DEPARTMENT OF REGISTRAR-RECORDER/COUNTY CLERK

REQUEST FOR INFORMATION

FOR

VOTING SYSTEMS ASSESSMENT PROJECT (VSAP)

RFI #17-001

April 24, 2017

County of Los Angeles
Registrar-Recorder/County Clerk – Contracts Section
12400 Imperial Highway, Room 5115 Norwalk, CA 90650
www.lavote.net

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1.0 Introduction

Los Angeles County (County) is the country's largest and most complex county election jurisdiction, covering an area of 4,084 square miles. The County's electorate is larger than the electorates in 42 of the 50 states, serving over 5.2 million registered voters in more than 500 political districts. The Registrar-Recorder/County Clerk (RR/CC) is the department responsible for registering voters and maintaining voter files; conducting federal, state, local and special elections; and verifying initiatives, referendums, and recall petitions. The RR/CC conducts about 200 city, school and special district elections annually.

The RR/CC has served the County's voters with an effective but now very aged voting system which must be replaced. While the County's current voting system has served the voters of Los Angeles County with accuracy and integrity, the design of these systems and the age of their technology do not offer the technical and functional flexibility necessary to continue to accommodate the growing and increasingly diverse County electorate. Traditionally, the solution was to acquire a commercially available voting system, yet in the last decade the number of available systems and the currency of their technologies has been less than desired. The County finds itself in a unique position to redefine the voting experience based upon voter needs, expectations and abilities to provide convenience, clarity, security and privacy using 21st century technologies.

Launched in September 2009, the Voting Systems Assessment Project (VSAP) was developed in response to the growing voting system needs and challenges faced by the County. The size and diversity of Los Angeles County and the limited voting systems market, however, make it almost impossible to reasonably consider an existing commercial off-the-shelf (COTS) voting system solution. Any voting system solution will entail a significant development or customization process in order to satisfy the County's needs, General Voting System Principles and technical requirements. The General Voting System Principles are provided in Appendix A.

In response to these needs and challenges, VSAP takes an unprecedented and comprehensive approach at modernizing the County's voting system. The vision of the project is to implement a voting system through a transparent process that takes into account the needs and expectations of current and future Los Angeles County voters.

The intent of VSAP is to transform and modernize the voting experience in a manner that is responsive to the needs, desires and behaviors of its electorate. After several years of research, design and engineering (Phase I through III), the County is entering Phase IV, a critical stage to determine its approach to system development, manufacturing and implementation of the new voting experience model.

The County seeks to not only provide the new voting experience and system to its voters, but to develop them in a manner that allows other jurisdictions to adopt the same designs, or purchase the same solution, and provide similar voting systems to their constituents. Part of this vision is to retain the ownership of the Intellectual Property (IP) developed so that, under license, other jurisdictions may have systems manufactured for their use.

Public ownership of the envisioned system can serve as an important guardian of the democratic process. Aligned to the VSAP General Voting System Principles, the County seeks to instill public trust in the voting process and envisions this approach spreading across the country.

Testimony before the United States Presidential Commission on Election Administration

"Plagued by a stalled voting systems market and an aging voting system, in 2009, we launched a voting systems project that set out to transform the market as we know it by implementing a process that seeks to redesign the voting experience in Los Angeles County through voter input and stakeholder participation and envisions the development and implementation of open voting systems that elicit public trust and encourage greater participation.

…We should be guided by the dynamics of the voting public we serve – seniors whose needs include accessibility and readability of materials; persons with disabilities who have a reasonable expectation of fair and respectful service that allows for a private and secure voting experience; busy professionals who seek options for voting that match their mobile lifestyles – before and on Election Day; citizens with an array of cultural and ethnic backgrounds who depend on increased language accessibility and voter assistance; and future voters whose expectations may include things not yet considered."

Dean C. Logan
Registrar-Recorder/County Clerk, August 8, 2013

1.1 Purpose and Objectives of this RFI

Los Angeles County is issuing this Request for Information (RFI) #17-001 to hear directly from vendors using the provided Response Template about their interest in potentially partnering with the County to bring the VSAP vision to fruition. Additionally, this RFI seeks input from the vendors on partnership models that would enable successful development and implementation of VSAP. For more information visit: http://vsap.lavote.net/.

LA County would like to receive responses from any vendor who is interested in providing services and/or any component of the VSAP solution, and encourages vendor feedback on the VSAP project being undertaken.

LA County will be seeking Systems Integrator services and ongoing maintenance and support for the components of VSAP, which include:

1. Election Contest and Ballot Management System (ECBMS)
2. Ballot Marking Device (BMD)
3. Interactive Sample Ballot (ISB)
4. New Tally System and Tally System Scanners

5. Thermal Printers for the BMD and Ballot Activation Mechanism

Disclaimer: This RFI is for planning purposes only and is not a contract solicitation, Invitation for Bid (IFB) or an obligation on the part of the County to acquire any services. Responses to this RFI are not offers and will not be accepted by the County to form a binding contract. The County reserves the right to determine how it should proceed as a result of this notice. Furthermore, those who respond to this RFI should not anticipate feedback with regard to its submission. The information provided in this RFI is subject to change and is not binding on the County.

1.2 Current Environment

LA County currently conducts elections using the InkaVote Plus system. Originally a punch card system called Votomatic, the County's voting system was converted in November 2003 so that votes were ink marked, instead of punched, on the IBM 312 Hollerith card, in response to decertification of all punch card voting systems by the California Secretary of State in 2003. A Precinct Ballot Reader (PBR) and Audio Ballot Booth (ABB) were added to the system in November 2006 (making the "Plus" in InkaVote Plus) to provide over vote and under vote protections, and accessibility for voters with disability or language access needs, bringing the system into compliance with the Help America Vote Act of 2002.

LA County utilizes 28,250 InkaVote vote recorder devices, 5,650 Inkavote Plus ballot readers and audio ballot booths at over 5,200 polling places across the County. Voters cast their vote by ink marking the paper ballots. The ink marked paper ballots are physically tallied by the Microcomputer Tally System (MTS) vote tabulation system at RR/CC Headquarters.

1.3 RFI Point of Contact

The County Point of Contact (POC) for all communications and questions related to this RFI is:

Veronica Williams, Contracts Manager
Email: contracts@rrcc.lacounty.gov

All communications and/or questions must be in writing via the e-mail address above.

1.4 RFI Timetable

Table 1 contains the key milestones for this RFI.

Table 1. RFI Timetable

RFI TIMETABLE	
Release of the RFI	Monday, April 24, 2017
Registration for Vendor Day Due	Wednesday, May 3, 2017 at 5:00 PM PST
Vendor Day (Voluntary)	Wednesday, May 10, 2017 at 9:00 AM PST

Written Questions Due	Friday, May 12, 2017 at 5:00 PM PST
County's Responses to Written Questions	Friday, May 19, 2017
RFI Responses Due	Friday, May 26, 2017 at 5:00 PM PST

1.5 Vendor Day (Voluntary)

LA County will host a Vendor Day that is voluntary but highly recommended for all Respondents. It will provide Respondents with the opportunity to gain further understanding of the RFI, the VSAP vision and the County's needs. Additionally, it is intended to facilitate and encourage partnerships among vendors to provide the best possible proposal to anticipated solicitations.

The Vendor Day is for informational purposes only. Neither such event, nor any information provided through or during it, is binding upon the County. The County is not responsible if the appropriate Respondent staff does not attend and does not acquire knowledge of the information presented or discussed during such conference.

The Vendor Day will be held as follows:

Date: Wednesday, May 10, 2017
Time: Doors Open at 9 AM PST
Location: Liberty Plaza | 14181 Telegraph Rd, Whittier, CA 90604

All Respondents intending to participate in the Vendor Day are asked to register by Wednesday, May 3, 2017 at 5:00 PM PST by e-mail to contracts@rrcc.lacounty.gov. The e-mail must use the subject line "VSAP RFI Vendor Day Registration" and contain the Company name and website, as well as the following information for each attendee:

First and Last Name
Title
Phone Number
Email
Address
VSAP Components/Services Interested in Providing

Note: Date, time and location of the Vendor Day are subject to change. Registered vendors will be notified by e-mail of any changes.

1.6 Vendor Contact Website

Vendors interested in partnership opportunities related to VSAP may share information with other interested vendors at the VSAP Vendor Contact Website at http://vsap.lavote.net/request-for-information/. Submitting information to the VSAP Vendor Contact Website is voluntary and is open

to any vendor. Using an online form, vendors may provide contact information and identify the products and/or services they would like to provide in support of VSAP. Information submitted to the website will be publicly available for use by the vendor community in fostering collaboration and partnerships related to VSAP. Vendors should check the VSAP Vendor Contact Website frequently to be aware of new vendor information as it is submitted.

1.7 RFI Library

This RFI includes an RFI Library (Table 2) that contains supporting documentation or links to websites to assist Respondents in understanding the context of this RFI and VSAP. Respondents are highly encouraged to review the contents provided in the RFI Library to better inform their responses. The documents listed in Table 2 below provide an overview of the VSAP project to date. The videos listed provide an understanding of the human centered design approach and the completed design. The Reports include the results from each phase of the project so far. Taken together, they communicate the overall vision of VSAP and how the project progressed to its current phase. Beyond the RFI Library, there are a variety of additional documents available on the VSAP website at http://vsap.lavote.net, and vendors are encouraged to review those documents for additional context.

The RFI Library can be accessed at http://vsap.lavote.net/request-for-information/.

Table 2. VSAP Documents

NAME	FILE NAME / WEBSITE	DESCRIPTION
Video: Democracy by Design	http://vsap.lavote.net/video-gallery/	Informative video about the vision of VSAP and the human-centered design approach
Video: VSAP New Voting Experience	http://vsap.lavote.net/video-gallery/	Brief video provides overview of the new voting experience in Los Angeles County resulting from VSAP
VSAP Phase I Report – July 9, 2010	http://vsap.lavote.net/wp-content/uploads/2016/06/07092010_phase_i_project_report.pdf	Summarizes completion of the initial research phase of VSAP
Open Design Search for voting system development and implementation	https://lavote.net/Documents/vsap/_05032012_open_design_search_report.pdf	Summarizes Los Angeles County's Open Design Search, which included: 1) Open Innovation Challenge and 2) Voter Experience Brainstorming Workshops
VSAP Phase III: System Design and Engineering	http://vsap.lavote.net/wp-content/uploads/2016/11/VSAP-Phase-III-Report.pdf	Summarizes completion of VSAP Phase III

NAME	FILE NAME / WEBSITE	DESCRIPTION
Final Concept of the Ballot Marking Device (BMD)	https://www.lavote.net/vsap/design-concepts	Shows the final concept design of the BMD, along with a short video showing the use of the touch screen
VSAP Quarterly Report - December 29, 2016 | 4th Quarter	http://vsap.lavote.net/wp-content/uploads/2016/06/VSAP-Board-Report-Newsletter_2016Q4.pdf	Summarizes VSAP activity in 2016 Quarter 4
Additional VSAP Quarterly Reports	http://vsap.lavote.net/reports/	Summarizes VSAP activity quarterly from 2010 - 2016
California Elections Code Division 19, Chapter 3, Certification of Voting Systems, as amended by Senate Bill 360 (2013-2014)	https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201320140SB360	Senate Bill 360 of 2013-2014 changed California Elections Code procedures and criteria for the certification and approval of a voting system; expands the use of Voting Modernization Fund monies; and authorizes a county to use those monies to purchase a conditionally approved voting system for research and development of a nonproprietary voting system that uses disclosed source code, and other key changes that are relevant to VSAP.
California Elections Code Division 4, Chapter 1, Conditions for Mail Ballot Elections, as amended by Senate Bill 450 (2015-2016) (the California Voter's Choice Act)	https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160SB450	The California Voter's Choice Act changed California Elections Code to permit counties to conduct elections in which every voter is mailed a ballot and information on vote centers and ballot drop-off locations which are available prior to and on election day, in lieu of operating polling places for the election, subject to certain conditions.
California Voting System Standards	http://admin.cdn.sos.ca.gov/regulations/elections/california-voting-system-standards.pdf	Describes the requirements for the electronic components of voting systems.
BMD Appearance Model	5.2 BMD Appearance Model.pdf	Provides detailed references to the design aspects of the Ballot Marking Device.

1.8 Voting System Assessment Project (VSAP) Implementation Timeline

LA County envisions “rolling out” VSAP in multiple phases in a manner that can best balance the implementation risks with the risks in continuing to conduct elections with the current, aging voting systems. The targeted VSAP implementation timeline is as follows:

- **2018 Election (Pilot)**: New Tally System, Tally System scanners, newly designed Vote By Mail ballots, Ballot Marking Devices (hardware and software) for Early Voting, and Interactive Sample Ballot (software)
- **2020 Election (Certification Achieved)**: New Tally System, Vote By Mail, Ballot Marking Devices deployed at Vote Centers, and Interactive Sample Ballot

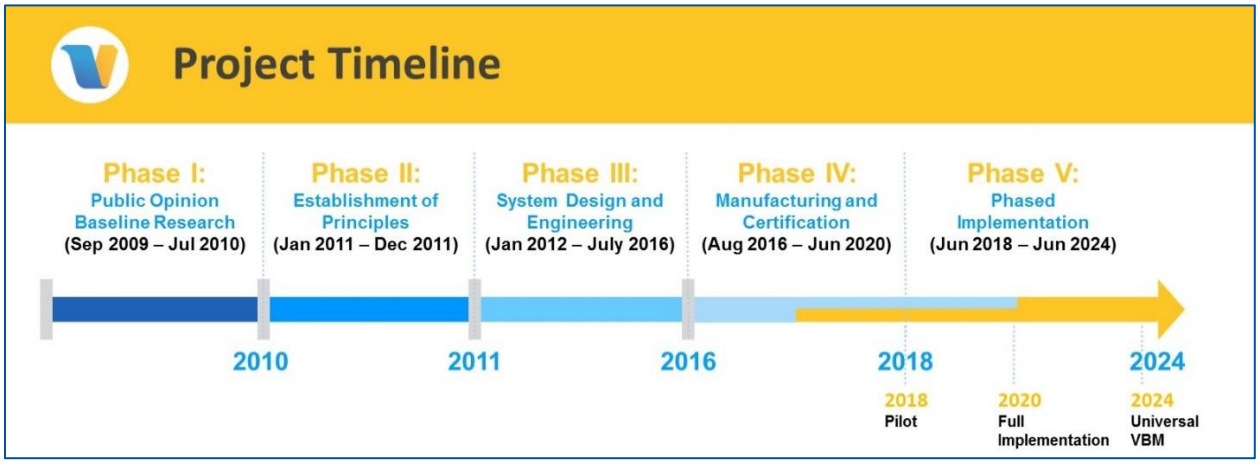
Respondents are encouraged to provide feedback, given their relevant experience, on the suggested VSAP implementation timeline, keeping in mind the County’s current elections system and changing regulatory environment (the California Voter’s Choice Act).

2.0 VSAP Overview

2.1 Phases of VSAP

VSAP is a five-phase plan to modernize the County's voting systems and the voting experience through a voter-centered approach. Phases I through III are complete. Figure 1 summarizes VSAP phases and the overall timeline.

Figure 1. VSAP Timeline



2.1.1 Phase I: Public Opinion Baseline Research

In Phase I of the project, an array of baseline data that would shape the overarching strategy for voting system modernization was gathered. This data was gathered from election stakeholders and subject matter experts such as voters, poll workers, advocates, key community organizations and elections staff through a variety of research and engagement activities. This research focused on evaluating the current voting system and experience, and learning what users expect of the future voting system. The research revealed that users expect more than just an upgrade in voting technology, and modernization efforts needed to improve the entire voting experience.

2.1.2 Phase II: Process Assessment

Building on the research and learnings from Phase I, the VSAP Advisory Committee (AdCom) was established to ensure the voice of the voter continued to guide the voting system design process. The AdCom is a formal engagement body composed of stakeholders and advocates in elections that represent different communities within the Los Angeles County electorate. As their first task, the AdCom took the results from the research conducted in Phase I and used that data to create and adopt the General Voting System Principles, which acts as a guide for voting system modernization. These principles ensure that the new voting system meets the diverse needs of Los Angeles County voters.

Following the development of the General Voting System Principles, RR/CC began its search for a new voting system by assessing the voting systems market and regulatory environment in which

these systems are implemented. Prior to conducting this research, RR/CC had participated in a Request for Proposals (RFP) issued by the City of Los Angeles (City) in search of federally certified and state approved voting system, and found that none of the seven voting systems evaluated met the City's requirements. RR/CC also evaluated the acquisition models by which it could acquire a new voting system that would meet the needs of Los Angeles County and its voters. RR/CC collaborated with a research team of graduate students from the UCLA Luskin School of Public Affairs to conduct research on regulations governing voting systems testing and certification and the impact on Los Angeles County's goal to implement a new voting system. The research found that without changes to the regulatory environment, it would be very difficult for RR/CC to meet its goals of acquiring and implementing a new voting system consistent with the adopted principles.

These factors along with feedback from the AdCom made a strong case for RR/CC to acquire a new voting system by engaging in a voting system development project.

2.1.3 Phase III: System Design and Engineering

Phase III of the project marked a major transition from voting system research to the design and development of the new voting system, including a ballot marking device and related components. The work in Phase III of the project was spread across three distinct and coordinated efforts: Voting system design, stakeholder engagement, and proactive legislative action.

In order to continue engaging stakeholders and incorporate the expertise needed in voting system design, the VSAP Technical Advisory Committee (TAC) was established. The TAC was established to provide VSAP with the necessary technical expertise in voting technology, security, transparency, and accessibility during voting system design. The 12 member TAC is a diverse group composed of subject matter experts from a variety of industries and fields. The expertise and guidance provided by the TAC has been an invaluable component to the completion of Phase III. In addition to engaging the members of the TAC, communication and outreach efforts engaged the public and kept them informed about project developments.

To begin to envision and design a new voting system and to remain aligned with VSAP values of transparency, and citizen participation, VSAP launched an "Open Design Search" in January 2012. Utilizing sound data, the Open Design Search engaged, through an online crowdsourcing platform, a broad range of experts, designers, and the general public to begin to gather ideas for the design of an innovative voting system that will meet the unique needs of Los Angeles County's large and diverse electorate. There were two primary components to the Open Design Search: 1) Open Innovation Challenge and 2) Voter Experience Brainstorming Workshops. This Open Design Search was conducted in partnership with the Information Technology Innovation Foundation's Accessible Voting Technology Initiative, Election Verification Network, OpenIDEO, and with funding from the Election Assistance Commission, and resulted in over 150 concepts for improving the voter experience for Los Angeles County voters.

In 2013, RR/CC identified and engaged IDEO, a global design and innovation firm specializing in human-centered design, to begin to analyze all the data and concepts gathered since project kick-off and to begin to translate that information into refined designs. This work produced design and

engineering specifications for a new voting experience which consists of a new Ballot Marking Device (BMD), an improved Vote by Mail (VBM) ballot, an innovative Interactive Sample Ballot (ISB), and a Tally System based on modern scalable technologies. Each of these components was the product of extensive research, stakeholder engagement, the human-centered design process, iterative prototyping, and consultation with the VSAP AdCom and VSAP TAC. Together these components will provide voters with an improved and contemporary voting experience that is more accessible, reliable, secure, and transparent. Phase IV: Manufacturing and Certification

Los Angeles County is currently in progress with Phase IV. Part of this phase includes the RFI, contract solicitations, evaluation and selection of contractors to manufacture and help implement the new voting system. During this phase, the voting system will go through a pilot project, and through the State of California Secretary of State (CA SOS) testing and certification process, adhering to California Elections Code, Section 19000 et seq. ("Elections Code") as amended by Senate Bill (SB) 360, Certification of Voting Systems. At the end of this phase, a system will be ready for production in quantities to meet full rollout in Los Angeles County.

2.1.4 Phase V: Implementation

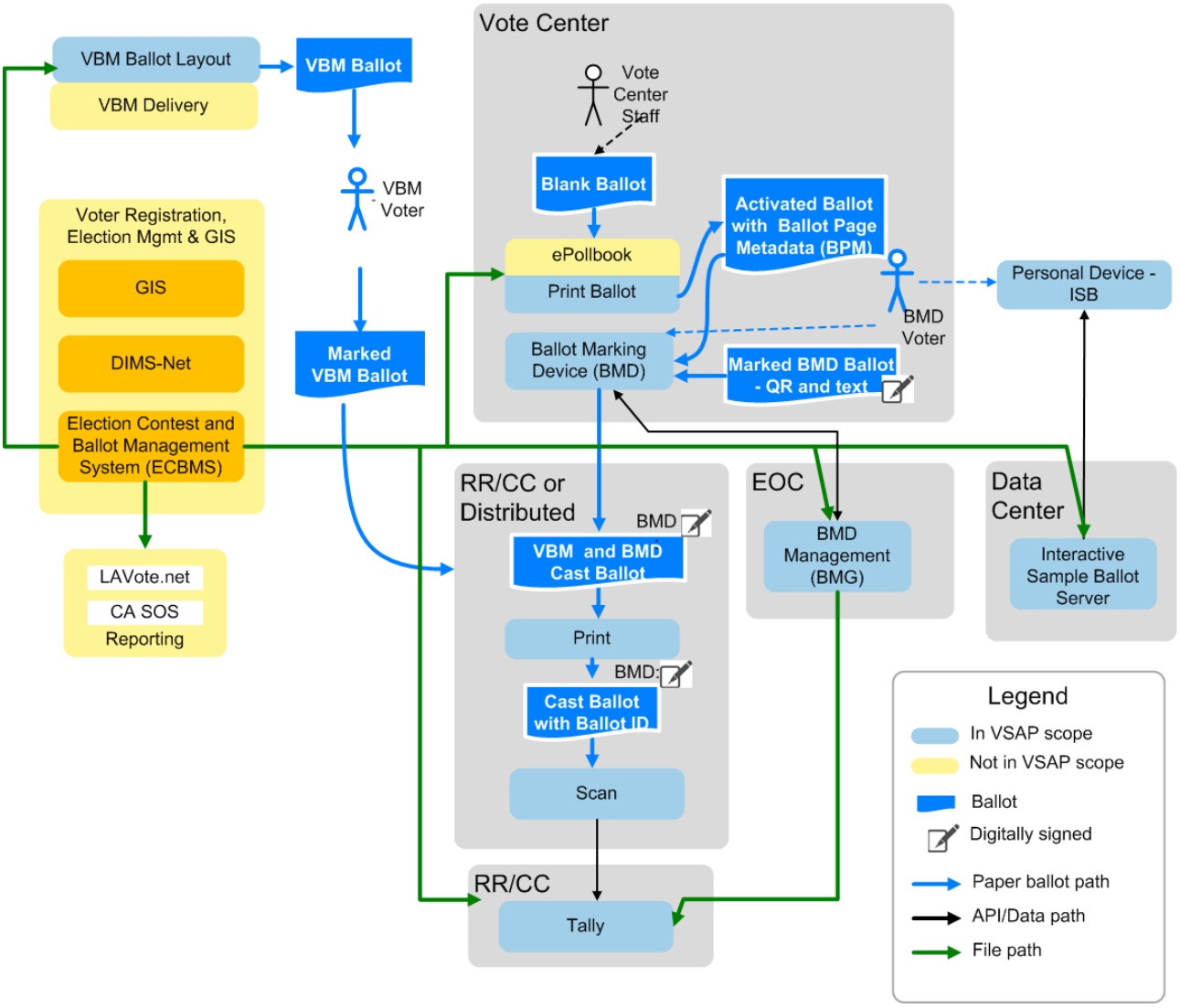
Implementation of VSAP will begin with pilot projects in 2018.

Full implementation of all VSAP elements will occur in 2020. This will include new ballot marking devices and associated ballot to be used at Vote Centers, the use of ePollbooks supporting a ballot activation mechanism, the new Tally System, new Vote By Mail ballots (and associated changes to the Election Contest and Ballot Management System (ECBMS)), and expanded early voting locations.

2.2 VSAP Design

Figure 2 summarizes the overall design of the VSAP voting system as envisioned. The figure shows how the VSAP components relate to each other, and to other elements that are outside the scope of VSAP. The VSAP design includes both software and hardware.

Figure 2. High Level Overview of the VSAP Design



2.2.1 VSAP Design

An outcome of IDEO's engagement was the envisioned design for the VSAP voting system and the Software Solution Design Document (SSDD).

The SSDD is a set of design and specification documents that describes the enterprise architecture of the proposed VSAP voting system, including end-to-end connectivity and security. The SSDD may be made available, under certain disclosure conditions, to potential Respondents as part of an eventual contract solicitations process. Key components of this design include the use of paper ballots as the artifact of record (expressing voter intent) while innovatively utilizing technologies such as QR Codes, scanners, touchscreens, and responsive web applications to provide a modern user experience in voting, both in person at vote centers and by mail, as well as high performance document processors and a modern scalable tally architecture.

The County has a design stewardship contract with IDEO. For any questions related to the design, IDEO will be available to respond for the duration of the contract.

2.2.2 VSAP Services and Design Components

The services for and components of VSAP are listed below and described in this section:

1. Systems Integrator Services
2. VSAP On-going Maintenance and Support
3. Election Contest and Ballot Management System (ECBMS)
4. Ballot Marking Device (BMD)
5. Interactive Sample Ballot (ISB)
6. New Tally System and Tally System Scanners
7. Thermal Printers for the BMD and Ballot Activation Mechanism

1. Systems Integrator Services

The Systems Integrator will be responsible for the overall development and implementation of all components that are in scope for VSAP. A summary of the Systems Integrator responsibilities is provided in Table 3 below.

Table 3. Systems Integrator Responsibilities Summary

Area	Systems Integrator Responsibility
Vote By Mail	▪ The software development of the Vote By Mail ballot design and layout, and the interfacing with the Elections Management System (EMS). ▪ Certification by the California Secretary of State (shared responsibility).
Interactive Sample Ballot	▪ The development and implementation of the Interactive Sample Ballot software. ▪ Certification by the California Secretary of State (shared responsibility).
Ballot Marking Device	▪ The development, manufacturing, assembly and implementation of the Ballot Marking Device software and hardware according to the design. This includes the privacy screen, the stand as well as the carrying case. ▪ Certification by the California Secretary of State (shared responsibility).
Tally System	▪ Review and incorporate developed Tally System software prototype into a production solution. ▪ The procurement of scanners and interfacing those scanners with the Tally System. ▪ Certification by the California Secretary of State (shared responsibility).

Area	Systems Integrator Responsibility
Thermal Printers	▪ The printers necessary for the ePollbooks and the interfacing of them.
Tier 2 Help Desk	▪ Tier 2 support for the solution the SI has developed.
Training and Procedure Development	▪ Train-the-Trainer model for system-specific elements within their scope that is an input to a broader Elections Procedures Training Program. ▪ Development of System Documentation. ▪ Development of initial draft of Use Procedures (requires CA SOS approval).

2. VSAP Ongoing Maintenance and Support

RR/CC will require ongoing maintenance and support services for the VSAP voting system, including:

- Ongoing Maintenance and Support of all software and hardware components within the Systems Integrator's scope
- Tally System software and hardware (at County's discretion)
- Continued upgrade of all software components.
- Servicing and repair of BMDs.

Ideally, the SI would be the likely candidate to provide these services for a period of time. Part of this RFI seeks to gain input from Respondents on the minimum period of time they would seek to provide an incentive to partner with the County.

LA County is seeking candid feedback from the vendor community on the ongoing maintenance and support services approach for VSAP. Section 5.0 – Vendor's Proposed Approach to the VSAP Implementation of the Respondent's RFI Response (see Section 0 RFI Submission Requirements and associated Response Template) includes a list of questions related to ongoing maintenance and support services for which Respondents are encouraged to provide input.

3. Election Contest and Ballot Management System

The Election Contest and Ballot Management System (ECBMS) manages candidate filing and ballot layout processes. The ECBMS was developed in-house by the RR/CC and is written in .NET and C#. As such, it is one of a collection of mostly in-house developed applications commonly considered part of an Election Management System (EMS).

ECBMS is integrated with the County's voter registration system originally known as the Voter Information Management System (VIMS) written by Data Information Management Systems, Inc.

(DIMS) in 1998 for the County. Election Systems and Services, Inc. (ES&S) now maintains VIMS, which has been renamed to DIMS-Net.

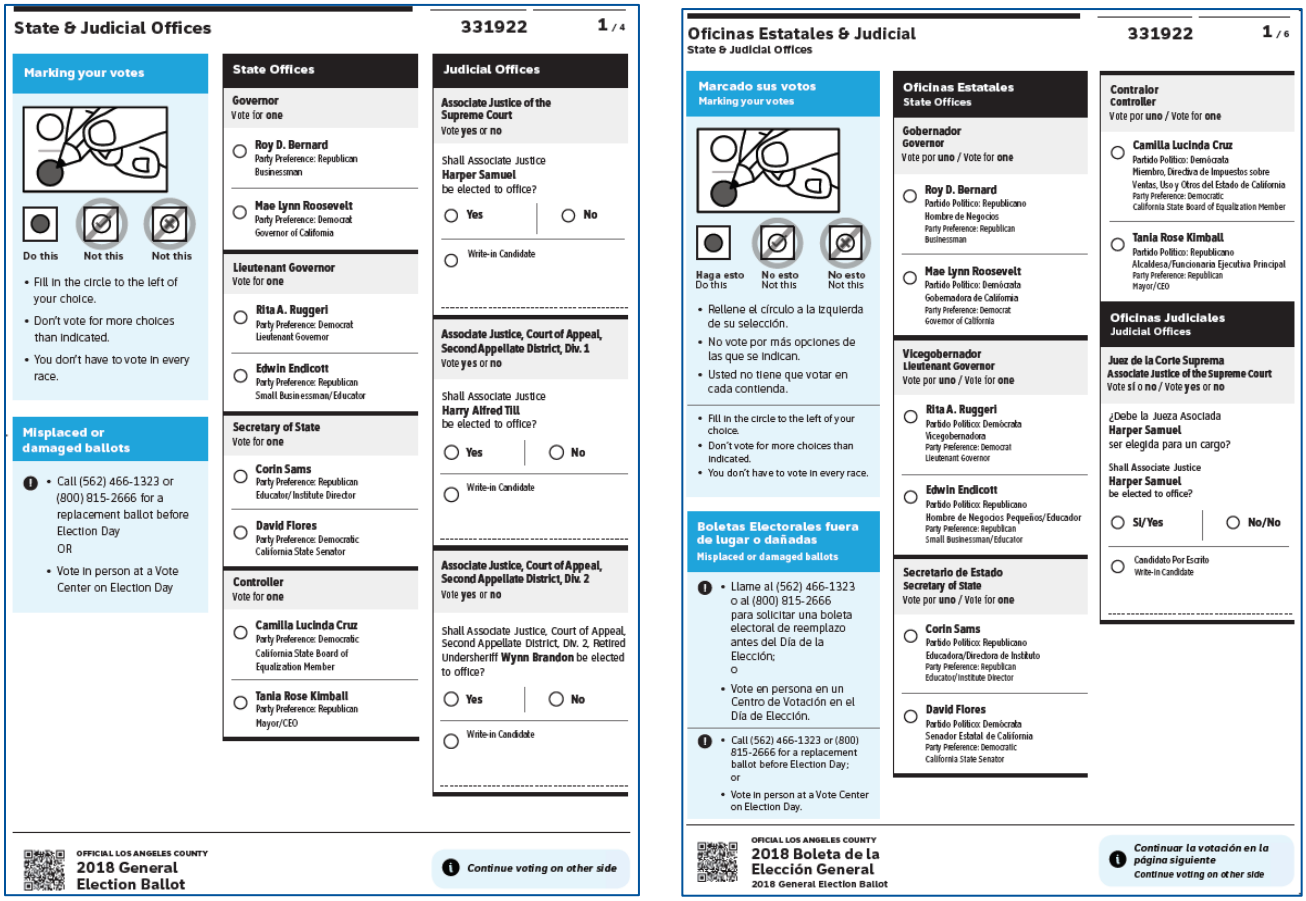
New ECBMS functionality related to the Vote By Mail (VBM) and Ballot Marking Device (BMD) ballot layout as well as the data feed required to integrate with the Interactive Sample Ballot (ISB) is currently being prototyped by RR/CC to accommodate the future state and is expected to be completed prior to contracting with an awarded vendor. The awarded vendor may be required, as part of the contract, to review and revise the developed prototype, as well as provide the necessary documentation. Respondents are encouraged to provide LA County with feedback on this approach.

Vote By Mail

Like the ballot used in the polling place, the County's current Vote By Mail (VBM) ballot is an IBM 312 Hollerith card that is manual marked by the voter. In the future, the new VBM ballot will be a full-face, hand-marked paper ballot that is intuitive and easy to understand and vote on. As mentioned above, ECBMS will be modified to create the ballot style for the new VBM ballots. Tabulation of the new VBM ballot requires the use of the new tally system and scanners.

Currently vote by mail voters can send their ballots through the mail, or drop off their ballots at polling places and designated drop off locations. Voters will continue to have these options with the new VBM ballot. Figure 3 below shows a sample of the new Vote By Mail ballot.

Figure 3. New Vote By Mail Ballot



4. Ballot Marking Device

The Ballot Marking Device (BMD) was custom-designed with three (3) distinct interfaces:

- Touchscreen with optional audio read back
- Audio and tactile controller with touchscreen on/off options
- Dual switch input with optional audio

Figure 4 shows the prototype of the BMD.

Figure 4. Ballot Marking Device Prototype

Voters can use these input methods to generate, print, verify and cast a paper ballot that records the voter's selections on the ballot in human readable text (the vote of record) and encodes the selections in a machine-readable QR Code format. The architecture of the BMD is designed to facilitate voting for voters with a wide range of cognitive and physical limitations, and language needs, to maintain the voter's privacy and independence, and to protect the integrity of the vote. The BMD also supports the hands-free casting of the paper ballot into an integrated ballot box. The concept is that all voters will be able to vote on the same device by customizing their experience. Once the voter has marked his/her intended votes, the BMD will print a marked paper ballot for the voter to review and validate, ensuring it reflects their selections.

It has been determined that the printer is not available to purchase from the marketplace. The vendor will have to produce a new thermal printer to work in conjunction with the BMD. Once the voter verifies the marked paper ballot, it is then cast by inserting the ballot back into the BMD, which drops it into the integrated ballot box (IBB).

For the purposes of this RFI, LA County assumes it may need approximately 400 BMDs for the pilot and an additional 20,000 BMDs for full implementation.

5. Interactive Sample Ballot

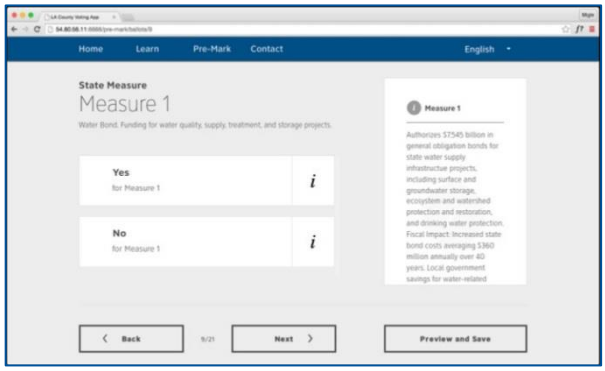
The Interactive Sample Ballot (ISB) enables prospective voters to review and pre-mark their respective sample ballot at their own pace via their desktop computer or mobile device prior to casting their vote. As mentioned above, the ISB will be integrated with ECBMS to receive the necessary data. The ISB has two (2) main goals:

- Provide a digital means of presenting sample ballot material that is highly engaging and accessible, and
- Expedite voting by allowing voters to pre-mark their selections and generate a QR Code that may be used at the voting location to quickly transfer, verify and accept their selections using the BMD.

IDEO produced a conceptual Interactive Sample Ballot, which is shown in Figure 5.

Figure 5. Interactive Sample Ballot

View of ISB from Desktop Device



View of ISB from Tablet

View of ISB from Smartphone

6. New Tally System and Tally System Scanners

A new Tally System will be required to capture and process ballot images so that vote selections on paper ballots, including ballots cast at Vote Centers and Vote by Mail ballots, can be digitally counted.

There are four (4) main Tally System processes:

- Ballots are scanned and images of the ballots are created. Once ballot images are captured, paper ballots will no longer need to be handled.
- Ballot images are converted into Cast Vote Records (CVRs) through recognition and refinement
- CVRs are tabulated
- Election results from tabulation are exported to support reporting and auditing

Similar to the ECBMS, the RR/CC is in progress on developing software for the new Tally System. The County VSAP Tally Project Team has completed an Advanced Proof of Concept (APOC) prototype for the VSAP Tally solution. A prototype has been created using the following technologies:

- Log-based Message Brokering: Apache Kafka
- Synchronization Services: Apache Zookeeper
- Database: Apache Cassandra
- Programming Language: Java or Go
- Containerization: Docker
- Operating System: CoreOS Linux

The prototype is expected to be completed prior to contracting with the awarded vendor following the planned contract solicitations. As a result, RR/CC anticipates contracting with an awarded vendor to review and potentially revise the developed prototype, provide the necessary documentation and be responsible for obtaining certification by the California Secretary of State. Respondents are encouraged to provide LA County with feedback on this approach.

For the purposes of this RFI, LA County assumes it may need a sufficient quantity of scanners that will scan 2.5 million ballots within four (4) hours for the pilot and 6 million ballots within four (4) hours for full implementation.

7. Thermal Printers for the BMD and Ballot Activation Mechanism

A key component of the VSAP voting system is a thermal printer that will be critical for two (2) separate components of the overall design:

- A thermal printer will be attached to an electronic pollbook, which will be used at Vote Centers to check voters in, to enable printing of a QR Code that will activate the appropriate ballot style on the BMD when the ballot is inserted. This QR Code printed on a generic ballot by the electronic poll book is called the Ballot Activation Mechanism (BAM). The BAM printed on the ballot will allow the voter to proceed to a BMD to mark, review and then cast his/her ballot.

- A thermal printer will be embedded in the BMD to ultimately print/mark the voter's ballot with his/her vote selections in human-readable text, as well as a QR Code encoded with those same selections.

Thermal printers were chosen in the design because they do not require ink and ink holders, and are generally more rugged and durable in field operations than ink/toner printers. Though thermal printers are widely used and there are a variety of manufacturers, they are used primarily for printing receipts which come in relatively narrow formats and print on relatively thin paper. The thermal printers required for the BMD will print on a larger form sheet of paper (8" x 11" and 8" x 13.25") and thicker paper (143 µm). The thickness requirement derives from the handling, scanning, packing, shipping and 2-year storage requirement for the paper ballots. In addition, the paper must be thermal on one-side only, as the reverse side will be used to inkjet a Ballot ID, in 1-D human readable barcode format, onto the ballot prior to tally. Based on extensive market research, RR/CC has been unable to identify a COTS thermal printer that meets these requirements and therefore this component may require special manufacture. However, IDEO produced design validation units of the BMDs as part of Phase III that demonstrated proof of concept that thermal printing could be done aligned to these specifications.

LA County is seeking candid feedback from the vendor community on the thermal printer requirements for VSAP. Section 5.0 – Vendor's Proposed Approach to the VSAP Implementation of the Respondent's RFI Response (see Section 0 RFI Submission Requirements and associated Response Template) includes a list of questions related to the thermal printer requirements for which Respondents are encouraged to provide input.

For the purposes of this RFI, LA County assumes it may need approximately 420 thermal printers for a pilot (400 for the BMDs, 20 for the ballot activation mechanism) and an additional 21,670 for full implementation (20,000 for the BMDs, 1,670 for the ballot activation mechanism).

2.3 Current State of VSAP

LA County is currently in progress with Phase IV: Manufacturing and Certification. In October 2016, RR/CC engaged Gartner Inc., an information technology advisory firm, to develop a sourcing strategy and to provide guidance on implementation strategies through a readiness assessment.

Development of the sourcing strategy entailed conducting research into the vendor landscape to better understand the current products and services available in the marketplace. LA County also considered a variety of approaches to intellectual property rights and agreed upon the optimum partnership model for acquisition of hardware, software and services for VSAP.

LA County's readiness to acquire and implement the voting system was reviewed, and RR/CC is monitoring and addressing potential risks in a variety of areas:

- Governance
- Strategy
- Culture
- Operations Improvement
- Skills and Staffing
- Technology and Infrastructure

- Change Management
- External Factors

An Implementation Plan and roadmap is being developed that provides a timeline and preliminary cost estimates for the procurement and implementation of VSAP.

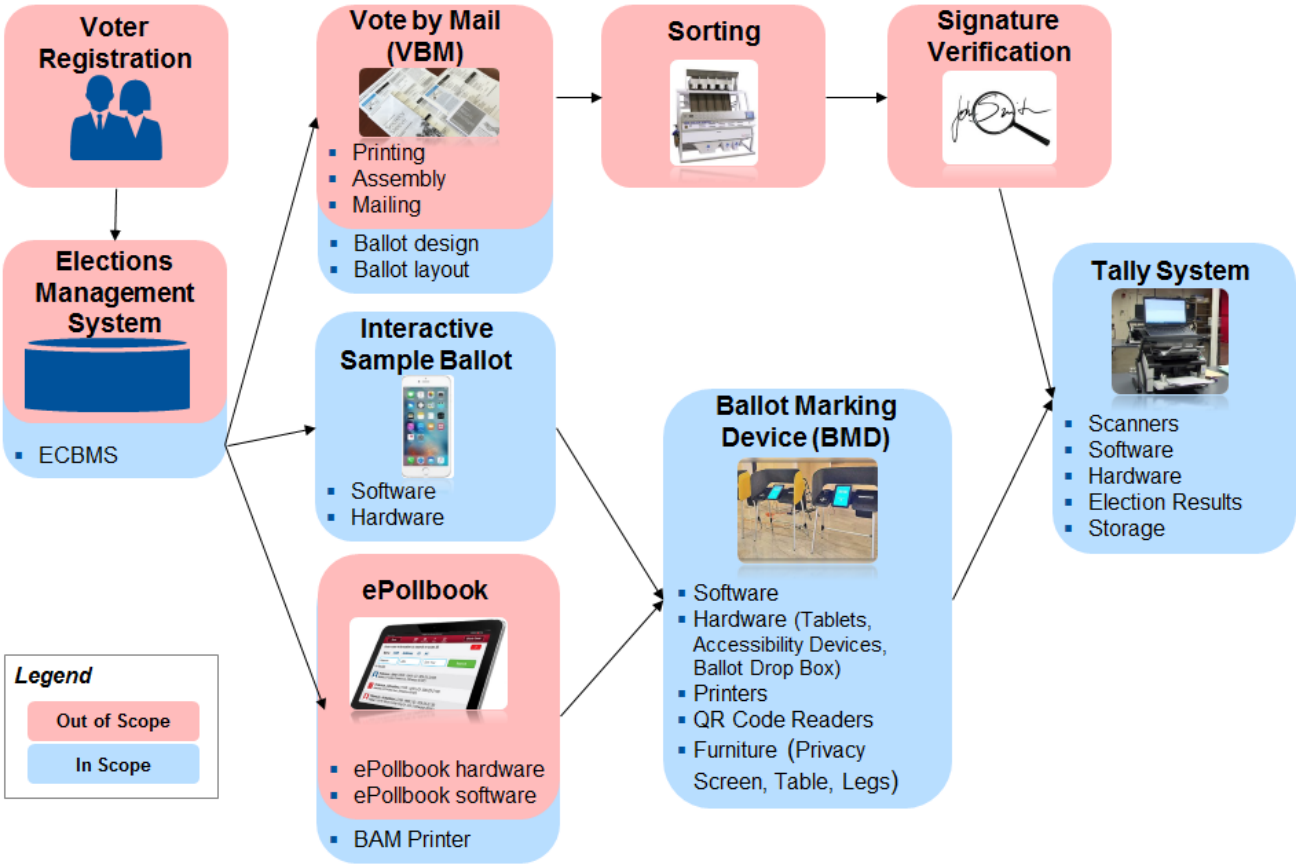
3.0 VSAP Planned Contract Solicitations

The voting system is comprised of several components, however not all are intended to be procured through VSAP solicitations. Figure 6 provides a conceptual depiction of the VSAP components envisioned to be procured through a VSAP solicitation. The components the vendor would be responsible for are shown in blue. The responsibilities of RR/CC are shown in pink.

LA County anticipates that the planned VSAP contract solicitations will include development, manufacturing, implementation, support and maintenance services. RR/CC expects the awarded vendor to assist in voting system certification by the California Secretary of State.

Vendors are encouraged to register with Los Angeles County to be made aware of, and gain access to, eventual contract solicitations at https://camisvr.co.la.ca.us/webven/. Responding, or not responding, to this RFI, will not exclude a vendor from submitting a proposal in response to planned contract solicitations or in any way affect how that proposal is evaluated.

Figure 6. Components of the VSAP Solicitation



3.1 Potential Partnership Models for VSAP

Given the magnitude of VSAP and the interdependencies of the components, LA County has determined that the partnership model will be to contract with a Systems Integration (SI) who will

be responsible for retaining and managing specialized subcontractors for the in-scope VSAP components highlighted in Figure 6. This approach was adopted for several reasons:

1. **Composite Solution:** The solution will consist of many distinct software and hardware components, and require services from a variety of specialized firms.
2. **Seamless Integration:** All of the VSAP components must work seamlessly together.
3. **Project Coordination:** All the specialized firms and various County teams will need to be coordinated and managed through the development and implementation phases.
4. **Certification Responsibility:** All the components will eventually need to be certified by the California Secretary of State and there will need to be a single conductor of that endeavor.
5. **Ongoing Maintenance and Support:** Once the VSAP voting system has been implemented, RR/CC will need ongoing maintenance and support services. The SI may initially be the ideal candidate for that work.

LA County is seeking candid feedback from the vendor community on a potential partnership model for VSAP. Section 5.0 – Vendor's Proposed Approach to the VSAP Implementation of the Respondent's RFI Response (see Section 0 RFI Submission Requirements and associated Response Template) includes a list of questions related to the potential partnership model for VSAP for which Respondents are encouraged to provide input.

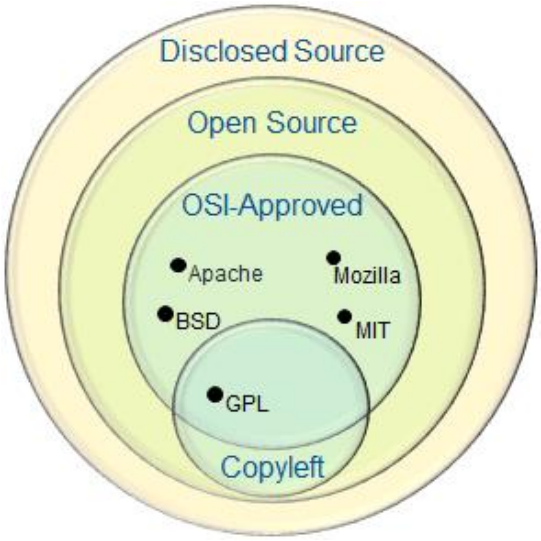
3.2 Certification Process

The Elections Code permits the use, under certain conditions, of voting systems in a pilot program prior to certification. The voting system to be used in a pilot will need to go through an approval process with SOS (which is not as detailed as a certification). The VSAP voting system must, however, eventually be certified by the California Secretary of State for use in an election beyond use as a pilot. The State of California Voting System Standards provides information about the certification process. See http://admin.cdn.sos.ca.gov/regulations/elections/california-voting-system-standards.pdf.

Certification requires system testing for an indeterminate duration and expense. This presents a cost to the voting system and shall be borne by the awarded SI. However, to minimize the risk to the SI given uncertainties, the County may agree to pay the initial cost of the certification, and if the SI does not adequately prepare for the certification process, the SI would bear the additional expenses until certification is met.

LA County is seeking candid feedback from the vendor community on the certification process for VSAP. Section 5.0 – Vendor's Proposed Approach to the VSAP Implementation of the Respondent's RFI Response (see Section 0 RFI Submission Requirements and associated Response Template) includes a list of questions related to certification for which Respondents are encouraged to provide input.

3.3 Intellectual Property



As is generally understood, all software is subject to copyright law. Copyright is a declaration of exclusive legal rights by the IP owner and the terms and conditions under which others may copy, modify and/or distribute the original IP. Copyright holders can permit other people to copy, modify and/or distribute their software. That permission is called a "license." A license can be as simple as a perpetual, unconditional and universal grant of permission to do anything that is exclusive to the copyright holder or it can be much more restrictive.

The Elections Code authorizes the use of Disclosed Source software in the development of voting systems in California. Though the Elections Code provides no definition of "Disclosed Source," it is understood to refer to source code made available for review and/or testing upon request by an authorized entity / individual, but does not permit the source code to be used operationally by other entities unless additionally and explicitly licensed by the owner of the code. LA County is interested in retaining the IP ownership rights of the VSAP voting system, with the exception of IP created for certain component hardware, including the thermal printers. Interest in IP ownership is not to enter the market as a vendor, but to ensure public ownership of the rights to manage the use and transparency of the voting systems developed to ensure public trust and protect public interest in this important component of the democratic process. Accordingly, RR/CC is considering a Copyleft type of license such as GNU General Public License (GPL) or OSET Public License (OPL), that promotes "forever free" provisions, however it has not ruled out the use of more "permissive" open source licenses, such as the Mozilla Public License Version 2.0 (MPL), the Apache License, Version 2.0 (ALv2), the BSD 3.0 or MIT licenses. Whatever the chosen license, the transparency and ability to share the IP and the technology would need to be ensured.

LA County is also considering how an independent non-profit organization could serve as the repository and administrator of the resulting VSAP IP, recognizing that examples of successful open source solutions have had strong communities of users and developers that were supported by sound institutional structures and resources.

LA County may also consider Dual Licensing by which it additionally, and even exclusively, licenses the software and subsequent enhancements of the software to a private firm (such as the SI) for implementation at other jurisdictions.

LA County is seeking candid feedback from the vendor community on the intellectual property approach for VSAP. Section 5.0 – Vendor's Proposed Approach to the VSAP Implementation of the Respondent's RFI Response (see Section 0 RFI Submission Requirements and associated Response Template) includes a list of questions related to IP for which Respondents are encouraged to provide input.

3.4 Offshore Development

VSAP will be the voting system for Los Angeles County, and may potentially become the voting system in other jurisdictions. Given the unique character of the VSAP components and their relationship to the processes of democracy, public trust must be maintained in the system. The County may set limits on project work or business operations services to be performed offshore. This may include software development as well as custom hardware manufacturing.

LA County is seeking candid feedback from the vendor community on any issues or challenges related to prohibition or limitations of offshore development for VSAP. Section 5.0 – Vendor's Proposed Approach to the VSAP Implementation of the Respondent's RFI Response (see Section 0 RFI Submission Requirements and associated Response Template) includes a list of questions related to the implications of prohibiting offshore development for which Respondents are encouraged to provide input.

4.0 RFI Submission Requirements

RFI Responses must be submitted by e-mail to contracts@rrcc.lacounty.gov. Responses should be in Microsoft Word or PDF, with cost estimates provided in Microsoft Excel.

Responses shall follow the structure set forth using the attached Response Template and Response Template for Implementation Costs and Hours and, at minimum, shall contain the information as requested. Inclusion of general marketing materials should be limited and provided in an appendix. Respondents shall put their company name and page number in the header or footer on each page of their response.

The Response shall be organized as follows:

- **Cover Page**

  The Cover Page should include the title and number of the RFI, name and address of the Respondent(s) and the date of the Response.

- **Table of Contents**

  The Response must contain a Table of Contents with page numbers corresponding to the sections and pages of the Response, including any exhibits, appendices and attachments.

- **Section 1 – Respondent Identifying Information**

  Use the provided Response Template to complete the requested information. This Section shall include the general profile of the Respondent including the Company name and address, the Respondent's primary point of contact and respective contact information, and the type of business entity (e.g., corporation, partnership, etc.).

- **Section 2 – Executive Summary**

  Use the provided Response Template to complete the requested information. This Section shall be written for Executive Management, and shall briefly address the Respondent's approach to the VSAP implementation. This Section shall be limited to ten (10) pages.

- **Section 3 – Vendor Background and References**

  Use the provided Response Template to complete the requested information. This Section shall include the Respondent's relevant experience, background and qualifications. Additionally, this Section may include a relevant customer reference or relevant case studies.

- **Section 4 – Products and Services Offerings**

  Use the provided Response Template to complete the requested information. This Section shall include a narrative of the products and services the Respondent is interested in providing for VSAP as described in the RFI.

- **Section 5 – Vendor's Proposed Approach to the VSAP Implementation**

  Use the provided Response Template to complete the requested information. This Section requests candid feedback to a variety of questions posed by LA County related to the VSAP implementation. The responses provided will better inform eventual contract solicitations and ensure a win-win partnership for VSAP. Responses provided will be used for planning purposes only, and will not impact a Respondent's response to planned contract solicitations should the Respondent intend to bid.

- **Section 6 – Proposed High-Level Implementation Plan**

  Use the provided Response Template to complete the requested information. This Section shall include a proposed high-level VSAP Implementation Plan based on the products and/or services the Respondent is interested in providing for VSAP. The Implementation Plan shall include key milestones and deliverables. Additionally, this Section shall describe the typical timeframe for an implementation of similar size and scope.

- **Section 7 – Pricing Information**

  Use the provided Response Template to complete the requested information. This Section shall include high-level cost estimates and ranges that will be used for planning purposes only. Responses provided will be used for planning purposes only, and will not impact a Respondent's response to planned contract solicitations should the Respondent intend to bid.

4.1 RFI Response Checklist

Respondents should use the RFI Response Checklist below in preparation of their Response to ensure that all required elements of the Response are completed and submitted. The Checklist is intended for internal use by the Respondent and should not be submitted to RR/CC with the Response.

Table 4. RFI Response Checklist

SECTION / NAME	SUBMITTED
Cover Page	
Table of Contents	
Section 1 – Respondent Identifying Information	
Section 2 – Executive Summary	
Section 3 – Vendor Background and References	
Section 4 – Products and Services	

SECTION / NAME	SUBMITTED
Section 5 – Vendor's Proposed Approach to the VSAP Implementation	
Section 6 – Proposed High-Level Implementation Plan	
Section 7 – Pricing Information	

5.0 Other Information

This RFI is issued solely to gather information for planning purposes and shall not in any way obligate the County of Los Angeles to issue a solicitation, negotiate a contract, hire additional employees or in any way obtain the specified services from any firm.

If enough interest is generated, the County may consider releasing a formally advertised solicitation, or take no further action. Timely respondents will be placed on a list of interested firms, organizations, and government agencies. Such respondents will be notified of the County's intent to issue a formally advertised solicitation and where to obtain that information. As with all County solicitations, it is ultimately the responsibility of the Respondent to monitor the County's Los Angeles County Vendor Registration (WEBVEN) for participation in all future solicitations.

5.1 Cost of RFI Response Preparation

The County shall not in any way be liable or responsible for any and all costs incurred in responding to this RFI. All costs associated with responding to this RFI will be solely at the responding party's expense.

5.2 Disclosure of Contents of RFI Response

Respondents are admonished that all information received in response to this RFI shall become the exclusive property of the County of Los Angeles, shall become a matter of public record, and shall be disclosed to the extent required by law, including, but not limited to, the California Public Records Act (California Government Code Section 6250, et seq.).

Respondents are advised to clearly, unambiguously and specifically identify all aspects of their response to this RFI, which are secret, confidential or proprietary by labeling such confidential material with the appropriate label: "trade secret," "confidential," "proprietary," etc. The County shall not in any way be liable or responsible for the disclosure of any such records or any portion thereof if: 1) any response is not clearly, unambiguously and specifically identified in the aforementioned manner; or 2) if the disclosure is required by law whether or not the documents are clearly marked.

5.3 Gratuities Not Permitted

Respondents have not offered or given, and shall not offer or give, to any employee, agent or representative of the County of Los Angeles any gratuity or inducement with a view toward securing any business from the County or any part thereof or influencing such person with respect to terms, conditions, or performance of any business dealing with or from the County or any part thereof.

6.0 Glossary of Terms

A

Apache License, Version 2.0 (ALv2): A permissive free software license written by the Apache Software Foundation (ASF). The Apache License requires preservation of the copyright notice and disclaimer. Like other free software licenses, the license allows the user of the software the freedom to use the software for any purpose, to distribute it, to modify it, and to distribute modified versions of the software, under the terms of the license, without concern for royalties.

B

Ballot Activation Mechanism (BAM): In the VSAP design, a thermal printer will be attached to an electronic poll book to enable printing of a QR Code that will activate the appropriate ballot style on the BMD when the ballot is inserted. This QR Code printed on a generic ballot by the electronic poll book is called the Ballot Activation Mechanism (BAM). The BAM printed on the ballot will allow the voter to proceed to a BMD to mark, review and then cast his/her ballot.

Ballot Marking Device (BMD): The voting machine that voters use to make selections, mark and cast their paper ballot at a voting location. The BMD provides a variety of assistive features including multiple languages and disabilities aids. The BMD does not retain or tally voter selection once the session is complete. Additionally, the BMD ballots do not store any identifying information about the voter.

BSD Licenses: Family of permissive open source software licenses, imposing minimal restrictions on the redistribution of covered software. This is in contrast to copyleft licenses, which impose some restrictions. The BSD license is a simple license that merely requires that all code licensed under the BSD license be licensed under the BSD license if redistributed in source code format. The original BSD license was the license of the Berkeley Software Distribution (BSD), a Unix-like operating system. The revised descendants of BSD are called “modified BSD” licenses. BSD is both a license and a class of license (generally referred to as BSD-like). The modified BSD license (in wide use today) is like the license originally used for the BSD version of Unix.

C

Commercial Off-The-Shelf (COTS Hardware): Devices that are sold commercially and are readily available as products such as laptops, scanners, tablets and printers.

Copyleft: A play on the word “copyright” meant to convey a license restriction on open source software which requires that modifications of, or enhancements to, the source code must inherit the open source requirement, i.e. they must also be open source. Without copyleft, someone could make changes and put additional restrictions, like making it closed or disclosed source.

Copyright: Copyright (or author’s right) is a legal term used to describe the rights that creators have over their literary and artistic works. Works covered by copyright range from books, music, paintings, sculpture, and films, to computer programs, databases, advertisements, maps, and technical drawings.

D

Disclosed Source: Describes software that allows for the source code to be made available for review and/or testing upon request by an authorized entity / individual but does not permit the source code to be used operationally unless additionally and explicitly licensed by the owner of the code.

Dual License: A dual licensing business model is one in which the IP owner releases the code under a copyleft license, but then also sells per-copy exclusive licenses to organizations that want to use or redistribute the software under proprietary terms. The licensee wishes to redistribute the software (perhaps as part of some larger offering) under non-open-source terms. For software released under a copyleft open source license, such terms would normally be incompatible with the license. But the licensor can permit it anyway, because as the copyright holder, they are the only ones who could conceivably sue for copyright infringement, and thus they can agree for a fee not to sue. That is what is being sold on the proprietary side of a dual-licensing arrangement: permission to redistribute the software under terms that would otherwise be incompatible with its open source license. Instead of "agree for a fee not to sue," RR/CC could "agree for an incentive not to sue".

E

F

Forever Free: A clause in many open source licenses which stipulates that modifications or enhancements to the open source software shall inherit the open source condition and therefore shall remain, forever free. It prevents the gradual conversion of an open source IP to a proprietary IP.

G

GPL: General Public License, 2007, is a conditional open source software license template from the Free Software Foundation (FSF).

H

Hardware: The physical part of election equipment such as the voting devices, scanners and printers which are controlled by the software.

I

Intellectual Property (IP): Refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce.

Interactive Sample Ballot (ISB): A digital sample ballot in the form of a responsive website that voters can use to make selections before an election. The ISB creates a Poll Pass that voters can use to scan their pre-marked selections into a BMD to speed up their voting experience in the vote center.

IP Protections: IP is protected in law by, for example, patents, copyright and trademarks, which enable people to earn recognition or financial benefit from what they invent or create.

J

K

L

M

MIT License: A permissive free software license originating at the Massachusetts Institute of Technology (MIT). As a permissive license, it puts only very limited restriction on reuse. The MIT license permits reuse within proprietary software if all copies of the licensed software include a copy of the MIT License terms and the copyright notice. The MIT license is also compatible with many copyleft licenses, such as the GNU General Public License (GPL). MIT licensed software can be integrated into GPL software, though not the other way around.

Mozilla Public License 2.0 (MPL-2.0): An open source license drafted over a period of 21 months in a public process that included MPL users, lawyers, and open source community groups like the Free Software Foundation and Open Source Initiative. It roots are in Netscape and subsequently the Mozilla Project.

N

O

Open Source: Describes software that comes with a license which permits the use, copy and distribution, either as is or with modifications, under certain terms and conditions. There are very permissive, conditional and restrictive OS licenses.

OPL: OSET Public License, v.2.1, an open source license which grants world-wide, royalty-free, non-exclusive license to use, reproduce, make available, modify, display, perform, distribute, and otherwise exploit its contributions, either on an unmodified basis, or with modifications, or as part of a Larger Work; and, to make use, sell, offer for sale, have made, import, and otherwise transfer either its Contributions or its Contributor Version. OPL contains government-specific clauses (unlike all other common OS Licenses). OPL permits its IP to be incorporated into products which are sold. It is not clear that OPL is a “Forever Free” License.

OSET: Open Source Election Technology Institute. It was founded in 2006 by two Silicon Valley technologists as a non-profit corporation dedicated to the public benefit. The Foundation is now an "Institute" to reflect the reality that it is focused on education, development and research of election technology innovation. In May, 2014 former White House CTO Aneesh Chopra and former Facebook General Counsel Chris Kelly joined the Strategic Advisory Board of OSET. See: http://www.osetfoundation.org/

P

Patent: An exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something or offers a new technical solution to a problem. To get a patent, technical information about the invention must be disclosed to the public in a patent application.

Precinct Ballot Reader (PBR): A component of the current InkaVote Plus system used in precinct polling places to catch over votes and blank ballots on manually marked ballots. The PBR will be made obsolete by the BMD in the new voting system.

Proprietary Source Code: Software (Intellectual Property) that is owned by an individual or a company (usually the one that developed it). There are almost always major restrictions on its use, and its source code is almost always kept secret.

Public Domain: A declaration by the IP owner that explicitly disclaims intention to enforce its copyright prerogatives. A standard way to make such a disclaimer is to use a recognized text such as, the CC-0. Public Domain declarations are not recommended in lieu of an open source software license as they lack limitations of liability clauses, and not all international jurisdictions even have a clear public domain law.

Q

Quick Response (QR) Code: A two-dimensional barcode widely used for many purposes. When scanned with a mobile tagging application in a smartphone, it can cause a Web page to download with information about a product, local event or just about anything. The QR code can store up to 4,296 alphanumeric or 7,089 numeric characters, and if a high level of error correction is used, up to 30% of the image can be smudged and still be recognized. Created in the mid-1990s by a Toyota subsidiary to track parts on assembly lines, they are widely used in Japan. The technology became an ISO standard in 2000 and gained popularity in the U.S. within the decade.

R

S

Source Code: The human readable form of a computer program that once interpreted or compiled controls how the software functions.

T

Tally System: A system of hardware and software that reads and captures the vote selections on ballots, applies required business rules and adjudications, tabulates the totals of votes, ballots cast, and other metrics, and publishes the results the election. The tally system also supports transparent auditing processes to ensure the accuracy and integrity of the election tally results.

Trademark: A sign capable of distinguishing the goods or services of one enterprise from those of other enterprises. Trademarks are protected by intellectual property rights.

U

V

Vote By Mail (VBM): The absentee voting option where voters mark the VBM Ballot and then mail it in or drop it off at an authorized location during an election. The RR/CC has an in-house mailing operation that mails out and tallies VBM votes at RR/CC Headquarters. There are roughly 2.2 million permanent vote by mail voters.

Vote Center: A polling location that enables any registered voter in the jurisdiction to vote the specific ballot style of that voter at the site. With the use of connected electronic pool books, the voter need not vote provisionally and can choose to vote at the vote center convenient that day regardless of location within the jurisdiction.

Voting Systems Assessment Project (VSAP): The Voting Systems Assessment Project was developed by the Registrar-Recorder/County Clerk (RR/CC) in 2009 to address an aging voting system and an increasingly large and complex electorate. The project seeks a collaborative approach to voting system design that will put voters at the center and maximize stakeholder participation.

W

Work for Hire: A 'work for hire' is an exception to the general rule that the person who creates a work is the author of that work and holds all rights to the work product. In contrast, the copyright for a work for hire is owned by the organization that hires the person to create the work or pays for the development of the work.

X

Y

Z

Appendix A – VSAP General Voting System Principles

1. The voting system must provide for transparency. The processes and transactions associated with how the system is set up, run, and stored should be easy for the public to understand and verify. This should include making hardware components available for inspection, and source code to the extent that the manner of doing so would not jeopardize system security or availability.

2. The voting system must be scalable. The system must provide sufficient technical and physical capacity to accommodate large and complex ballot styles, growing language needs, extremely large numbers of precincts and consolidation of elections with local districts and municipalities.

3. The voting system must be flexible. It must provide the ability to adapt to different election types, environments, and changing regulatory requirements, without the need to replace the entire system or to undertake costly system modifications that potentially compromise security.

4. The voting system must instill public trust by having the ability to produce a physical and tangible record of a voter's ballot to verify the ballot was marked as intended before it is cast and to ensure auditability of the system. It must demonstrate to voters, candidates, and the general public that all votes are counted as cast.

5. The voting system must have integrity and be accountable to voters and follow existing regulations. System features must protect against fraud and tampering. It should also be easy to audit and produce useful, accessible data to verify vote counts and monitor system performance.

6. The voting system must offer a variety of options to cast a vote to ensure that a single/fixed method of voting does not prove to be a barrier and source of disenfranchisement for any group of voters. The system should allow for variety in the location, time, and equipment used to cast a ballot.

7. The voting system must guarantee a private and independent voting experience for all voters, including voters with a full range of types of disabilities and voters with limited English proficiency. Voting system features must allow the voter to select the language, adjust display features, alternate ballot formats (e.g., Audio Ballot), and method of controlling the marking tool, allowing voters to cast a ballot independently.

8. The voting system must be easy for all voters to use, in particular, for voters with a full range of types of disabilities and voters with limited English proficiency. The system must support plain language and be intuitive, user-friendly, and accessible to all, in order to minimize and easily identify voter errors. It should also provide all voters the ability to easily correct any errors that appear on their ballot prior to casting their ballot.

9. The voting system should be easy and reliable for election workers to use, set-up, breakdown, and explain.

10. The voting system must be portable. It should be lightweight and compact enough for transportation, set up, and efficient storage. A portable system could include features such as hand grips, handles, straps, and wheels that make transporting and maneuvering the voting system easy.

11. The voting system must include features for safe and secure storage. It should include features such as locks and security seals to protect the integrity of the machine while in the custody of election workers or in storage with election officials.

12. The voting system must have minimal and/or flexible power and connectivity requirements. It should not require such an extensive amount of power and connectivity that it limits locations where the voting system can be deployed.

13. The voting system must have minimal requirements for system boot/programming at polling sites and/or vote centers. It must also provide intuitive and quick fix troubleshooting solutions to empower election workers on Election Day. It should be easy to set up for operation by election workers at polling sites and/or vote centers.

14. The voting system must be cost-effective. Costs considered should include procurement, operating, and maintenance costs as well as consideration of expected system/equipment lifespan.