process.

The eCM contains a unique signing key and PIN as created by the jurisdiction administrator. This information is transferred to the MBB at the time they are written. Only a user with an eCM that includes the matching signing key and its PIN may access secure functions in the Hart Voting System.

Other security features that address configuration setup for system hardening to protect against intrusion include redundancy in data storage, backup power and automatic system diagnostics. The Hart Voting System sub-systems run under a secured operating system that prevents execution of unauthorized programs on the host PC. Data cannot be altered or changed by unauthorized personnel because the database structure is proprietary and is protected by encrypted passwords. All information storage devices are solid state, and thus are not susceptible to magnetic fields, abusive handling, or loss of power. There are no smart cards or electronic key devices for voters to operate or poll workers to collect after the voting process, eliminating a key point of failure or potential security weakness (for example, the possibility of a hacker attempting to insert a counterfeit smart card).

The following are among the additional system-hardening features that protect the Hart Voting System from intrusion:

- **User account management and password storage.** A role-based access control model and password-based user account authentication protect the workstation components that manage election data, from creating ballot definitions to tallying final vote counts. The system maintains user passwords in a highly secure, one-way, salted hash format called the Password-Based Key Derivation Function (PBKDF). The role-based authorization model allows administrators to easily apply the principle of least privilege by assigning users only those privileges necessary to carry out their job



function.

- **Digital signatures of data.** Digital signatures protect all data maintained on the MBB, including ballot definitions and cast-vote records. These cryptographic signatures are generated according to the hash message authentication code (HMAC) specification. The use of the cryptographic signatures allows the device receiving an MBB to verify the integrity and origin of the data before it is processed. This feature enforces existing policy and legal requirements that protect vote data in transit.
- **Two-factor authentication.** A two-factor authentication system secures all cryptographic key material. Workstation components require cryptographic keys to generate and verify MBB digital signatures. These keys are stored on the eSlate cryptographic module (certified to FIPS-1 Level 3) and are further protected by the eSlate Cryptographic Module (eCM) personal identification number (PIN). To access the key material, the two-factor authentication requires that the user have the eCM device, the signing key, and the PIN.
- **Code verification.** The firmware resident in the Hart Voting System components is audited against unauthorized changes by the System for Election Records and Verification of Operations (SERVO), both before and after the election. A cryptographically-secure digital hash provides verification that the Hart Voting System firmware is identical to the certified version on file with the National Software Reference Library (NSRL), which is managed by the National Institute of Standards and Technology (NIST). This provides an additional technical protection against attempts to modify election software on voter terminals.
- **Audit logs for all components.** All components in the Hart Voting System, including workstation devices and voter terminals, support a persistent logging mechanism to capture and record all security-related system events.



System Administration

Requirement 73 Programming languages.

Vendors' proposals shall specify all software languages (such as Visual Basic, Visual.Net, or C) and application development environments, including version and release identification, in which all of its programs are written.

Item status: MANDATORY

☒ YES, the vendor's proposal meets this requirement

☐ NO, the vendor's proposal does not meet this requirement

Vendor's Narrative:

The Hart EMS is written in either PowerBuilder or C++ (depending upon the specific application).

The following table lists the software used for each PC to be used in an election and respective operating system:

Hart InterCivic Proprietary Software

Software	Database	Operating System
BOSS	Sybase SQL Anywhere, v7	Windows 2000 Pro, SP3
Ballot Now	Sybase SQL Anywhere, v7	Windows 2000 Pro, SP3
Tally	Sybase SQL Anywhere, v7	Windows 2000 Pro, SP3
Rally	Sybase SQL Anywhere, v7	Windows 2000 Pro, SP3

Requirement 80 Escrow agreement.

Vendors' proposals shall contain a description of and commitment to the firm's procedures for periodically depositing the complete source code of all software and firmware provided for use in the Marion County Clerk's Office Elections Division with a mutually agreed upon Escrow Agent.

At a minimum the escrow arrangement shall contain the following terms:

A. Within five (5) days after receiving notice its software has been accepted for use by the Marion County Clerk's Office Elections Division, the contractor shall deposit the source code for the software, .DLLs, and any special utilities prepared by the vendor, including all software documentation, relevant commentary, and explanations with the Escrow Agent. The vendor warrants that the source code deposited, and all subsequent deposits under this Agreement, shall include comments and documentation and will be complete and capable of compilation by a knowledgeable technician or agent of Marion County into an operable version.

B. Not later than every six (6) months thereafter, the vendor shall deposit with a mutually agreed



upon Escrow Agent the source code for the software and .DLLs prepared by the vendor, including all software documentation, relevant commentary, explanations, plus all revisions to the software source code encompassing all corrections, changes, modifications, and enhancements made to the software by the vendor (i.e., the Escrowed Material). Within seven (7) days after such deposit with the Escrow Agent, both the vendor and the Escrow Agent shall give written notice of receipt to the Marion County. The Escrow Agent shall maintain for a period of not less than three (3) years all previous versions of escrowed materials.

C. The cost of using an alternative third party Escrow Agent, other than the one arranged for and paid for by the vendor, shall be borne by Marion County.

D. Vendors' proposals for this escrow procedure shall contain a warranty that the Escrowed Material does not contain any expiry key or other mechanism for establishing a date or time beyond which the software license will be invalid or beyond which the software will not function properly.

E. Upon written notice of cause to the vendor and the Escrow Agent, Marion County may conduct tests of the Escrowed Material, under the vendor's supervision, to confirm the conditions and usability of the Escrowed Material. Any direct costs associated with testing the Escrowed Materials shall be borne by Marion County.

F. A default by the vendor shall be deemed to have occurred under this Escrow Agreement upon occurrence of any of the following:

(i) If the vendor has availed itself of, or been subjected to by any third party, a proceeding in bankruptcy in which the contractor is the named debtor; an assignment by the vendor for the benefit of its creditors; the appointment of a receiver for the vendor; or any other proceeding involving insolvency or the protection of, or from, creditors and same has not been discharged or terminated without any prejudice to Marion County's rights or interest under this License agreement within thirty (30) days; or

(ii) If the contractor has ceased its on-going business operations, or the sale, licensing, maintenance, or support of the Software to the documented requirement of this Agreement; or

(iii) If contractor offers an upgrade or release of the Software that Marion County documents does not meet the State of Oregon's or Marion County's election management, operational, or legal requirements.

G. Marion County shall give written notice by certified mail to the Escrow Agent and the vendor of the occurrence of a default hereunder. Unless within fifteen (15) days thereafter, the contractor files with the Escrow Agent an affidavit executed by a responsible executive office clearly refuting each area of claimed default or showing that the default has been cured, then the Escrow Agent shall upon the sixteenth (16th) day deliver to Marion County the Escrowed Material and all revisions thereto.

H. The terms or conditions in the Vendors' agreements with Escrow Agents shall not restrict



Marion County's access to the Escrowed Materials in any manner greater than the terms and conditions stated in this requirement. If there are terms and conditions in conflict between a Vendor's agreement with an Escrow Agent and the terms and conditions in this requirement, the Vendor shall resolve those conflicts by modifying its agreement with the Escrow Agent in such a manner as to make the agreement with the Escrow Agent comply with the terms and conditions stated in this requirement.

Marion County, in its sole discretion, might choose to accept an escrow agreement established between the State of Oregon Secretary of State's Office and the successful vendor in lieu of this requirement.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart will enter an escrow agreement for the Hart Voting System source code with the jurisdiction and a qualified escrow agent, if the County so requests.

Hart's business practice is to deposit into secure escrow each new software product it develops, as well as any subsequent versions of its software products.

Hart originally began escrowing its software with Fort Knox Escrow Services in 1998. In 2001, DSI, a nationally known escrow firm and a subsidiary to Iron Mountain Corporation, acquired Fort Knox. Iron Mountain changed DSI's name to Iron Mountain Intellectual Property Management in October 2004. Iron Mountain has vaults in Norcross, Georgia, and Renton, Washington. Hart continues its business relationship with Iron Mountain today.

Iron Mountain Intellectual Property Management and their escrow processes provide protection and security for Hart as the owner/developer of the software, and ensure that each account beneficiary has protection for its Hart-provided system(s) software in the event Hart cannot perform in accordance with its contractual agreement with that customer.

Requirement 81 **Support and maintenance.**

Vendors' proposals shall contain a sample service level agreement through which the vendor proposes to provide on-going support and maintenance to the Marion County Clerk's Office Elections Division after conclusion of any agreed upon warranty period.

The narrative of the proposed service level agreement shall include response times and the



nature of the response that the contractor shall provide.

Response time is defined as the maximum time period that will elapse between initial request for support from Marion County (and its acknowledgement by the contractor) and commencement of resolution by the contractor.

The response time to a support request to the vendor is governed by the level of priority of the request as determined by Marion County, as follows:

Severe: Critical functionality failure exists with excessive risk to the ability of the county to use the system. System or application catastrophic failure has occurred or is very likely to occur imminently.

High: Desired functionality is missing. There is a high risk that the application will not perform critical functions. The issue stops county election officials from performing a function. No work-around is available.

Medium/Low: Desired functionality is not as indicated in requirement, or the system misses election officials' expectations for delivering the functionality. Work-around is available. Some risk exists. May be inconvenient to the county election officials for a period of time not to exceed two weeks. OR--The matter is largely a cosmetic problem with no risk.

Vendor's proposed service level agreement shall include three (3) levels of onsite and telephone software support at the county elections office for 7 X 24 coverage with varying levels of response time depending upon the priority established by the county board of elections:

During peak election periods (90 days prior to any election and 15 days after any election):

- **Critical--immediate phone response, 4 hours onsite response
- **High--1 hour phone response, 8 hours onsite response
- **Medium/Low--2 hour phone response, 48 hours onsite response

During off-peak periods (all times other than peak election periods):

- **Critical--1 hour phone response, 48 hours onsite response
- **High--2 hour phone response, 72 hours onsite response
- **Medium--3 hour phone response, 5 business days onsite response

Vendor proposals shall contain a description of the escalation procedure that the firm will follow to handle support calls and assure a timely resolution of support and maintenance requests, satisfactory to Marion County Elections.

Vendor proposals shall contain a description of their proposed service level agreement for upgrades to the hardware, firmware, and software in a timely manner for changes required by law in regards to all system functions. Vendor proposals shall include a description of specific plans to provide state and federal mandated system changes.



Vendor proposals shall contain a description of their service level agreement to provide periodic hardware, firmware, and software updates for enhancements requested by Marion County Elections.

Vendor's proposed service level agreement shall include a description of the contractor's software enhancement program including a regular schedule of software updates.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Election Day Support

Hart shares Marion County's focus on conducting successful, smoothly run elections. By Election Day, Hart will have provided the County with comprehensive training, available make-up and remedial sessions, along with Desk Reference Guides for each trainee. In addition to this extensive training, Hart will prepare for Election Day by identifying potential risk factors and developing strategies to respond appropriately, should the need arise.

The Hart Project Manager is responsible for coordinating and scheduling all Hart elections support activities. The Hart support team, led by the Project Manager, is available to provide onsite support for the entire time the polls are open, as well as one hour before the polls open on Election Day and as long as necessary after official poll closure.

The Hart support team assists the County in troubleshooting problems. Troubleshooting areas could include, but are not limited to, dealing with power failures, dealing with password errors, and so on. The Hart support team is trained to help County elections staff identify the problem area and to patiently and methodically walk through steps to reach satisfactory problem resolution.

Ongoing technical assistance is normally not needed for standard operation of the Hart Voting System. Additional Election Day support for Marion County may be desired, especially during early stages of the deployment. In that case, Hart can arrange for such service.

Post-Election Testing and Reporting

Reporting requirements for election results will be met through Tally, which supports a wide range of standard reports as well as custom reporting capabilities. Hart InterCivic will support post-Election Day logic and accuracy testing, as well as reporting and archiving requirements for both election data and asset (equipment) management.

Customer Support Center



Hart InterCivic provides a toll-free telephone number service and has a fully staffed Customer Support Center (CSC). The CSC is located at Hart's headquarters in Austin, Texas.

The primary means of contacting Hart's CSC during normal operating hours is via telephone through the toll-free customer support line. Outside normal operating hours, the customer support line prompts callers to leave an emergency voice mail message that activates a page or mobile phone call to a CSC consultant. A dedicated, toll-free customer support fax line also is available 24 hours a day, 7 days a week, as is e-mail access.

Available hours of operation for the Customer Support Center are Monday through Friday 7:00 a.m. to 7:00 p.m. Central Time, except for Hart InterCivic company holidays, which are published each December for the succeeding calendar year.

Hart Technical Support is available 24 hours per day, 7 days a week for the period immediately prior to, and after, each election. This support includes initial ballot creation, by-mail setup period, and Election Day.

Problem Reporting and Response Times

Upon receipt of a Customer Support Request (CSR), a CSC consultant reviews the information and assigns a priority for urgency of a response. The response is defined as communicating to the customer the status of the problem analysis and potential remedies or workarounds. Hart's problem severity levels and response goals for Customer Support Requests received during normal working hours are shown below.

Severity	Type of Problem/Request	Response Goal
1	System is down, or major critical functionality is not operating	Within 1 business hour
2	Non-critical but major functionality or hardware is inoperative	Within 4 business hours
3	System feature or minor hardware is malfunctioning or inoperative	Within 2 business days
4	Cosmetic in nature	Will determine if it should be included in a future maintenance release

Response Time Goals. Hart's Customer Support Center quickly and efficiently responds to requests from customers.

Responses to Customer Support Requests received via voice mail/page, fax, or e-mail outside normal operating hours may be delayed unless previous arrangements have been made for standby support resources.

Hart's Project Manager and Customer Support Center will maintain close contact through frequent communication and regular visits. The Project Manager will also be responsible for



managing delivery of the support services. He or she will serve as an escalation point to ensure each County's ongoing satisfaction.

Resolution Procedures

Upon receipt, all Severity 1 Customer Support Requests are brought to the attention of the CSC Manager to ensure that appropriate Hart InterCivic resources are focused on returning the affected system to operation as soon as possible. Severity 2 or 3 requests not resolved within the previously stated goals are escalated. Resources for escalation include appropriate subject matter experts or Hart InterCivic functional area supervisor/managers, who conduct further troubleshooting or corrective action. The CSC Manager reviews all unresolved Customer Support Requests and recommends appropriate action.

TeamTrack™

Hart InterCivic customers log their support requests in a browser-based tracking tool, TeamTrack. This tool enables customers to determine the status of their support call, 24 hours a day, 7 days a week. All users who submit items via the browser interface must have a TeamTrack user account and appropriate privileges. Individuals who have a TeamTrack user account can also submit items via e-mail.

Continuing Technical Support

Ongoing support for the Hart Voting System hardware and software continues throughout the initial warranty period. Support for third-party components will be provided in accordance with the manufacturer's warranty passed through Hart to Marion County.

A 24-hour hotline for technical support may be scheduled in advance during the election cycle. This hotline is staffed with qualified technical personnel who are able to assist with any problems that the jurisdiction might encounter during the system transition and the pre-election timeframe. Outside of election cycles, Hart's Customer Service Center hotline is available during regular business hours. Contact is also available through e-mail, and a Web page for general posting is available to all project team staff.

The County may also participate in the Hart Users Group, where customers share ideas, benefit from each other's experience, and offer valuable feedback and suggestions that help us achieve our goal of continuous improvement.

Hart InterCivic also provides technical support via e-mail, fax and TeamTrack.

Hardware, firmware and software upgrades/updates that are required to maintain compliance with State and Federal certification requirements are based on timelines as dictated by State and Federal laws. These standards are incorporated into the system, presented for certification, and delivered to customers under the terms of the Hart Voting System Warranty, Support, and License Agreement.



Requirement 148 **Database management system**

Vendors' proposals shall specify all database management software, including its version and release identification, that operates with the vote tabulation system's election management system.

Item Status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's narrative:

The following table lists the software used for each PC to be used in an election and respective operating system:

Hart InterCivic Proprietary Software

Software	Database	Operating System
BOSS	Sybase SQL Anywhere, v7, 2001	Windows 2000 Pro, SP3, 2002
Ballot Now	Sybase SQL Anywhere, v7, 2001	Windows 2000 Pro, SP3, 2002
Tally	Sybase SQL Anywhere, v7, 2001	Windows 2000 Pro, SP3, 2002
Rally	Sybase SQL Anywhere, v7, 2001	Windows 2000 Pro, SP3, 2002

Requirement 420 **System failure description.**

Vendors' proposals shall describe the most severe system failure experienced by the proposed system.

The description should include a description of what caused the failure and what was the process used to recovery the system.

Item status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

The most severe system failure that could be experienced by Marion County is catastrophic system failure of one or more of the PCs, laptops or scanners.



Hart offers a backup system with back-up versions of all software installations. The system is password protected and the OS is locked down. In the event the County declares its primary equipment has failed or become inoperable, the County would contact Hart's Customer Support Center (CSC) to activate the system. Once the password is used the County has 60 days to return the computer to Hart for a password reset. If the County fails to return the system within 60 days the County would be invoiced for additional seats of the software applications.

Knox County, Tennessee experienced the most severe system malfunction.

A pin worked itself loose from the JBC door covering the MBB. The pin fell onto the JBC motherboard causing damage to the board, some of its components and the MBB. There was no danger of fire during the malfunction however the damage caused the inability of CVRs to be read from either the JBC or MBB. Hart contracted with a local company in Knox County to remove the memory chips from the motherboard and MBB. Once accomplished, these chips were installed onto a new motherboard and into a new MBB. Both were then able to be used to extract the CVRs for tallying. The JBC and the MBB CVR totals matched each other.

CVRs are stored in three physically separate locations – the JBC, the MBB and the eSlate. In the Knox County scenario the eSlates could have been used to read the CVRs however they had inadvertently been reset by the customer prior to election results tabulation.

Requirement 450 Remote access for support.

Vendors' proposals shall describe the capabilities and procedures available to the Vendor for remotely accessing the election management system and ballot scanning devices to perform maintenance and support.

Item status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

The scanners and PCs running the Hart software applications are not connected to the Internet or any external network. The network cards are disabled on the PCs running the BOSS and Tally applications, thus eliminating the opportunity for anyone, including Hart personnel, to gain remote entry into the EMS or the hardware.



Testing

Requirement 185 **User acceptance testing.**

The vendor's proposal shall include the name of a technically proficient representative of the firm who will be available at least by phone as a Test Liaison during the Marion County Clerk's Office Elections Division's business hours while Marion County conducts User Acceptance Testing (UAT). The RFP timeline specifies when the UAT will occur.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the capability is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart InterCivic's proposed key personnel for the Marion County project are shown in the following table.

The Project Manager will be available as a Test Liaison during the County's business hours while the County conducts User Acceptance Testing (UAT).

Name	Address	Telephone Number	E-mail Address
Pete Lichtenheld Operations Director, Election Solutions	15500 Wells Port Dr. Austin, Texas 78728	512-252-6578	plichtenheld@hartic.com
Rich Geppert Manager, Professional Services	15500 Wells Port Dr. Austin, Texas 78728	512-252-6632	rgeppert@hartic.com
Pam Cardenas Project Manager	15500 Wells Port Dr. Austin, Texas 78728	512-252-6813	pcardenas@hartic.com



Training Services

Requirement 112 Training for system administrators.

Vendors' proposals shall include a schedule and proposed content for a training course the vendor will provide up to five (5) Marion County Clerk's Office Elections Division system administrators in the administration and operation of the proposed vote tabulation system, including the election setup, ballot preparation, election results reporting operations, data management, system backup, and system restoration.

The proposal shall include a description of the proposed number of days of training and the main technical and functional areas that will be covered in the training. The proposal shall include instruction in maintaining the security and integrity of the system at all times.

The proposed schedule and course for the training shall occur at the beginning of the system installation and implementation phase. It shall occur at a time that will allow Marion County Clerk's Office Elections Division staff to use information gained in training to conduct the User Acceptance Test effectively.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart training curriculum has been tested through many successful elections with millions of votes cast. Thousands of election administrators and poll workers have experienced first-hand how the Hart training curriculum provides the skills needed to master essential tasks from voting equipment setup to Election Night tabulation and reporting.

While our training solution always begins with a proven standardized curriculum, the curriculum is also continuously refined and tailored to meet the changing needs of Hart Voting System customers. The proposed total training days will be five, based on four on-site days and one off-site day. These training days are separate from the 15 on-site days of the Project Manager.

Training courses include Operations Manuals, Training Manuals, and a variety of other media, including videos and graphic presentations. All of these are designed with a single objective: to help trainees achieve proficiency and self-sufficiency in the tasks required to conduct a smooth, successful election with the Hart Voting System.

Training materials are provided to election officials during scheduled courses. Soft copies of the materials are provided to the jurisdiction in an easy-to-duplicate PDF format.



Training Materials

Hart provides training materials for elections office staff members and poll workers. We also provide soft copies of training materials for further duplication.

Planning the Training Program

To tailor the standard curriculum to local requirements, a Hart Training Specialist or Project Manager performs a training needs assessment. The goal in performing this assessment is to identify how best to bridge the gap between existing elections procedures and training, and the requirements of the new Hart Voting System implementation.

After reviewing the findings of the training needs assessment and variance analysis, the Training Specialist revisits the training plan from the original proposal in order to meet the customer's training needs. Our experienced trainers then identify options for where, when, and how initial training services are conducted.

Courses Offered

While Hart InterCivic takes its superior standardized curriculum as a starting point, the process of planning specific training events is oriented to each customer's local needs. Elections officials work with the Hart Project Manager and the Training Specialist to determine which courses are most appropriate for the jurisdiction, and which staff members should attend each course. Typical audiences include permanent and temporary election office staff, information technology (IT) personnel and warehouse staff.

The following courses will provide the County elections staff, officials, and poll workers with the necessary knowledge to conduct successful elections using the Hart Voting System.

Hart Voting System Management and Tasks Course. In this short course, election officials learn the workflow of the Hart Voting System. Training includes learning how to manage the Hart Voting System for an efficient, successful election and how to complete administrator-specific tasks including assigning user passwords and accessing audit trail reports. An expanded topic of this course, "Change Management," teaches the State and County elections staff how to adapt an organization to the newly acquired Hart Voting System. Courseware includes a manual of management documents, including all election logs in electronic format.

BOSS Operator Training Course. In this course, elections officials, elections office staff, and Ballot Origination Software System (BOSS) data entry specialists run BOSS ballot generating software to define and create eSlate, eScan, and Ballot Now (absentee-by-mail) ballot formats and styles. Training includes logging into BOSS, formatting and generating ballots, proofreading, exporting and importing data, and writing Mobile Ballot Boxes (MBBs) containing ballot information for the Hart Voting System components. Courseware includes both operations and training manuals.



Ballot Now Operator Training Course. In this course, elections officials, elections office staff, and Ballot Now operators use Mobile Ballot Boxes prepared in BOSS to print ballots to be used for paper ballot voting (either by-mail or in-person). Users are taught to scan ballots, save Cast Vote Records back to the Mobile Ballot Boxes, and send the Mobile Ballot Boxes to Tally for tabulation. Trainees are taught the resolution process.

Ballot Now training covers how to assign write-in votes to certified and/or free-form write-in candidates and to convert the handwritten image on the paper ballot into an electronic Cast Vote Record readable by the Tally tabulation software. Training also explains how to view ballots that need resolution of write-ins. Courseware includes both operations and training manuals.

Hart Voting System Support Procedures Course. In this course, elections officials, support personnel, and warehouse staff will review storage, preparation, delivery, and maintenance procedures; and review the Hart Voting System computer configurations. They will learn how to physically set up and connect the system hardware, perform acceptance and functionality testing, and walk through the logic and accuracy testing. Pre- and post-election activities that students will learn include applying backup procedures; resetting the system hardware components for a new election; practicing troubleshooting procedures; and preparing the hardware systems for an election. A segment of this course also provides training on by-mail ballot resolution. Also included are recommendations, procedures, and logs for election event troubleshooting technicians and help desk operators. Courseware includes a general warehouse procedures training manual.

Requirement 114 **Scanning, ballot resolution operator training.**

Vendors' proposals shall include a schedule and proposed content for a training course the vendor will provide up to twenty (20) Marion County Clerk's Office Elections Division staff members in the operation of the proposed vote tabulation system, including initiating ballot scanning operations, scanning ballots, clearing ballot jams, resolving or adjudicating unread or misread ballot marks, and transferring results from the scanner to the election administration system.

The proposal shall include a description of the proposed number of days of training and the main technical and functional areas that will be covered in the training. The proposal shall include instruction in maintaining the security and integrity of the system at all times.

The proposed schedule and course for the training shall occur at the beginning of the system installation and implementation phase. It shall occur at a time that will allow Marion County Clerk's Office Elections Division staff to use information gained in training to conduct the User Acceptance Test effectively.

Item status: MANDATORY

 x YES, the proposed system meets this requirement and the functionality is included in the proposed cost



☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart will provide Ballot Now Operator Training. In this course, elections officials, elections office staff, and Ballot Now operators use Mobile Ballot Boxes prepared in BOSS to print ballots to be used for paper ballot voting (either by-mail or in-person). Users are taught to scan ballots, save Cast Vote Records back to the Mobile Ballot Boxes, and send the Mobile Ballot Boxes to Tally for tabulation. Ballot Now training covers how to assign write-in votes to certified and/or free-form write-in candidates and to convert the handwritten image on the paper ballot into an electronic Cast Vote Record readable by the Tally tabulation software. Training also explains how to view and resolve undervotes and overvotes and general scanner operations. Courseware includes both operations and training manuals.

If desired by Marion County, Hart can also provide refresher training for scan operators during the weeks prior to the first Countywide election.

Requirement 115 **Training manuals.**

Vendors' proposals shall list and describe the training manuals and all other materials that the Vendor will provide and maintain for Marion County as part of the initial price and during the warranty and maintenance periods.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart provides training materials for elections office staff members and poll workers. We also provide soft copies of training materials for further duplication. Hart will provide Marion County with the BOSS, Ballot Now, Tally and Support Procedures Training Manuals.



Vendor (general)

Requirement 390 **System capabilities that set it apart.**

Vendor's proposals shall contain a statement of the features, capabilities, methods, and tools of its proposed system that sets it apart from competitors' systems.

Item status: MANDATORY

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

Hart provides a proven solution that delivers an especially powerful combination of benefits to Marion County. The foundation of our voting system solution is Hart's 90-plus years of experience in all aspects of elections. Hart entered the industry printing ballots for Texas counties, and has grown to provide a complete range of elections products and services to a large network of jurisdictions across the nation. From ballot printing to election support, to the most effective technologies for election management, Hart's name stands for exceptional expertise, absolute accessibility, and trusted transactions.

- A fully integrated secure voting system solution that spans the entire life cycle of an election. From the initial data input from OCVR, through the election process at the County to the final Statewide reports – all in an integrated digital platform.
- Paper ballots for vote-by-mail voting that are provided by Hart's digital Ballot Now component. With Ballot Now, Marion County can effectively manage the chain of custody of the ballot printing and keep strong control over the process of scanning ballot resolution of vote-by-mail paper ballots; begin processing/scanning returned ballots 7 business days before Election Day; dramatically reduce the need to manually duplicate ballots and conduct a full audit of ballot resolution. In addition, ballots can be printed on-demand by the County or in volume by a third-party print vendor.
- Ballot Now, a digital scanning system that yields increased efficiency and accuracy. This element can eliminate the need for sorting ballots; allows vote exceptions and write-ins to be viewed post-scanning via on-screen display; and provides for resolution of exceptions through the digital image, leaving the original ballots unaltered.
- An audit log is maintained of key actions within Ballot Now during the ballot resolution/adjudication process, allowing additional transparency of the process.
- Scanning of ballots and tabulation of the results are two separate operations performed on two different pieces of equipment. The ballot scan stations are unable to produce tabulated results therefore avoiding any accidental or



inadvertent tabulation or knowledge of tabulated results.

- An effective and tested election management integration from the OCVR to the Hart Ballot Origination Software System (BOSS). This completed solution provides OCVR database-driven power with flexibility for application enhancement and interoperability among components.
- The same naming and numbering convention. After the ballot layout is finished in BOSS and all the ballot styles/types are complete, a custom report export file with the BOSS ballot styles/types is created and imported into OCVR so the ballot style/type naming conventions are matched between BOSS and OCVR.
- An integration of OCVR voter registration statistics that are imported into the Hart Tally application on the morning of Election Day.
- An effective and tested election integration of Tally data submitted back to the OCVR and the Statewide reporting system, thereby eliminating the manual entry into the Statewide reporting system.
- A complete package of services that includes professional project management; a well documented, professional training program encompassing local elections staff and poll workers; onsite support for acceptance testing and installation, pre-election, Election Day, and post-election support; and a warranty program.

Requirement 400 **Required, non-supplied services.**

Vendors' proposals shall describe any services (such as ballot printing) or functions that are required to make use of the system but that are not provided by the Vendor, and are either assumed to be able to be carried out by the County, or that will have to be carried out for the County through a third party.

Item status: MANDATORY

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

Hart's proposal includes all services necessary for the vote-by-mail system, including hardware, software and ballot printing.

Should the County choose to have ballots printed by a company other than Hart, the associated equipment needed (commercial print shop, digital print presses, ballot paper, toner, etc) is not included. Ballot marking devices (pens, pencils, etc) and mail services products (envelopes, postage, etc) are not included in Hart's proposal.



Vote tabulation

Requirement 160 **Ballot processing throughput-1.**

The vendor's proposed vote counting equipment configuration shall have the capability of scanning and resolving issues on ballots at a combined throughput rate of 9,000 all-folded ballots per hour for a sustained period of 16 consecutive hours.

The vendor's proposed vote counting equipment configuration shall provide this performance throughput rate using all-folded ballots with the following characteristics: 15" long by 9 and 3/4" wide, double-sided, 3 column ballots, containing over 60 different contests.

Vendors' proposals shall define and present a configuration of equipment (including ballot scanners and issue resolution/adjudication workstations) necessary to achieve and sustain this throughput rate.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart has proposed the use of Kodak i660 scanners for Marion County. The i660 provides high throughput, a relatively lightweight scanner and a small footprint. The i660 is easier to store and perform preventative maintenance.

The manufacturer-rated throughput for the Kodak i660 scanner is 120 pages (up to 480 images) per minute, or up to 7,200 pages per hour when scanning 8.5x11-inch ballots in landscape format. This scanner can also accommodate the 8.5x14 and 11x17 inch ballot. Using the 8.5x14 inch ballot, the scanner can achieve a manufacturer-rated throughput of about 80 pages per minute, or 4,800 pages per hour, per scanner. Using the 11x17 inch ballot, the scanner can achieve a manufacturer-rated throughput of about 55 pages per minute, or 3,300+ pages per hour, per scanner. Please note, this actual throughput includes the resolution and completion of write-ins.

The technology in the system scans ballots but does not tabulate. Scanning and tabulation occur on physically separate equipment and each action occurs at different times. Ballot Now takes advantage of the election law in Oregon that allows the processing and scanning of ballots prior to Election Day. This allows the jurisdiction the ability to scan the majority of vote-by-mail ballots before Election Day.

8.5"x14" actual ballot processing

Taking into consideration other factors affecting ballot processing in the field, the County should expect to initially see an actual ballot processing rate for the 8.5x14-inch ballot of about 2,500-



3,500 ballots per hour, per scanner. In order to achieve the amount of desired ballots scanned within the timeframe outlined above, it would require four scanning stations. Please note, this actual throughput includes the resolution and completion of write-ins.

Using an 8.5"x14", three column, duplex ballot, Hart recommends the use of four i660 scanners for the County. With these scanners operating simultaneously, the total throughput of ballot scanning would well exceed 9,000 ballots per hour. In eight hours the County could scan over 72,000 ballots, in 16 hours the County would scan over 144,000. Each Ballot Now station includes an extra resolution station per work station.

11"x17" actual ballot processing

Taking into consideration updated throughput factors affecting ballot processing in the field, the County should expect to initially see an actual ballot processing rate for the 11x17-inch ballot of about 2,700-3,000 ballots per hour, per scanner. In live scanning of 11x17 inch ballot performed during the August 2009 demonstration, 1,000 unfolded ballots averaged a scanning throughput of 20 minutes or 3,000 per hour. In order to achieve the amount of desired ballots scanned within the timeframe outlined above, it would require three scanning stations however Hart is recommending and proposing four scan stations for back-up purposes and a more conservative approach. Each scanning station would have duplicate resolve capability. Please note, this actual throughput includes the resolution and completion of write-ins.

Using an 11"x17", four column, duplex ballot, Hart recommends the use of four i660 scanner for the County. With these scanners operating simultaneously, the total throughput of ballot scanning would exceed 9,000 ballots per hour. In eight hours the County could scan 72,000 ballots, in 16 hours the County would scan 144,000.

In conclusion, Hart will propose four scanners to accommodate the largest ballot size needed to accommodate the largest ballot template offered: 11"x17".

Of course, we recommend the County distribute some of the scanning over several days well before Election Day thereby reducing the number of scanners necessary to meet this specification and applying the most efficient use of the software and technology.

Hart's experience indicates that with average gains in efficiency, the initial throughput can be significantly improved. The updated throughput values stated for the 11x17 ballots can be achieved through the efficient design and execution of workflow processes, an extra resolution station at each Ballot Now station, batch size management, workspace; facility layout, and supervisory attention. Hart's system design, training plan, project management, and specialized support built into our proposal are structured to help the County achieve this objective.

Requirement 200 Protection against reading the same ballot more than once.

Vendors' proposed systems shall contain software with the ability to prevent ballots and batches of ballots from being read more than once in the ballot scanning devices and from



being tabulated/tallied more than once in the central vote system.

Please describe the features, functions, capabilities, and options of the proposed system to prevent individual ballots from being read more than once through ballot scanning devices during active ballot tabulation.

Item status: OPTIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Ballot Now paper ballots include a barcode that identifies the precinct or ballot style. This barcode also provide security against duplicate scanning and fraudulent ballots. For added security and protection against re-scanning an additional utility will be provided to the County that will check against duplicate ballot scanning across different scan stations.

The MBB carries the election database and formatted ballots between the Ballot Now, BOSS, and Tally applications. MBBs also store Cast Vote Records, signing key and PIN information for the eCM and audit information.



Voting equipment

Requirement 15 **Record voter's choices on disk or memory chips.**

The vendor's proposed system shall electronically record voters' ballot choices on computer grade disk and/or memory devices.

Vendors' proposals shall contain documentation concerning the technical method by which the vote tabulating device electronically records voters' choices on disk and/or memory devices for subsequent transfer to a central vote tally database.

Vendors' proposals shall contain a description of all available methods for transmitting tabulation results from the ballot scanning devices to the election management system for accumulation into election results totals. Vendors' proposals shall identify their preferable method for transmitting tabulation results from the ballot scanning devices to the election management system for accumulation into election results totals.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Mobile Ballot Box (MBB) is Hart Voting System's reusable, portable PC memory card. The MBB is used to store election information and transport that data between commercial desktop PCs running BOSS, Ballot Now, and Tally. Because the MBB uses solid-state, nonvolatile flash memory, no batteries or constant power supplies are required to maintain data. Each MBB is uniquely serialized for each election and tracked by the BOSS and Tally software applications. Election database information and Cast Vote Records (CVRs) can only be written to, or read from, MBBs with appropriate components of the Hart Voting System.

The MBB is the link among all components and applications of the voting system. Its use in the system gives greater flexibility to the staff setting up the election, promotes the redundant and secure storage of cast votes, and is the seamless interface for by-mail tabulation and reporting. This interface architecture, built around the uniform MBB data structure, allows the seamless upgrading of individual components and introduction of new technologies without affecting other parts of the system. This architectural approach provides the greatest flexibility available for voting system evolution.

Ballot Now accesses the formatted ballot data on the MBB, which facilitates the ballot delivery and vote collection functions. At the close of processing and scanning operations, the MBBs are returned to Tally for downloading of Cast Vote Record information.



Requirement 16 **Vote record accuracy.**

The vendor's proposed systems shall produce an accurate record of each vote cast. Vendors' proposals shall describe in detail the firm's manufacturing and internal testing steps taken to assure that the vote tabulating hardware, firmware, and software operate to produce an accurate record of each vote cast.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the capability is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart Voting System meets the requirement to permit voters to cast ballots quickly and easily without any loss of accuracy. The Hart Voting System is the only all-digital voting system on the market. As a result, it affords greater accuracy and quicker voter response.

Unlike other systems, the Hart Voting System does not require ballots to be preprinted for specific precincts or ballot styles. Our Ballot Now paper ballots also do not require special pre-formatted "ovals" or other target marks which may or may not conform to a particular ballot's requirements. Ballot Now paper ballots include a barcode that identifies the precinct or ballot style. This eliminates the need to sort ballots before scanning, which eases the workload for the elections staff and speeds ballot processing. Barcodes also provide security against duplicate scanning and fraudulent ballots.

In compliance with the 2002 Voting Systems Standards, Volume 3, Section 3.2.1, the maximum error rate allowable is one error in 500,000 ballot positions, with a minimum correct of 499,999 ballot positions. This maximum/minimum error rate equates to an accuracy rate greater than or equal to 99.9998% accuracy rate (499,999/500,000). As evidenced by the Hart Voting System's federal certification, the Hart Voting System meets this error rate requirement.

Requirement 17 **Accurate reporting of votes cast.**

The vendor's proposed systems shall report accurately all votes cast. Vendors' proposals shall describe in detail the firm's manufacturing and internal quality assurance testing and documentation steps taken to assure that the vote tabulating hardware, firmware, and software accurately report all votes cast.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement



Vendor's Narrative:

The Hart Voting System does not require ballots to be preprinted for specific precincts or ballot styles. Our Ballot Now paper ballots also do not require special pre-formatted "ovals" or other target marks which may or may not conform to a particular ballot's requirements. Ballot Now paper ballots include a barcode that identifies the precinct or ballot style. This eliminates the need to sort ballots before scanning, which eases the workload for the elections staff and speeds ballot processing. Barcodes also provide security against duplicate scanning and fraudulent ballots.

Cast vote data is saved as Cast Vote Records (CVRs) on the same election's MBB(s). This MBB carries the CVRs to the Tally application for tabulation. To enhance the security of the voting process, Ballot Now digitally records CVRs in two separate locations: the Ballot Now database from the desktop PC and the MBB. Of course, the paper ballot is retained as the original (and triplicate) record of the cast vote.

Because of Ballot Now's unique ballot resolution functionality, the application supports a wider range of voter markings than typical optical scan systems, thereby ensuring that the intent of the voter is clearly recognized. The paper-based nature and flexibility of the Ballot Now component allows voting to be accomplished in almost any environment without affecting the system's ability to ensure 100-percent accuracy in capturing and recording votes.

Requirement 18 **Error detection and correction.**

Vendors' proposals shall describe in detail the firm's internal testing steps taken to assure that the system's control logic and programming methods detect errors during election setup, ballot design, ballot scanning, data transfer, vote tallying, and vote reporting--and provide corrective actions when errors are detected.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The architecture of the Hart Voting System allows unmatched simplicity election management. All major subsystems and assemblies (BOSS, Ballot Now, Tally) include automatic diagnostic testing. These tests include error checking of function output, input validation, cyclic redundancy checks, and real time error checking.

Third-party hardware such as scanners includes diagnostic testing and error detection during initial start-up.



Lastly, audit log reports reflect all errors detected and corrected.

Requirement 19 Write-in capability.

Vendors' proposals shall describe in detail the firm's internal testing steps taken to assure that the proposed vote tabulation devices accurately store and tabulate write-in votes when cast.

Vendors' proposals shall describe in detail the procedures required by election officials to tabulate and report write-in votes entered on ballots by voters.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

When voters return the marked ballots, the ballots are digitally imaged using commercially available scanners. Scanning occurs without interruption as the Ballot Now application electronically queues ballots requiring review by an elections official; the imaging process does not need to be stopped each time ballot resolution is required.

Resolution of write-in votes occurs through Ballot Now's unique on-screen resolution feature, as allowed by local election law. Elections officials may examine a digital image of each ballot requiring review (write-ins). A pull-down menu provides options to accept or reject write-in votes. This approach has the important added advantage of not requiring any modification to the original paper ballot. An audit log, including the user ID, records all resolution decisions, providing a complete record of the resolution process.

Processing write-in votes is particularly streamlined. Before scanning the ballots, the elections staff has the option to enter the names and acceptable aliases of write-in candidates in Ballot Now. Part of the ballot resolution process is to accept or reject the voter's write-in choice. A faster option for write in resolution can occur when the write ins have no bearing on the outcome of a contest. In that case, the County can assign all the write ins to an uncertified status. The total count of write-ins will be reported however it would not be necessary to type each name into the write in field. This would accelerate write in resolution and allow MBBs to be read by Tally in a timely manner. With this method, all selections, including write-ins, are recorded electronically in Ballot Now. Additionally, all write-ins are finished and reported with the Tally reports on election night.

Requirement 21 Diagnostic testing.

Vendors' proposals shall describe in detail the diagnostic testing procedures and capabilities of the proposed system, which are available for use by local election administrators, including but not limited to:



- (a) acceptable steps required to initiate, carry out, and review diagnostic test results,
- (b) a detailed description of the diagnostic test results, and
- (c) an acceptable amount of time to cycle through a complete diagnostic test for each unit from initiating power up of the device to inspecting the results of the diagnostic test.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The architecture of the Hart Voting System allows unmatched simplicity election management. All major subsystems and assemblies (BOSS, Ballot Now, Tally) include automatic diagnostic testing. These tests include error checking of function output, input validation, cyclic redundancy checks, and real time error checking.

Users (County election staff) can also perform diagnostic testing using the Ballot Now Acceptance Test Procedures which is included with all Ballot Now purchases.

Third-party hardware such as scanners includes diagnostic testing during initial start-up.

Requirement 23 **Logic and accuracy tests.**

The vendor's proposed system shall provide an automated test routine for election administrators to run a complete logic and accuracy (L&A) test of all contests loaded on appropriate system components, using simulated vote totals that can be verified by both precinct reports and/or an election summary.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart InterCivic will provide the following as it relates to testing of the Hart Voting System:

- Provide comprehensive logic and accuracy testing procedures to validate accuracy of machines
- Provide comprehensive staff training program for testing of machines

Hart InterCivic logic and accuracy testing ensures all units are properly prepared for an election and verifies that the hardware and software are functioning correctly.



Vote patterns manually entered using a test or election MBB allow the voted information to be returned to Tally for verification of results. This verification can be performed on a precinct or ballot-style basis.

Suggested logic and accuracy testing procedures consist, in part, of the following steps:

8. Create logic and accuracy MBBs in the “test” mode in BOSS.
9. Use one of the MBBs for Ballot Now to open an election and print a predetermined number of test ballots.
10. Mark the test ballots.
11. Scan, save, and resolve the ballots for Ballot Now. Save the votes as CVRs to the MBB.
12. Read the MBBs into the Tally application.
13. Compare the Tally tabulation to the predefined results from the test deck and the or Ballot Now test deck.
14. Use one of the MBBs for Ballot Now to open an election and print a predetermined number of test ballots (or otherwise the MBBs retain the logic and accuracy data used specifically for the test).

Logic and accuracy data are retained by the MBBs used specifically for the test. Results are stored in the test database as part of the Tally database application and are available for future reference.

Before scanning the ballots with Ballot Now, a report is generated from the system indicating no batches have been scanned and no votes have been recorded.

To protect against error, all test tabulations are done using MBBs and databases identified specifically for this function. This process assures that the data will not be confused or interfere with actual election data. Election databases created for test purposes are easily deleted from BOSS or Tally applications. When deleted, these database or election files are no longer available and cannot accidentally be accessed.

Hart follows the steps outlined on in “Oregon Logic and Accuracy Testing Hart Paper (Ballot Now)” submitted with the original response. This testing including the Ballot Proofing Test, the Internal L&A Test, the Public Certification Test and the Second Public Certification Test.

Requirement 24 Recount capabilities.

The vendor's proposed systems shall provide the Marion County Clerk's Office Elections Division with well-documented, secure procedures to conduct recounts in contested elections per Oregon Election Laws.

Vendors' proposals shall describe the procedures required to use the vote tabulation system to and election management system conduct a recount.



Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

A complete, electronic recount of an election is accomplished easily with the Hart Voting System by rereading each MBB for the specified election into a "fresh" Tally database. This process duplicates the one used in the original tabulation, and provides the same results reports, audit trails, and backup options.

The system also allows for a hand recount since the scanned paper ballots remain unaltered.

Following this page is the recount procedure as documented in our Tally Manual.



1. Full Recount

1.1 Tally Full Recount

Steps:	Details:
1.1.1 After the election has been run in Tally, back up the original numbered Tally database folder to CD.	<input type="checkbox"/> File path to the Tally database folder is: C:\tally\Database\TimestampFolder Note: Optional: Archive the database within Tally. This creates duplicate database and database configuration files in a separate location on the PC.
1.1.2 If you haven't already done so, finalize the original Tally database.	A NEW status Election mode database cannot reside on the PC with the original Tally database from the same election, unless the original database has a "Finalized" status.
1.1.3 Click the Election Databases Quick Link and click New .	
1.1.4 Copy the original BOSS database into Tally, setting parameters consistent with those set in the original Tally database.	<input type="checkbox"/> Split Precinct processing <input type="checkbox"/> Reporting Options. <input type="checkbox"/> Tabulation Start Time
1.1.5 Name/describe the new Tally database "RECOUNT Full Tally <Election Name Date>".	
1.1.6 Click the Election Databases Quick Link, highlight the recount database name, and click Select .	
1.1.7 Set parameters for write-in processing.	Go to the Options menu and click the Reporting Options tab.
1.1.8 Print a "Zero Report."	Click the Reporting Quick Link and select the "Cumulative Report."
1.1.9 Process MBBs.	Re-read all original MBBs.
1.1.10 Process Early Voting Retrievable Ballots as in original Tally database, if applicable.	
1.1.11 Print Reports.	
1.1.12 Process Provisional Ballots as in original Tally database, if applicable.	Also parse provisional ballots as in original Tally database, if applicable.
1.1.13 Print reports.	



<i>Steps:</i>	<i>Details:</i>
1.1.14 Perform Write-in Resolution as in original Tally database, if applicable.	
1.1.15 Print reports.	
1.1.16 Process Vote Adjustments as in original Tally database, if applicable.	
1.1.17 Print Reports.	
1.1.18 Finalize the recount election.	
1.1.19 Print official reports.	Click the Reporting Quick Link and select the reports you want to print.
1.1.20 Save the recount database to CD.	

Requirement 25 **Retain, report votes cast prior to internal system failure.**

The vendor's proposed systems shall provide the capability for all vote recording devices to retain and produce an accurate record of all votes cast prior to an internally caused failure of a unit, such as a failure of a vote recording equipment's memory, processor, or primary storage device.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The MBB is the link among all components and applications of the voting system. Its use in the system gives greater flexibility to the staff setting up the election, promotes the redundant and secure storage of cast votes, and is the seamless interface for by-mail tabulation and reporting. This interface architecture, built around the uniform MBB data structure, allows the seamless upgrading of individual components and introduction of new technologies without affecting other parts of the system. This architectural approach provides the greatest flexibility available for voting system evolution.



Voted ballots are scanned from the Ballot Now system to create CVRs which will be written to the Election MBB for tallying in the Tally System. The CVRs created by scanning voted ballots are saved to the MBB on a batch-by-batch basis. The CVRs for a batch can only be written to the MBB if all ballots in that batch are resolved and checked-in.

The CVR writing to the MBB process can be performed after each scan batch has been scanned and resolved, and/or all scan batches have been scanned and resolved.

Should the system (PC, scanner, etc) fail prior to the CVRs being written to the Election MBB, the voted ballots may be scanned again. Should the system (PC, scanner, etc) fail after the CVRs have been written to the Election MBB, data integrity remains intact and no CVRs are lost.

Also, all information stored on the MBB (databases, audit information, etc.) as well as final reports may be archived in hard copy and/or saved electronically to CD-ROM, as needed.

Requirement 28

Overvote handling and reporting per Oregon Election Law.

Vendors' proposals shall contain narrative discussing (a) specifically how the voting system software arrives at a determination of when an overvote exists, (b) specifically how the voting equipment configuration notifies the operator that an overvote exists, (c) the steps operators or adjudicators must take to handle the overvote condition, and (d) the reports provided on the numbers of overvote conditions on ballots.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

An overvote occurs in Ballot Now when there is more than one mark in the box next to the contest or candidate name.

When a batch of voted ballots is scanned, any ballot image that requires a determination of the voter's intent must be resolved in the Resolve ballot window before its cast vote record (CVR) can be written to the Election MBB.

The unresolved ballots can be resolved:

- At the Ballot now server or at a Ballot Now client.
- By any user if the ballot has not been checked-out (locked) by another user.

Ballot Now uses the overvoted contest as one of the categories to separate the ballot images that need resolving the Resolve Ballot window.



If desired, Marion County can let Ballot Now automatically resolve overvoted ballots. At any time the County can review the scan batches and if the CVRs have not yet been written to the Election MBB, a scan batch can be deleted so that it can be re-scanned.

Below reflects the necessary steps to resolve an overvoted contest as described in the Ballot Now Operations Manual.



✓ **To resolve an overvoted contest:**

- 1 Click the **Overvoted Contest** check box in the **Ballot Filter** tab to place a ☒ check mark in it.
- 2 Click the **Refresh** button in the **Ballot Filter** tab.
- 3 In the **Selection Tree**, select a ballot to view.
 - The selected ballot displays in the **Ballot View** area of the **Resolve Ballot** window.
 - The overvoted contests in the ballot are highlighted in *orange*.
- 4 Double-click an *orange* contest.
That contest appears in the **Unresolved overvoted contest** window (see Figure 7-32).

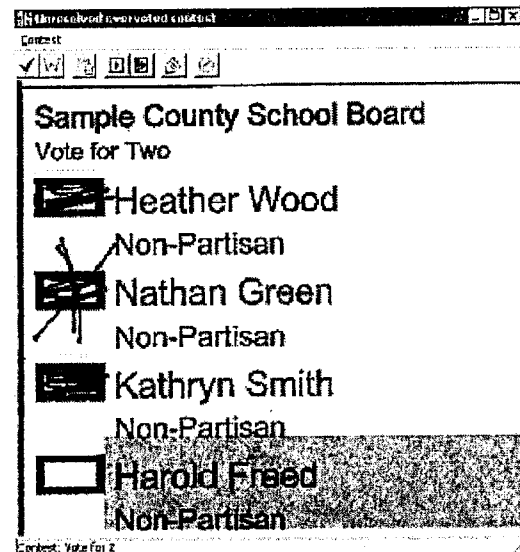


Figure 7-32 Unresolved overvoted contest window for a contest with an overvote.

- 5 To resolve the contest as overvoted, click ☒ the **Confirm Contest** tool in the toolbar of the **Unresolved overvoted contest** window.
—OR—
If you want to deselect the option the voter did not intend to vote for so the option the voter intended to vote for will be counted:
 - a Right-click over the option you want to deselect to display the **Deselect** button and hold down the right mouse button as you move the pointer over the **Deselect** button.
 - b When the **Deselect** button is highlighted, release the mouse button (see Figure 7-33 on page 174).
 - The option you deselected is marked deselected in the **Resolved contest** window (see Figure 7-34 on page 175).

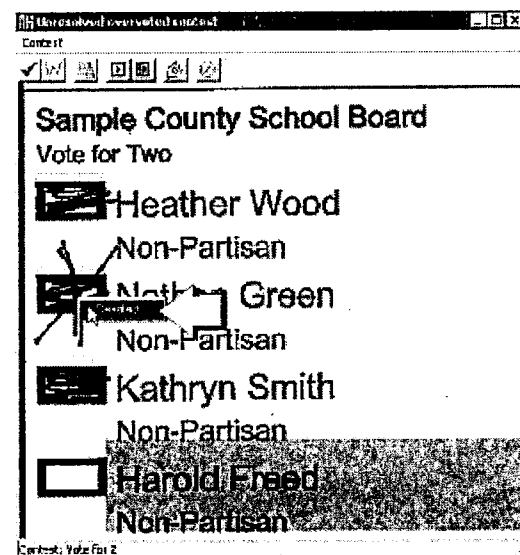


Figure 7-33 Deselect button highlighted in Unresolved overvoted contest window for deselecting overvoted option.



6 Click the Save tool in the toolbar of the Resolved Contest window to save your changes to the contest.

- The contest is shown as resolved in the Ballot View area of the Resolve Ballot window (see Figure 7-35).

7 Click the Next Contest tool in the Resolved Contest window to advance to the next unresolved contest.

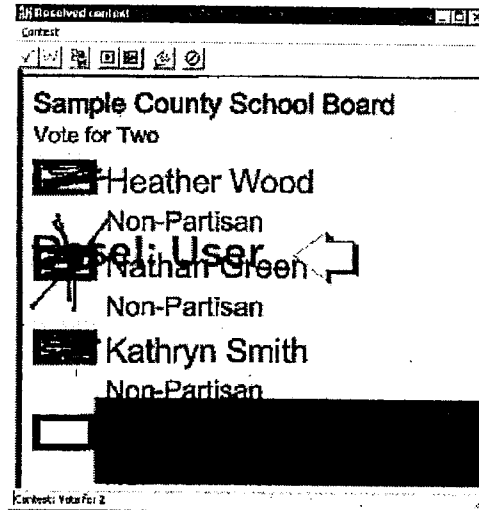


Figure 7-34 A deselected overvoted option in the Resolved contest window.

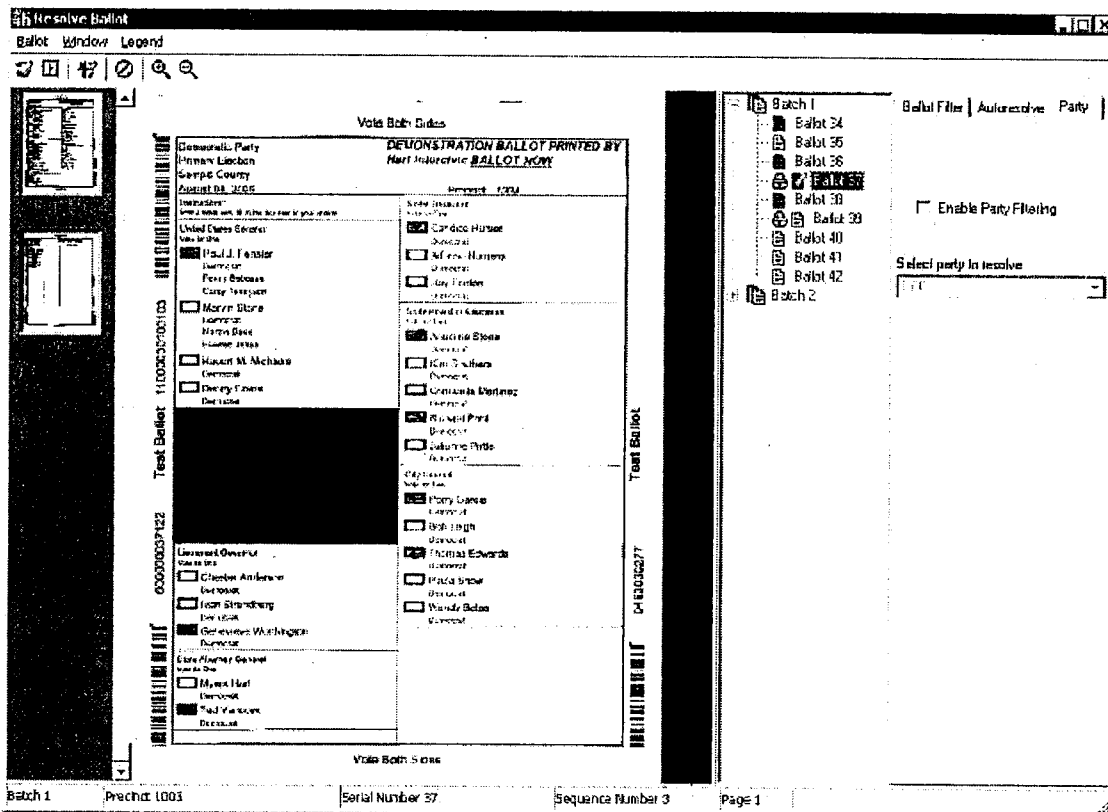


Figure 7-35 A resolved overvoted contest in the Resolve Ballot window.



The Resolve Status Report in Ballot Now should provide the County with the information desired for viewing information on overvoted ballots. For each scan batch, the Report includes the scan batch ID, the user ID, date and time associated with the scan batch, number of ballots unresolved, resolved, and not yet processed by BNIP; sorted by scan batch.

The Cumulative Report in Tally reflects the total number of overvotes in the contest and the percent of those overvotes out of all votes for the contest.

Requirement 30 Split precinct voting; multiple ballot styles/districts.

The vendor's proposed solution shall provide for the tabulation of votes cast in split precincts, where all voters residing in one precinct are not voting the same ballot style.

The vendor's proposed systems shall provide for the voting of multiple ballot styles and multiple ballot districts at a single election precinct.

Vendors' proposals shall provide narrative that describes how the systems' programs tabulate and report votes accurately for the ballot styles cast in split precincts.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Ballot styles, along with other election data, are written on Mobile Ballot Boxes (MBBs). MBBs are standard Advanced Technology Attachment (ATA) PC cards. Hart provides 128MB MBBs as the standard with the system, which can hold in excess of 200,000 ballot styles. In the Orange County, California, November 2004 General Election the Hart Voting System supported over 121,000 ballot styles.

After ballots are scanned, cast vote data is saved as Cast Vote Records (CVRs) on the same election's MBB(s). This MBB carries the CVRs to the Tally application for tabulation. To enhance the security of the voting process, Ballot Now digitally records CVRs in two separate locations: the Ballot Now database from the desktop PC and the MBB. Of course, the paper ballot is retained as the original (and triplicate) record of the cast vote.

Ballots may include contests for multiple jurisdictions (federal, state, county, district, municipal, at-large) and multiple parties (including non-partisan) simultaneously.



For split precincts, the Hart Voting System provides for the tabulation of votes cast in split precincts, where all voters residing in one precinct are not voting the same ballot style. The election databases are created in BOSS. BOSS accommodates ballot design for any variation of political boundaries and generates correct ballot combinations/formats for each subdivision, including splitting precincts and crossing boundary lines.

Data can either be imported or manually entered. Among the data entered in BOSS is information about each precinct, including any splits that may be necessary. An identifier is attached to each of the splits within a precinct, for example, Precinct 123A and Precinct 123B. Programming split precincts in BOSS follows the same process as programming other precincts.

Precincts may be split by selecting the "Split" option in BOSS' Precinct window, renaming the split portion of the precinct and assigning the number of registered voters accordingly. Split precincts are assigned to polling places in the same manner as other precincts. Contests are assigned to each of the precincts as appropriate and distribution of the split proper ballot style to the voter is managed based on the voter identification and address.

Requirement 61 Optimum operating environment.

Vendors' proposals shall describe the requirements necessary for optimum operation of their proposed ballot scanning voting devices in a central location, including but not limited to, the optimum temperature and humidity levels.

Vendors' proposals shall describe the acceptable temperature, humidity, and ambient air particle ranges, values in excess of which will render questionable the reliable operation of the proposed heavy-duty optical scan voting equipment.

Item status: CONDITIONAL

☒ YES, the vendor's proposal meets this requirement
☐ NO, the vendor's proposal does not meet this requirement

Vendor's Narrative:

The hardware components of the Ballot Now solution include the Mobile Ballot Box (MBB), a reusable, portable PC memory card; the Dell OptiPlex PC and Latitude Notebook; and the Kodak i660 Digital Scanner.

A standard office environment is recommended for operation and storage including temperatures between 60°- 95° F and humidity of 15% to 75% RH.

Requirement 87 Ease of use.

The vendor's proposed system shall demonstrate ease of use for:



- (a) authorized county elections office staff members to set up elections and ballots,
- (b) authorized county elections office staff to carry out system administrative functions, and
- (c) authorized county elections office staff members to tabulate and report election results.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost
☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart Voting System software applications are designed for ease of use. The Ballot Origination Software System (BOSS), Ballot Now, and Tally applications used in are Windows-based, thereby making the applications readily understandable to most users. BOSS, for example, requires no software programming knowledge. Election definition is simple and intuitive.

BOSS automatically creates all ballot styles needed for the election. The same Mobile Ballot Box (MBB) generated by BOSS provides election information for Ballot Now and stores the Cast Vote Records for Tally. There is no separate system required to format the ballots, no different media or programming required to initialize the scanning process, and no additional process to integrate results.

Requirement 116 Heavy-duty, folded ballot scanning device specifications.

Vendors' proposals for high-capacity, bin-feed ballot scan voting devices shall contain narrative with detailed technical specifications of the devices including, but not limited to:

- (a) physical dimensions,
- (b) storage space requirements,
- (c) maintenance requirements and recommended maintenance procedures for all components,
- (d) environmental requirements for storage and use,
- (e) electrical requirements,

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost
☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The following is information on the proposed Ballot Now scanner, the Kodak i660:



Dimensions and Storage Space Requirements:

Height: 40 cm (15.7 in.)

Width: 61 cm (23.9 in.)

Depth: 77 cm (30.3 in.)

Weight: 38.6 kg (85 lbs.)

Maintenance requirements:

Procedure	Start of Day	Middle of Shift	Start of New Shift
Vacuum output tray and input areas (elevator & transport)	X		
Clean all rollers	X		X
Vacuum transport area	X	X	X
Remove & vacuum under background strips	x		
Remove & clean imaging guides	X		X
Vacuum under imaging guides	X		X
Run transport cleaning sheet	X		X
Wipe imaging guides with cloth	X	X	X

Operating temperature: 15–35°C (59–95°F)

Operating humidity: 15% to 76% RH

Electrical Requirements: 100-240 V, 50/60 Hz

An i660 specification sheet was included with the original response.

Requirement 128 Logic and accuracy tests.

Vendors' proposals shall describe the logic and accuracy testing procedures and capabilities of the proposed systems including but not limited to (a) acceptable steps required to initiate the test, carry out the test, and review the logic and accuracy test results, (b) a detailed description of the logic and accuracy test results, and (c) an acceptable amount of time to cycle through a complete logic and accuracy test for each unit from initiating power up of the device to inspecting the results of the logic and accuracy test.



Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Hart will provide the following as it relates to testing of the Hart Voting System:

- Provide comprehensive logic and accuracy testing procedures to validate accuracy of machines
- Provide comprehensive staff training program for testing of machines

Hart InterCivic logic and accuracy testing ensures all units are properly prepared for an election and verifies that the hardware and software are functioning correctly.

Vote patterns manually entered using a test or election MBB allow the voted information to be returned to Tally for verification of results. This verification can be performed on a precinct or ballot-style basis.

Suggested logic and accuracy testing procedures consist, in part, of the following steps:

1. Create logic and accuracy MBBs in the "test" mode in BOSS.
2. Use one of the MBBs for Ballot Now to open an election and print a predetermined number of test ballots.
3. Mark the test ballots.
4. Scan, save, and resolve the ballots for Ballot Now. Save the votes as CVRs to the MBB.
5. Read the MBBs into the Tally application.
6. Compare the Tally tabulation to the predefined results from the test deck and the or Ballot Now test deck.
7. Use one of the MBBs for Ballot Now to open an election and print a predetermined number of test ballots (or otherwise the MBBs retain the logic and accuracy data used specifically for the test).

Logic and accuracy data are retained by the MBBs used specifically for the test. Results are stored in the test database as part of the Tally database application and are available for future reference.

Before scanning the ballots with Ballot Now, a report is generated from the system indicating no batches have been scanned and no votes have been recorded.



To protect against error, all test tabulations are done using MBBs and databases identified specifically for this function. This process assures that the data will not be confused or interfere with actual election data. Election databases created for test purposes are easily deleted from BOSS or Tally applications. When deleted, these database or election files are no longer available and cannot accidentally be accessed.

Hart follows the steps outlined on in the "Oregon Logic and Accuracy Testing Hart Paper (Ballot Now)" submitted with the original response. This testing including the Ballot Proofing Test, the Internal L&A Test, the Public Certification Test and the Second Public Certification Test.

Requirement 129 **Write-in capability.**

Vendors' proposals shall describe in detail the procedures required to be followed by election officials to tabulate and report write-in votes entered on ballots by voters.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

When voters return the marked ballots, the ballots are digitally imaged using commercially available scanners. Scanning occurs without interruption as the Ballot Now application electronically queues ballots requiring review by an elections official; the imaging process does not need to be stopped each time ballot resolution is required.

Resolution of write-in votes occurs through Ballot Now's unique on-screen resolution feature, as allowed by local election law. Ballot Now handles both approved write-in candidate names and free-form write-in candidate names. When a write-in is detected on a scanned ballot, the County will be able to use the Resolve Ballot window to either select the candidate name from a pre-populated list of write-ins as the County could define in the Add Write-in Candidates window or enter the free-form candidate name in the Resolve Write-In window during ballot resolution allowing the write-in name to be recorded in the CVR as a legitimate vote. This approach has the important added advantage of not requiring any modification to the original paper ballot. An audit log, including the user ID, records all resolution decisions, providing a complete record of the resolution process. A faster option for write in resolution is when the write ins have no bearing on the outcome of a contest. In that case, the County can assign all the write ins to an uncertified status. The total count of write-ins will be reported however it would not be necessary to type each name into the write in field. This would accelerate write in resolution and allow MBBs to be read by Tally in a timely manner.



The Certified Write-Ins report found in Ballot Now lists the write-ins for each contest, sorted by contest appearance on the ballot. For each contest, the Certified Write-Ins report shows:

- Contest name
- Write-in name(s) added through the Add Write-In Candidates window (including the default write-in "Uncertified")

Hart has included an additional Ballot Now resolution station to each Ballot Now scan station to assure Marion County that resolving write-ins will not slow down the reporting process. Please be aware all write-in resolution will be complete and reported on election night.

Requirement 131 **Retain, report votes cast prior to internal system failure.**

The vendor's proposed systems shall provide the capability for all vote recording devices to retain and produce an accurate record of all votes cast prior to a failure of a unit, such as a failure of the vote recording equipment's memory, processor, or primary storage device.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The MBB is the link among all components and applications of the voting system. Its use in the system gives greater flexibility to the staff setting up the election, promotes the redundant and secure storage of cast votes, and is the seamless interface for vote-by-mail tabulation and reporting. In the event of an internal failure in the equipment's memory, processor or primary storage there exists redundant back-up. Referring to the central count scan stations, ballots are scanned in batches and saved to primary and secondary storage after each batch. In the event of an internal failure no scanned batches are lost. The interface architecture, built around the uniform MBB data structure, allows additional scanned ballot batches to be updated providing additional redundancy of election data.

Voted ballots are scanned from the Ballot Now system to create CVRs which will be written to the Election MBB for tallying in the Tally System. The CVRs created by scanning voted ballots are saved to the MBB on a batch-by-batch basis. The CVRs for a batch can only be written to the MBB if all ballots in that batch are resolved and checked-in.

The CVR writing to the MBB process can be performed after each scan batch has been scanned and resolved, and/or all scan batches have been scanned and resolved.



Should the system (PC, scanner, etc) fail prior to the CVRs being written to the Election MBB, the voted ballots may be scanned again. Should the system (PC, scanner, etc fail after the CVRs have been written to the Election MBB, data integrity remains intact and no CVRs are lost. Also, all information stored on the MBB (databases, audit information, etc.) as well as final reports may be archived in hard copy and/or saved electronically to CD-ROM, as needed.

Requirement 132 **Retain, report votes cast prior to external system failure.**

The vendor's proposed systems shall provide the capability for all vote recording devices to retain and produce an accurate record of all votes cast prior to an externally caused failure of a unit, such as a complete power failure and failure of any backup power supply.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The MBB is the link among all components and applications of the voting system. Its use in the system gives greater flexibility to the staff setting up the election, promotes the redundant and secure storage of cast votes, and is the seamless interface for by-mail tabulation and reporting. In the event of an external failure such as loss of power or failure in backup power supply there exists redundant back-up of the data. Referring to the central count scan stations, ballots are scanned in batches and saved to primary and secondary storage after each batch. In the event of an internal failure no scanned batches are lost.

Voted ballots are scanned from the Ballot Now system to create CVRs which will be written to the Election MBB for tallying in the Tally System. The CVRs created by scanning voted ballots are saved to the MBB on a batch-by-batch basis. The CVRs for a batch can only be written to the MBB if all ballots in that batch are resolved and checked-in.

The CVR writing to the MBB process can be performed after each scan batch has been scanned and resolved, and/or all scan batches have been scanned and resolved.

Should the system (PC, scanner, etc) fail prior to the CVRs being written to the Election MBB, the voted ballots may be scanned again. Should the system (PC, scanner, etc fail after the CVRs have been written to the Election MBB, data integrity remains intact and no CVRs are lost.

Also, all information stored on the MBB (databases, audit information, etc.) as well as final reports may be archived in hard copy and/or saved electronically to CD-ROM, as needed.

Requirement 177 **Ballot paper, ink, and timing marks.**



Vendor's proposals shall describe vote tabulation system requirements for ballots such as the paper type, weight, ink types to print the ballot, and location of timing marks.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the capability is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Ballot Now paper ballot application was designed to utilize standard commercial size paper (8.5"x11", 8.5"x14" and 11"x17") and available paper weights such as 28- to 80-pound paper.

For security reasons, Hart recommends that ballots be printed on Hart's proprietary security ballot paper that features an "Official Ballot" watermark. Ballots are mailed to voters in standard sized envelopes according to the requirements of the County. Ballot Now ballots also do not require special preformatted "ovals" or other target marks that may or may not conform to a particular ballot's requirements.

Traditional ink is not used to print the ballots. Instead toner from the digital printing presses is the "ink" that is printed on the ballot. Timing marks are eliminated and replaced by three bar codes that are located in the margins of the ballot and are printed on each side of the ballot.

Requirement 205 **Ballot size specifications.**

Vendors' proposals shall describe the size of all ballots that the vote scanning devices can handle through scanning, including trimming tolerances for printed ballots.

Vendors' proposals shall describe any particular limitations on the size or shape of ballots that the vote scanning devices can process.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Ballot Now provides paper ballots that use standard paper sizes of 8.5 inches x 11 inches, 8.5 inches x 14 inches, 8.5 inches x 17 inches, and 11 inches x 17 inches. All of these different sizes of ballots, however, may be folded into the same size standard ballot envelope. Because ballots can be printed on standard paper sizes, trimming is not required as ballot stock is



provided in the correct cut sheet specifications. Trim and squareness tolerances (in inches) are part of the standard commercial paper sizes and are: trim = .025 and squareness = .0075.

Requirement 210 **Single-and double-sided ballots.**

Vendors' vote scanners shall be able to scan ballots that are printed either single-sided or double sided.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Single-sided and double-sided ballots are supported, as well as multi-page ballots.

Requirement 215 **Ballot orientations**

Vendors' proposals shall describe all ballot orientations (such as front and back, top to bottom) that their proposed systems allow for ballot scanning.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Ballot Now allows for any ballot orientation as it eliminates the need for the ballot to be perfectly aligned when fed into the system. By intelligently analyzing the image in computer memory, this condition has no impact on accuracy. If there are gross alignment issues, Ballot Now will alert the user.

Also, Ballot Now locates the voter response area for each contest and then analyzes the interior area for voter marks. No assumptions are made about the location of the voter response area, every option of every contest is positively located and the interior of the voter response area is analyzed.

Requirement 220 **Marking devices, pens, and inks that may NOT be used.**

Vendors' proposals shall describe the types of marking devices, pens, and inks that may NOT be used by voters while marking ballots in order to assure accurate recognition and counting by the vote tabulation devices.



Item Status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

For paper ballots, there is no requirement for special marking devices. Hart recommends that voters use a blue or black ink pen to completely fill in the selection box, and avoid using pencils and highlighters, especially yellow highlighters. However, Ballot Now can read almost any mark that covers a portion of the boxed area adjacent to the voter's selection.

Requirement 225 **Marking devices, pens, and inks that MAY be used.**

Vendors' proposals shall describe the types of marking devices, pens, and inks that MAY be used by voters while marking ballots in order to assure accurate recognition and counting by the vote tabulation devices.

Item Status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

For paper ballots, there is no requirement for special marking devices. Hart recommends that voters use a blue or black ink pen to completely fill in the selection box, and avoid using pencils and highlighters, especially yellow highlighters. However, Ballot Now can read almost any mark that covers a portion of the boxed area adjacent to the voter's selection.

Requirement 230 **Installed system models and version**

The vendor's proposed system hardware and software must be new, in current standard production by the manufacturer.

In addition, the proposed system will include all the latest certified models and versions of all components and software. The proposal must affirm that the system will be installed in accordance with the manufacturer's installation specifications. The proposal must describe the expected useful life without major modifications or major hardware change-out that would render installed equipment obsolete.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost
☐ NO, the proposed system does not meet this requirement



Vendor's Narrative:

The Hart Voting System as proposed is the latest version certified by NASED and the State of Oregon. The expected useful life is dependent upon the number of elections Marion County undertakes however average life for PCs and laptops is approximately 4-5 years. The scanner life cycles can exceed 5 years.

Hart is in the process of developing the next generation of the Hart Voting System – designed to meet the EAC's latest 2005-based Voluntary Voting System Guidelines.

Hart's current voting system, version 6.2.1, is the solution proposed to Marion County, Oregon. Windows 2000 is the platform used in this version. PCs and laptops as configured to the specifications listed in Hart's initial response, are available from Hart with Windows 2000 installed.

Requirement 240 **Weight and quality of allowable ballot paper.**

Vendors' proposals shall specify the weights and quality of paper and ballot stock that can be fed through the device during vote tallying,

Item Status: MANDATORY

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

The eScan and the commercial scanners recommended for use with the Hart Voting System have been tested to accommodate paper stock with an acceptable weight range of 28- to 80-pounds.

Hart strongly recommends that all paper ballots with the Hart Voting System be printed on Hart's Official Ballot Paper, which features an exclusive "Official Ballot" watermark.

The paper specifications of Hart's Official Ballot Stock may be found on the following page.



Official Ballot Paper Specifications

Hart's Official Ballot Paper is a #1 grade bond, laser guaranteed, 28# basis weight meeting the following specifications:

Basis Weight:	28# Bond
Finish:	Smooth Xerography
Sheffield:	100-120
Brightness:	91-94
Content:	Virgin wood fiber, no recycled content
Florescent level:	4%
Moisture content:	4.5%
Packaging:	Moisture resistant ream wrap
Trim:	+/- .025"
Squareness:	+/- .0075"
Toner Adhesion:	mill treatment which allows optimum binding of toner and paper fibers
Security features:	Original, dandy roll watermark, random repeat, readable in any orientation (securely identifies paper as original issue to detect fraud)

Sizes (inches):	8.5 x 11
	8.5 x 14
	8.5 x 17
	11 x 17
	19.75" Rolls

Requirement 245 **Recommended ballot paper.**

Vendors' proposals shall contain recommendations for types of paper or ballot stock to be used with the ballot scanning equipment.

Item Status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement



Vendor's Narrative:

Hart recommends our proprietary Official Ballot Paper. Ballots are printed on this special security paper that features an "Official Ballot" watermark. This exclusive feature offers increased security for your elections.

This paper was developed for optimum security and performance for users of Hart's Ballot Now paper ballot system and eScan digital, ballot-imaging unit. Extensive testing has been performed to ensure the paper's compatibility with the Hart Voting System equipment as well as the printers and scanners that Hart recommends. The "Official Ballot" watermark is readable in any orientation, making it easy for your staff to identify, whether at the polling place or the elections office.

In addition, the paper's toner adhesion feature (a mill treatment that allows optimum binding of toner and paper fibers) improves its digital printing, mailing, and scanning performance. This capability allows jurisdictions to print their own ballots, or have them printed by a third-party vendor. Scanning is made easier as well – the printing on the ballot won't lose its sharpness due to repeated folding or other rough handling.

Requirement 260 Ballot folds.

Vendors' proposals shall specify any limitations on the ability of the device to read folded ballots, including (a) the maximum number of folds permitted on a single ballot page and (b) a recommendation on the number of folds for ideal use with the proposed ballot scanning equipment.

Item Status: CONDITIONAL

☒ **YES**, the proposal meets this requirement
☐ **NO**, the proposal does not meet this requirement

Vendor's Narrative:

There have been incidents in which creases resulting from folds in vote by mail ballots (aka "fold lines") have fallen directly through ballot option boxes and under rare circumstances have been of such prominence in the scanned image as to be interpreted by Ballot Now as a voter's mark in the affected option box. While Hart believes it is important for Marion County to be aware of this potential issue with the Hart Voting System (HVS) Ballot Now digital scan system, it is equally important for the County to understand why that awareness should not spawn concern about this potential, but very rare phenomenon.

Two things should be clear from these statistics. First is the fact that fold line issues are not a systemic problem. The very limited frequency of occurrence and isolation to a very few



customer sites give strong testimony to the fact that the vote by mail component of the HVS is not afflicted with any systemic technology, design, engineering or manufacturing deficiency.

Second is the fact that Ballot Now is clearly not adversely affected by the presence of “normal” fold lines, i.e. fold lines that are normal artifacts of by mail voting operations including folding, inserting, mailing, voter handling, re-mailing and pre-scan processing. HVS users put millions of ballots through this process every year and routinely complete all aspects of the process without incident as Ballot Now reliably performs exactly as designed and exactly as expected. Here again, the very limited frequency and isolation of fold line incidents provides unquestionable testimony that the vote by mail voting component of the HVS was designed to handle fold lines as a normal artifact of by mail voting and its ability to do so has been proven in the field over many years of use.

It is also important for potential HVS customers to understand that Ballot Now has undergone functional certification testing by federal and state examiners across the U.S.; that testing at both levels has included scanning thousands of folded, as well as unfolded ballots; and that Ballot Now has consistently completed these tests without encountering fold line issues. This point provides irrefutable evidence that Ballot Now has proven its ability to process ballots with fold lines, even under the meticulous scrutiny of professional testers.

So what causes the rare incidents of fold line issues experienced by a very small number of Hart customers? Analysis shows that these incidents can generally be attributed to the presence of “abnormal” fold lines precipitated by a significant departure from one or more processes or best practices approved for various facets of vote by mail voting with the HVS. “Abnormal” in this case is defined as fold lines whose visual appearance on the ballot and resulting electronic prominence in a digital image of the ballot has been substantially enhanced due to broken paper fibers, collection of foreign matter in the fold line, and/or incorrect scanner sensitivity settings.

Broken Paper Fibers

Broken paper fibers are usually the result of using ballot paper that does not meet the specifications published by Hart for Ballot Now ballots. These specifications require paper with attributes that are common in the print industry and are available in various brands of commercial paper. In an effort to assist customers in ensuring that their ballot printer uses only paper that meets the prescribed specifications, Hart has an arrangement with a major paper manufacturer to provide Hart Official Ballot Paper. This paper is guaranteed to meet HVS specifications and carries an “Official Ballot” trademarked watermark that facilitates easy confirmation of the authenticity of the paper and the finished ballot, as well. Other factors that can cause broken paper fibers include the ballot fold pattern and/or excessive pressure being applied during the fold process, either manually or by a folding machine.

Foreign Matter in Fold Lines

The factor that can contribute most significantly to the creation of abnormal fold lines is the accumulation of foreign matter in the crease or broken paper fibers along the fold line.



Furthermore, the presence of foreign matter is most often caused by a failure to use approved digital printing procedures/processes. Examples of errors committed in this area include: printing ballots on unapproved ballot stock, not properly acclimatizing ballot stock before printing, lack of toner adhesion finish, running ballot stock through a digital printer more than once, using improper toner spray and/or fuser heat settings, and/or not allowing sufficient “curing” of printed ballots before distribution. Adherence to approved digital print procedures and processes coupled with the use of approved ballot stock will ensure that toner adheres to the ballots, does not flake or rub off and thus does not create an opportunity for “toner dust” to become lodged in fold creases or broken fibers.

In order to help customers ensure that their ballots are printed by reliable printers, Hart requires that HVS customers use only print vendors that have demonstrated their ability to meet Hart printing standards and have been certified by Hart to do so. In almost every case, print errors such as those described above have been committed by an uncertified subcontractor or an uncertified branch operation of the prime contractor hired by the HVS user.

Scanner Sensitivity Settings

Scanner maintenance is required on a periodic basis to ensure that digital images created during the ballot scanning process provide accurate and consistent information for processing and interpretation by the HVS Ballot Now application. There have been instances in which scanner maintenance performed by a manufacturer’s field technician has resulted in scanner sensitivity being adjusted to a level outside of the range required for proper image interpretation by the HVS. Under these circumstances, it is possible for a “normal” fold line to be electronically enhanced to the extent that it may be detected and interpreted similar to a physically “abnormal” fold line as described above. In such a case, the “fold line issue” is easily resolved by readjusting scanner sensitivity to a level within Ballot Now’s normal operating range.

A discussion of fold line issues would be incomplete without bringing to the attention of system users and potential customers, the means designed into the HVS to mitigate potential operating issues of this nature.

One of the key features and benefits afforded by digital scan technology is the ability to actually monitor the digital images that are being sent from the scanner to Ballot Now for processing...in real time! This feature provides the opportunity for the Ballot Now operator to observe any unusual lines, marks or other faults on ballot images even before the images are accepted and processed by Ballot Now.

In addition to real-time, pre-processing image monitoring, Ballot Now also provides the even more important and unique capability to look at processed ballot images, resolve any issues identified by Ballot Now and then save the resolved ballot for creation of cast vote records excluding erroneous data that may have been generated by extraneous marks such as “abnormal”



fold lines, as well as reflecting, when necessary and where allowed/required, adjudicated voter intent.

In summary, fold line issues do occur, but actual field use data shows that they are very rare events. Analysis of these rare occurrences indicates that the issues have been precipitated by a significant departure from one or more recommended or approved processes or best practices and were not caused by any systemic deficiency in the HVS by mail voting component. And finally, the potential impact that might otherwise be generated by a fold line issue can easily be prevented or mitigated through the use of standard Ballot Now procedures and functionality afforded by the system's digital scan technology.

Requirement 265 **Location of folds.**

Vendors' proposals shall specify any limitations on the location of folds on the ballot when they coincide with the location of ballot marks.

Item Status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

There are no limitations on the location of folds on the ballot. However, as a conservative practice, it is preferred if folds through voter response areas can be avoided.

Requirement 270 **Vote counting device hardware components.**

Vendors' proposals shall describe and provide technical specifications and general configuration diagrams for all hardware components that make up the vote counting device(s) they are proposing to Marion County.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost
☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Our proposed solution for Marion County includes hardware, software, and services based on the unique characteristics and technical design of the Hart Voting System. The Hart Voting System consists of:

- **Mobile Ballot Box™ (MBB).** The flash memory card (PC card) that carries the election database and formatted ballots between BOSS, Ballot Now and Tally. MBBs also store Cast Vote Records (CVRs) and audit information.



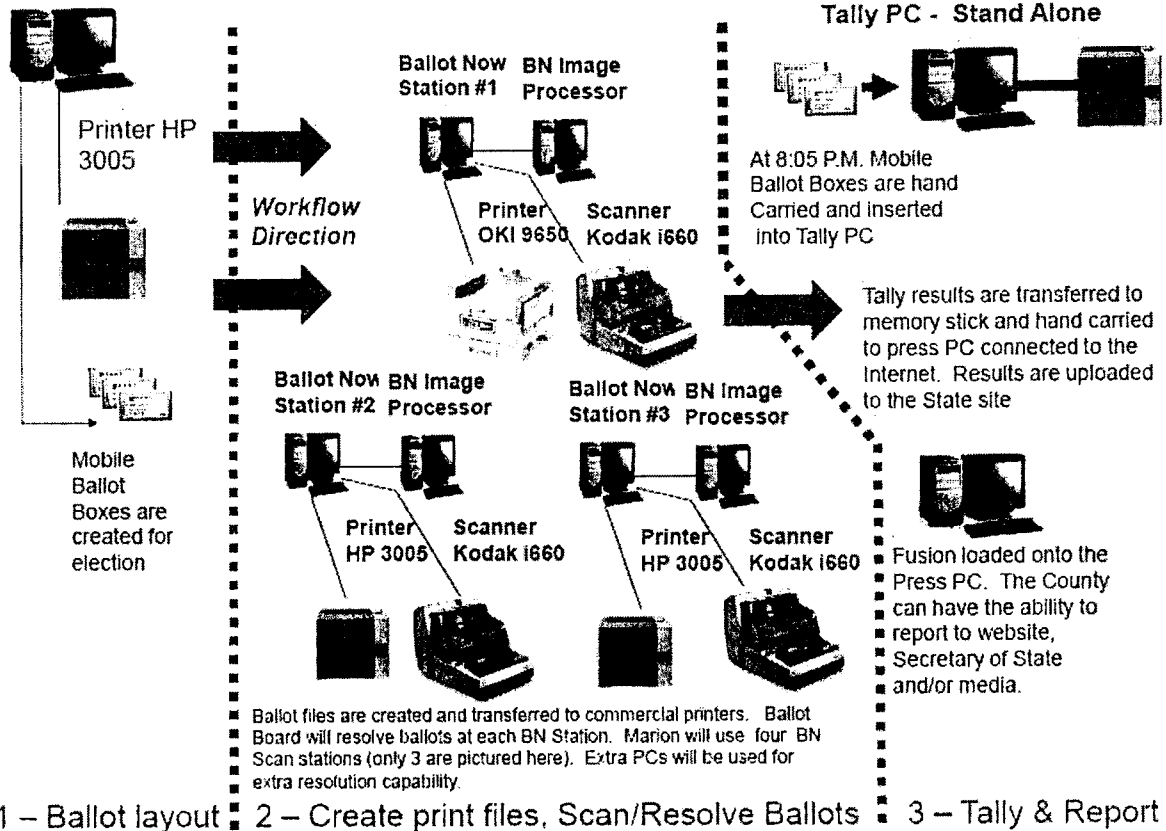
- **Ballot Origination Software System™ (BOSS).** The Hart Voting System software application that enables users to build election databases and to create electronic and paper ballot styles based on jurisdiction- and election-specific information. After ballot generation, BOSS electronically writes the election data file (including all ballot styles) to the Mobile Ballot Box memory cards, which are then transported to various polling places throughout the jurisdiction and used with Ballot Now to print paper ballots for absentee/by-mail and in-person voting.
- **Ballot Now™.** The Hart Voting System software application that allows election officials to print, scan, and resolve absentee/by-mail or in-person ballots on standard-sized paper that requires no preformatting. Ballot Now provides for on-demand, in-house printing, and it digitally images voted ballots. If allowed by local election code, ballots with questionable voter marks can be resolved through an innovative on-screen resolution process. When all ballots have been scanned and resolved, Ballot Now also captures Cast Vote Records. A Mobile Ballot Box memory card is used to transfer data between BOSS and Ballot Now.
- **Tally™.** The Hart Voting System software application that tabulates and reports Cast Vote Records contained within voted Mobile Ballot Boxes containing CVRs from Ballot Now digitally imaged paper ballots. Once the CVRs have been read and tabulated, Tally can produce a variety of official reports and data exports in several formats, including PDF and HTML.
- **System for Election Records and Verification of Operations™ (SERVO).** The Hart Voting System election records archiving and asset management system software application that maintains ongoing equipment history and provides for secure backup of election data.
- **eSlate Cryptographic Module (eCM).** A physical, universal serial bus security device. This electronic device is required for access to secure functions in the BOSS, Ballot Now, Tally, and SERVO applications.
- **Fusion™.** A software utility used to map election data from one system to another safely, and to report election results from multiple databases or systems using a wide variety of custom reports and data exports.
- **Laserjets.** Laser printers of varying speeds and capabilities are used to print reports and by-mail ballots, among other tasks. For Marion County, we recommend a low-volume printer, such as the Hewlett Packard LaserJet 3005d, or a high-volume printer, such as the Okidata 9650.
- **Kodak i660 Scanners.** Digital document scanners are used in the elections office to scan returned by-mail paper ballots. For Marion County, Hart InterCivic proposes using a high-volume digital scanner.

Technical specifications for the scanners and printers were included with the original response. The general configuration diagram can be found below. Note: The diagram is for workflow illustration only; the number of equipment pieces reflected in the diagram does not reflect those included in the cost proposal.



BOSS, Servo

Marion County Configuration





Requirement 275 Vote counting transmission to central tabulator.

Describe and provide technical specifications of and general configuration diagrams for all hardware components required for transmission of results to a central tabulating device.

Item status: CONDITIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Please see previous diagram. There will be no transmission of results to a central tabulation device. All results will be hand carried via Mobile Ballot Boxes from the Ballot Now scan and resolve stations to the Tally station. The Mobile Ballot Boxes will be inserted directly into the MBB card readers at the Tally station. The Tally application will read the MBBs and after a few basic steps the results will be tabulated and reported.

Requirement 330 Programming voting counting devices.

The vendors' proposals shall provide a description of the proposed system's capability to program each vote counting device with proper election information for use in ballot scanning and counting.

Item Status: MANDATORY

☒ YES, the proposal meets this requirement

☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

Preparing for an election begins by entering information into BOSS. Typically, jurisdictional information, such as precinct and polling place names, is transferred before an election cycle. When an election cycle begins, election-specific information (contest and candidate names, proposition text, etc.) is transferred into BOSS. Ballot content is proofed using the reports produced from BOSS. After the content is verified and text translations have been entered into BOSS, ballot generation produces the digital data file that contains all the ballot styles necessary for the election. This file is copied to the MBBs, which are then installed in the Ballot Now application.

Ballot Now gives the elections staff the option to produce paper ballots either in-house and on-demand, or printed off-site through a third-party print vendor. Ballots, which are printed on standard-sized paper stock, are mailed to voters in standard envelopes.



Ballot content entry and ballot generation occur in BOSS while ballot production occurs in Ballot Now.

Requirement 410 **Replacement parts in inventory.**

Vendors' proposals shall state a positive confirmation that the Vendor will be able to provide replacement parts and service for all components of the proposed system for a period of 5 years from the date of installation.

Proposals should indicate the amount of parts inventories maintained at their facilities in order to assure prompt response to repair requests. If vendors do not maintain parts inventories on their site, they should specify whether they maintain the inventory onsite at the Marion County Clerk's Office Elections Division or at a third-party facility (and specify the location of that facility).

Item status: CONDITIONAL

☒ YES, the proposal meets this requirement
☐ NO, the proposal does not meet this requirement

Vendor's Narrative:

All spare parts needed for the maintenance and repair of Hart Voting System components are readily available. Order turnaround times vary from immediate delivery to delivery within six weeks. All replacement parts, except scanners, are housed at our corporate facility in Austin, Texas. Hart will be able to provide replacement or like parts and service for a period of 5 years from the date of installation.

Requirement 700 **Public certification test.**

The vendor's proposed system shall provide the capability to conduct public certification tests pursuant to the procedures and operations specified in Oregon Revised Statutes, Sections 254.235, 254.485(2), and 254.525.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost
☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The Hart Voting System provides the capability to conduct public certification tests pursuant to the procedures and operations tested and certified by the Oregon Secretary of State, Election Division. A copy of Oregon's Certificate of Approval is included with this response.



Hart follows the steps outlined on in the attached "Oregon Logic and Accuracy Testing Hart Paper (Ballot Now)". This testing including the Ballot Proofing Test, the Internal L&A Test, the Public Certification Test and the Second Public Certification Test.

Requirement 705 **Ability to zero out and reinitialize voting equipment.**

The proposed vendor solution must provide the Marion County Clerk's Office Elections Division with the ability to zero-out the results from any vote tally session for a precinct, a batch, by machine, or any combination of these items.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Tally allows the adjustment of the vote totals for options in contests in order to:

- Record votes from other vendor's equipment.
- Adjust totals for abnormal conditions.

Adjustments to vote totals are made in the Vote Adjustment Wizard.

A detailed explanation, including the step by step process for vote adjustments was included in the original response. Please see "Chapter 8 Vote Adjustments" as copied from our Tally Operations Manual. Note: The "Chapter 8 Vote Adjustments" is to be held confidential.

Requirement 710 **Undervote handling and reporting.**

Vendors' proposals shall contain narrative discussing (a) specifically how the voting system software arrives at a determination of when an undervote exists, (b) specifically how the voting equipment configuration notifies the operator that an undervote exists, (c) the steps operators or adjudicators must take to handle the undervote condition, and (d) the reports provided on the numbers of undervote conditions on ballots.

Vendors' proposals shall describe the proposed systems' differential abilities to handle and report on (1) ballots on which there exists one or several undervoted races and (2) ballots that are blank, with no marked selections.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost



___NO, the proposed system does not meet this requirement

Vendor's Narrative:

An undervote occurs in Ballot Now when there is no mark in the box next to the contest or candidate name.

When a batch of voted ballots is scanned, any ballot image that requires a determination of the voter's intent must be resolved in the Resolve ballot window before its cast vote record (CVR) can be written to the Election MBB.

The unresolved ballots can be resolved:

- At the Ballot now server or at a Ballot Now client.
- By any user if the ballot has not been checked-out (locked) by another user.

Ballot Now uses the undervoted contest as one of the categories to separate the ballot images that need resolving the Resolve Ballot window.

If desired, Marion County can let Ballot Now automatically resolve undervoted ballots. At any time the County can review the scan batches and if the CVRs have not yet been written to the Election MBB, a scan batch can be deleted so that it can be re-scanned.

Below reflects the necessary steps to resolve an undervoted contest as described in the Ballot Now Operations Manual.

Ballot Now uses the following categories to separate the ballot images that need resolving the Resolve Ballot window:

- Undervoted contest
- Overvoted contest
- Contest with a write-in
- Damaged contest
- Blank ballot

If desired, the County can let Ballot Now automatically resolve overvoted, undervoted, damaged or blank ballots.



✓ To resolve an undervoted contest:

- 1 Click the **Undervoted Contest** check box in the **Ballot Filter** tab to place a ☒ check mark in it.
- 2 Click the **Refresh** button in the **Ballot Filter** tab.
- 3 In the **Selection Tree**, select a ballot to view.
 - The selected ballot displays in the **Ballot View** area of the **Resolve Ballot** window.
 - The undervoted contests in the ballot are highlighted in yellow.
- 4 Double-click a **yellow** contest.
That contest appears in the **Unresolved undervoted contest** window (see Figure 7-29).
- 5 To resolve the contest as undervoted:
 - a Click ☒ the **Confirm Contest** tool in the toolbar of the **Unresolved undervoted contest** window.
 - The contest is marked confirmed in the window and in the **Ballot View** area of the **Resolve Ballot** window (see Figure 7-30).
 - The name of the contest's window changes to **Resolved undervoted contest** window (see Figure 7-30).
 - b Click the **Save** tool in the toolbar of the **Resolved undervoted contest** window to save your changes to the contest.
 - c Click the **Next Contest** tool in the **Resolved undervoted contest** window to advance to the next unresolved contest.

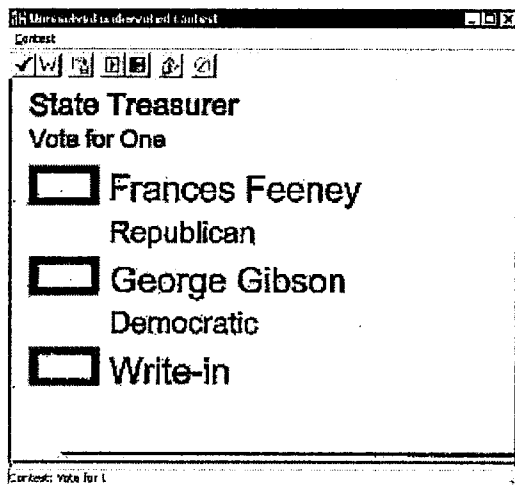


Figure 7-29 Unresolved undervoted contest window for a contest with an undervote.

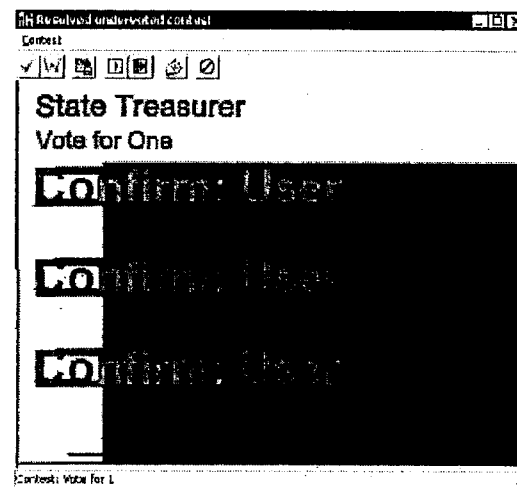




Figure 7-30 Resolved undervoted contest window for a contest resolved as an undervote.



- 6 If you can determine the voter's intent to vote for a choice:
 - a Double-click the option you think the voter intended to vote for.
The contest is marked selected by the current Ballot Now user in the **Resolved Contest** window (see **Figure 7-31**) and in the **Ballot View** area of the **Resolve Ballot** window.
 - b Click  the **Save** tool in the toolbar of the **Resolved contest** window to save your changes to the contest.
 - c Click  the **Next Contest** tool of the **Resolved contest** window to advance to the next unresolved contest.

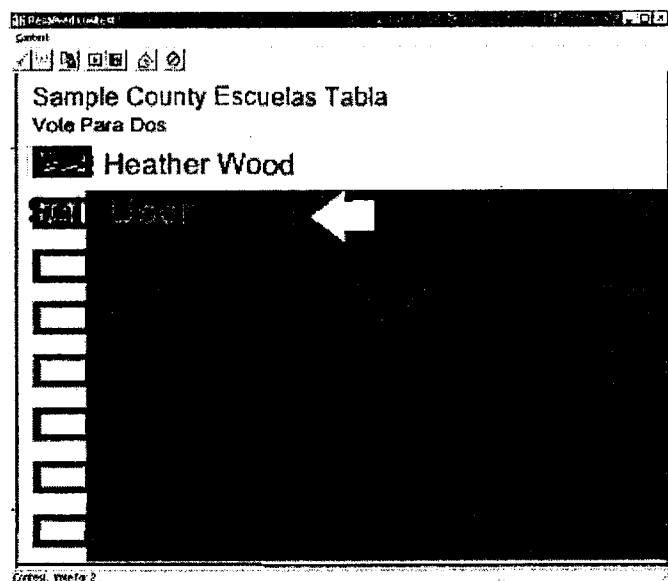


Figure 7-31 **Resolved Contest** window showing a contest with an undervote resolved as selected.

The Resolve Status Report in Ballot Now should provide the County with the information desired for viewing information on undervoted ballots. For each scan batch, the Report includes the scan batch ID, the user ID, date and time associated with the scan batch, number of ballots unresolved, resolved, and not yet processed by BNIP; sorted by scan batch.

The Cumulative Report in Tally reflects the total number of undervotes in the contest and the percent of those undervotes out of all votes for the contest.

Requirement 715 **Write-in vote handling and reporting.**

Vendors' proposals shall contain narrative discussing (a) specifically how the voting system software arrives at a determination of when a write-in vote exists, (b) specifically how the voting equipment configuration notifies the operator that an write-in vote exists, (c) the steps



operators or adjudicators must take to handle the write-in vote condition, and (d) the reports provided on the numbers of write-in vote conditions on ballots.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Marion County must define how Ballot Now will handle the write-ins before ballot resolution. For an election with known write-in candidate names, it is the County's option to define the list of certified names in the Add Write-In Candidate window.

If free-form write-ins are allowed in the election, set the program options for this feature in the Ballot Resolution tab of the Program Options window.

An additional option for write in resolution can occur when the write-ins have no bearing on the outcome of a contest. In that case, the County can assign all the write-ins to an uncertified status. The total count of write-ins will be reported however it would not be necessary to type each name into the write in field. This would accelerate write in resolution and allow cast vote records to be written to MBBs in a timely manner.

Below reflects the necessary steps to resolve a write-in as described in the Ballot Now Operations Manual.



✓ To resolve a write-in a contest:

- 1 Click the Write-in Contest check box in the **Ballot Filter** tab to place a ☒ check mark in it.
- 2 Click **Refresh** the **Refresh** button in the **Ballot Filter** tab.
- 3 In the **Selection Tree**, select a ballot to view.
 - The selected ballot displays in the **Ballot View** area of the **Resolve Ballot** window.
 - The write-in contests in the ballot are highlighted in aqua.
- 4 Double-click an aqua contest.
That contest appears in the **Unresolved write-in contest** window (see Figure 7-37)

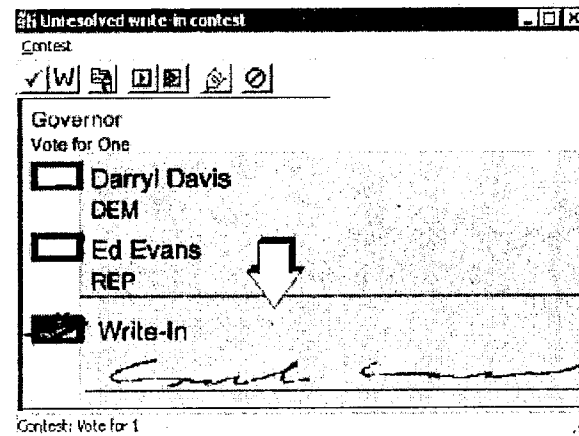


Figure 7-37 Unresolved write-in contest window for a contest with a write-in.

- 5 In the **Ballot View** area, double-click the write-in you want to work with.
The **Resolve Write-in** window appears (see Figure 7-38).
If your state uses 2-line write-ins and free-form entry, the **Resolve Write-in** window has data entry fields for Line 1 and Line 2 of the write-in (see Figure 7-39).

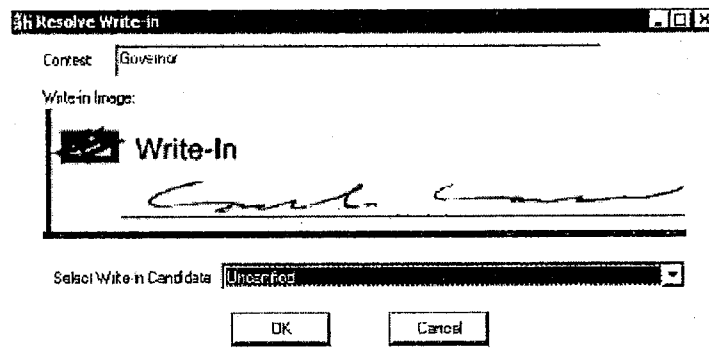


Figure 7-38 Resolve Write-in window.

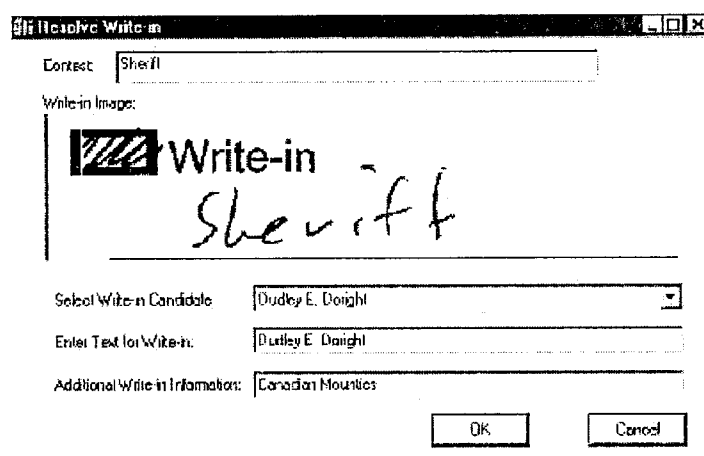


Figure 7-39 Resolve Write-in window showing the 2-line free-form write-in fields.



- 6 From the **Select Write-in Candidate** list box of the **Resolve Write-in** window, select the write-in candidate to assign to the vote in the contest (see Figure 7-40).

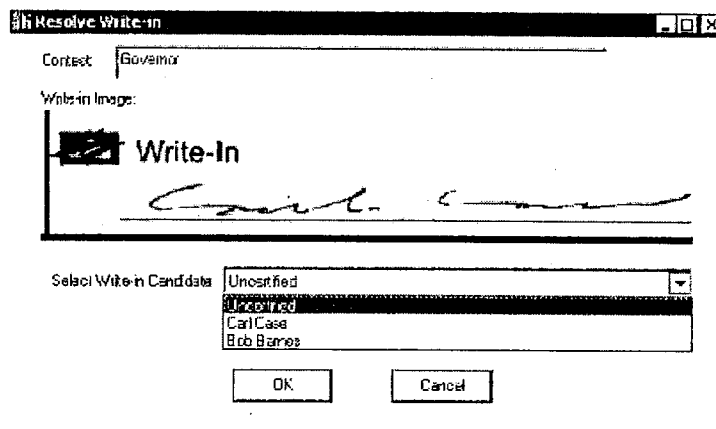


Figure 7-40 Resolve Write-in window.

- 7 Click **OK** the OK button in the **Resolve Write-in** window.

- If you selected **Uncertified** in the **Select Write-in Candidate** field, the write-in is marked **Uncertified** in the **Resolved Write-in** window (see Figure 7-41).

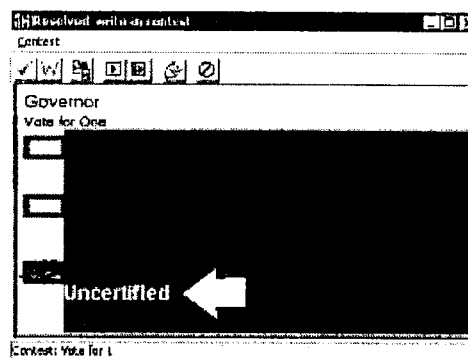




Figure 7-41 Resolved write-in contest window showing a write-in contest resolved as uncertified.

- If you selected a candidate name in the **Select Write-in Candidate** field, the write-in is marked with that candidate's name in the **Resolve Write-in** window (see Figure 7-42).

- 8 Click  the **Save** tool in the tool bar of the **Resolved write-in contest** window to save your changes to the contest.
- 9 Click  the **Next Contest** tool in the **Resolved write-in contest** window to advance to the next unresolved contest on the ballot.

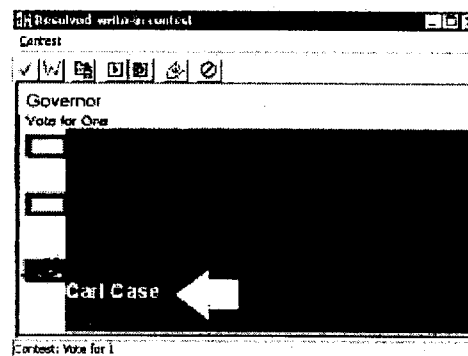


Figure 7-42 Resolved write-in contest window showing a write-in contest resolved with a candidate name.

- 10 When all write-ins in a contest have been resolved, the contest appears highlighted GREEN in the **Resolve Write-in** window and in the **Resolve Ballot** window.



The Certified Write-Ins report found in Ballot Now lists the write-ins for each contest, sorted by contest appearance on the ballot. For each contest, the Certified Write-Ins report shows:

- Contest name
- Write-in name(s) added through the Add Write-In Candidates window (including the default write-in "Uncertified")

Requirement 720

Sorting previously counted ballots.

Describe if your system can sort a batch of previously counted ballots, which contains ballots from multiple precincts, into groups of separate precincts or separate ballot styles.

Item status: OPTIONAL

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

At any time the County can review the scan batches. If the CVRs have not yet been written to the Election MBB, the County can:

- Delete a scan batch so that it can be re-scanned.
- Edit notes for the scan batch and/or change the Election source for the scan batch.

At any time the County can search for a particular ballot in the Ballot Now Election database using the ballot's serial number so the County can:

- View the ballot.
- Print the ballot
- View the Scan Batch Report for the batch that contained the ballot.
- Delete the ballot.

Hart's Ballot Now Audit Tool 1.0™ (BAT 1.0) creates reports from election results based on search criteria designated in the filters of the Ballot Now Audit Tool 1.0 window. The report lists the serial numbers of all ballots found whose characteristics match the search criteria.

With these filters, the user can create reports based on ballot characteristics such as:

- Undervoted contest
- Overvoted contest
- Write-in contest



- Damaged contest
- Blank ballot
- Ballots that are okay as scanned

Also, Ballot Now Audit Tool 1.0 enables the user to create reports using filters that specify:

- Contest title
- Precinct number
- Scan batch number

These filter options, in various combinations, enable the user to create reports for in-depth election analysis.



Warranty and maintenance

Requirement 67

Warranty.

Vendors' proposals shall provide the number of months for which it shall provide a no-cost warranty for the system, software, and services delivered to the Marion County Clerk's Office Elections Division. The warranty period shall begin on the first day after the Marion County Clerk's Office Elections Division issues an acceptance certificate for the installed system which will occur after the full system successfully completes the Marion County Clerk's Office Elections Division's Acceptance Test.

Vendors' proposals shall provide a detailed description of the type, level, and limitations of system support to be provided at no cost during the warranty period. Support shall include at least software maintenance, upgrades, versions, documentation revisions and updates, corrections, preventative maintenance, help line support, and remote support services.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

Customer Support Center

Hart InterCivic provides a toll-free telephone number service and has a fully staffed Customer Support Center (CSC). The CSC is located at Hart's headquarters in Austin, Texas.

The primary means of contacting Hart's CSC during normal operating hours is via telephone through the toll-free customer support line. Outside normal operating hours, the customer support line prompts callers to leave an emergency voice mail message that activates a page or mobile phone call to a CSC consultant. A dedicated, toll-free customer support fax line also is available 24 hours a day, 7 days a week, as is e-mail access.

Available hours of operation for the Customer Support Center are Monday through Friday 7:00 a.m. to 7:00 p.m. Central Time, except for Hart InterCivic company holidays, which are published each December for the succeeding calendar year.

Hart Technical Support is available 24 hours per day, 7 days a week for the period immediately prior to, and after, each election. This support includes initial ballot creation, by-mail setup period, and Election Day.

Problem Reporting and Response Times

Upon receipt of a Customer Support Request (CSR), a CSC consultant reviews the information and assigns a priority for urgency of a response. The response is defined as communicating to the customer the status of the problem analysis and potential remedies or workarounds. Hart's



problem severity levels and response goals for Customer Support Requests received during normal working hours are shown below.

Severity	Type of Problem/Request	Response Goal
1	System is down, or major critical functionality is not operating	Within 1 business hour
2	Non-critical but major functionality or hardware is inoperative	Within 4 business hours
3	System feature or minor hardware is malfunctioning or inoperative	Within 2 business days
4	Cosmetic in nature	Will determine if it should be included in a future maintenance release

Response Time Goals. Hart's Customer Support Center quickly and efficiently responds to requests from customers.

Responses to Customer Support Requests received via voice mail/page, fax, or e-mail outside normal operating hours may be delayed unless previous arrangements have been made for standby support resources.

Resolution Procedures

Upon receipt, all Severity 1 Customer Support Requests are brought to the attention of the CSC Manager to ensure that appropriate Hart InterCivic resources are focused on returning the affected system to operation as soon as possible. Severity 2 or 3 requests not resolved within the previously stated goals are escalated. Resources for escalation include appropriate subject matter experts or Hart InterCivic functional area supervisor/managers, who conduct further troubleshooting or corrective action. The CSC Manager reviews all unresolved Customer Support Requests and recommends appropriate action.

TeamTrack™

Hart InterCivic customers log their support requests in a browser-based tracking tool, TeamTrack. This tool enables customers to determine the status of their support call, 24 hours a day, 7 days a week. All users who submit items via the browser interface must have a TeamTrack user account and appropriate privileges. Individuals who have a TeamTrack user account can also submit items via e-mail.

Continuing Technical Support

Ongoing support for the Hart Voting System hardware and software continues throughout the initial warranty period. Support for third-party components will be provided in accordance with the manufacturer's warranty passed through Hart to Marion County.

A 24-hour hotline for technical support may be scheduled in advance during the election cycle. This hotline is staffed with qualified technical personnel who are able to assist with any problems that the jurisdiction might encounter during the system transition and the pre-election timeframe. Outside of election cycles, Hart's Customer Service Center hotline is available during



regular business hours. Contact is also available through e-mail, and a Web page for general posting is available to all project team staff.

The County may also participate in the Hart Users Group, where customers share ideas, benefit from each other's experience, and offer valuable feedback and suggestions that help us achieve our goal of continuous improvement. Periodically, Hart InterCivic hosts a Users Group Conference. Hart InterCivic also provides technical support via e-mail and fax. Additionally, we offer Internet support with a tracking program called TeamTrack™. Customers with IDs and passwords may submit electronic "tickets" with questions or issues over the Internet.

Preventative Maintenance

The Hart Voting System has been engineered to achieve an exceptionally low cost of ownership. An important aspect of this system quality is the very low level of preventive maintenance required. For example, the polling place equipment does not have any mechanical parts or rechargeable batteries that require periodic preventive maintenance. The system does not require "reprogramming" before each election and does not use third-party software that requires frequent updating. Any software maintenance would only be required if a new version of the Hart Voting System election management system applications or the voting system firmware were released and installed by Hart InterCivic.

Also included in the price proposed to the County is preventative maintenance for the Kodak scanners for years 2, 3 and 4.

Warranty

The warranty period begins upon delivery of the Hart Voting System solution. While the product is under warranty, Hart will correct any existing function that does not perform per the specifications of that product. Included in the price proposed to the County is warranty coverage for one (1) full year on all HVS equipment and all of the COTS hardware proposed. Also included in the price is preventative maintenance for the Kodak scanners for years 2, 3 and 4. Additional warranty periods that cover COTS scanners, printers and PCs after year one are available as an option.

Standard post-election repair/replacement response time is no more than 10 business days, plus shipping time. This warranty, however, does not cover damage resulting from abuse or use outside of prescribed operation.

Hart will provide product release upgrades to licensed Hart InterCivic software products during the warranty period. These upgrades are produced as a result of changing federal or state requirements, or the addition of features and functionality that will improve the product.

Software capabilities that are required to maintain compliance with standards are incorporated into the system, presented for certification, and delivered to customers under the terms of the Hart Voting System Warranty, Support, and License Agreement.



Extended warranty plans are available beyond the initial warranty period. Services during an extended warranty period continue at the same level as those in the original warranty. In all cases, Hart InterCivic is committed to ensuring that the County's equipment and software will be fully operational during all election cycles while under warranty. Cost depends on the number of units covered and the length of the extension period.

Third-party software and equipment such as Personal computers, scanners and printers) that Hart InterCivic sells to the jurisdiction to support the Hart Voting System is warranted by the respective manufacturer. Hart InterCivic passes through to the jurisdictions any warranties given by the manufacturer, to the extent permitted by the manufacturer.

Extended warranties for third-party software and equipment are available as provided by the manufacturer.

Requirement 415 Warranty and maintenance during UAT.

The vendor's proposed system shall be fully supported, as if covered fully by warranty and maintenance agreement, by the Vendor for the period up to the issuance of the Certificate of Acceptance (COA) by the Marion County Clerk's Office Elections Division as part of the contract.

Vendors should be aware that the Marion County Clerk's Office Elections Division will be conducting user acceptance testing during the period before issuance of the COA. Because Marion County does not intend to extend the period for User Acceptance testing beyond the date established in this RFP, it will be in the Vendor's best interest to provide unlimited technical support by phone during this period.

Item status: MANDATORY

☒ YES, the proposed system meets this requirement and the functionality is included in the proposed cost

☐ NO, the proposed system does not meet this requirement

Vendor's Narrative:

The warranty period begins upon delivery of the Hart Voting System equipment. While the product is under warranty, Hart will correct any existing function that does not perform per the specifications of that product. Malfunctioning hardware will be returned to be repaired or replaced with a serviceable unit. Standard post-election repair/replacement response time is no more than 10 business days, plus shipping time. This warranty, however, does not cover damage resulting from abuse or use outside of prescribed operation.



MARION COUNTY, OREGON

BEST & FINAL

ELECTIONS VOTE TABULATION SYSTEM



Hart will provide product release upgrades to licensed Hart InterCivic software products during the warranty period. These upgrades are produced as a result of changing federal or state requirements, or the addition of features and functionality that will improve the product.

Software capabilities that are required to maintain compliance with standards are incorporated into the system, presented for certification, and delivered to customers under the terms of the Hart Voting System Warranty, Support, and License Agreement.

Extended warranty plans are available beyond the initial warranty period. Services during an extended warranty period continue at the same level as those in the original warranty. In all cases, Hart InterCivic is committed to ensuring that the County's equipment and software will be fully operational during all election cycles while under warranty. Cost depends on the number of units covered and the length of the extension period.

Third-party software and equipment that Hart InterCivic sells to the jurisdiction to support the Hart Voting System is warranted by the respective manufacturer. Hart InterCivic passes through to the jurisdictions any warranties given by the manufacturer, to the extent permitted by the manufacturer.

Extended warranties for third-party software and equipment are available as provided by the manufacturer.