

Background

Throughout this plan the terms “CAC” and “county” are intended as shorthand for the staff that report to the County Agricultural Commissioner and Weights and Measures Sealer. It also includes staff that may be working in other programs (such as air quality or vector control) that in some counties are handled by the Ag Commissioner/Sealer.

All CAC offices in California are required to report annually on time and activity of their staff to DPR, CDFA, and DMS for reimbursement on contract activities performed by the CAC office. In addition, the CAC offices must issue device registration invoices and certificates and handle a number of other financial details of their weights and measures program. At present, there is no single system or approach in use by all (or a majority of) counties for tracking, managing, and reporting the information that drives these programs.

There are two commercially available software programs that cover a portion of the information management needs of the CAC offices in this regard – Agrimetric/Equimetric from Stowe Research and CARTS/DRBS from Statewide Soft. Neither set of programs has been widely adopted across the state and neither is viewed by the CAC offices as candidates for this project. There are also a number of in-house solutions in place at various counties which can provide excellent models for this project but none of which are “enterprise” level solutions (i.e. can be expanded to handle all participating counties).

In 2009 Santa Clara County undertook a project called “The Daily” which resulted in a web-based program that covers most of the desired aspects of information tracking and reporting for this project. That software has been adopted (and adapted) by San Mateo county. Over the last three years, CaliCo Solutions has worked with a number of individual counties to see if it would be possible to adapt the Santa Clara County daily program and extend it to serve all of the interested counties as a web-hosted solution. These efforts were not successful due to the licensing language that would be required for Santa Clara County to share the software, and due to the age of the existing software platform.

CaliCo Solutions is initiating a project to develop a comprehensive time and activity tracking system that will meet the tracking and reporting needs of County Agricultural Commissioner and Weights and Measures staff. The system is loosely based on the functionality provided by the Santa Clara County Daily program but will be an entirely new product developed with current technologies and hosted for all participating counties in the Amazon Web Services cloud.

Project Objectives

The objectives of this project are to provide all participating counties with an online software system that fulfills their information tracking and reporting needs for:

- Contract reporting to CDFA;
- Contract reporting to DMS;
- Pesticide-related activities in CalPEATS;
- Weights and Measures program device registration and revenue tracking;
- Timecards;
- Internal time and activity reporting; and
- Staff performance metrics.

The system must be flexible in integrating information tracking with other external systems such as HR systems and external timecard applications.

In addition to the technical objectives listed above, this plan addresses the approach for executing and managing the project.

Scope of Work

The scope of work for this project includes the following features:

- Timecards
 - Direct entry of hours, mileage, and expenses
 - Time entry notes
 - Associate time with Ag or W&M programs
 - Indirect time
 - Configurable by each county
 - Import and Export functions
 - Mapping to General Ledger accounts
 - Automatically show time entered on inspections
 - Show time goals, flag under/over per day
 - Offer different timecard categories based on employee type
 - Personal and manager audit reports
- Non-Pesticide Agricultural Inspections
 - Web-based activity entry forms
 - Include activity per CDFA requirements
 - Report 1 – Pest Detection
 - Report 2 – Pest Eradication

- Report 3 – Pest Management, Pierce’s Disease
 - Report 4 – Pest Exclusion (SOD, LBAM, Dog Team, EGVM)
 - Report 5 – Pesticide Inspection (filled from CalPEATS)
 - Report 6 – Seed inspection
 - Report 7 – Nursery Inspection
 - Report 8 – Fruits & Vegetables
 - Report 9 – Egg Quality & Control
 - Report 10 – Apiary
 - Note – other hours (Crop Report, Williamson Act) can be directly entered on time card and reported separately.
- Time tracking, mileage and expense entry
- Identify business if appropriate
- Pesticide Inspections
 - Add time, mileage, and expense tracking to CalPEATS inspection forms
 - Automatically import and display CalPEATS time
 - Additional time card entries for pesticide-related activities
 - Automatically populate PRAMR entries with override capability
- W&M Business and Device Tracking
 - Businesses and Owners
 - Device Type Programs
 - Measuring Devices
 - Weighing Devices
 - Quantity Control
 - Weighmaster
 - Petroleum
 - Measuring Device Repair
 - Weighing Device Repair
 - Options to track numbers by device type or individual devices
 - Options to track make, manufacturer, serial number (import/export)
- W&M Inspections
 - Web-based inspection forms
 - Options to enter per-device results or just totals
 - Automated calculations (statistics, over/under price, etc.)
 - Include information per DMS requirements
 - Time tracking
 - Mileage and expense entry

- W&M Annual Device Registration Invoicing & Payments
 - Device registration fee table
 - Multiple fee schedules (prior, current, what-if)
 - Registration fee per N devices
 - Location fee, administration fee, per vehicle fee
 - Registration fee cap by device type group
 - Location fee cap per device type group
 - Automatic generation of device registration invoices
 - Automatic generation of device registration certificates
 - Periodic audit of device counts on inspections versus registered
 - Batch payment handling
- W&M Annual Device Registration Late Notices & Collections
 - Late fee by device type
 - Automatic generation of late notices
 - Referrals to collection
- W&M Miscellaneous Invoices, Payments, and Business Ledgers
 - Reinspection fees per device, reimbursement per mile
 - Reinspection invoicing
 - Automatic detection of reinspection invoices to generate
 - Missed taxi appointment fees
 - Other fees, payments, adjustments
- CDFA Reports
 - Reports 1 - 12
 - Annual Financial Statement
 - Electronic Submittals to CDFA
- DMS Reports
 - Monthly Report
 - Annual Report
- Internal Reports
 - Indirect Hours
 - Audit Hours
 - Daily Sheets
 - Financial reports
- Time & Activity Tracking and Reporting for Other Programs
 - Air Pollution Control
 - Underground Storage Tanks

- Animal Shelter
- Vector Control
- Planning

Certain elements of the original white paper on this project are not included in the first phase of development but may be added later. These include:

- Mobile Inspections Apps for Ag and W&M
- Mobile Trapping App
- GIS Integration
- Tracking and Reporting for Other Contract Activities

The last item, tracking and reporting for other contract activities, will be included in the first phase for the five programs identified. If counties desire similar functionality for other programs those can be added and funded by individual counties or groups of counties.

Technical Approach

The technical approach to executing the project has been divided into four main tasks plus some post-rollout activities – Design, Implement, Test, and Rollout. The specific steps to be taken under each of these main tasks are listed below.

Design

- Deliver early preliminary design that will be distributed to all counties prior to county visits and which illustrates the conceptual system look and feel
- Visit half of the participating counties and collect existing tracking and reporting methods, information on county-specific needs
- Halfway meeting with PMC to discuss county feedback and review any issues
- Visit remaining counties
- Visit with CDFA and review report content, discuss potential changes
- Visit with DMS and review inspection procedures and report content
- Work with TAP on design for changes to CalPEATS
- Determine import/export data interchange needs for any counties wishing to integrate external systems
- Complete system design draft
- Review meeting, final design, review and approve/reject any scope changes

Implement

- Deliver in five increments:
 - 25% complete
 - 50% complete

- 75% complete
 - 90% complete
 - 100% complete
- Review meeting after each delivery with approval of work completed and planning for next increment
- Frequent interim presentations and demonstrations in between specified deliverable stages
- Work with CACASA TAP for additional review/approval of CalPEATS changes
- County-specific configurations (user types, time card categories, county seals, etc) compiled and included in 100% deliverable

Test

- Formal User Acceptance Test (UAT)
- UAT plan and worksheets delivered prior to start of UAT
- Three-week schedule to complete UAT
- UAT environment set up with county-specific data (not a single “test” county)
- Review of changes/corrections from UAT

Rollout

- Six in-person training sessions at various locations throughout state
- Full day training split into modules so staff may not need to attend all modules
- All sessions offered in-person and via web meeting
- All sessions will be recorded, training video compiled and published on Vimeo for additional staff training

Post-Rollout

- Import of historical data
- Additional training sessions if needed
- Intensified system monitoring during first six months of operation

Historical Data Import

We recognize that certain counties will want historical inspection and activity data to be imported into the system, but many counties may not be interested in this task. Therefore, we have not included in the current scope or cost such activities across the board. We recommend further discussion on this topic to establish whether there is sufficient widespread support for the task that we can take advantage of economy of scale and include the historical data import as a group-wide task. If there is not sufficient support, then CaliCo Solutions will work individually with counties desiring historical data to establish a cost and schedule with those counties.

Hosting and Maintenance & Support

We plan to host the entire system on virtual services provided by Amazon Web Services (AWS). The system can either be co-located within the same service cloud as the CalAgPermits and CalPEATS systems, or it can be hosted in its own AWS cloud depending on CACASA's preferences. Either way, the time tracking system will require its own dedicated resources so as not to impact performance of the other systems. The cost of the virtual resources required to run the system is included in the Hosting and Maintenance & Support category.

For maintenance & support (M&S), we propose to operate a similar level of support as we do for CalAgPermits and CalPEATS. All time and direct costs incurred for M&S of this system will be tracked separately from the general CACASA support contract and invoiced to the PMC for review and payment. We propose the following activities be included in the M&S contract:

- Monitoring and maintenance of all required AWS resources, including an annual review of new service offerings that might save money.
- Performance monitoring of all servers and adjustment as necessary.
- Frequent maintenance of operating system software including version updates and security patches, testing all system components after each update.
- Periodic code updates to keep all libraries current and to correct any issues associated with browser version updates, security policy changes, or code library updates.
- Hourly backups of all databases and daily backups of file systems, periodic testing of backups to ensure restorability, management of off-site backups.
- Email help desk with 2-hour response time for urgent issues and 24-hour response time for non-urgent issues.
- Periodic updates and enhancements to the program based on user feedback.

The last item covers small usability improvements and enhancements that will occasionally arise and can be addressed upon approval of the PMC without having to go through a formal purchase order or contract process requiring additional budget approvals from member counties. The more significant enhancements may take months to approve and execute and may even have to wait until a new fiscal year. Requiring that kind of delay for small changes can make users frustrated and make the system less productive for the member counties. We have had very positive results with this approach for the CalAgPermits and CalPEATS systems.

M&S for the first year of operation is often higher than in future years as users become more familiar with the system and the small changes and enhancements make the system easier to learn and use. In addition, we review the AWS setup every year and sometimes find alternative service offerings that give similar performance at a lower price. Therefore, we recommend that the Hosting and M&S costs be reviewed and adjusted each year of the M&S contract period.