Survey of State Campaign Finance Reporting Systems

August 2012

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EXECUTIVE SUMMARY

PRD staff surveyed 15 states about campaign finance reporting systems in an effort to identify existing off-the-shelf (COTS) or modifiable off-the-shelf (MOTS) and custom developed ('homegrown') systems that could potentially serve as a successor for California's CAL-ACCESS system. States were selected based on:

- Size of population
- Proximity to California
- High scores for data content and usability in the most recent (2008) survey of state campaign finance disclosure websites and practices conducted jointly the UCLA School of Law, the Center for Governmental Studies, and the California Voter Foundation

- Where known, COTS/MOTS origin of system

Most states participated in a scripted oral interview. (Two states elected to respond to the survey in writing only.) PRD staff also used a script to review and document the search and reporting features of each states public website. Finally, staff reviewed the manuals and user guides for filers that were available on each state's website.

Two vendors were identified with COTS/MOTS systems that are used by at least three states: PCC Technologies and Quest Information Systems. Each was recently installed in a mid-sized state within the last three years. Both vendors offer a 'hosted' solution wherein the system is physically located and maintained by the vendor at the vendor's facilities, although in one state (Colorado), the vendor (Quest) has permitted subsequent migration of the system to the state's facilities. While both offer a rich feature set, including electronic filing through an online application as well as direct data upload from other systems (including third-party vendor systems), neither appear to be currently supporting a set of forms and business rules as complex as California's. Further, there was no evidence either system is currently supporting lobbyist filing. Both of the states commented favorably on their system and the vendor's performance.

None of the 15 states have a system that appears to be ready-made for purchase by California as a COTS/MOTS system to replace CAL-ACCESS. The reasons why are detailed below. In summary, none of the systems support lobbyist filings and none of the states appear to have the diversity and complexity of forms and reporting requirements required by California's campaign disclosure regime. Nonetheless, there is still the possibility that a system currently used by another state could, with modifications, meet California's needs. The questions, which could not be answered by this survey project, are the extent (complexity and scale) and the cost of modifications necessary to meet California's requirements.

While each of the systems used by these three states was modified and deployed for less than $1 million and in less than one year, the actual cost and length of time to deploy either of these systems in California as a replacement for CAL-ACCESS is likely to be significantly higher due to several factors, including:

- Overhead associated with conducting a procurement and project in California

- Required development of the system to support Lobbying filings

- Required customization of the system to meet California's more complex business requirements
- Cost and effort necessary to scale the system to California's data and transaction volume

The 12 remaining states surveyed all had custom developed systems; 10 of the 12 systems were developed by the state using in-house, information technology staff. At the level reviewed, none appeared to be promising as a replacement for CAL-ACCESS due to a combination of two or more of the following factors:

- Significant components of the system or the system itself, are proprietary
- The system is part of, or integrated with, a larger system and likely not separable
- The system is of questionable age and technology and, therefore, not likely to be an improvement of the current CAL-ACCESS system
- The system uses a "thick-client application" (an application supplied by the state, but housed on the filer's computer, so that it is local application, stored locally) that must be installed (and supported) on the user's computer for electronic reporting
- The system has limited support for electronic filing of various forms
- The system does not support upload of filing data from other systems
- The system does not support lobbyist filings
- The size of the state raises concerns about the ability to scale the system to meet California's data and transaction volume

The systems used by these 12 states do not, as built and deployed, meet California requirements. If one of these systems is readily available, the cost and time to adapt the system for use in California makes it unlikely that acquiring that system (for modification) would offer any benefit over using one of the COTS/MOTS systems identified above, or developing a custom solution for California.

Roughly two-thirds of the states surveyed are using systems that have been developed and supported using in-house information technology staff. The other states are using vendor-supported systems that are not managed and cannot be modified by in-house staff. Many of the systems using in-house staff have evolved from legacy systems similar to CAL-ACCESS or an even older technology. These states have been successful adapting their system to new technologies and business requirements incrementally over time. Such an approach might make sense for California, potentially offering:

- Lower development costs
- Custom fit of solution to business requirements
- Reduced risk of total project failure
- Ownership of system and intellectual rights

- Development of staff resources for ongoing support of the system

Finally, the survey examined several state business practices that differ from the business practices of California and may be worth noting when considering development and deployment of a replacement for CAL-ACCESS:

- Many of the states have implemented mandatory electronic filing for all filers. All but one of these states had thresholds lower than California, above which electronic filing was required. (Electronic filing improves the quantity of data that is available, as well as the speed with which that data is made available.) While several states had an established process for an exemption to the electronic reporting in hardship situations, none reported any significant use of the process by filers.

- Only one state (Pennsylvania) required any paper documentation be sent when a filing is submitted electronically and, in that case, *only* the cover sheet bearing a notarized signature was required. In all other states, access to the system using an assigned login ID and password was deemed sufficient for attestation, unlike California, which requires electronic filings be followed with submission of a full printed paper copy of the filing.

- While most states were receiving some form of reports for local filers at the county or municipal level, in all cases the local filers were conforming to the same business rules as state filers and, in all but one case, the same reporting requirement thresholds. The survey found no instances where state systems were interacting directly with the filing systems in local jurisdictions. Should SOS be required to integrate local filings with the state system, local filers should be required to conform to the same business rules as state filers to avoiding unnecessary complexity and risk to the system.

PURPOSE

Political Reform Division (PRD) staff surveyed 15 states about their electronic systems used to capture and disclose campaign finance data and related information.

The survey identifies the market of existing systems that might be available and might have the potential to replace California's CAL-ACCESS system for campaign and lobbying disclosure. This survey identifies potential commercial off-the-shelf (COTS) or modifiable off-the-shelf (MOTS) products deployed in other states. This survey also identifies systems developed by other states using in-house staff ('homegrown' systems) that might be used in California.

For the systems examined, staff made a preliminary assessment of the system's potential to meet the needs of California and replace CAL-ACCESS by addressing the following questions:

- How well do the system's functions and features satisfy California's legal mandates for disclosure reporting?

- How well do they match the current information captured and provided by CAL-ACCESS?
- What might be the potential cost and time involved to implement the system here in California?

In developing the survey, secondary purposes emerged, including:

- Exploring whether other states have successfully implemented system functionality that is under discussion in California
- Identifying best practices for report processing and data disclosure that might be worth taking into account when planning the development of the CAL-ACCESS successor
- Chronicling lessons learned from other states' experience during their system implementation

Questions were included with the survey to specifically address these points.

CURRENT CAL-ACCESS ENVIRONMENT

In 1974, California voters passed Proposition 9, the Political Reform Act (PRA), which regulates campaign finance and state lobbying activity, and which requires the reporting and public disclosure of campaign contributions and expenditures, and lobbying relationships and activity.

The PRA established the Fair Political Practices Commission (FPPC) to administer and enforce the Act. The Act established the Secretary of State as the filing office for campaign and lobbying registration and reporting.

In 1997, the PRA was amended by the Online Disclosure Act of 1997 (SB 49), which mandated that the Secretary of State (SOS), by the year 2000, create and implement a system for electronic submission of the PRA-required campaign and lobbying reports and disclosure filings, and that the SOS define a standard, non-proprietary record format for the submission of this data.

The CAL-ACCESS system was created to comply with this requirement. SOS followed a standard competitive procurement process to select and contract with a third-party vendor to custom develop and implement the new system as a replacement for the legacy mainframe campaign and lobbying filing system housed at the State's Teale Data Center. The contract was awarded to the winning bidder, SDR Technologies.

The project was completed by the mandated 2000 deadline. The system was implemented as a client-server application, running on an Oracle and Unix Tru-64 platform, and housed at the SOS offices in Sacramento. The system included an online application for users to enter filing data directly into the system, as well an interface for uploading electronic filings in the prescribed text-file format from third-party vendor

applications. The system also featured a website where the public could view PDF images of filings that were generated by the system from the data submitted.

In 2003, the system was augmented with the addition of a searchable database that allowed more customized searches and reporting of filer data online using a wide variety of search criteria. Natoma Technologies, Inc. developed this enhancement under a separate competitive procurement and contract.

While the resulting system has been rated highly[1] for the extent and completeness of filing information available to the public on the CAL-ACCESS website, there are several issues with this system:

Architectural Design: The CAL-ACCESS software system is a conglomeration of interrelated applications, written in 14 different computer coding languages, developed at different times by different vendors, many of which are lacking documentation and/or developed in languages that are past end-of-life and no longer directly supported by the vendors. These circumstances and attributes of CAL-ACCESS make the system difficult to maintain, and virtually impossible modify. The lack of documentation on the thousands of lines of code that make up the applications makes it costly and time-consuming to pinpoint functionality (understanding how certain code makes the system function). The interdependence of applications makes it extremely risky to modify the system because it is not understood how a change to the code in one application might affect the function of other applications. Finally, because some of the hardware, firmware and software that make up CAL-ACCESS is past its end-of-life and no longer directly supported by vendors means there is dwindling amount, or no, private-sector support (and no state personnel) capable of repairing, maintaining or modifying the system.

Lack of Software Documentation: The multiple CAL-ACCESS component software systems are devoid of documentation, making the system difficult to support. The ability to recruit skilled resources to provide that support is becoming an issue as well

Limitation of "Form Driven" Design: The initial system was designed to capture the data elements of the required campaign and lobbying filing forms at that time and to reproduce them as Portable Document Format (PDF) files. This approach forces a "form over substance" approach where data capture and architecture must fit the form, and manipulation of the data is driven by limitations imposed by the way the data is collected to fit the form. In a data-driven system, data elements are structured on substance of the data; in a form-driven system, the data is structured on the needs to populate fields on the form. This requires links between the form fields and the data that make queries, data recall and data manipulation more complex than it needs to be. One of the most visible results is that the database's design and data structure do not lend itself to querying and reporting data that is frequently desired. It also makes modifying the system – to respond to new legal requirements for different displays of data, different data or new data, for instance – costly, time-consuming and risky.

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[1] In a 2008 study grading state disclosure practices and systems conducted by the UCLA School of Law, the Center for Governmental Studies and the California Voter Foundation (www.campaigndosclosure.org), California ranked 2nd in the country overall. In the categories of both "Disclosure Content Accessibility" and "Online Contextual & Technical Usability" California ranked seventh in the nation.

Inaccuracies in Data: CAL-ACCESS lacks essential validations to ensure that incoming data is complete, accurate, and properly formatted. For example:
- The system may accept a filing even though the line items don't correctly add up to the entered totals
- Name fields that contain a "string" of both the first and last name (instead of separating these into separate fields) can lead to variations in data entry (e.g., Joe Smith or Joe D. Smith), limiting accurate search and data retrieval.
- Manual intervention and data entry by SOS staff is frequently required, risking further introduction of data errors into the systems.

External users, such as the Fair Political Practices Commission (FPPC) and Franchise Tax Board (FTB) have cited issues with incompleteness and unreliability of data query results.

Inability to Adapt: Due to the obsolete platform, the complex interrelation of independent applications, the lack of documentation, and limits of knowledgeable support resources, CAL-ACCESS has been unable to evolve to meet changing business needs, such as:
- Capturing new data elements,
- Creating new filing forms, and
- Adapting to potential new workflow requirements, such as linking a single bill to all lobbyists that have reported lobbying the bill.

The fragility of this aging system was driven home when CAL-ACCESS system crashed due to a hardware failure of the disk controller, which kept the system down almost the entire month of December 2011. While SOS has since moved the system to a virtualized environment on modern windows-based servers, the system is still running on applications written in languages that are at or past end-of-life for support and on an operating system (Tru-64 Unix) that is past end-of-life.

So far, SOS has been unable to migrate the system to an alternative environment or replace at-risk component applications due to the absence of system documentation and a scarcity of technical staff resources. This migration will stabilize the system and should prevent the kind of catastrophic failure of the system experienced in November-December 2011, and, to an extent, remedies the reliance on end-of-life hardware. The migration does not address the risk from end-of-life operating systems and software. For this reason, SOS is exploring options to replace or modernize the existing CAL-ACCESS system.

SYSTEM REQUIREMENTS

LEGAL REQUIREMENTS

The PRA established the Secretary of State as the filing officer to receive and make publicly available the various (statewide) campaign filings and disclosures mandated by

the PRA for candidates, committees and lobbying entities *[Govt. Code § 84101 et. seq., 84215, 86100, 86110]*

Chief among the responsibilities of the SOS under the PRA are:

- Register candidates and their committees, ballot measure committees, general purpose political committees, and slate mailer organizations *[Govt. Code §85200, 84101, & 84108]*
- Receive regular campaign disclosure statements, late contribution reports and late independent expenditure reports from candidates and their committees, ballot measure committees, general purpose political committees, and slate mailer organizations *[§84203, 84204, 84204.5, 84215, 84218, 84220, 85309, 85500]*
- Receive Communications Identifying State Candidates *[§85310]*
- Receive Ballot Measure Ads; Paid Spokesperson Disclosure Reports *[§84511]*
- Register lobbyists, lobbying firms, and lobbying employers, and make public all registration information within thirty days *[§86100, et. seq.]*
- Publish a biennial lobbyist directory and periodic updates, including an online version of the directory with weekly updates *[§86109, 86109.5]*
- Receive quarterly reports of activity expenses from lobbyists, lobbying firms, and lobbyist employers *[§86118]*
- Determining whether reports have been filed and whether the reports comply with disclosure requirements (by reviewing reports) *[§81010(b)]*
- Notifying committees (i.e., treasurers) of non-filing or late filing *[§81010(c)]* (and assessing penalties for late filing *[§91013]*)
- Reporting violations to appropriate agencies (e.g., the FPPC, which has enforcement authority for almost all aspects of the PRA) *[§81010(d)]*
- Maintaining filed reports for public inspection *[§81010]*

In 1997, the Legislature added statute (Govt. Code sections 84600-84612) to require the SOS to create an online/electronic filing system that included the following provisions and capabilities:

- A free, non-proprietary method to submit filings electronically, limited to the minimum functionality required to comply with the law *[§84602(a)]*
- Accept electronic filing submissions from third party vendors. (SOS must accept and validate test submissions from such vendors and publish a list of those who have been successful) *[§84602(b)]*
- Ensure the security and integrity of data *[§84602(c), (h)]*
- Make all filing data available free-of-charge on the Internet in an easy to understand format (Late contribution and late independent expenditure reports must be made available within 24 hours of receipt) *[§84602(d)]*
- Exclude the street address of the campaign, treasurer and contributors, and the campaign's bank account number from online data *[§84602(d)]*

- Maintain filed data online for 10 years (before archiving it in a secure format) *[§84602(f)]*
- Support electronic filing from the following entities that are required to file electronically when income or expenditure thresholds are met: candidates and their committees; ballot measure committees; general purpose political committees (including PACs, political parties, and small contributor committees); slate mailer organizations; and lobbyists, lobbying firms and lobbyist employers

The PRA charges the FPPC with responsibility to prescribe the forms to be used for campaign and lobbying registration and reporting. *[Govt. Code §83113]* The SOS system must be capable of receiving and capturing the data on these forms.

DESIRED FUNCTIONALITY AND CAPABILITY

The Political Reform Division believes that any successor system to CAL-ACCESS should:

- Maintain at least the current features and functions that users and filers have come to expect – the system's filing capabilities and the search/reporting capabilities of the public website
- Improve data schema to store and retrieve data for greater reporting and analysis, such as the ability to report the sources of lobbying expenditures for a particular bill, or the capability to track committees and expenditures for proposed ballot measures in circulation.
- Constrain data to acceptable values, where possible, by requiring filers to enter data according to standards that ensure data searches consistently find the data desired, and provide improved validation of incoming data to improve data accuracy, including automatic calculation of totals, and carry-over of balances to subsequent statement
- Automate creation of user accounts, including ID and password
- Automate enforcement by detecting missing filings, invalid filings, and late filings subject to fines, and provide automatic notice of such errors to staff and filers
- Automate creation of lobbyist directory
- Provide workflow support and tracking for any filing processes not automated by the system, including production of ad hoc reports on the number of filers by type (for the purpose of assessing resource allocation needs) and staff completion of tasks, such as review of filings for timeliness (for the purpose of assessing fines for late filing)
- Provide capability for ad-hoc queries and reports by program staff and the public

To avoid the issues experienced with the current CAL-ACCESS system, PRD believes that a successor system should be:

- Developed in a current technological platform that is readily supported
- Designed as a single, integrated system and application
- Written in accordance with coding standards and be fully documented
- Architected to easily adapt to evolving business needs

SURVEY FINDINGS

COTS/MOTS Marketplace

In an initial review of all fifty states and the detailed survey of fifteen states, only two vendors were identified that have developed products used by multiple states:

- PCC Technologies (www.pcctg.com) – Maryland, Connecticut, Wisconsin, and, possibly, New Hampshire, which use a version of PCC's Campaign Finance Information System (CFIS)
- Quest Information Systems (www.questis.com) – Colorado, Indiana, Maine, and, possibly, Rhode Island, which use versions of Quest's First Tuesday application

Both vendors offer 'hosted' solutions where the database, application, and website are housed and maintained at the vendor's facility, and agency staff, filers and the public access the system remotely over the Internet. (In the case of Colorado, the system was initially hosted by Quest, but has since relocated to Colorado Secretary of State facilities.)

PCC Technologies/CFIS (Maryland)

Of the states that use PCC Technologies' system, only Maryland was surveyed. With a population of approximately 5.3 million citizens, Maryland ranks 20th in states by citizen population (as opposed to California's population of more than 36 million).

This system was recently deployed in Maryland, going live in December 2011. The state still views the system as being in 'shakedown' mode, and is working with the vendor to resolve minor bugs and priority enhancements that have been identified in these initial months of deployment.

<u>Filing Activity Supported</u> – CFIS only supports campaign finance reporting in Maryland. Lobbying registration and activity is reported to another agency. Nothing was found in the preliminary review of all state websites to indicate that the system supported lobbying registration and activity in any other state. [2]

Maryland has no requirement for special reporting of significant or late contributions and expenditures, such as the 24-hour late contribution reports in California and other states. It is unknown whether the system provides this capability for any other customers.

In Maryland, campaign committees for county candidates and the City of Baltimore candidates register and report to the State Board of Elections, as do all state candidates and all other political committees.

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[2] In both Connecticut and Wisconsin, lobbyist filings are submitted on paper and the website does not provide online search and reporting of lobbyist activity. In New Hampshire, lobbyist filings are submitted on paper. The state website provides PDF lists of lobbyists by name and firm, these appear to be unrelated to the online reporting system for campaign finance activity.

Electronic Filing - All state filers must file their committee registrations (including amendments and terminations) and campaign reports electronically.[3] The system features an online application for filers to enter individual transactions on an as-you-go basis. Totals and balances are calculated by the system from the entered transactions. The system validates data and prevents some data entry errors. For example, the system verifies that transaction dates fall within the reporting period and provides warnings of potential code violations, such as donations exceeding the limits.

Filers with an online account can upload their filing transaction data into the system if that data is formatted properly.[4] The state provides an Excel template that can be used by individual filers to record transactions and format the data in the required format for upload. Filers using a third-party application for managing campaign finances can also use the online application to import data from their system into CFIS if the external application exports the data into a file of the prescribed format.

Filing data is not publicly available until the filer chooses to finalize and 'submit' the report from within the online application. The system validates incoming reports; it rejects those with fatal errors and accepts those with errors defined at 'soft stops.' (The system notifies state staff of filings received with non-fatal 'soft' errors.)   Once a filing is submitted and accepted electronically, the data is immediately available on the public website.

Other features - New filers apply for their user account electronically online. New applications for a system user ID and password are held with pending status until reviewed and approved by staff. Upon approval, the system sends an email notice to the new user.

The system can generate images of the filing that users can print or save locally. Additionally, users can export their transaction data from the system electronically for manipulation and analysis by third-party tools such as Excel. For agency staff, the system includes several pre-defined reports, as well as a built-in tool for creating ad-hoc queries and reports on any data within the system.

Validation and automatic enforcement – With respect to enforcement, the system notifies staff and filers of errors in submitted filings. The system identifies and reports delinquent filings, and it calculates and levies fines for late reports – although it does not automatically notify the filers of the delinquency or fine.

Development and implementation – Maryland reports that the system was customized and deployed for them in a very short time frame due to deadlines on the funding allocations by their legislature in July, 2010. The State released the RFP in March 2011

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[3] There is an exemption available to smaller filers with less than $3,000 in assets and/or less than 30 reportable transactions in a reporting period. In these cases, staff keys the data from the paper filings into the system on behalf of the filer. The State estimates that less than one percent of their filings are received on paper.

[4] In California, the SOS supplies utility applications that vendors must use to validate the data sets and then to upload the data to the CAL-ACCESS system.

with bid responses due by April 2011. In addition to the winning proposal from PCC, the State received a proposal from Quest and a proposal from Valiant, a North Carolina company, in partnership with the University of Maryland. The project commenced in June 2011, when the State awarded a fixed-price, deliverables based contract to PCC. The first week was focused on system design, which continued throughout the project. Customization and development continued from June through October that year, with system testing occurring during the final 1½ weeks prior to final deployment of the new system and going live in November 2011.   Maryland's total contract with PCC was less than $900,000, less than $400,000 of which was for the product customization and the conversion of their legacy data. The balance of the contract covered four years of maintenance and operation at the rate of approximately $168,000 per year.

Platform – Since the system is hosted and maintained by the vendor, the State could not provide details on the hardware or software platform for the system.

The system provides limited capability to the State for customization by staff. Staff can add or modify constrained data in code tables (such as expense codes), add new reports, and add documents to the website. For all other modifications, the state relies upon the vendor.

Vendor performance – The State provided a positive recommendation for their vendor, PCC, noting that they were very pleased with the quality and experience of the vendor's staff. They cited the biggest challenge working with the vendor was getting the vendor to truly understand the State's business requirements, but noted that the vendor was always quick and eager to resolve any issues that arose.   Overall, the State is very pleased with the product delivered by their vendor, even though they are still working to resolve the issues from initial deployment. They did note that the system cannot accept uploaded data on loans due to the complexity of the business rules – something they hope will be corrected in future releases.

CFIS supports much of the functionality and capability desired in a successor system for CAL-ACCESS, at least at a high-level. The system would likely need further development to support the complexity of California's campaign finance business rules, as well as to support lobbying filings, potentially causing a significant increase in the cost and implementation time for the system. Further, scaling the system to the size and volume of transactions required for California would most likely increase the cost of the system, and could prove problematic if that presents challenges requiring more than just new hardware. Finally, SOS would need to determine if it will accept a 'hosted' solution where the system hardware, software, and data is located at a non-state controlled facility that is, possibly, outside of the state.

Quest Information Systems/First Tuesday (Colorado & Maine)

Of the states that are using Quest Information Systems, only Maine and Colorado were among the states that were surveyed.

Maine reported that it is using an older version of the system which was deployed in 2002 and that Quest refers to as their prototype. Due to the antiquated nature of this

system, the vendor is having difficulty supporting the product and the state is actively considering alternatives, including upgrading to Quest's First Tuesday application that is deployed in Colorado and elsewhere. For this reason, Maine's system will not be discussed further, other than to note that the State was positive about its vendor and believes its vendor is providing the best support possible given the limits of the system.

Colorado initially deployed the First Tuesday system in January 2010. Colorado has a population of approximately 4.6 million citizens; ranking 22nd in states by population – again less than 1/7 the size of California.

Filing Activity Supported – First Tuesday only supports campaign finance reporting in Colorado. While lobbying registration and activity are also reported to the Secretary of State, these are handled by a completely different system. The other two known First Tuesday state users do not receive lobbying filings, so it is unknown if the system has that capability. It should be noted that the Maine system handles lobbyist filings, indicating that the company at least has some experience with this area of the business.

In Colorado, all candidates, campaign committees and other political committees at the county, state, and special district levels file their registrations and campaign reports with the Secretary of State.

In terms of features and functions, the First Tuesday is similar to CFIS.

Electronic Filing – All state filers must file their committee registrations (including amendments and terminations), regular campaign reports, 'Major Contribution' and '48 Hour Notice of Independent Expenditure' reports electronically.[5] The system features an online application for filers to enter individual transactions on an as-you-go basis. Totals and balances are calculated by the system from the entered transactions. The system validates data and traps errors at entry where possible. For example, the system provides warnings of potential code violations such as donations exceeding the limits.

As with CFIS, transaction data can also be imported into the system from within the online application if that data is in the prescribed XML file format. Like Maryland, Colorado also provides an Excel template that can be used by individual filers to record transactions and format the data in the required format for upload. Filers using a third-party application for managing campaign finances can also import data from their system into First Tuesday if that application exports the data in the required format.

Filing data is not publicly available until the filer chooses to finalize and 'submit' the report from within the online application. Prior to submission, the system validates incoming filers and notifies the user of any deficiencies. Users have the option of correcting the filing or submitting the filing with known errors. (The system notifies state

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[5] There is a process in place for filers to request a hardship exemption from the electronic filing requirement. The State reports that they receive about six such requests per year, but none have actually qualified. Should a filer qualify for the exemption, State staff will manually enter the data from the paper filing into the system.

staff of filings received with errors.)   Once a filing is submitted and accepted electronically, the data is immediately available on the public website.

Other Features – New filers apply for their user account electronically online. New applications for a system user ID and password are held with pending status until reviewed and approved by staff. Upon approval, the system sends an email notice to the new user.

The system can generate images of the filing that users can print or save locally. Additionally, users can export their transaction data from the system electronically for manipulations and analysis by third-party tools such as Excel. Users can also query and track filing data for other filers. For agency staff, the system includes several pre-defined reports. The agency must work with the vendor for any custom or ad-hoc reports.

Validation and Automatic Enforcement – The First Quest system notifies staff and filers of errors in submitted filings. The system identifies and reports delinquent filings, and can automatically send delinquency notices to the filer. Although staff must manually calculate the amount of any fines, the system can automatically notify users when a fine has been assessed for a filing. The system also allows users to request a waiver of penalties electronically. Finally, the system also tracks complaints that have been submitted against a filer.

Development and Implementation – Colorado reports that its system was obtained through a standard procurement and developed over approximately 16 months from the start of procurement in March 2008, through final deployment in June 2009. The procurement phase of the project was about eight months – approximately three months were spent developing the RFP, and the remaining time in bidder conferences, evaluating proposals, and negotiating the contract. Only two proposals were received; PCC submitted the second proposal. Quest was awarded the contract November 2008. The remaining months were spent in design, customization of First Tuesday, and system testing, with final deployment in June 2009. The total project cost to implement the system was $847,200 apportioned to:

Software cost	$ 215,000
Hardware cost	0
Project Labor cost *(including SOS contracted project manager and SOS staff)*	575,700
Post-Implementation Support cost	417,830
Miscellaneous costs *(including travel, training, and 'webinars')*	56,500
TOTAL PROJECT COST	$ 1,265,030

 By state law, Colorado owns the system and the installed application, with full rights to modify the code if need. Quest holds proprietary rights to the system that prevent sharing the system and its code with other states.

Quest continues to provide support for the system at an annual cost of $101,640. Currently Quest is developing an enhancement to the system that will allow users to pay their fines online.

Platform – Colorado's implementation of the First Tuesday system runs on a Microsoft SQL Server database. The application was developed in the computer language .NET. Initially the system was hosted and maintained by Quest at their facilities. Since that time, the system was moved to the Secretary of State's office where it is now housed, with the Quest facility serving as a redundant backup to the system. Quest provides support and maintenance for the system remotely.

The system allows users to configure and customize the application with the ability to:
- Configure user accounts and assign permissions
- Define filing schedules
- Configure penalty rates
- Define some business rules and threshold values
- Define constrained data values in code tables (such as expense codes)
- Customize email notices

System modification beyond these abilities must be performed by the vendor.

Vendor Performance – Colorado gave high recommendations for Quest, stating it was extremely satisfied with its vendor and continues to be so. They believe Quest did an excellent job adapting the system to the State's business rules and program needs, particularly with a significant change in scope midway through the design phase due to a newly mandated capability to accommodate local filers and their filings. They stated that the biggest challenges they had working with this vendor were a switch in project managers partway through the project, which they were able to workaround by dealing more directly with the vendor's programmer staff. They are very happy with the final product delivered by Quest.

Like CFIS, First Tuesday supports much of the functionality and capability desired in a successor system for CAL-ACCESS, at least at a high-level. This system would also likely need further development to support the complexity of California's campaign finance business rules, as well as to support lobbying filings, potentially causing a significant increase in the cost and implementation time for the system. Scaling the system to the size and volume of transaction required for California would most likely increase the cost of the system, and could prove problematic if that presents challenges requiring more than just new hardware. However, with First Tuesday we know that the vendor is open toward a solution that locates the actual system in state controlled facilities since that was done in Colorado.

Homegrown Solutions

The remaining 12 states surveyed all had customized systems that had been developed specifically for their state and its laws. All but two of the systems were developed by and are maintained by in-house information technology staff. Most were initially

written to either replace a legacy system that the state had outgrown, or as modifications to modernize the legacy system. Typically, these systems have evolved over time to adapt to evolving business needs as part of day-to-day support of dedicated staff, rather than as one-time major projects.

Only three of the systems are relatively new: Pennsylvania's system went online in 2008; Illinois' system in 2010; and Nevada's in January 2012. Of the remaining nine states, three were placed into service in 2005 or 2006, while the last six states all have core systems that go back to 2000 or prior – about the time that CAL-ACCESS was created.

For these reasons – gradual evolution over time, development by in-house staff, and age of the system – information about discreet cost and development time for most of these systems was not generally available.

In terms of capabilities and features, only two of the systems (Nevada and Texas) included limited support for lobbying related filings. While many of the other surveyed state agencies processed lobbyist filings, this was done by an entirely different system than their campaign finance reporting system. Of the 12 states, 6 provided a client application that users were required to install on their local computers to record and transmit campaign filing data. While four of these six states also had an online filing application, this application was, typically limited to short-form type reports. All of these states accepted electronic filing of regular campaign reports; however, only four also allowed electronic filing of committee registrations, whether new or updates.

These may be contrasted with California's CAL-ACCESS online system which supports: Committee registration/updates (Form 410 – Statement of Organization); regular campaign reporting (Form 460 – Recipient Committee Campaign Statement), and special reports (Form 496 – Late Expenditure Report and Form 497 – Late Contribution Report), as well as several specialized reports (e.g., Statement of No Activity, Campaign Statement Short Form, Paid Spokesperson Report).

A brief highlight of each system is presented below.

Florida

Florida's current system has been in place since 2005. The Department of State, using department information technology (IT) staff, developed the current system by modifying and updating their legacy system application to run on existing hardware. This development effort took one developer approximately eight months, followed by approximately four months of testing. Department IT staff continue to provide ongoing maintenance, development and support,

Only regular campaign reports can be filed electronically. Candidate registrations/declarations, committee registrations/amendments, and applications for an online account must all be submitted on paper. Florida has no provisions for special reporting, such as 24 hour reports of significant or late contributions and expenditures. Lobbying registration and reports are filed with a separate agency and, therefore, not supported in Florida's campaign finance system.

Florida provides an online application for users to enter individual campaign transactions on an as-you-go basis. Users must finalize and submit their report before the data is available to the agency or the public. The system also accepts uploaded data in a standardized text file format from third-party vendor applications. Users must log into the State's online application to upload transaction data.

The system provides notice to users of filing deficiencies through a filing review function in the online application. While the system notifies staff of delinquent filings, it does not provide automatic notice to users of delinquent filings or accrue fines automatically. System reporting is limited to the reports available online to public users.

Georgia

Georgia's system was developed entirely in-house using existing IT staff. The Government Transparency and Campaign Finance Commission reports that it took two full-time staff approximately one year to develop and test the application, which went online in 2005. Two full-time developers are dedicated to the ongoing support and development of the system.

Filers can submit both regular and special (Two Business Day) campaign reports electronically. Candidate and committee registrations (and registration updates) must be filed on paper. While the Commission is also the filing agency for Lobbying activity and Statements of Economic Interest, these are handled by a separate system.

Similar to Florida, Georgia also has an online application for users to enter individual campaign transactions on an as-you-go basis. Users must finalize and submit their report before the data is available to the agency or the public. While the system permits users of third-party campaign finance software to upload their report data, the respondents we interviewed could not provide any details about the nature of that interface.

The system notifies users of deficiencies in filings. It notifies Commission staff of delinquent filings, and has the capability to automatically calculate and levy fines.

Illinois

SDR Technologies/NIC, the developer of CAL-ACCESS, created Illinois' legacy system in 1999. Due to the ongoing difficulty of supporting and maintaining a 'black-box' application that lacked documentation, the State Board of Elections created their current system, IDIS v.2, to replace their legacy system. IDIS v.2 was developed using in-house IT staff and was deployed August, 2010. The Board of Elections reports that the equivalent of one to two full-time technical staff provides ongoing support and development of the system.

Illinois campaign filers can submit regular campaign reports electronically, as well as special reports (Schedules A-1 and B-1 for major contributions and late independent expenditures). Candidate and committee registrations, including registration updates, must be filed on paper. Lobbying registration and reports are filed with a separate agency and, therefore, not supported in Illinois' campaign finance system.

The Board of Elections provides a client application that users must install on their local system to capture and report campaign report data. The application includes a user function to initiate upload of completed campaign reports. Users of third-party campaign finance software can upload their reports in the approved XML data format using the same interface and services used to upload data from the State's client application.

The system notifies both staff and users of filing deficiencies, as well as filings that are delinquent. The system also tracks fine payments. Custom correspondence can be scanned and incorporated into the filer record. The Board reports that the system features a wide array of pre-defined reports. Users can also generate custom reports on an ad-hoc basis using pre-defined 'views' of the data in Crystal Reports.

Finally, the State reports that they are currently developing an online filing application for the system that is schedule to be completed in mid-2013.

Michigan

Michigan's campaign finance system, MERTS, was developed in the mid-1990s. In the early 2000s the state brought in SDR Technologies/NIC to take over maintenance of the system under an 11-year contract for support and update of this and other systems at the Department of State.

Campaign committees in Michigan can submit regular campaign reports electronically, as well as special reports (Late Contribution reports and 24-Hour reports). Candidate and committee registrations, including registration updates, must be filed on paper. Similarly, lobbyists can file reports of lobbying activity electronically, but must file registrations on paper.

The Department of State provides a free Windows-compatible client application for capturing and reporting campaign transactions on an as-you-go basis. Once a report is finalized, users can submit the filing to the state by either (a) uploading data directly to the State database using the upload function within the application, or (b) saving the report data to a diskette and mailing the disk to the State. Filers can also upload their data from approved third-party campaign finance programs if the data is in the correct text file format. The State provides a utility for managing such uploads.

The client application enforces correct data types and constrained values where applicable. The client also allows users to validate a filing prior to submission. The State system validates all incoming data, whether from the client application or a third-party application, and notifies staff of filings with errors. The state system reports delinquent filings, calculates fines and generates fine letters automatically. The system features several predefined reports for administrative users. Staff can create and save custom reports using a third-party reporting tool.

Respondents told us that while the State owns the main system and its code, the MERTS client application is proprietary to its developer, NIC.

Nevada

Nevada's Aurora system is the newest of the 15 states surveyed, having just gone online in January 2012. Aurora is actually an enhancement of the legacy system that was created in-house in 2004, in response to legislative mandates for electronic filing by all filers. These non-hardware enhancements were written by a team of six in-house developers, starting in April 2011.

In Nevada, filers can now apply for a user account, register their committee, and file campaign reports electronically. (Nevada has no requirement for special reports of significant or late contributions and expenditures.) The Aurora system also allows state and local candidates and officials to file their annual financial disclosures electronically.

All campaign filers must enter and submit their filings using the Aurora online application. Campaign transactions are entered on an as-you-go basis, and basic validations are performed on the data, such as ensuring that transaction dates fall within the reporting period. The system also allows filers to query and track data from other filers. Like most systems, users must finalize and submit a filing before the data is made available to state staff and other system users. The Aurora system cannot import data from third-party campaign software.

Other than validations at time of entry, the system lacks capability for automated enforcement and reporting. These are anticipated in a later 'phase two' development effort.

New Jersey

New Jersey's campaign finance system was originally developed by a private vendor in the 1970s as a mainframe application. In the mid-1990s, the State assumed ownership of the system and rewrote the application in Visual Basic. All modifications and enhancements since that time have been developed by agency IT staff. Scanning and imaging were added in 1999.

New Jersey's system supports electronic filing of candidate declaration, campaign committee registration and amendments, regular campaign reports, and special reports (48-Hour Contribution Reports and 48-Hour Expenditure Reports). Lobbying registration and reports are filed with a separate agency and, therefore, not supported in New Jersey's campaign finance system.

New Jersey supplies a free client application for users to install on their local computers to capture and file campaign data. The application also provides some campaign management features such as contributor tracking. Once a filing is complete, the filing can be submitted to the State using an upload function within the client application. While the system also has an online application, it is limited to certain 'short-form' type filings. The system has no capability to import filing data from third-party campaign software.

The client application enforces correct data types and values at entry. The application also validates filings and notifies the user if errors are found. On the state side, the system has minimal validation of incoming data. Automated

enforcement is limited to notification to staff of delinquent filings. The State does report that over the years they have developed a wide variety of reports about the system and its data. Any new ad-hoc reports that are needed must be created by technical developer staff.

The respondents did share concerns about obsolescence of their imaging system and its compatibility with their current platform. They hope to address this as their next priority for system development.

New York

In 1994, in-house developers at the Board of Elections rewrote their system to migrate it from the legacy application that had been developed in FoxPro. In 1999 they added functionality to support electronic filing. The current system runs on an Oracle platform.

New York's system supports electronic filing of regular campaign reports and special reports (24-Hour Notice). Candidates and committees must submit their registration and amendments on paper. In New York, lobbying related filings are not handled by the State Board of Elections and, therefore, are not supported by the campaign finance system.

The State supplies a free Windows-based application for filers to enter campaign transactions and submit campaign reports. Completed filings must be exported from the application and sent to the state, either as an email attachment or mailed on portable media such as diskettes or CDs. The system does have an online application that is limited to short-form non-itemized reports such as, Statements of No Activity and 24-Hour Notice of Late Contributions. The system also accepts data from a third-party campaign system if that system exports the filing into the same CSV text file format used by the State's thick-client application.

New York's system provides limited validation and has almost no capability for automated enforcement. Staff can run a special report that identifies delinquent filers.

Ohio

In 2000, Secretary of State staff began development of a new database and suite of systems to replace their legacy campaign finance system and provide electronic filing capability. This system was deployed in 2001 and still serves as the framework of the system today. Secretary of State staff has continued to modify and update the system, deploying major system enhancements in 2004 and 2009.

Ohio's system only supports electronic filing of regular campaign reports. Candidates and committees must file or amend their registration (Designation of Treasurer) on paper. There is no provision in Ohio law for special campaign reporting. Lobbying related filings are handled by a different agency in Ohio, so the system does not support these filings.

The campaign reporting system includes an online application for filers to enter transaction on an 'as-you-go' basis. As with the other systems, transactions are not

reported and available to others until a report is finalized and submitted. Ohio's online system includes the capability to upload PDF images of supporting documents (e.g., cancelled checks, bank statements) when required by law. Finally, the system includes an 'address book' of known donors and payees. This permits the system to automatically complete information such as address, occupation, and employer, for repeat transactions from the same donor or payee. Filers using a third-party application for campaign finance management can use the online application to upload transaction data and reports, provided that the third-party software can extract this data in the correct CSV text file format.

The online application enforces correct data types and constrained values where appropriate. It also notifies users of potential violations before filings are submitted, whether the filings are keyed or uploaded from a third-party system.

Pennsylvania

Pennsylvania's Electronic Campaign Finance (ECF) was custom developed as an extension of the state's SURE voter registration system. The state's development vendor, Acclaim, was selected through a competitive procurement process that took approximately six months. Design, development, testing and deployment of the initial system in 20111 took an additional two years. The state selected a phased development and release approach that is still underway, and is estimated to take about three or four years to complete. While the respondents did not supply specific cost information for that initial development, they did note that the ongoing development is included in their vendor's maintenance agreement for the entire SURE system at $1.5 million per year.

Currently the ECF system only supports electronic filing for regular campaign reports. Campaign committee registration and amendment must be submitted on paper. Special reports (24-Hour Notice of Late Contributions and Expenditures) must be submitted by fax or email. While the Department of State is the filing agent for lobbyist registration and reporting, these are handled by a separate system and not supported by ECF.

ECF features an online application that permits transaction entry on an as-you-go basis like most other such systems, although atypically it does not allow users to download their data for manipulation and analysis by other software such as Excel. Filers can also submit their filing data to the State in the prescribed CSV text file format, either on disk or as an email attachment. (State staff then imports the files into the system on the filer's behalf.)

ECF system can automatically notify state staff and filers of delinquent filings. The system can also calculate and levy fines on late filings, automatically notifying the filer of the penalty. ECF features an array of pre-defined reports that are configurable by administrative users. The Department must rely on the vendor or IT staff to create custom ad-hoc reports.

The respondents expressed high satisfaction with their vendor and the product so far. They did note that the State underestimated the time and effort required to properly document their business needs and requirements.

Texas

Texas' campaign finance system was initially created by SDR Technologies/NIC as a modified implementation of their system that was deployed in other states. After implementation the State assumed responsibility for support and ongoing development of the system, and have continued to update and enhance the system as required. In 2003, the State began development of the lobbyist reporting system using in-house developers. That system took approximately 1½ years to create. While the front end is an entirely separate application, it shares the backend Oracle database with the campaign finance system.

Texas campaign filers can submit their regular and Special Pre-Election Reports electronically. Candidates and political committees must file their registration (Appointment of Campaign Treasurer) on paper. However, the system allows them to amend some registration information, such as changes electronically, while other registration amendments must be filed electronically. On the lobbying side, all registrations and activity reports must be filed electronically.

Texas is unique in that it offers both an online application and a client application for campaign finance reporting. The online application is simple and best suited for small filers as the filing data must be entered and submitted all at once. The application has no capability to capture and store transaction data on an as-you-go basis. Larger filers can download the free Windows client application from the Texas Ethics Commission and install it locally on a personal computer. This application accepts data on an as-you-go basis. There are user functions within the client application to validate filings prior to submission and then to upload complete filings to the State. Finally, filers can upload filings from third-party campaign software if the software exports the data in either the prescribed XML or CSV formats. The State provides a utility for transmitting the extracts.

Both the online and the client applications enforce valid data entry, and identify missing data that is required. However incoming data submitted from the client application or third-party systems is not validated by the system. The system reports delinquent filings and late filings to state staff, and can generate fine notices to filers. The application includes a report generator that can produce several predefined reports; however the Commission must rely on IT staff to create ad-hoc queries and new reports.

Washington

In 1998, the State contracted with SDR Technologies/NIC to develop a campaign finance system. By 2000 the development effort had gone awry and was incomplete. The State assumed control and completed development of the system and has continued to maintain the system since, making modifications and enhancement over time to meet evolving business needs.

The Online Reporting of Campaign Activity (ORCA) system supports electronic filing of candidate and political committee registrations and amendments, as well as regular campaign reports. Special reports (Last Minute Contribution reports) must be filed via fax or email. While the Public Disclosure Commission is also the filing

agent for lobbying activity, these filings are handled by a separate system and not supported by ORCA.

ORCA features a limited online application for campaign filers that only supports electronic candidate and committee registrations, as well as 'mini-reporting' for candidates and committees who raise and spend limited amounts. For all other filings, the State provides a free thick-client application that can be downloaded from the state website and installed on a local computer. Separate versions of this client application are available for Windows, Apple, and Linux operating systems. There is a user function within the application to upload completed filings to the State via an XML interface. Third-party vendor software can also upload filings to the state system via this same interface using a validation/utility module that the state provides to vendors.

The ORCA system validates incoming filings and messages the filer if errors are found. The system also reports delinquent filers as well as late reports subject to fines. If report data is keyed into the system by staff, the system can also notify staff of paper filers who have exceeded the threshold for mandatory electronic filing. Washington reports that the system has a wide array of pre-defined reports. Staff can generate ad-hoc queries and custom reports using SQL Server Reporting Services.

The final state surveyed is unique from California and all other state systems surveyed in that filers report by individual transaction.

Oregon

Oregon's ORESTAR system has been in place since 2006. The system was developed in-house by Secretary of State IT staff.

Oregon law requires filers to report contributions and expenditures on a transaction by transaction basis within a specific number of days of the actual transaction. Candidates and campaigns are not required to provide periodic reports that summarize and detail the activity over a reporting period.

The ORESTAR system allows candidates to file their declarations and pay filing fees electronically. Campaign committees can register or update their registration, as well as report campaign transactions electronically. In Oregon, lobbying related filings are handled by a separate agency and that functionality is not included in ORESTAR.

ORESTAR features an online application for users to enter transactions and data for other filings on an as-you-go basis. Filing data must be formally 'filed' before it is available to others. The system's address book automatically completes donor and payee information when known (previously entered). Users can also import transaction data and address data in the prescribed XML format, whether that data is created from third-party campaign software or by some other user method.

The system notifies State staff of errors in filings, and can automatically calculate and levy fines on late filings. Oregon reports that the system has a robust collection

of pre-defined reports. Experienced staff users have the capability to create ad-hoc queries and custom reports.

Marketplace Analysis

COTS/MOTS solutions

Current procurement strategy for California government favors COTS/MOTS solutions. COTS/MOTS implementations typically offer many benefits, including:

- *Reduced risk* – Vendors start with a proven solution; common implementation issues have already been resolved in other implementations
- *Faster implementation* – Again, vendors start with a working solution and need only make the necessary modification to adapt to the new business requirements
- *Efficient implementation* – Vendors benefit from lessons learned in prior implementations and have typically developed efficient strategies for design/implementation processes such as identifying business requirements, customizing the application, converting data, adapting workflows, training users, and deploying the system
- *Lower cost* – development costs can be capitalized over multiple customers; costs benefits are realized from reduced risk, shorter and more efficient implementations

COTS/MOTS solutions can also present possible disadvantages:

- *Compatibility issues* – A proven solution for other customers may proved difficult to adapt to unique business requirements, or may not scale well to the volumes required for California; business process and workflows may require modification to adapt to limitations of a new system
- *Dependency on vendor* – To the degree that the vendor controls the final solution, its source code, and it documentation, the customer is dependent on the vendor for system support and adaptation as technology and business requirements evolve
- *Unfamiliar platform* – Vendor systems may introduce new technologies and platforms outside the experience and skill set of current staff, creating challenges for long-term support of the system

Generally, procurement strategies focus on trying to maximize these benefits while mitigating these potential risks.

Only two COTS/MOTS products were identified in the survey of 15 states: PCC Technologies' **CFIS** and Quest Information Systems' **First Tuesday**. Both are relatively current systems having been deployed in 2011 and 2010 respectively.

Both systems are promoted as 'hosted' solutions, where the system is housed and maintained by the vendor. Agency staff accesses the system remotely over the Internet, as do filers and the public. From the agency perspective, such an approach increases risks associated with dependency on a vendor. The Secretary of State must

carefully weigh the potential benefits against the potential risks of this hosted approach with regard to its mission critical system and its data. At least one of these vendors, Quest, has indicated willingness to consider a different model. While Colorado's implementation started out as a hosted solution, once the system was up and running it was migrated to State facilities. Quest continues to support and maintain the system – now remotely – while the original installation at their facilities provides system redundancy. It is not known whether the other vendor, PCC, would consider such an approach.

At a high level, both systems are similar in feature sets and, other than the *lack of support for lobbyist-related filings*, both align well with the features of California's CAL-ACCESS system. Both systems include an online-application that supports data entry and electronic filing of candidate and committee registration and amendment, as well as regular campaign reporting with transaction detail. While the First Tuesday online application supports entry and filing of Colorado's special reports (Major Contribution Reports and 48 Hour Notice of Independent Expenditures), Maryland law has no similar requirement for special reports. It is unknown whether the CFIS system provides this capability for other customers. Like CAL-ACCESS, each system will accept data uploads in the prescribed file format, whether the data is created by a filer's local system or a 3rd party vendor system reporting on behalf of the client. Both systems enforce data standards at entry and validate incoming filing according to business rules. Each system provides some automatic enforcement capability by at least reporting delinquent filings, filings with errors, and filings subject to fines. First Tuesday goes a step further by supporting automatic notice to filers of these issues.

Maryland noted that their CFIS system implementation cannot currently accept electronic reporting of loan transactions due to the complexity of their business rules around loans. They expect this to be corrected in later releases of the application from the vendor.

Both states reported that they "own" their systems, including the source code, with rights to modify the system as necessary, in accordance with their state laws.

Lastly, both states recommended their vendor and expressed satisfaction with the delivered product, as well as the ongoing support they receive from their vendor.

Extrapolation to California

Both systems were implemented in much less than a year from the date the contract was awarded. In the case of Maryland, the customization and implementation of CFIS was completed within six months from contract award to deployment in November 2011, including the data conversion. Colorado's implementation of First Tuesday was completed within eight months from contract award to deployment in June 2009.

Each system appears to have been purchased and implemented for less than $1 Million to the vendor. Maryland's contract with PCC of less than $900,000 allocated less than $400,000 for the actual implementation of the system; the balance was allocated to four

years of maintenance and operation. Colorado reported a project cost of $847,200 after deducting the $417,830 allocated to post-implementation support from the contract.

It is impossible to project costs and timelines for implementation of these systems in California. Indeed, that information is typically developed out of the competitive procurement process itself. Still, several factors can be identified that could significantly increase the cost and timelines for implementation of these systems in California:

- **Lobbying filing** – It appears that neither of these systems currently supports lobbying related filings. If that is the case, the vendor would need to design and develop an entirely new data schema, business logic and processes and new interfaces.

- **Complexity of customization for California** – Most states typically have a standard form for registering political committees, a short reporting form for small entities with little or nothing to report, a standard reporting form and schedules for detailed disclosure of financial activity, and perhaps a form for special reporting of significant contributions and expenditures. California has 18 separate forms related to campaign entity registration or reporting. California has separate reporting requirements for Slate Mailer Organizations, Major Donor and Independent Expenditure Committees, Paid Spokespersons, CalPERS/ CalSTRS Candidates, and Electronic Issue Candidacy. Whereas many states typically recognize candidate committees, party committees, ballot measure committees, and PACs, California recognizes all of these and further distinguishes between candidate controlled committees, officeholder committees, legal defense funds, recall committees, sponsored committees, and small contributor committees. This suggests a level of complexity for California that may not have been encountered by either vendor. To the degree this is true, the process of documenting California's business rules and developing the data schema, business logic and processes, and interfaces to support California's requirements could significantly increase the cost and development time for implementing the system here.

- **Scalability of platform** – Colorado and Maryland have populations of 4.9 million and 5.7 million respectively. California is over six times larger with a population of 36.6 million. The difference in scale suggests a likelihood of increased cost for hardware to maintain performance while accommodating the expected increase in data storage, volume of transactions, and traffic on the public website. More importantly, scaling a system to handle a larger volume of data and transactions can bring forth inefficiencies in data schema and processing logic that must be redesigned to maintain acceptable traffic.

- **California procurement process** – Maryland reported that it took approximately three to four months to complete their procurement process from release of the RFP to selecting a bidder and awarding a contract.   Colorado reported that it took approximately five months to complete that same process. In California, this same process, including obtaining the necessary approvals from control agencies and the Legislature, typically takes over a year. The process of obtaining the necessary approvals to initiate the project and developing an RFP

in partnership with the Department of General Service can take many months in addition to the procurement time above. During this time the project incurs substantial costs that are not reflected in the vendor costs quoted by other states.

- **California project requirements** – California has implemented myriad project requirements designed to increase the likelihood of project success and to better protect the state from errant projects.   Many are not typically found in other states. Unfortunately many of these measures also increase the project costs and time. Project oversight and reporting requirements, such as independent verification and validation (IV & V) and independent project oversight consultants (IPOC) are direct costs to a project that are not reflected in the quotes provided by Maryland and Colorado. Contract provisions, such as fidelity bonds and hold-back provisions represent costs to the vendor that must be passed back to the state through increased bids.

For all these reasons, the cost to implement one of these systems in California is likely to be significantly more than the vendor costs quoted by each state for their implementation. Due to restrictions on direct communication with vendors in place to protect the validity of potential future procurements, it is extremely difficult to get an accurate assessment on what the cost might be to implement these systems in California without actually completing the procurement process and receiving bids.

Adopting a homegrown system

Alternatively, staff was directed to explore the feasibility of adapting a state's 'homegrown' system.

Twelve of the 15 states surveyed had solutions that had been custom-developed for that state. Ten of these 12 were developed using in-house technical staff. Three states indicated that they would be willing to share their system with another state. (New York and Washington have actually done so.) Three of the states (Illinois, Michigan, and Texas) indicated they would not be able to share their system code, citing proprietary concerns. The remaining states were not sure of their state's position on this without further legal review and policy clarification.

Based on the survey results, at a high-level none of these systems appear promising as a replacement for CAL-ACCESS.   By definition, any such system is custom developed to meet the business needs and legal requirements for the particular state it was developed, and was almost certainly not designed with the goal (and expense) of easy modification to another customer's needs. For a system to be a good candidate, it would need to be built on a relatively current platform and would generally fit the capabilities and features of CAL-ACCESS to minimize the customization required to adapt to California. (At some point it becomes cost-ineffective to adapt someone else's solution to fit our needs, as opposed to custom development of our own solution.) By this measure, each of the systems fell short in at least two of the following areas:

Aged platform – Several systems were created in 2000 (about the time that CAL-ACCESS was created) or prior. While several indicated that they had made updates to the program and set of functions, at their core these systems

appeared to all be running largely on their original platform. These older systems raise concerns about availability of technical resources with knowledge to develop and support the older languages and systems, as well as compatibility with new technologies. New Jersey, in particular, noted that they are continually running into obsolescence and compatibility issues due to the age of their system.

SDR Technologies/NIC ancestry – Three of the systems were initially developed by SDR/NIC, the developer of CAL-ACCESS, and at about the same time as CAL-ACCESS. As noted by staff in some of those states, they have dealt with many of the same issues we have experienced with CAL-ACCESS, including lack of system documentation and lack of adherence to coding standards in the applications.

Component of larger system – Pennsylvania's system was developed as a component of their larger SURE statewide voter registration system, sharing many common elements of that system, and raising concerns about the ability to separate the campaign finance system from the larger system.

Thick-client for electronic filing – Electronic filing for the primary forms (e.g, registration and standard campaign reporting) is supported only through a thick-client application (an application supplied by the state, but housed on the filer's computer, so that it is local application, stored locally) that must be installed on the filer's computer. This approach can be more expensive to support due to potential issues related to installation and compatibility with the user's existing hardware, operating systems, and applications. Deploying fixes and upgrades to the application can be problematic and costly. In contrast, online applications almost eliminate concerns about compatibility with client system (as long as the user is running a supported browser), and application updates are applied to everyone automatically by updating the online application.

No support for lobbyist filings – All but two of the systems had no support for lobbying-related filings. These functions would need to be completed developed, in addition to the necessary customization of the campaign finance system to California's requirements.

Limited filing support – Several systems only supported electronic filing of regular campaign reports and, in some cases, special reports such as 24-Hour Notice of Late Contributions. In the extreme case of Oregon, the system was designed to accept filing of individual transactions; there is no requirement for periodic reports of the activity over a period of time. SOS would need to develop support for registration and other filings, in addition to the customization of existing functions to California's requirements.

No support for data uploads – The systems for two states (Nevada and New Jersey) lack any capability for uploading transactions or filing data from an external system or application, such as 3rd party campaign management software. Since CAL-ACCESS currently receives a significant number of electronic filings as uploads from such systems, this capability would need to be created for these two systems.

> **Scalability concerns –** Three states (Nevada, Oregon, and Washington) had populations or roughly 1/6 of California's or less, raising concerns about the capacity of that system and its ability to be scaled to California's volume in a cost effective manner. As noted previously, maintaining performance while scaling a system to significantly larger volumes can often raise issues that cannot be resolved simply with the addition or more powerful hardware.

The chart below summarizes the potential concerns with each state's system when considering that system as a potential replacement for CAL-ACCESS:

	Proprietary	Platform age	SDR/NIC Ancestry	Part of large system	Thick-Client for filing	No lobbyist filing support	Limited filing support	No support for data upload	Scalability concerns
Florida						✓	✓		
Georgia						✓	✓		
Illinois	✓				✓	✓	✓		
Michigan	✓	?	✓		✓		✓		
Nevada						✓		✓	✓
New Jersey		✓			✓	✓		✓	
New York		✓			✓	✓	✓		
Ohio		✓				✓	✓		
Oregon						✓	✓		✓
Pennsylvania				✓		✓	✓		
Texas	✓	✓	✓		✓		✓		
Washington		✓	?		✓	✓			✓

While none of the factors conclusively rule out the viability of the system as a potential replacement for CAL-ACCESS, they do raise concerns about the cost effectiveness of adapting the system for use in California. The more functionality and complexity present in a system, the more expensive it is likely to be to implement that system. A more conclusive determination can only be made after a deeper examination of the actual architecture and design of the system – an effort that was beyond the scope and resources of this survey.

It is also possible that one or more of these systems may have components (e.g., application code, database schema, design documents) that, alternatively, could be leveraged to aid in the design and development of a new system for California. Again, that determination is beyond the scope and resources of this survey.

Final thoughts on approaches

The chief purpose for this survey was to identify the market of existing systems and vendors for campaign finance disclosure reporting, as an alternative to a complete custom developed solution that could be costly, time consuming and risky to implement.

Are there potentially viable COTS/MOTS systems available? Two were found.

Are there existing 'homegrown' systems in other states that might be available and suitable for adapting to California? No strong candidates were found.

It is noteworthy that 10 of the 15 states surveyed have developed, supported, and enhanced their systems using in-house technical staff. Most appear to have had the benefit of technical staff permanently dedicated to this effort. (Admittedly, several of the agencies are also limited in the scope of their programs, resulting in an IT staff that is largely dedicated to supporting their mission.)

A similar incremental development approach for California is worthy of consideration and offers some benefits, including:

- The entire system can be replaced over time in discreet stages at a lower risk of failure at each stage;

- Lower overall development cost;

- Avoid delays from open procurement process;

- Custom fit of solution to business needs;

- Development of internal resources for ongoing system support;

- Full ownership and intellectual rights to the end system.

Such an approach might focus first on replacing components of the current system most at risk from obsolescence, then gradually updating the database schema and system components for adaptability, then gradually adding new features and components to result in a modern system that meets current business needs and is readily adaptable to future changes in those needs.

Should SOS take this approach, it would be important to approach the effort as a formal project with dedicated program and development staff, a project manager, and a formal project plan to help ensure that each step be consistent with the end goal, and that efforts do not get stalled out due to resource contention for staff. In addition, a risk evaluation must be completed on such an approach. The interplay and shared resources between the filing, back office, and public disclosure architecture and components may present an unacceptable risk for a phased-in approach.

OTHER ISSUES (BEST PRACTICES & FUTURE DIRECTIONS)

Several questions of the survey were aimed at discovering how other states approached particular issues that have been raised here in California. These survey findings are detailed below.

All electronic filing

Electronic filing improves transparency for the election process by making data available to the public much faster. It can improve accuracy by validating incoming data and providing prompt feedback of any errors in filings, affording the opportunity to

quickly correct those errors. Finally, electronic filing reduces staff time for processing, reviewing, and inputting data into the system from paper filings, thereby freeing staff time for other functions like enforcement.

Generally in California, once a campaign committee exceeds $25,000 in contributions or expenditures, the filer is required to report electronically from that time forward. Lobbyist filers have a similar threshold at $2,500 in a calendar quarter. For filings submitted on paper, only the receipt of the filing and key data from that filing are actually entered into the system and made available to the public. If someone wants the actual detailed data from a paper filing, he or she must actually come to the office to view the paper copy.

Seven of the surveyed 15 states require that filers must report electronically. (Colorado, Florida, Georgia, Maryland, Nevada, Oregon, and Texas) In Pennsylvania, electronic filing is currently voluntary, but there is pending legislation that, if approved, will mandate electronic filing for all. The remaining seven states all had a threshold for mandatory electronic filing. New Jersey, at $100,000, was the only state with a threshold higher than California. The rest ranged from $20,000 (Michigan) to $1,000 (New York.)

Seven of the 14 states with electronic filing requirements had some form of hardship provision for those who 'did not have access to the necessary technology.' Most states reported that this was rarely or never used.

Paperless filing

California requires that all electronic campaign filings must be followed with the submission of the filing on paper format, bearing a 'wet signature' attesting to the accuracy of the filing. Statute (Political Reform Act, §84606) provides for removal of the paper filing requirement for electronic filers once CAL-ACCESS has been determined to be operating effectively, but this has not been invoked yet.

Of the fifteen states surveyed, only one had a similar requirement. Pennsylvania requires that electronic filers submit a notarized copy of *only* the cover page on paper for each filing submitted electronically. For all other states, access to the filing system with the assigned logon ID and password, together with some kind of a screen attestation was deemed sufficient authentication for the filing. None reported ever having any issues with the authenticity of an electronic filing.

Local filers

California requires that all campaign committees register by filing a 'Statement of Organization' with the Secretary of State.   Local filers (e.g., counties, municipalities, and local districts) must also file a copy of the statement with their local filing officers. Thereafter, local campaign committees file campaign reports directly with their local filing officer. Local agencies receive campaign reports from their local filers, and many have their own campaign reporting systems to manage and disclose these filings. It is also possible that some have imposed requirements on their local filers that are different than those imposed on state filers.

In 2011, bill AB 447 was introduced (but not enacted), which includes requirements that the SOS work toward development on an electronic filing system that consolidates state and local filings.

Of the states surveyed, only three did not receive any local filings. (Ohio, Pennsylvania, and Texas) While some only received county level findings, in four states (Illinois, Nevada, New Jersey, and Oregon) the state agency was the filing officer for everyone in the state. Only Colorado indicated that its system handled separate reporting thresholds for local and state filers. There were no other instances of separate business rules, reporting thresholds, or reporting forms for local filers reporting to the states. Further, there were no instances of state systems that received filing data directly from local systems.

Should California wish to include local filers in the state system, it should consider that there is potential risk in trying to accommodate multiple sets of business rules for different jurisdictions within the same system. This clearly introduces a level of complexity that no other state has successfully demonstrated.

SURVEY APPROACH

Just prior to the survey assignment, Secretary of State staff had interviewed officials at the Nevada Secretary of State's office to learn more about the system that they had recently deployed in January, 2012.

Shortly thereafter staff was directed to survey approximately fifteen states to identify any existing COTS/MOTS products and evaluate their potential as a replacement for the legacy CAL-ACCESS system. Similarly, staff was also directed to exam the availability and feasibility of any homegrown systems that states might have custom developed. In evaluating the system, staff was to try and estimate the potential cost and timeline to adapt and implement potential systems in California. Priority was to be given to large states and those geographically closest to California (in case an on-site visit for deeper examination was warranted).

To assist in selecting states, staff reviewed the results of the most recent report (2008) of the Campaign Disclosure Project (www.campaigndisclosure.org), a study of state disclosure laws and public websites conducted jointly by the UCLA School of Law, the Center for Governmental Studies, and the California Voter Foundation, with the support of the Pew Charitable Trusts. In particular, staff focused on the parts of the report evaluating each state for their electronic filing program, their website content and the usability of their public website. Additionally, staff reviewed 2010 U.S. Census reports on state populations. Finally, staff conducted a brief, high level review of each state's campaign finance website to gather key information such as:

- Origin of the system (i.e., 3rd party vendor or custom developed) if possible;
- Determination if system had been replaced since the 2008 study above;

- Support for Lobbying and Statement of Economic Interest (personal financial disclosure) filings; and
- Support for electronic filing of campaign reports.

Only two existing COTS/MOTS system vendors were identified in this preliminary review: PCC Technologies and Quest Information Systems.

The following states were selected for the survey based on proximity, population size, age, origin (COTS/MOTS), or high rating from Campaign Disclosure Project ('best of breed'):

- Colorado (Quest system – 2011)
- Florida (4th largest state)
- Georgia (10th largest state, best of breed)
- Illinois (6th largest state, best of breed)
- Maine (Quest system, best of breed)
- Maryland (PCC system – 2012)
- Michigan (8th largest state, best of breed)
- Nevada (proximity, new system)
- New Jersey (11th largest state)
- New York (3rd largest state, best of breed)
- Ohio (7th largest state, best of breed)
- Oregon (proximity, best of breed)
- Pennsylvania (5th largest state, best of breed for website)
- Texas (2nd largest state, best of breed)
- Washington (proximity, best of breed)

Working from the Nevada interview questions and the direction of agency management, a high-level series of discussion questions was developed for the survey. These questions focused on:

- *Context of the state's system* – Relevant programs, laws, filing requirements, and filing volumes to aid in comparison with California
- *Features and functions of the state's system* – to appraise potential fit with California's requirements and the degree of customization that might be required
- *System origin and technology* – to appraise fit of platform with SOS technologies, age of system, adaptability of system, and ownership and availability of the system.
- *System development:* cost and timeline to develop the system; procurement process including identification of other bidders; and, if developed by a third-party vendor, references on that vendor's performance.

Staff identified the relevant agency or department chief for each state and then attempted initial contacts first by telephone, and then by email to explain the purpose and intent of the survey. Once the state agreed to participate, the discussion questions

were emailed to the contact so that they could better prepare for the survey and be sure to have appropriate staff on hand for the actual interview. PRD staff made follow-up contacts by email and telephone to schedule the actual survey interview at each state's convenience.

Staff then developed a script for conducting the actual interview, with detailed follow-up questions on each topic to be used as appropriate and to record the responses.

New Jersey was the first state surveyed on March 9th. The last state, Oregon, was delayed until June 19th, after completion of their primary election. States were told that the survey would take approximately 30 to 45 minutes. In reality, the interviews averaged approximately one hour. In most cases, two PRD program staff participated in the interview to ask questions and record responses.

Two states did not participate in the telephone interviews, but chose to provide written responses to the survey instead. Georgia provided initial responses to the survey, and then additional written responses to follow up questions that were sent. Ohio provided initial written responses, but did not respond when they were sent follow-up questions for additional detail.

The reports were structured and sections numbered to facilitate ready comparison between states.

Most states had knowledgeable program staff on hand for the interview, but in several cases the states did not have relevant technical staff on hand to field the technical questions about platform, design, or development of the system. These states generally promised to send the technical information in follow-up. In most cases, nothing further was received and the survey report for that state indicates the "information was not provided" for those questions.

In many cases, staff reviewed manuals and other documentation available on the state website to clarify filing requirements and capabilities of the electronic filing system.

In cases where the state had developed the system using in-house staff, the survey questions related to procurement processes and vendor performance were skipped. Typically, these states could not provide distinct cost and development timeline information, as the development was performed by staff on payroll as part of their ongoing duties and not separately accounted. Similarly, in states where the system had been developed more than ten years ago by a contracted third-party vendor, project cost and timeline data was no longer available and would be of questionable relevance should it be available.

In seven states the lobbying documents were not filed with the same agency as the campaign filings. In five other states the lobbying filings were received by the agency, but were handled by an entirely separate system. In these twelve instances, the separate lobbyist filing system was not explored and documented due to resource constraints and the assumption that SOS would seek to replace the existing CAL-ACCESS system with a single system, and that it would be easier to develop support for

lobbying functions on an existing campaign filing system than to add the campaign reporting functions to an existing lobbying filing system.

Finally staff developed a detailed script to compare the features and capabilities of each state's public website. Senior staff members were then assigned to review a state's public website using the script to record the availability of data, the methods for locating data, and the ability to filter, sort and export search results.

Staff found this exercise very challenging and time consuming. Many states use different terms and processes than California for the various types of committees and filings. For example, in many states candidates and their campaign committee are a single entity and record, where as in California's CAL-ACCESS, candidates are separately tracked than their political committees. While the intent was to develop an objective catalog of website capabilities for comparison, the results were often open for interpretation by the reviewer. As an example, reviewers were asked if the candidate's record displayed a list of filings for this person for prior candidacies. While the current candidate record would not display prior candidacies, the system might permit searching for the candidate by name, election by election, to display this information. For this reason, the results of the website review should not be taken as final and definitive. Information may have been available online that a reviewer unfamiliar with the website could not locate.