

M e m o r a n d u m

Date: July 25, 2008

To: Department of Finance A-15
915 L Street
Sacramento, CA 95814

From: **DEPARTMENT OF CALIFORNIA HIGHWAY PATROL**
Office of the Commissioner

File No.: 1.41.A11488.ITS_Admin.FSR.SACS FSR DOF Memo

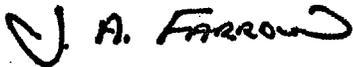
Subject: FEASIBILITY STUDY REPORT FOR STATEWIDE AUTOMATED
CITATION SYSTEM PROJECT

As Commissioner of the California Highway Patrol, I am submitting the attached Feasibility Study Report (FSR) in support of our request for Department of Finance approval of the Statewide Automated Citation System Project.

I certify the FSR was prepared in accordance with State Administrative Manual Sections 4920 through 4930.1

I have reviewed the FSR and consider this project to be critical to the future successful operation of this Department.

Please contact Chief Reginald Chappelle, of the Information Management Division, at (916) 657-7171, if additional information is needed regarding this FSR.



J. A. FARROW
Commissioner

Attachment

cc: Office of the Legislative Analyst

Safety, Service, and Security

Information Technology Project Request



Feasibility Study Report
Executive Approval Transmittal

Department Name

CALIFORNIA HIGHWAY PATROL

Project Title (maximum of 75 characters)

STATEWIDE AUTOMATED CITATION SYSTEM

Project Acronym	Department Priority	Agency Priority
SACS	High	

APPROVAL SIGNATURES

I am submitting the attached Feasibility Study Report (FSR) in support of our request for the Department of Finance (DOF) approval to undertake this project.

I certify that the FSR was prepared in accordance with State Administrative Manual Sections 4920-4930.1 and that the proposed project is consistent with our information technology strategy, as expressed in our current Agency Information Management Strategy (AIMS).

I have reviewed and agree with the information in the attached FSR.

Office of Primary Interest (OPI)		Date Signed
		4/01/08
Printed name:	PATRICIA VALENZUELA	
Chief Information Officer		Date Signed
		4-28-08
Printed name:	REGINALD J. CHAPPELLE	
Budget Officer		Date Signed
		6/26/08
Printed name:	MIEKO S. EPPS	
Information Security Officer		Date Signed
		7/14/08
Printed name:	WALTER A. KENDRICKS	
Assistant Commissioner, Staff		Date Signed
		7/10/08
Printed name:	KEVIN P. GREEN	
Agency Secretary		Date Signed
		7/21/08
Printed name:	DALE E. BONNER	

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION A: EXECUTIVE SUMMARY

1. Submittal Date	April 1, 2008
--------------------------	----------------------

2. Type of Document	FSR	SPR	PSP Only	Other:
	X			
Project Number	TR0810			

3. Project Title	Statewide Automated Citation System	Estimated Project Dates	
		Start	End
Project Acronym	SACS	10/01/2008	09/30/2011

4. Submitting Department	California Highway Patrol
5. Reporting Agency	Business, Transportation and Housing Agency

6. Project Objectives
1 Acquire and deploy commercial-off-the-shelf (COTS) software and handheld devices to electronically capture Notice to Appear, CHP 215, data by officers in the field.
2 Transmit CHP 215 data to the Central Enterprise Database (CED) and Management Information System (MIS) electronically.
3 Electronically transmit CHP 215 data to all California judicial jurisdictions.
4
5
6
7
9

8.	Major Milestones	Est Complete Date
1	Requirements Complete	12/31/2008
2	Design Complete	3/31/2009
3	Software Acquisition Complete	09/09/2009
4	Handheld Device Acquisition Complete	05/19/2010
5	Infrastructure Development Complete	01/05/2010
6	Electronic Data Interchange Complete	05/25/2010
7	Testing Complete	10/12/2010
8	Deployment Complete	09/27/2011
9	Project Complete	09/27/2011
10	PIER	09/30/2012
	Key Deliverables	
1	COTS Software	09/08/2008
2	Handheld Devices	02/25/2009
2	Electronic Data Interchange with CED & MIS	11/05/2008
3	Data Validation Engine	10/22/2008
4	Electronic Data Interchange with AOC	10/02/2009
5	Statewide Deployment	09/30/2011

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION A: EXECUTIVE SUMMARY

7.	Proposed Solution
	<p>A COTS software solution will be acquired utilizing a competitive bid process. The selected COTS software solution in conjunction with an acquired wireless handheld device will serve as the initial data capture point with officers in the field. The data will be transmitted electronically to the CED where it will be maintained for statistical and managerial purposes and appropriate data will be transmitted to the MIS electronically.</p> <p>Finally, the data will be transmitted to an automated communication backbone developed by the Administrative Office of the Courts (AOC) and maintained by the California Courts Technology Center. The Integrated Service Backbone will then conduct a data validation. All accepted records will then move through the California Courts Case Management System to the appropriate judicial jurisdiction's database.</p>

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION B: PROJECT CONTACTS

Project #	TR0810
Doc. Type	Project Summary

Executive Contacts								
	First Name	Last Name	Area Code	Phone #	Ext.	Area Code	Fax #	E-mail
Agency Secretary	Dale	Bonner	916	323-5400		916	323-5440	
Dept. Director	Joe	Farrow	916	657-7152		916	657-7324	jfarrow@chp.ca.gov
Budget Officer	M. S.	Epps	916	375-2733		916	375-2752	mepps@chp.ca.gov
CIO	Reginald	Chappelle	916	657-7171	4202	916	657-8196	rchappelle@chp.ca.gov
Proj. Sponsor	Patricia	Valenzuela	916	453-3800		916	227-2811	pvalenzuela@chp.ca.gov

Direct Contacts								
	First Name	Last Name	Area Code	Phone #	Ext.	Area Code	Fax #	E-mail
Doc. prepared by	Thom	Pryor	916	453-3906		916	227-2811	tpryor@chp.ca.gov
Primary contact	Thom	Pryor	916	453-3906		916	227-2811	tpryor@chp.ca.gov
Project Manager	Thom	Pryor	916	453-3906		916	227-2811	tpryor@chp.ca.gov

**INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION D: BUDGET INFORMATION**

1.	What is the date of your current Operational Recovery Plan (ORP)?	Date	04/2007
2.	What is the date of your current Agency Information Management Strategy (AIMS)?	Date	04/2008
3.	For the proposed project, provide the page reference in your current AIMS and/or strategic business plan.	Doc.	AIMS
		Page #	96

Project #	TR0810
Doc. Type	Project Summary

4.	Is the project reportable to control agencies?	Yes	No
	If YES, CHECK all that apply:		
	a) The project involves a budget action.		
	b) A new system development or acquisition that is specifically required by legislative mandate or is subject to special legislative review as specified in budget control language or other legislation.		
X	c) The estimated total development and acquisition cost exceeds the departmental cost threshold and the project does not meet the criteria of a desktop and mobile computing commodity expenditure (see SAM 4989 – 4989.3).		
	d) The project meets a condition previously imposed by Finance.		

Project #	TR0810
Doc. Type	Project Summary

Budget Augmentation Required?				If YES, indicate fiscal year(s) and associated amount:									
No													
Yes	X			FY	2007/2008	FY	2008/09	FY	2009/10	FY	2010/2011	FY	2011/2012
				\$		\$		\$	12,666,677.00	\$	5,197,622.00	\$	725,500.00

PROJECT COSTS

1.	Fiscal Year	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	TOTAL
2.	One-Time Cost	22,914.00	2,359,555.00	13,426,232.00	6,464,888.00		\$22,273,589.00
3.	Continuing Costs					725,500.00	\$725,500.00
4.	TOTAL PROJECT BUDGET	\$22,914.00	\$2,359,555.00	\$13,426,232.00	\$6,464,888.00	\$725,500.00	\$22,999,089.00

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION D: BUDGET INFORMATION

SOURCES OF FUNDING

5.	General Fund						\$
6.	Redirection	22,914.00	31,555.00	31,555.00	31,555.00		\$117,579.00
7.	Reimbursements						\$
8.	Federal Funds						\$
9.	Special Funds						\$
10.	Grant Funds		597,000.00	728,000.00	1,235,711.00		\$2,560,711.00
11.	Other Funds						\$
12.	PROJECT BUDGET	\$22,914.00	\$628,555.00	\$759,555.00	\$1,267,266.00		\$2,678,290.00

PROJECT FINANCIAL BENEFITS

13.	Cost Savings/Avoidances	\$	\$	\$	\$	\$1,247,784.00	\$1,247,784.00
14.	Revenue Increase	\$	\$	\$	\$	\$	\$

Note: The totals in Item 4 and Item 12 must have the same cost estimate.

**INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION E: VENDOR PROJECT BUDGET**

	\$
Vendor Name	

Project #	TR0810
Doc. Type	Project Summary

VENDOR PROJECT BUDGET

1.	Fiscal Year	2007/2008	2008/2009	2009/2010	2010/2011		TOTAL
2.	Primary Vendor Budget						\$
3.	Independent Oversight Budget						\$
4.	IV&V Budget						\$
5.	Other Budget						
6.	TOTAL VENDOR BUDGET						\$

------(Applies to SPR only)-----

PRIMARY VENDOR HISTORY SPECIFIC TO THIS PROJECT

7.	Primary Vendor	TBD
8.	Contract Start Date	
9.	Contract End Date (projected)	
10.	Amount	\$

PRIMARY VENDOR CONTACTS

	Vendor	First Name	Last Name	Area Code	Phone #	Ext.	Area Code	Fax #	E-mail
11.									
12.									
13.									

**INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION F: RISK ASSESSMENT INFORMATION**

Project #	TR0810
Doc. Type	Project Summary

RISK ASSESSMENT

	Yes	No
Has a Risk Management Plan been developed for this project?	X	

General Comment(s)
<p>With the additional element of collaboration with the AOC for the development of a single transmission point for all courts, there is a risk to successfully achieving the objectives of Office of Traffic Safety Grant TR0810 within the timelines defined in the grant. This risk will be mitigated by developing a close collaboration with the AOC.</p>

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1 Executive Project Approval Transmittal

The completed Transmittal, State Information Management Manual (SIMM) 20, Item A, is located in Section 1 of the Statewide Automated Citation System (SACS) binder.

2 Information Technology: Project Summary Package

The completed Project Summary Package (SIMM 20, Item B) is located in Section 2 of the SACS binder.

3 Business Case

3.1 Business Program Background

Under the authority of California Vehicle Code (VC) Section 40500, and pursuant to Highway Patrol Manual (HPM) 100.9, Enforcement Documents Manual, the California Highway Patrol (CHP) 215, Notice to Appear, may be issued by an officer for, but not limited to, the following purposes.

- As a notice to appear.
- As an arrest complaint.
- For warrant arrests.
- For statistical reporting.
- For allied agency turnovers.
- For parental notification.
- For correctable vehicle condition.

Some of these transactions, such as the parental notification or correctable vehicle condition, are maintained and managed within the Department. Others, such as the notice to appear and arrest complaint are sent to the appropriate California judicial jurisdiction in order to complete the process of prosecution or other legal resolution.

VC Section 40500(d) and Section 853.6(j) of the California Penal Code prohibit the alteration, concealment, modification, nullification, or destruction of any issued CHP 215 before it is filed with the court. Sections 6200 and 6201 of the California Government Code prohibit an officer or any other person from stealing, destroying, mutilating, defacing, altering, or falsifying a CHP 215 as a document of the court.

A CHP officer prepares a paper CHP 215, Notice to Appear, which is then sent to the appropriate judicial jurisdiction, depending on the location of the incident. This document is then entered manually into an electronic system maintained by the court and a letter is generated advising the citizen/citation recipient of their rights and responsibilities, as well as the relevant dates and durations for acceptable tiers of response.

Although an automated system for the creation and transmission of traffic citations has an obvious benefit to the courts, there are also valuable benefits for an automated system to perform many of these functions automatically, saving the officers in the field valuable time and attention. Some data from the CHP 215 is entered into the Management Information System

(MIS) by clerks in each Area office. This information is used to determine workload, enforcement trends, identifying geographic areas of concern for public and/or traffic safety, and as statistics to determine the need for changes for relevant California legal statutes governing traffic safety.

The CHP 215S, Continuation Document, is used as a supplemental document to the CHP 215 when the number of violations is greater than what is provided for on the CHP 215. Any number of CHP 215S may be added to the initial record, depending on the number of violations and several other factors.

In 2004 and 2005, the CHP conducted a project with grant funds on behalf of the Ventura and Los Angeles (LA) County Courts. This project was to conduct a pilot of an automated citation device (ACD) system. The objectives of the ACD project were limited to deploying an automated citation solution to CHP officers within the Ventura and LA counties and transmit traffic citations to the Ventura and LA county courts electronically. A team of consultants were hired and the project completed in late 2005, when the Automated Citation Device system was deployed in five Areas (location codes noted in parenthesis).

1. Baldwin Park (525)
2. West Los Angeles (565)
3. West Valley (580)
4. Ventura (765)
5. Moorpark (770)

The Post Implementation Evaluation Report (PIER), prepared by the Ventura County courts, declared the project a success because the very limited objectives of the project were met. The project's objectives did not, however, include the electronic transmission of CHP 215 data to existing systems within the CHP. Additionally, there was no objective declaring that the system be both effective and efficient and have a reasonable maintenance overhead.

In October of 2007, the Office of Traffic Safety (OTS) approved a grant (TR0810) under Section 408, for the purposes of producing an automated citation system for the CHP that includes the electronic transmission of CHP 215 data to all California judicial jurisdictions (see Attachment A, Conceptual Process Flow – Grant Solution).

3.2 Business Problem or Opportunity

There are three primary business problems this project seeks to address. They are:

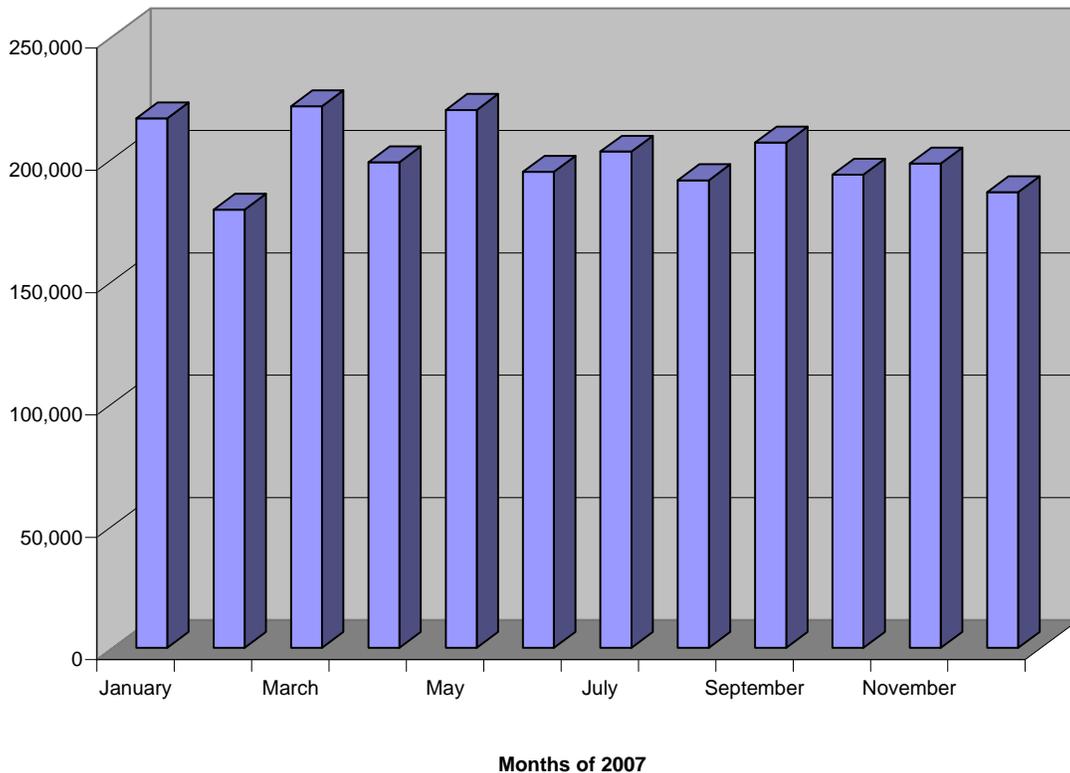
1. Decrease the time necessary to transmit citations to the courts, in order to allow more time for the courts to communicate the public's roles, responsibilities, and duties concerning the proper handling and disposition of the citation.
2. Improve the accuracy and completeness of CHP 215 documentation and limit the inefficient and error prone second tier data entry that currently occurs within the Area offices.
3. Reduce or eliminate duplicate data entry of CHP 215 records.

Problems with the Manual Process

The manual process takes as much as several weeks to process the paper, transmit it to the appropriate jurisdiction, enter it into the appropriate systems, and ultimately provide a notice to the citizen. In this process, the CHP has experienced issues with data accuracy due to a third party reading an officer's handwriting.

Manual System Production Statistics

In the 2007 calendar year, the CHP issued a total of 2,407,223 CHP 215s (all statistics generated from the MIS system). This equates to an average of 200,602 transactions per month. The following chart shows the number of CHP 215s issued per month for the 2007 calendar year.



Of this total CHP 215s, 193,917 were correctable, parental notification, or some other type not reportable to a court. This results in 2,213,306 requiring processing to a California judicial jurisdiction for processing. Per a staffing study conducted in 2006, each CHP 215 requires an average of 2.1 minutes to be entered into the MIS. Some transactions require even more data entry time as they have greater data requirements from the Department of Justice or Federal Motor Carrier Safety Administration.

Assuming the data entry of these transactions is typically being performed by a staff person in the Office Assistant (Typing) or Office Technician classifications (\$14.81 per hour), the CHP is currently expending \$1,247,784.04 annually to enter these transactions into the MIS system. This equates to \$1.93 per citation.

Problems with the current Piloted System

The ACD project deployed a pilot system in 2005. That system was developed using an OTS grant in collaboration with Ventura County. A consultant was engaged to execute the project. In the process the consultant designed custom hardware to be used by the system and a database infrastructure that transmits the citation data to the judicial jurisdiction once each day.

The resulting system received a positive PIER, prepared by the Ventura Supreme Court. However, the PIER did not adequately reflect the number of help tickets generated every day from this system, or the high-degree of maintenance and operational support requirements of this system. Given the relatively low deployment population, this system ranks extraordinarily high on the list of supported systems with help tickets opened each week.

The pilot system has several problems with the stability of the back-end database processes; this causes a high-degree of maintenance and numerous calls from the courts to resolve data transmission failures. This system also utilizes custom front-end hardware that is costly to repair, and difficult to replace.

The pilot system has not been deployed as a long-term supportable application. The project procured a development environment and subsequently promoted that development environment into a test environment and subsequently a beta-test environment. That beta-test environment has subsequently become an ad-hoc production environment with no supporting development or test environment. Further the environment cannot scale to additional capacity due to the hardware being originally configured for development only.

Pilot System Production Statistics

In the combined five Areas in which the pilot system is deployed, there are approximately 600 officers assigned. The following table shows how many officers on average are using the ACD system combined within these five Areas for each of the months of 2007.

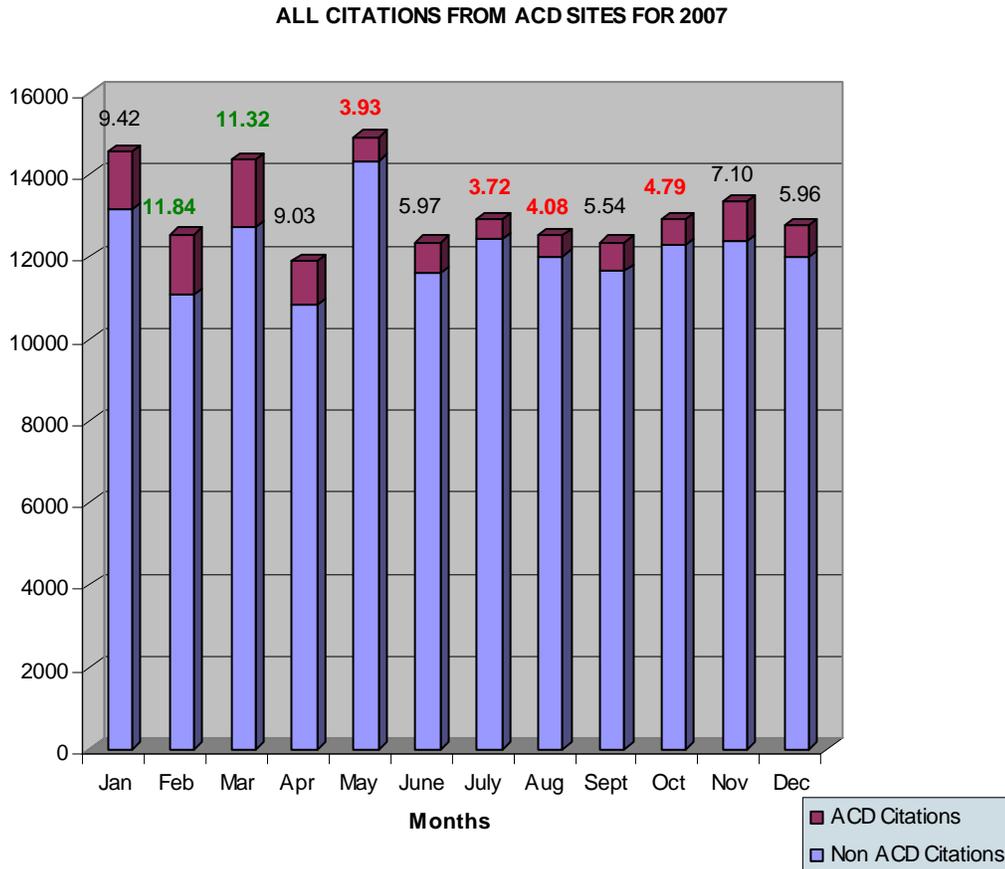
Month	Average Officers Using ACD	Ratio of Officers Using ACD to All Officers
January	13	2.17%
February	14.6	2.43%
March	15	2.50%
April	10.4	1.73%
May	4.8	0.80%
June	6.1	1.02%
July	4.2	0.70%
August	5.4	0.90%
September	6.9	1.15%
October	6.1	1.02%
November	8.4	1.40%
December	8	1.33%
Annual Average	8.6	1.43%

(Source: MIS)

For the 2007 calendar year, these five Areas issued 157,535 total citations. Of these, 10,887 were submitted through the ACD system. This equates to 6.91%. The following table shows the actual activity for each month in the 2007 calendar year. You will notice that 4 of the 12 months failed to submit more than 5% of their total citations using the ACD system. Only two months of the 2007 calendar year exceeded 10%. You will also notice that this ratio has declined throughout the calendar year.

Month	Non ACD Citations	ACD Citations	Ratio of ACD to All Citations	All Citations
Jan	13181	1370	9.42%	14551
Feb	11067	1486	11.84%	12553
Mar	12741	1626	11.32%	14367
Apr	10832	1075	9.03%	11907
May	14351	587	3.93%	14938
June	11629	738	5.97%	12367
July	12443	481	3.72%	12924
Aug	12026	512	4.08%	12538
Sept	11680	685	5.54%	12365
Oct	12290	618	4.79%	12908
Nov	12396	948	7.10%	13344
Dec	12012	761	5.96%	12773
Total	146648	10887	6.91%	157535

The following chart demonstrates this data in graphical terms.



Cost of Support

During the 2007 calendar year, there were 47 Track-It help tickets opened in support of the ACD system. It costs approximately 150 person hours to triage, analyze, and respond to these help tickets. With only one staff programmer analyst sufficiently trained to support the system and that staff person being at the top step of the classification, the help tickets for the ACD system cost \$5,511. Additionally, the job for transmission of records to the courts requires manual intervention. This job is run manually four days per week and requires approximately 3 to 3.5 hours per day of staff time to launch and monitor the job. With the same staff programmer analyst, this costs 624 hours per year at \$36.74 per hour, or \$22,925.76 per year. The grand total for ACD maintenance and operations is \$28,436.76 annually or \$2.61 per citation.

The current manual process is undocumented. However, the worst case scenario is that every record requires one minute to place in an envelope, and one standard first-class (\$.41) stamp for postage. Given the maximum hourly rate for an Office Assistant (Typing) of \$14.81, the total cost of staff time and postage to manually process the records submitted by ACD during the 2007 calendar year is \$7,150.95. This equates to a 68.81% savings. In addition, the Department would realize an opportunity savings by redirecting the efforts of the staff programmer analyst to other project work (Note: This cost does not include the additional cost of key data entry into the MIS).

3.3 Business Objectives

The business objectives of this project are:

1. Increase the timeliness of data to the courts.
2. Improve the accuracy and completeness of data with the CHP's managerial statistics systems.
3. Reduce the cost and overhead required to maintain and administer these transactions.

The objectives of the OTS Grant TR0810 as stated in the submission are:

1. Develop and deploy a statewide automated citation system to all CHP Area offices in all judicial jurisdictions.
2. Purchase wireless handheld devices for the purpose of preparing and issuing electronic traffic enforcement citations for all CHP Offices.
3. Transmit all traffic enforcement citations electronically to all California judicial jurisdictions capable of receiving such transmissions.
4. Transmit all traffic enforcement citation data electronically to all appropriate internal CHP data warehouses, including the Centralized Enterprise Database (CED) and MIS.
5. Eliminate duplicate data entry of traffic enforcement citations within the CHP.
6. Dramatically reduce the processing time of traffic enforcement citations from an average of seven days to an average of two days within all California judicial jurisdictions.
7. Reduce the processing of traffic enforcement citations to no more than two days for all California judicial jurisdictions capable of electronic data processing.

3.4 Business Functional Requirements

See Attachments B and C.

4 Baseline Analysis

4.1 Current Method

Today, in most of the state, the paper system described above is the only acceptable method for processing these transactions. The officer prepares a CHP 215 in the field, the citizen signs the form. The form is then brought into the Area office where a clerk keys the data into the MIS system, packages the form with any others that go to the same district court office, and mails the form to the court. The court then verifies that the form is prepared correctly, enters the accurate forms into their own computer system, and sends an advice notice to the citizen notifying them of their rights and responsibilities concerning the payment of bail, fines, or other fees and the availability of a court date with a judge or other designated hearing officer. Forms that are found to be incomplete or containing errors are returned to the CHP for corrections, which ultimately may delay the balance of the process or cause the citation to be dismissed. Some judicial jurisdictions have been known to simply not prosecute a citizen because the citation contained so many errors. While this instance is rare, the implications on the safety and security of California's highways can be significant.

In the offices where the ACD system is in place, the Mobile Digital Wireless Device (MDWD) is used by the officer to prepare the CHP 215; the form is signed by the citizen using a stylus on the MDWD. The electronic document is brought into the office using a thumb drive, where it goes into a data repository as a file, rather than as individual data elements. The next working day, the record is transmitted using a File Transfer Protocol site, to the appropriate court. The only electronic data maintained about the transmission transaction is the number of transactions transmitted and the name of the receiving court. In the Area office, the document is printed and the data is keyed into the MIS system.

4.2 Technical Environment

The following assumptions and constraints have been identified as factors that could impact the implementation of the proposed solution:

4.3 Assumptions

1. There are sufficient commercial-off-the-shelf (COTS) solutions within the market place to allow for a successful competitive bid process.
2. The selected COTS solution will be able to interface with the CED as the sole back-end data repository within CHP.
3. The selected COTS solution will accommodate any additional review, approved, and/or digital signature requirements that may arise during the requirements and design phase of the project.

4.4 Constraints

1. The wide variety of technologies currently employed by the courts for the purposes of case management.
2. Limitations in CHP staffing availability require that this project be staffed using consulting services.

4.5 Existing Infrastructure

The CED is a SQL server database maintained within the wide area network. In addition to the database functionality, this system also contains a data validation engine that can be leveraged for CHP 215 transaction to ensure that all data is present and accurate within the defined standards and ranges.

5 Proposed Solution

5.1 Solution Description

A COTS software solution will be acquired utilizing a competitive bid process. The selected COTS software solution in conjunction with an acquired wireless handheld device will serve as the initial data capture point with officers in the field. The data will be transmitted electronically to the CED where it will be maintained for statistical and managerial purposes and appropriate data will be transmitted to the MIS electronically.

Finally, the data will be transmitted to an automated communication backbone developed by the Administrative Office of the Courts (AOC) and maintained by the California Courts Technology Center (CCTC). The Integrated Service Backbone (ISB) will then conduct a data validation. All accepted records will then move through the California Courts Case Management System (CCMS) to the appropriate judicial jurisdiction's database (see Attachment D, Conceptual Process Flow – AOC Partnership). The AOC's Electronic Citations (eCitations) project, which is the vehicle for deploying the ISB, plans to meet the following objectives, relevant to the objectives of the SACS project:

1. Publish a single extensible markup language (XML) data transmission model for citations coming to the AOC. This model is based on the next generation of the Global Justice XML Data Model (GJXDM), called National Information Exchange Model.
2. The AOC will use a virtual statewide repository by linking to each of the courts for statewide data views.
3. Process all citations through a data exchange layer within their ISB.
4. Perform data validation on the AOC's side of the incoming transaction. However, they will share their validation rules with the CHP so the SACS solution can make sure the transaction submitted is clean. The only time the CHP should get a record rejection from the ISB is when a rule has changed that has not yet been incorporated into CHP's system, or an error occurs due to a technical problem (schema error, etc.). Errors will be submitted back to CHP's repository and CHP will be responsible for deciding how far back to populate the error in order to obtain an accurate transaction.

With these objectives met, the CHP, the state's law enforcement community, and the public would be best served through a close collaboration on these projects. The results of this collaboration will be no less than a remarkable integration of data processing and management within the law enforcement and adjudication arena.

Additionally, the CHP's project would greatly benefit from AOC's coordination with the courts on data transmission. There are obvious risks associated with this depth of collaboration, as each of these projects (eCitations and SACS) will depend on the other for achieving some of its goals.

These risks will be mitigated through close communication throughout the project's life cycle at all levels of management.

The following diagrams depict the interfaces between the various partner organizations and the courts. These diagrams are drawn from a presentation prepared by the AOC on the ISB.

Diagram 1

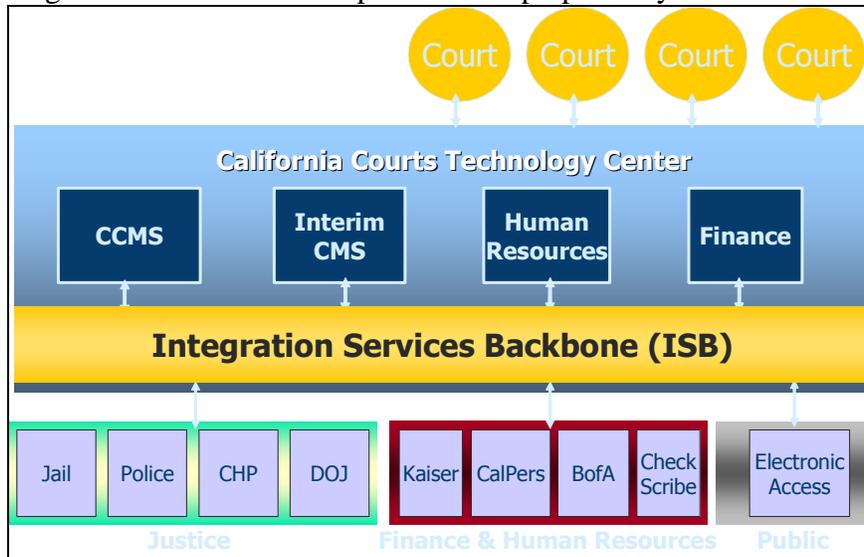


Diagram 2

Diagram 1 depicts the relationships between the justice partners (bottom left), such as police, DOJ, the CHP, and various court jurisdictions (upper right) as they interact with the ISB to share information and data.

Diagram 2 depicts the communication between the justice partners, the various court jurisdictions, and the CCTC as the owner and maintainer of this integrated data management solution for the courts.

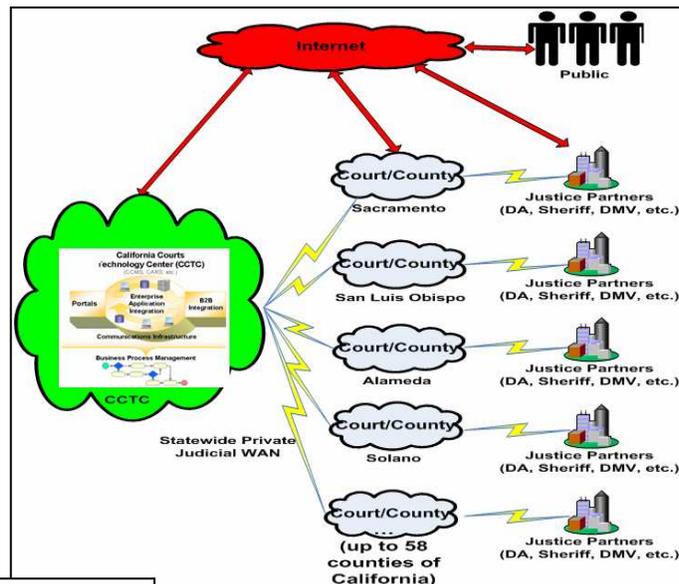


Diagram 3

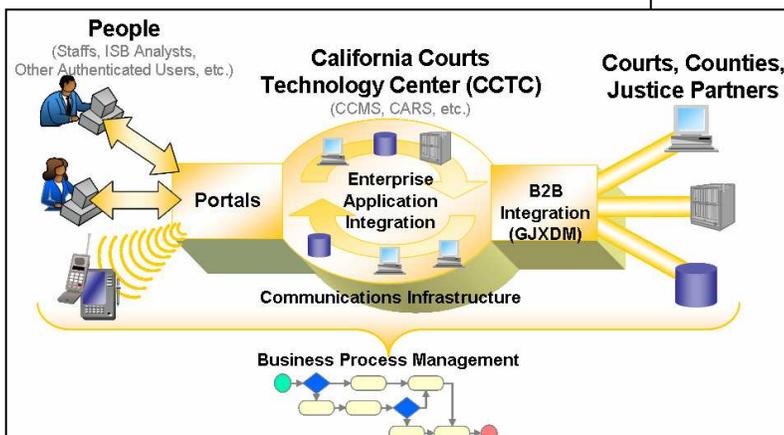


Diagram 3 depicts the CCTC's role in maintaining the various components of the courts Enterprise Application architecture.

5.1.1 Hardware

5.1.1.1 Development (Existing)

The proposed solution requires a web server for handling transactions back and forth during electronic review and acceptance process. The server hardware configuration is as follows:

Database/Web Server

- Processors - Dual Processor (2-3 GHz) Intel/AMD
- 200 GB Storage in RAID-5 Configuration
- 2 GB RAM
- GB PCI-X Network Card
- Windows Server 2003 w/IIS
- SQL Server 2000

5.1.1.2 Test/QA (Existing)

Database Server

- Processors - Dual Processor (2-3 GHz) Intel/AMD
- 200 GB Storage in RAID-5 Configuration
- 4 GB RAM
- 1-2 GB PCI-X Network Card
- Windows Server 2003
- SQL Server 2000

Web Server

- Processors - Single Processor (2-3 GHz) Intel/AMD
- 50 GB Storage (RAID or Mirrored)
- 2 GB RAM
- 1-2 GB PCI-X Network Card
- Windows Server 2003 w/IIS

5.1.1.3 Production (New)

Web Server

- Processors - Dual Processor (2-3 GHz) Intel/AMD
- 50 GB Storage (RAID or Mirrored)
- 2 GB RAM
- 1-2 GB PCI-X Network Card
- Windows Server 2003 w/IIS

5.1.2 Software

5.1.2.1 Operating System (OS)

Web Server:

- Windows Server 2003 w/IIS

5.1.2.2 Application Software

Web Server:

- Altova XML Tools
- Serena Database Management and Version Control tools
- MS Visual Studio 2005
- .NET Framework 2.1

5.1.3 Development Approach

All custom development will be completed using consultant technicians.

The project team will use the Joint Application Development (JAD) methodology for this project through structured JAD sessions scheduled throughout the System Development Life Cycle (SDLC).

5.1.4 Technical Interfaces

In the proposed solution, one of the objectives is to design and build an electronic data interface between the CHP and the courts with a web service in the middle tier for data/rules validation. The use of web technologies is expected to overcome any issues related to divergent technologies used by CHP and the courts. This solution allows for maximum flexibility in integrating with a wide variety of technological platforms currently existing in the courts.

5.1.5 Testing Plan

A test plan will be developed with test cases and scripts for thoroughly testing all the business requirements. Unit testing will be performed by individual programmers and a software build would be released for quality assurance (QA) system testing. Every effort will be made to install the QA version on all deployed laptop and desktop configurations. An effort will be made in collaboration with CHP's Information Management Division, Information Technology Section (ITS), Infrastructure Services Group, Technical Services and Network Services Teams to analyze the technical environment in the field and simulate the environment in the project's test environment.

Beta testing will be conducted with the AOC in order to obtain test data from various hardware configurations and platforms.

5.1.6 Resource Requirements

The procurement of consultant resources will utilize existing California Multiple Award Schedule vendors. The procurement of software and hardware will leverage existing Department of General Services statewide acquisition vehicles available at the time of purchase (currently the California Strategic Sourcing Initiative). The actual infrastructure needs will be defined as a part of the design phase, once the detailed requirements have been completed.

Consultants will be obtained for the following roles:

- Application Architect
- Database Architect
- Network Architect

5.1.7 Training Plan

Prior to beta release to selected courts, trainers and CHP support staff will be trained. A detailed training plan will be developed outlining the schedule, training materials, and location of the training for all areas.

5.1.8 On-going Maintenance

On-going operations and maintenance will be done by new CHP personnel within ITS. Most database maintenance will be scheduled as a nightly batch process to avoid disruptions to field operations. A detailed maintenance and operations plan would be developed and published prior to deployment.

5.1.9 Information Security and Confidentiality

Some information collected as a part of a citation may be confidential, such as driver license number, etc. All data transmissions will be encrypted in compliance with state and federal standards. The CHP Information Security Officer will have responsibility for architectural review and approval to ensure security requirements.

5.1.10 Consistency with Overall Strategies

The proposed project is in alignment with the Agency Information Management Strategy and can be found on Page 96 of the report (1.5 E-Government Strategy). The project is in alignment with Goal 2 (Strategy 2 - *Collaborate with allied agencies and other traffic safety stakeholders to assess community needs*, and Strategy 3 - *Improve the quality and timeliness of reports*) of the CHP's Strategic Business Plan. This is also consistent with Goal 1 (Objective 1 - *Develop a Foundation for Transforming Government*, and Objective 4 - *Promote Interagency and Intergovernmental Data Sharing*) and Goal 4 (Objectives 1 - *Adopt a Statewide Enterprise Architecture Methodology and Technology Standards*, 14) of the State's Information Technology (IT) Strategic Plan.

5.1.11 Backup and Operational Recovery

The Backup and Recovery plan for this project will be consistent with the Department's policy as stated in HPM 40.4, Information Security and Administration Manual, Chapter 2.

5.1.12 Public Access

The proposed solution will not provide direct public access to state databases by private sector organizations or individuals from CHP systems. Public access is anticipated through the CCTC's CCMS.

5.1.13 Cost and Benefits

There are three funding sources for this project. The first is OTS Grant TR0810. The grant funds three consultants and a limited amount of hardware. The second source is the Records Management System project, which funds the majority of the hardware costs. A budget change proposal has also been submitted to fund two new positions to support the deployed solution and \$1.8 million for COTS software. On-going costs total \$725,500 for a total project cost of \$22,881,500.

The total cost of this proposal includes staffing resources, hardware (Server & [3,500] handheld devices), and software estimates. The one-time development and acquisition costs for the proposed solution are estimated to be at \$22,156,000 (see OTS Grant TR0810 for original estimate) for fiscal years 2007/08 through 2011/12.

The on-going maintenance and operations costs associated with the proposal include staff salaries and benefits totaling \$725,500 (2 Personnel Years [PYs]) annually for new positions to perform maintenance and support activities. A detailed analysis of the economics associated with the proposed solution has been provided in the Economic Analysis Worksheets (EAW), Attachment G.

Existing infrastructure may require augmentation to support the proposed solution. These costs will be developed upon selection of the COTS software solution and in collaboration with the COTS provider.

The benefits of this proposal include the reduction of data entry to multiple systems, the improvement of transaction accuracy through electronic data validation, and an improvement in the notification time to the public.

5.1.14 Sources of Funding

The funds for this project have been obtained through an OTS grant. Grant TR0810 funds all consulting and some hardware expenditures. Additional funds have been requested through a budget change proposal for the balance of the hardware and software costs.

5.2 Rationale for Selection

Pros & Cons of the Proposed Solution

Pros

- All business objectives will be met.
- No added burden will be placed on the already limited technical staffing resources of the Department.
- The front-end solution will benefit from a high degree of maturity in the various products already available on the consumer market.
- This proposal leverages a substantial investment being made by the AOC.
- The AOC will own and maintain the ISB, thus reducing on-going costs to the CHP.
- Travel for collaboration in the development of the transmission to the courts will be limited.
- In the event of needed changes to the front-end application, the work will be performed by the COTS supplier.
- Front-end training will be provided by the COTS supplier.

Cons

- A high degree of risk is present in the timely achievement of the objectives of the OTS grant TR0810. This risk can be mitigated but not eliminated.
- This solution will require a substantial open-industry procurement that will require more time than was assumed within the grant.

Pros & Cons of Alternative #1

Pros

- All business objectives will be met.
- All work is within the span of control of the CHP.

Cons

- With all development work being performed by consultants, a substantial amount of knowledge transfer will be required in order for CHP staff to maintain the deployed solution.
- Any future changes to the front-end will be the responsibility of the CHP placing a greater strain on an already limited resource pool.
- The initial maturity of the product will be limited and subsequent efforts to deploy improvements may be substantial.

Pros & Cons of Alternative #2

Pros

- All business objectives will be met.
- No added burden will be placed on the already limited technical staffing resources of the Department.
- The front-end solution will benefit from a high degree of maturity in the various products already available on the consumer market.
- All work is within the span of control of the CHP.

Cons

- This solution will require a substantial open-industry procurement that will require more time than was assumed within the grant.

Pros & Cons of Alternative #3

Pros

- All business objectives will be met.
- This proposal leverages a substantial investment being made by the AOC.
- The AOC will own and maintain the ISB, thus reducing on-going costs to the CHP.
- Travel for collaboration in the development of the transmission to the courts will be limited.

Cons

- With all development work being performed by consultants, a substantial amount of knowledge transfer will be required in order for CHP staff to maintain the deployed solution.
- Any future changes to the front-end will be the responsibility of the CHP placing a greater strain on an already limited resource pool.
- The initial maturity of the product will be limited and subsequent efforts to deploy improvements may be substantial.
- A high degree of risk is present in the timely achievement of the objectives of the OTS Grant TR0810. This risk can be mitigated but not eliminated.

5.3 Other Alternatives Considered

5.3.1 Describing Alternatives

5.3.1.1 Alternative 1

Develop a custom front-end application to capture CHP 215s in the field. The solution includes a direct interface with the CED database and transmission of CHP 215s directly to each judicial jurisdiction.

This solution would involve a transmission infrastructure to be put into place with a direct interface between the CHP and all California courts. The development of this interface would require a substantial degree of research and requirements development in coordination with the courts.

This alternative is estimated to cost approximately \$20,776,000. The one-time costs include development of the front-end application using consulting services for all analysis, programming, planning and deployment, and in-state travel to gather requirements from the courts.

The on-going costs include two new staff programmer analysts and one associate information systems analyst for internal support and maintenance of the back-end infrastructure.

The primary benefit of this solution is that the entire project is within the control of the CHP which limits the risk of the CHP's ability to meet the objectives of OTS Grant TR0810 within the scope and timeline specified within the grant.

5.3.1.2 Alternative 2

Acquire a COTS front-end application to capture CHP 215s in the field. The solution includes a direct interface with the CED database and transmission of CHP 215s directly to each judicial jurisdiction.

This solution would involve a transmission infrastructure to be put into place with a direct interface between the CHP and all California courts. The development of this interface would require a substantial degree of research and requirements development in coordination with the courts.

This alternative is estimated to cost approximately \$22,881,500. The one-time costs include acquisition of the front-end application software, hardware, and infrastructure using consulting services for all analysis, acquisition, planning and deployment, and in-state travel to gather requirements from the courts.

The on-going costs include one new staff programmer analyst and one associate information systems analyst for internal support and maintenance of the back-end infrastructure and a maintenance and support contract with the COTS provider.

In addition to the benefit of this solution being within the control of the CHP which limits the risk of the CHP ability to meet the objectives of OTS Grant TR0810 within the scope and timeline specified within the grant, a further benefit is the lack of availability of a variety of mature products within the commercial market that already satisfies the requirements of the CHP 215 front-end.

5.3.1.3 Alternative 3

Develop a custom front-end application to capture CHP 215s in the field. The solution includes an interface with the AOCs ISB. The CHP will transmit of CHP 215s to the ISB and all subsequent distribution will take place by the ISB.

This solution would involve a limited transmission infrastructure between the CHP and the ISB. This solution will have no direct interface with individual courts.

This alternative is estimated to cost approximately \$20,541,500. The one-time costs include development of the front-end application using consulting services for all analysis, programming, planning and deployment, and limited travel to coordinate with the AOC on the development of the interface between the CHP and the ISB.

The on-going costs include one new staff programmer analyst and one associate information systems analyst for internal support and maintenance of the custom front-end and back-end infrastructure for transmission to the ISB.

The primary benefit of this solution is in the collaboration with the AOC. This solution, unlike Alternatives 1 & 2, would benefit the state by leveraging the already planned interface being developed by the AOC. It does, however, increase the risk of failing to achieve the objectives of OTS Grant TR0810, as the interface with the courts would be under the control of the AOC. This risk can be mitigated through close collaboration with the AOC, but not completely so.

6 Project Management Plan

6.1 Project Manager Qualifications

The proposed project manager for this effort is Thom Pryor. Mr. Pryor has been a Data Processing Manager II for the ITS, Application Services Group, Field Applications Unit for over two years. In his current capacity, he has provided oversight of one high profile project and numerous others managed by subordinate staff. Additionally, Mr. Pryor spent four years managing the Project Management Office of the Employment Development Department.

Mr. Pryor has over 15 years of service with the State of California and 10 years of service in the private sector doing progressively more complex work in application analysis, application development, application integration, and management. Mr. Pryor has successfully managed both IT and non-IT projects ranging from \$100,000 to \$10 million and also holds a Project Management Professional certification from the Project Management Institute. Mr. Pryor also teaches Scope, Integration and Risk management for the University of Davis Learning Extension.

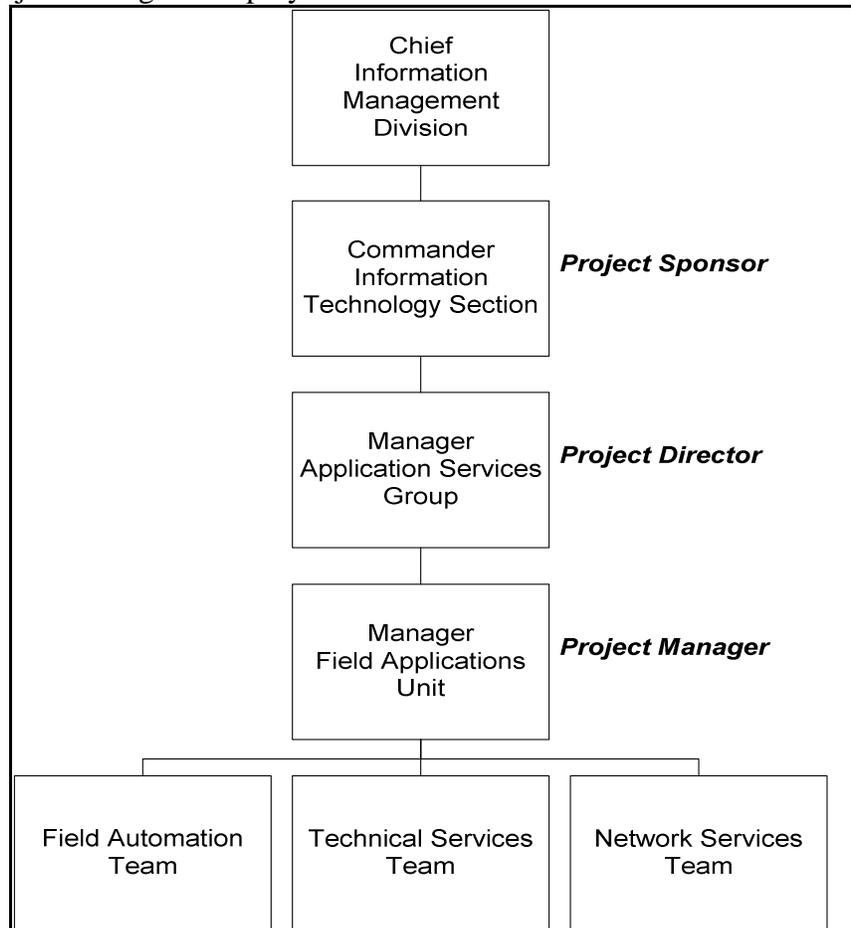
6.2 Project Management Methodology

The ITS has incorporated the use of the Project Management Methodology (PMM) from the Employment Development Department as the framework for all project management processes and procedures. This methodology is published to all staff and managers and incorporates all of the industry accepted processes as defined in the 2004 Project Management Body of Knowledge. This methodology contains a complete set of templates and provides scalability for the application of its processes based on the relative complexity, size, and criticality of the project.

This project initially is considered a low risk, low complexity project, as it involves little or not new application development and the existing hardcopy business process is sustainable. The primary risk involves the acquisition of hardware and software for a deployment that is expected to take multiple years. To mitigate this risk, the acquisition specifications will allow for technological change through the life cycle of the deployment with subsequent retesting to ensure new hardware or software versions remain fully functional within the context of the production environment.

6.3 Project Organization

The following organizational chart reflects the staffing and managerial hierarchy that will oversee this project through its deployment.



6.4 Project Priorities

This project is considered a high priority by the CHP because of the value the Department places on the timely transmission of records to the courts and the electronic transmission of transactions to internal managerial and statistical systems. While the project is being funded in part by an OTS grant, the scope of the project is fixed. The schedule is the most flexible baseline condition due to the existence of a stable production environment.

Schedule	Scope	Resources
improved	constrained	accepted

6.5 Project Plan

6.5.1 Project Scope

The scope of this project is as follows:

1. All data is entered into the automated citation system once, regardless of judicial jurisdiction or system interface requirements.
2. Deploy wireless handheld electronic traffic citation devices to all CHP officers.
3. All jurisdictions receive electronic citation data within two business days with 99.9999% accuracy.
4. The system will accommodate all unique business rules for all California court jurisdictions.

The project's scope will be managed as described within the PMM to ensure that changes to scope are reflected in all other baselines and that appropriate administrative controls and reporting occur and prescribed within the SIMM.

6.5.2 Project Assumptions

- The project will be approved by the Department of Finance.
- Review and approval will be completed by September 1, 2008.
- Any change in departmental leadership will not affect the approval of the project.
- The availability of funds as currently allocated and approved.
- The AOC will own and maintain the ISB.
- The CHP will maintain a close collaborative relationship with the AOC for the development and deployment of the back-end transmission architecture.
- The COTS supplier will provide all training and on-going support associated with the front-end solution.

6.5.3 Project Phasing

This project will be conducted in a single phase. The project will employ an industry accepted SDLC model for the requirements, design, development, testing, and deployment of the various applications within the scope of this effort. JAD sessions will be used to refine both business and technical requirements and specifications.

Project Phase	Phase Deliverables
Requirements	<ul style="list-style-type: none"> • Hardware Requirements • Software Requirements • Data Validation Requirements
Design	<ul style="list-style-type: none"> • Infrastructure Design • Data Transmission Design • Data Processing Service Design • Database Design
Development	<ul style="list-style-type: none"> • Software and Hardware Acquisition and Deployment • Data Transmission Schema and Service • Data Validation Service • Database Design Schema
Test	<ul style="list-style-type: none"> • System Test • Unit Test • Integration Test • Regression Test • Beta Test
Deployment	<ul style="list-style-type: none"> • Handheld Devices and COTS Software to Field • Data Validation Service • Data Transmission Service

6.5.4 Roles and Responsibilities

6.5.4.1 Project Sponsor

The project sponsor will have responsibility for obtaining funding, human resources, and administrative approvals for all project related work.

The project sponsor also provides high-level oversight to the project to ensure that all administrative controls are adhered to and that the appropriate documentation is transmitted to relevant control agencies according to the SIMM.

6.5.4.2 Project Director

The project director is responsible for detailed oversight of the project to assure quality of both the administrative functions and the products as prescribed within the approved scope baseline.

6.5.4.3 Project Manager

The project manager is responsible for ensuring the day-to-day operations of the project are monitored and that all baselines (scope, schedule, and cost) are tracked, maintained, or changed according to the approved processes and procedures of the project.

The project manager is responsible for all vendor management, including the solicitation, acquisition, and oversight of consulting services and commodity vendors.

The project manager is also responsible for all communication management to ensure that customer, executives, control agencies, and other stakeholders are kept apprised of the status of the project and its adherence to all relevant processes, procedures, and requirements set down within the PMM and SIMM.

6.5.5 Project Schedule

See Attachment E for a complete project schedule (Microsoft Project 2000 format) that incorporates the scope as outlined in Section 6.5.1 of this document.

6.6 Project Monitoring

The oversight of this project will be assigned to Larry Smith, manager of the ITS Application Services Group. Mr. Smith has served in a variety of progressively complex roles within the state's IT community and has demonstrated a clear understanding of the Department of Finance's Oversight Framework.

6.7 Project Quality

In order to ensure the deployment of a high-quality product, the team will use the following quality assurance techniques:

- Statement of Work Walkthroughs
- Requirements Traceability Matrix
- Customer Quality Assurance Walkthroughs

6.8 Change Management

The Change Review Board (CRB) will be convened for this project. The CRB will be responsible for defining what change authority is given to the project manager and project sponsor. The CRB will review and approve all changes to the project's baselines, including scope, schedule, and cost.

The CRB will maintain a database of changes. This database will automatically trigger the development of a Special Project Report; if/when the change to any baseline reaches the regulatory threshold of 10%.

6.9 Authorization Required

Authorization will be required for any change to any baseline (scope, schedule, or cost) of greater than 2%, or that results in a substantive increase in the risk or complexity profile of the project (see Section 7.0, below, for initial risk profile).

7 Risk Management Plan

The project's Risk Management Plan will document the processes and procedures used to identify risks associated with the project and how they will be managed. The project will follow the risk management processes identified in the PMM and the SIMM.

7.1 Risk Management Work Sheet

See Attachment F.

7.1.1 Assessment

The Risk Management Worksheet identifies the potential sources of risk associated with this project. The risks identified on the worksheet will be re-evaluated on a monthly basis throughout the project. In addition, the project manager will include all identified risks in the detailed project plan using standard project management planning tools. This plan will encompass the entire structure of the project and its deliverables, providing a comprehensive framework for assessing each aspect of the project for potential risk.

7.1.2 Risk Identification

Staff identified potential internal and external risks. The following tools were used to aid in the identification of risks:

- IT PMM Categories and Examples of Risk
- Work Breakdown Structure
- Historical Information
- Project Team Brainstorming

7.1.3 Risk Analysis and Quantification

The risk session facilitated the evaluation of identified risks to assess the range of possible project outcomes. Each identified risk was fully discussed and understood during the decision-making process. The risk analysis and quantification process led to the production of the Risk Management Worksheet and documented the sources of risk and risk events that the project team decided to accept.

7.1.4 Risk Prioritization

During the risk session, the identified risks were ranked and the potential impact or consequence to mission and business objectives were considered.

7.1.5 Risk Response

The risk session identified the factors of schedule, resources, and stakeholder risk tolerances. The project manager is identified to have the responsibility to respond to risk areas, which include avoidance, acceptance, mitigation, sharing, and project oversight.

7.1.6 Risk Avoidance

The risk session produced preventive and contingency measures to eliminate the risk or lessen the risk impact to the project.

7.1.7 Risk Acceptance

Each member of the risk session agreed to accept each risk event and the consequences.

7.1.8 Risk Mitigation

Risk mitigation measures were identified during the session.

7.1.9 Risk Sharing

The project manager will be responsible to delegate and manage those activities that have an associated risk factor. The sharing of risk will be accomplished through the employment of consultants. Well defined statements of work will allow for the mitigation of these shared risks.

7.2 Risk Tracking and Control

7.2.1 Risk Tracking

The project manager will be responsible for establishing and maintaining risk status information, defining action plans, and taking corrective action when appropriate. Risks will be formally reviewed on a monthly basis, or more frequently if required. Risk escalation requirements as defined in the SIMM will be followed. The Risk Management Plan will be used in order to respond to risk events throughout the life of the project.

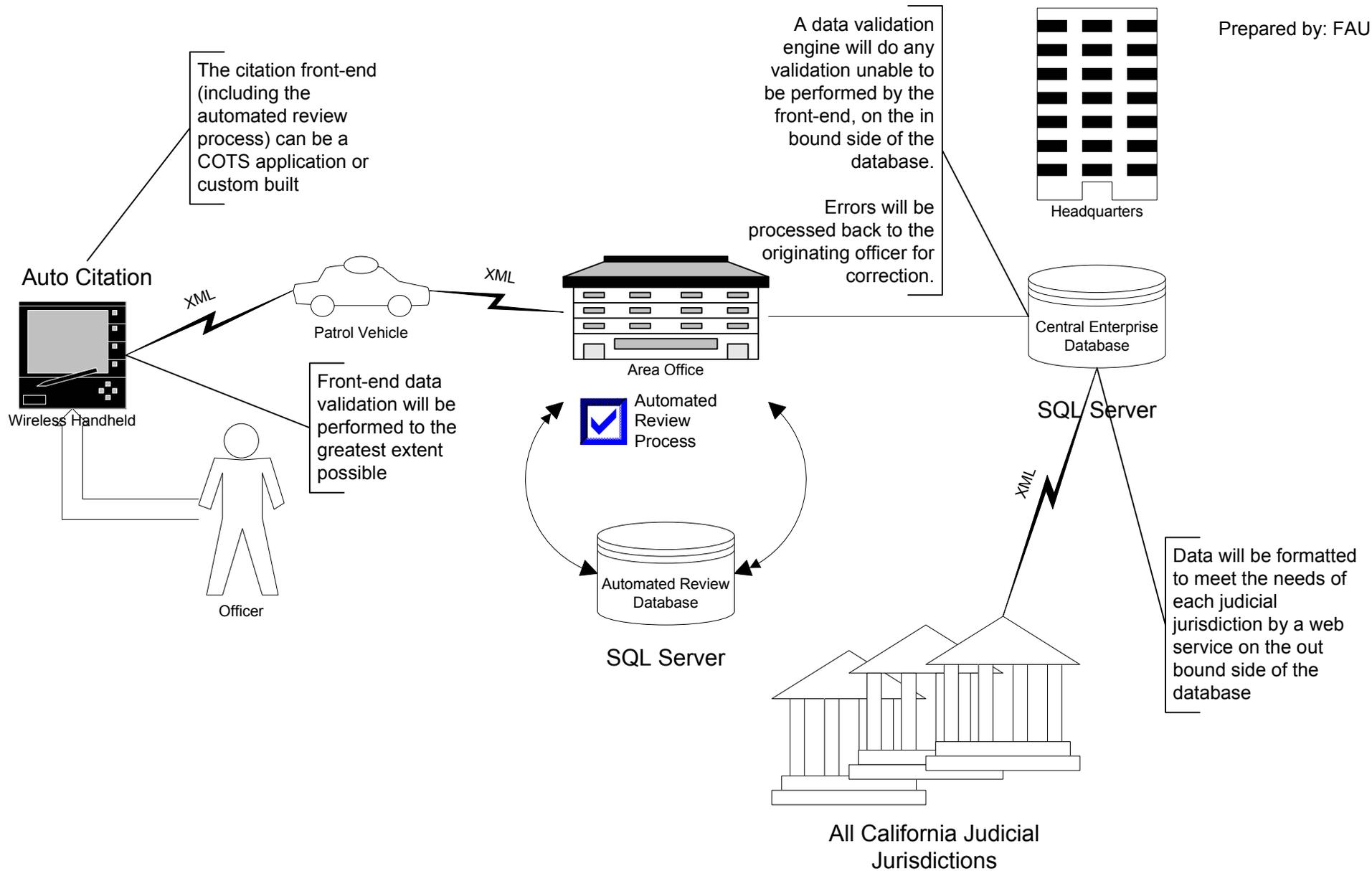
7.2.2 Risk Control

The project manager will oversee the execution of the Risk Management Plan in order to respond to risk events before they become serious problems. The project manager will also ensure that risk procedures are documented and executed according to the plan. As anticipated risk events occur or fail to occur, and as actual risk events are evaluated and resolved, the project manager will routinely update the Risk Management Plan.

8 Economic Analysis Worksheets (EAWS)

The completed EAWS (SIMM 20, Item C) are located in Section 4 Attachment G of the SACS binder.

Prepared by: FAU



**STATEWIDE AUTOMATED CITATION SYSTEM (SACS)
VERSION 1.0
FUNCTIONAL REQUIREMENTS**

1.0 Objective #1

Deploy an electronic device and software to capture Notice to Appear, CHP 215, by officers in the field.

1.1 Requirement #1

Acquire systems based on the technical specifications.

Description: Work with the vendor team to develop detailed specifications, prepare acquisitions paperwork, receive product, and deploy systems to all officers deployed to the field.

Criticality: Critical for overall system.

Technical Issues:

1. System specifications must support software solution.
2. System specifications must be general as to allow for multiple vendors to provide systems over the lifecycle of the production deployment.

Dependencies: Interaction with off-the-shelf product to be acquired.

Inputs	Outputs	Files	Scope of Effort	Security Requirements	Interface Requirements
Form Data	TBD based on acquired software solution	Various	1	All data in motion must be encrypted	Central Enterprise Database (CED) and Management Information System (MIS)

1.2 Requirement #2

Obtain a commercial off the shelf (COTS) software product for capturing CHP 215 data.

Description: Using the current approved version of the CHP 215, develop specifications, acquire, and deploy software.

Criticality: Critical for overall system.

Technical Issues:

1. Software must function within the handheld device (see Requirement #1).
2. Software must capture all data elements of the approved form.
3. Software manufacturer must demonstrate a commitment to maintaining the software in the event of form changes.

Dependencies: Handheld Devices (See 1.1).

Inputs	Outputs	Files	Scope of Effort	Security Requirements	Interface Requirements
Form Data	TBD based on acquired software solution	Various	1	All data in motion must be encrypted	CED and MIS

2.0 Objective #2

Transmit CHP 215 data electronically to the CED and MIS.

2.1 Requirement #1

Design and develop server infrastructure capable of transmitting all CHP 215 data from automated citation devices to the CED and MIS with minimal user interaction.

Description: Development infrastructure, data model, and transmission protocols and deploy a data transmission solution for CHP 215 data to the CED and MIS.

Criticality: Critical for overall system.

Technical Issues:

1. Apply current security policies and procedures.
2. The solution must work with the COTS software solution with minimal user interaction.

Dependencies: Acquisition and deployment of COTS solution.

Inputs	Outputs	Files	Scope of Effort	Security Requirements	Interface Requirements
Form Data	TBD	Various	1	All data must be encrypted	Data to CED & MIS

2.2 Requirement #2

Validate CHP 215 form data before acceptance into the CED and MIS.

Description: Develop data validation rules and engine to ensure the accuracy of CHP 215 data prior to acceptance into the CED and/or MIS system.

Criticality: Critical for overall system.

Technical Issues:

1. Apply current security policies and procedures.
2. Data validation engine must function effectively with the COTS solution.

Dependencies: COTS acquisition and deployment.

Inputs	Outputs	Files	Scope of Effort	Security Requirements	Interface Requirements
Form Data with validation rules	TBD	Various	1	All data must be encrypted	Data to CED & MIS

3.0 Objective #3

Transmit CHP 215 data to appropriate judicial jurisdiction.

3.1 Requirement #1

Design and develop a web-based service to transmit data to the appropriate judicial jurisdiction.

Description: Work with the Administrative Office of the Courts (AOC) to design and develop a service to transmit CHP 215 data using an extensible markup language (XML) data model to the appropriate judicial jurisdiction.

Criticality: Critical for overall system.

Technical Issues:

1. Apply current security policies and procedures.
2. Data must be validated before transmission.
3. Error handling must populate rejected errors back to the originator (see 3.2).

Dependencies: Requires the completion of all above requirements.

Inputs	Outputs	Files	Scope of Effort	Security Requirements	Interface Requirements
Form Data with validation rules	XML	Various	1	All data must be encrypted	Data to CED & MIS

3.2 Requirement #2

Develop error handling to address the rejection of records by the AOC system.

Description: Work with the AOC to develop a system that will handle errors, in the form of records rejected for transmission, from the AOC system.

Criticality: Critical for overall system.

Technical Issues:

1. Apply current security policies and procedures.
2. Solution must transmit rejected records back to the originator.

Dependencies: See 3.1.

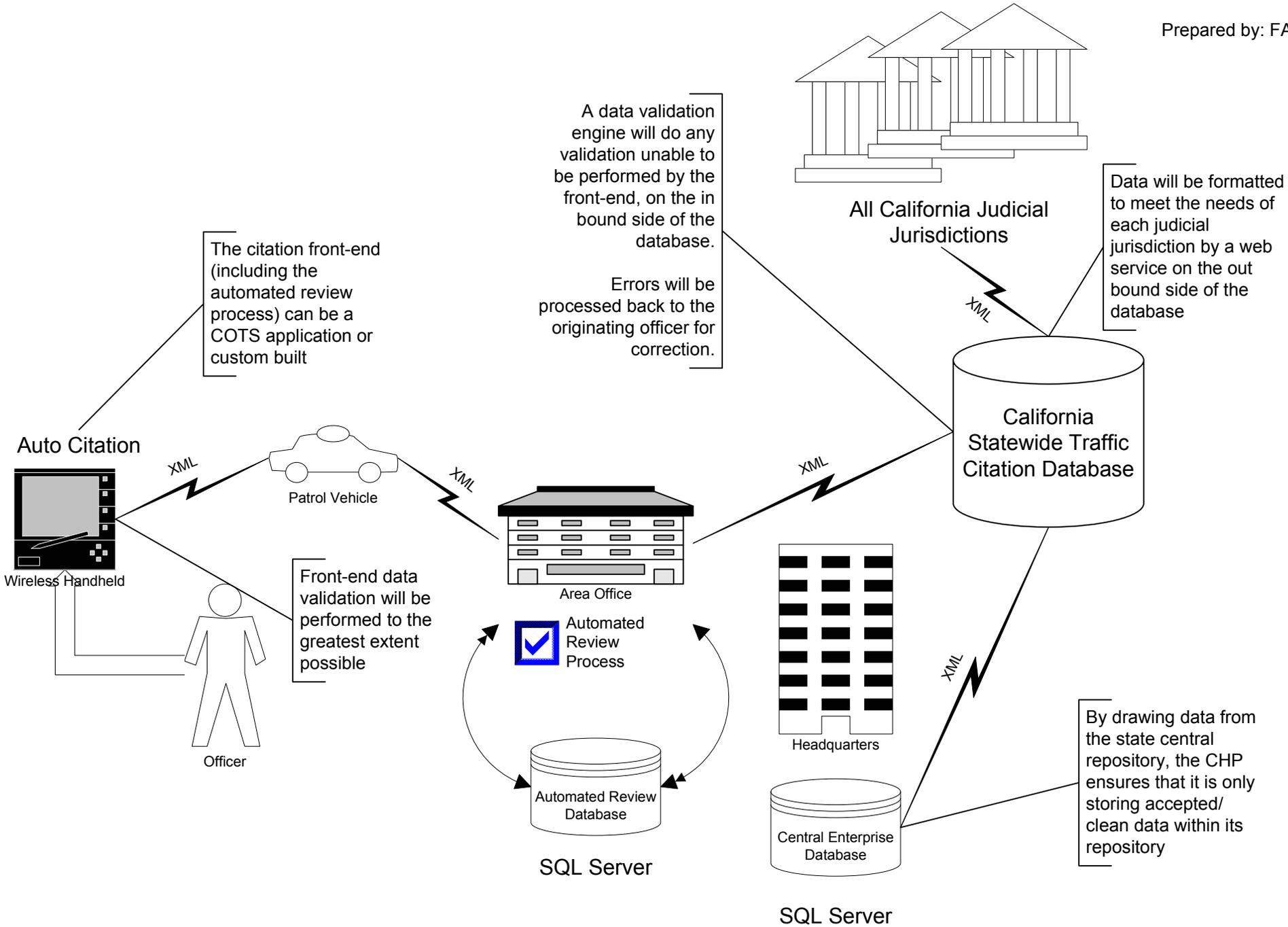
Inputs	Outputs	Files	Scope of Effort	Security Requirements	Interface Requirements
Form Data with validation rules	XML	Various	1	All data must be encrypted	Data to CED & MIS

**STATEWIDE AUTOMATED CITATION SYSTEM (SACS)
TECHNICAL SPECIFICATIONS
HANDHELD DEVICE**

1. Device must be able to capture an individual's information with the swipe of the magnetic strip on the driver license or state issued identification.
2. Device must be able to record vehicle information including year, make, model, color, and license plate number.
3. Device must be able to record owner registration information including name and address.
4. Device must be able to record vehicle insurance information including company name and policy number.
5. Device must be able to record up to four different violations along with information including date/time of violation; violation code section must use QWIK-CODE description of violation.
6. Device must be able to record location of violation
7. Device must be able to print out multiple copies of citation, copies must be smudge proof.
8. Device must be able to capture electronic signature.
9. Device must be able to calculate and print out appearance date both by specific date and by a rolling date.
10. Device must allow manual selection of court appearance including local Superior Court, Superior Court – Juvenile Division, and Superior Court – County Seat.
11. Device must be compatible and able to interface with a Records Management System.
12. Device must be compatible with industry standard hardware running Windows Mobile 5 (PocketPC) or Windows CE.
13. Device must have wireless interface with printer, or integrated printer.
14. Device must have an integrated bar-code scanner to scan and capture vehicle identification number (VIN) when vehicle license plates are not available, and allow manual entry of the VIN when necessary.
15. Device must have a large free text field to make notes that will not be printed out with citation, but will remain archived with the electronic record.

16. Device must have a remarks field that does print out on the citation.
17. Device must allow all fields that are populated by drop down box to add free text, if required data is not listed in the drop down.
18. Devices must have robust construction (e.g. waterproof, impact resistant, handle extreme temperatures, dust) either due to robust engineering or the addition of a protective case that still allows the device to be used.

Prepared by: FAU





Risk Matrix

Instructions for completing this Risk Matrix are embedded as comments in the column headers. Refer to IT PMM Section 3.9.3 for further information.

SACS FSR Attachment F

Risk Number	Risk Event Title	Originator	Risk Owner	Assign To	Origination Date	Impact (H-M-L)	Probability (H-M-L)	Exposure (calc'd)	Time Frame (S-M-L)	Severity (calc'd)	Risk Event Description	Risk Context/Analysis (Triggers)	Risk Category	Risk Response Strategy	Mitigation / Prevention Plan	Contingency Plan	Risk Tracking	Cross-Ref to Chg Rqst	Comments	Status (Open/Closed)
1	Insufficient Infrastructure To Support Production	Siva Arani	Siva Arani	Eric Anderson	3/28/2008	High	Low	Medium	Long	Low	The infrastructure currently in place is unable to uphold the increased workload of the new system, resulting a slow performance or unacceptable down-time.	Infrastructure Deployment and testing	Design/Implementation	Mitigation	Ensure that infrastructure has sufficient capacity to handle the highest foreseeable workload. Secondary mitigation, tune the system design to ensure the most efficient processing capabilities.	Obtain more processors within the planned virtual environment.			The existing virtual environment should be sufficient to address expected workload. Workload estimates will be improved during requirements gathering in order to validate this assumption.	Open
2	Poor coordination with AOC e-Citation Project	Thom	Siva Arani	Bhavani Venukanthan	3/28/2008	High	Low	Medium	Long	Low	The AOC's project currently only deploys citations to four Southern California Counties which risks this project's ability to meet the objectives of the OTS Grant (TR-0810) within the timeframes specified in the grant.	Further collaboration with the AOC will determine the probability and timeframe of this risk event. The trigger for this event is the deployment of the CHP solution to officers.	External Environment	Mitigation	The CHP will engage is active and aggressive collaboration with the AOC to improve the likelihood that their solution will be ready to all California judicial jurisdictions.	Citations can continue to be sent via paper to the courts. The CHP will still achieve benefits from electronic transmission to the CED and MIS.			Regular status meetings with the AOC will be utilized as a communication method.	Open
3	Ambiguity of Requirements	Siva Arani	Siva Arani	Thom Pryor	3/28/2008	Low	Medium	Low	Medium	Low	The ambiguity in understanding of some of the enhancements planned for this project may cause requirements to be insufficiently detailed which would result in poor cost and schedule estimates.	JAD sessions will provide more detail concern this condition. Requirements analysis will be the primary trigger for this risk.	Requirements Mgmt	Mitigation	The team will utilize a broad cross-section of customer subject matter experts in order to gain the best possible understanding of the requirements and business rules.	Manage change to all baselines and submit SPR as necessary to respond to refined requirements.			This project will utilize the most experienced analysts available to ensure the best possible results during requirements development.	Open
6	Change in Communication Infrastructure	Siva Arani	Siva Arani	Ed Ross	3/28/2008	Low	Low	Low	Medium	Low	The creation of a state-wide wireless network for CHP field operations may result in new requirements and changes to system architectural design.	This infrastructure change is estimated to occur in late 2009. Should this be the case, the project will be able to incorporate this infrastructure into the final architectural design. If it occurs later in the project, the impact may be greater than initially identified.	Requirements Mgmt	Mitigation	Application architecture will utilize open standards so as to be as flexible as possible to accommodate infrastructure changes.	Manage change to all baselines and submit SPR as necessary to respond to refined requirements.				Open

EXISTING SYSTEM/BASELINE COST WORKSHEET

Department: California Highway Patrol

All costs to be shown in whole (unrounded) dollars.

Date Prepared: 03/31/2008

Project: Statewide Automated Citation System (SACS)

	FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		FY 2012/13		SUBTOTAL	
	PYs	Amts	PYs	Amts								
Continuing Information												
Technology Costs												
Staff (salaries & benefits)	1.5	544,125	1.5	544,125	1.5	544,125	1.5	544,125	1.5	544,125	7.5	2,720,625
Hardware Lease/Maintenance		0		0		0		0		0		0
Software Maintenance/Licenses		0		0		0		0		0		0
Contract Services		0		0		0		0		0		0
Data Center Services		0		0		0		0		0		0
Agency Facilities		0		0		0		0		0		0
Other		0		0		0		0		0		0
Total IT Costs	1.5	544,125	7.5	2,720,625								
Continuing Program Costs:												
Staff	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	125.0	6,238,920
Other		0		0		0		0		0		0
Total Program Costs	25.0	1,247,784	125.0	6,238,920								
TOTAL EXISTING SYSTEM COSTS	26.5	1,791,909	132.5	8,959,545								

PROPOSED ALTERNATIVE: COTS Front-End with AOC Back-End

Date Prepared: 03/31/2008

Department: California Highway Patrol

All Costs Should be shown in whole (unrounded) dollars.

Project: Statewide Automated Citation System (SACS)

	FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		FY 2012/13		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs												
Staff (Salaries & Benefits)	0.4	22,914	0.4	31,555	0.4	31,555	0.4	31,555	0.0	0	1.6	117,579
Hardware Purchase				0		12,866,677		6,433,333		0		19,300,010
Software Purchase/License		0		1,800,000		0		0		0		1,800,000
Telecommunications		0		0		0		0		0		0
Contract Services												0
Software Customization										0		0
Project Management		0		0		0		0		0		0
Project Oversight		0		0		0		0		0		0
IV&V Services		0		0		0		0		0		0
Other Contract Services				528,000		528,000		0		0		1,056,000
TOTAL Contract Services		0		528,000		528,000		0		0		1,056,000
Data Center Services		0		0		0		0		0		0
Agency Facilities		0		0		0		0		0		0
Other		0		0		0		0		0		0
Total One-time IT Costs	0.4	22,914	0.4	2,359,555	0.4	13,426,232	0.4	6,464,888	0.0	0	1.6	22,273,589
Continuing IT Project Costs												
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	2.0	185,500	2.0	185,500
Hardware Lease/Maintenance		0		0		0		0		0		0
Software Maintenance/Licenses		0		0		0		0		540,000		540,000
Telecommunications		0		0		0		0		0		0
Contract Services		0		0		0		0		0		0
Data Center Services		0		0		0		0		0		0
Agency Facilities		0		0		0		0		0		0
Other		0		0		0		0		0		0
Total Continuing IT Costs	0.0	0	0.0	0	0.0	0	0.0	0	2.0	725,500	2.0	725,500
Total Project Costs	0.4	22,914	0.4	2,359,555	0.4	13,426,232	0.4	6,464,888	2.0	725,500	3.6	22,999,089
Continuing Existing Costs												
Information Technology Staff	1.5	139,125	1.5	139,125	1.5	139,125	1.5	139,125	0.0	0	6.0	556,500
Other IT Costs		0		0		0		0		0		0
Total Continuing Existing IT Costs	1.5	139,125	1.5	139,125	1.5	139,125	1.5	139,125	0.0	0	6.0	556,500
Program Staff	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	0.0	0	100.0	4,991,136
Other Program Costs		0		0		0		0		0		0
Total Continuing Existing Program Costs	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	0.0	0	100.0	4,991,136
Total Continuing Existing Costs	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	0.0	0	106.0	5,547,636
TOTAL ALTERNATIVE COSTS	26.9	1,409,823	26.9	3,746,464	26.9	14,813,141	26.9	7,851,797	2.0	725,500	109.6	28,546,725
INCREASED REVENUES		0		0		0		0		0		0

ALTERNATIVE #1: Custom Front-End with CHP Back-End

Date Prepared: 03/31/2008

Department: California Highway Patrol

All Costs Should be shown in whole (unrounded) dollars.

Project: Statewide Automated Citation System (SACS)

	FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		FY 2012/13		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs												
Staff (Salaries & Benefits)	0.4	22,914	0.4	31,555	0.4	31,555	0.4	31,555	0.0	0	1.6	117,579
Hardware Purchase				6,433,334		6,433,333		6,433,333		0		19,300,000
Software Purchase/License		0		0		0		0		0		0
Telecommunications		0		0		0		0		0		0
Contract Services												0
Software Customization		0		0		0		0		0		0
Project Management		0		0		0		0		0		0
Project Oversight		0		0		0		0		0		0
IV&V Services		0		0		0		0		0		0
Other Contract Services		0		528,000		528,000		0		0		1,056,000
TOTAL Contract Services		0		528,000		528,000		0		0		1,056,000
Data Center Services		0		0		0		0		0		0
Agency Facilities		0		0		0		0		0		0
Other		0		140,000		0		7,500		0		147,500
Total One-time IT Costs	0.4	22,914	0.4	7,132,889	0.4	6,992,888	0.4	6,472,388	0.0	0	1.6	20,621,079
Continuing IT Project Costs												
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	3.0	280,000	3.0	280,000
Hardware Lease/Maintenance		0		0		0		0		0		0
Software Maintenance/Licenses		0		0		0		0		0		0
Telecommunications		0		0		0		0		0		0
Contract Services		0		0		0		0		0		0
Data Center Services		0		0		0		0		0		0
Agency Facilities		0		0		0		0		0		0
Other		0		0		0		0		0		0
Total Continuing IT Costs	0.0	0	0.0	0	0.0	0	0.0	0	3.0	280,000	3.0	280,000
Total Project Costs	0.4	22,914	0.4	7,132,889	0.4	6,992,888	0.4	6,472,388	3.0	280,000	4.6	20,901,079
Continuing Existing Costs												
Information Technology Staff	1.5	139,125	1.5	139,125	1.5	139,125	1.5	139,125	0.0	0	6.0	556,500
Other IT Costs		0		0		0		0		0		0
Total Continuing Existing IT Costs	1.5	139,125	1.5	139,125	1.5	139,125	1.5	139,125	0.0	0	6.0	556,500
Program Staff	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	0.0	0	100.0	4,991,136
Other Program Costs		0		0		0		0		0		0
Total Continuing Existing Program Costs	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	0.0	0	100.0	4,991,136
Total Continuing Existing Costs	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	0.0	0	106.0	5,547,636
TOTAL ALTERNATIVE COSTS	26.9	1,409,823	26.9	8,519,798	26.9	8,379,797	26.9	7,859,297	3.0	280,000	110.6	26,448,715
INCREASED REVENUES		0		0		0		0		0		0

ALTERNATIVE #2: COTS Front-End with CHP Back-End

Date Prepared: 03/31/2008

Department: California Highway Patrol

All Costs Should be shown in whole (unrounded) dollars.

Project: Statewide Automated Citation System (SACS)

	FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		FY 2012/13		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs												
Staff (Salaries & Benefits)	0.4	22,914	0.4	31,555	0.4	31,555	0.4	31,555	0.0	0	1.6	117,579
Hardware Purchase		0		6,433,334		6,433,333		6,433,333		0		19,300,000
Software Purchase/License		0		1,800,000		0		0		0		1,800,000
Telecommunications		0		0		0		0		0		0
Contract Services												0
Software Customization		0		0		0		0		0		0
Project Management		0		0		0		0		0		0
Project Oversight		0		0		0		0		0		0
IV&V Services		0		0		0		0		0		0
Other Contract Services		0		528,000		528,000		0		0		1,056,000
TOTAL Contract Services		0		528,000		528,000		0		0		1,056,000
Data Center Services		0		0		0		0		0		0
Agency Facilities		0		0		0		0		0		0
Other		0		0		0		0		0		0
Total One-time IT Costs	0.4	22,914	0.4	8,792,889	0.4	6,992,888	0.4	6,464,888	0.0	0	1.6	22,273,579
Continuing IT Project Costs												
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	2.0	185,500	2.0	185,500
Hardware Lease/Maintenance		0		0		0		0		0		0
Software Maintenance/Licenses		0		0		0		0		540,000		540,000
Telecommunications		0		0		0		0		0		0
Contract Services		0		0		0		0		0		0
Data Center Services		0		0		0		0		0		0
Agency Facilities		0		0		0		0		0		0
Other		0		0		0		0		0		0
Total Continuing IT Costs	0.0	0	0.0	0	0.0	0	0.0	0	2.0	725,500	2.0	725,500
Total Project Costs	0.4	22,914	0.4	8,792,889	0.4	6,992,888	0.4	6,464,888	2.0	725,500	3.6	22,999,079
Continuing Existing Costs												
Information Technology Staff	1.5	139,125	1.5	139,125	1.5	139,125	1.5	139,125	0.0	0	6.0	556,500
Other IT Costs		0		0		0		0		0		0
Total Continuing Existing IT Costs	1.5	139,125	1.5	139,125	1.5	139,125	1.5	139,125	0.0	0	6.0	556,500
Program Staff	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	0.0	0	100.0	4,991,136
Other Program Costs		0		0		0		0		0		0
Total Continuing Existing Program Costs	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	0.0	0	100.0	4,991,136
Total Continuing Existing Costs	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	0.0	0	106.0	5,547,636
TOTAL ALTERNATIVE COSTS	26.9	1,409,823	26.9	10,179,798	26.9	8,379,797	26.9	7,851,797	2.0	725,500	109.6	28,546,715
INCREASED REVENUES		0		0		0		0		0		0

ALTERNATIVE #3: Custom Front-End with AOC Back-End

Date Prepared: 03/31/2008

Department: California Highway Patrol

All Costs Should be shown in whole (unrounded) dollars.

Project: Statewide Automated Citation System (SACS)

	FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		FY 2012/13		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs												
Staff (Salaries & Benefits)	0.4	22,914	0.4	31,555	0.4	31,555	0.4	31,555	0.0	0	1.6	117,579
Hardware Purchase		0		6,433,334		6,433,333		6,433,333		0		19,300,000
Software Purchase/License		0		0		0		0		0		0
Telecommunications		0		0		0		0		0		0
Contract Services												0
Software Customization		0		0		0		0		0		0
Project Management		0		0		0		0		0		0
Project Oversight		0		0		0		0		0		0
IV&V Services		0		0		0		0		0		0
Other Contract Services		0		528,000		528,000		0		0		1,056,000
TOTAL Contract Services		0		528,000		528,000		0		0		1,056,000
Data Center Services		0		0		0		0		0		0
Agency Facilities		0		0		0		0		0		0
Other		0		0		0		7,500		0		7,500
Total One-time IT Costs	0.4	22,914	0.4	6,992,889	0.4	6,992,888	0.4	6,472,388	0.0	0	1.6	20,481,079
Continuing IT Project Costs												
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	2.0	185,500	2.0	185,500
Hardware Lease/Maintenance		0		0		0		0		0		0
Software Maintenance/Licenses		0		0		0		0		0		0
Telecommunications		0		0		0		0		0		0
Contract Services		0		0		0		0		0		0
Data Center Services		0		0		0		0		0		0
Agency Facilities		0		0		0		0		0		0
Other		0		0		0		0		0		0
Total Continuing IT Costs	0.0	0	0.0	0	0.0	0	0.0	0	2.0	185,500	2.0	185,500
Total Project Costs	0.4	22,914	0.4	6,992,889	0.4	6,992,888	0.4	6,472,388	2.0	185,500	3.6	20,666,579
Continuing Existing Costs												
Information Technology Staff	1.5	139,125	1.5	139,125	1.5	139,125	1.5	139,125	0.0	0	6.0	556,500
Other IT Costs		0		0		0		0		0		0
Total Continuing Existing IT Costs	1.5	139,125	1.5	139,125	1.5	139,125	1.5	139,125	0.0	0	6.0	556,500
Program Staff	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	0.0	0	100.0	4,991,136
Other Program Costs		0		0		0		0		0		0
Total Continuing Existing Program Costs	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	0.0	0	100.0	4,991,136
Total Continuing Existing Costs	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	0.0	0	106.0	5,547,636
TOTAL ALTERNATIVE COSTS	26.9	1,409,823	26.9	8,379,798	26.9	8,379,797	26.9	7,859,297	2.0	185,500	109.6	26,214,215
INCREASED REVENUES		0		0		0		0		0		0

ECONOMIC ANALYSIS SUMMARY

Date Prepared: 03/31/2008

Department: California Highway Patrol

All costs to be shown in whole (unrounded) dollars.

Project: Statewide Automated Citation System (SACS)

	FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		FY 2012/13		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
EXISTING SYSTEM												
Total IT Costs	1.5	544,125	1.5	544,125	1.5	544,125	1.5	544,125	1.5	544,125	7.5	2,720,625
Total Program Costs	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	25.0	1,247,784	125.0	6,238,920
Total Existing System Costs	26.5	1,791,909	26.5	1,791,909	26.5	1,791,909	26.5	1,791,909	26.5	1,791,909	132.5	8,959,545
PROPOSED ALTERNATIVE												
COTS Front-End with AOC Back-End												
Total Project Costs	0.4	22,914	0.4	2,359,555	0.4	13,426,232	0.4	6,464,888	2.0	725,500	3.6	22,999,089
Total Cont. Exist. Costs	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	0.0	0	106.0	5,547,636
Total Alternative Costs	26.9	1,409,823	26.9	3,746,464	26.9	14,813,141	26.9	7,851,797	2.0	725,500	109.6	28,546,725
COST SAVINGS/AVOIDANCES	(0.4)	382,086	(0.4)	(1,954,555)	(0.4)	(13,021,232)	(0.4)	(6,059,888)	24.5	1,066,409	22.9	(19,587,180)
Increased Revenues		0		0		0		0		0		0
Net (Cost) or Benefit	(0.4)	382,086	(0.4)	(1,954,555)	(0.4)	(13,021,232)	(0.4)	(6,059,888)	24.5	1,066,409	22.9	(19,587,180)
Cum. Net (Cost) or Benefit	(0.4)	382,086	(0.8)	(1,572,469)	(1.2)	(14,593,701)	(1.6)	(20,653,589)	22.9	(19,587,180)		
ALTERNATIVE #1												
Custom Front-End with CHP Back-End												
Total Project Costs	0.4	22,914	0.4	7,132,889	0.4	6,992,888	0.4	6,472,388	3.0	280,000	4.6	20,901,079
Total Cont. Exist. Costs	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	0.0	0	106.0	5,547,636
Total Alternative Costs	26.9	1,409,823	26.9	8,519,798	26.9	8,379,797	26.9	7,859,297	3.0	280,000	110.6	26,448,715
COST SAVINGS/AVOIDANCES	(0.4)	382,086	(0.4)	(6,727,889)	(0.4)	(6,587,888)	(0.4)	(6,067,388)	23.5	1,511,909	21.9	(17,489,170)
Increased Revenues		0		0		0		0		0		0
Net (Cost) or Benefit	(0.4)	382,086	(0.4)	(6,727,889)	(0.4)	(6,587,888)	(0.4)	(6,067,388)	23.5	1,511,909	21.9	(17,489,170)
Cum. Net (Cost) or Benefit	(0.4)	382,086	(0.8)	(6,345,803)	(1.2)	(12,933,691)	(1.6)	(19,001,079)	21.9	(17,489,170)		
ALTERNATIVE #2												
COTS Front-End with CHP Back-End												
Total Project Costs	0.4	22,914	0.4	8,792,889	0.4	6,992,888	0.4	6,464,888	2.0	725,500	3.6	22,999,079
Total Cont. Exist. Costs	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	0.0	0	106.0	5,547,636
Total Alternative Costs	26.9	1,409,823	26.9	10,179,798	26.9	8,379,797	26.9	7,851,797	2.0	725,500	109.6	28,546,715
COST SAVINGS/AVOIDANCES	(0.4)	382,086	(0.4)	(8,387,889)	(0.4)	(6,587,888)	(0.4)	(6,059,888)	24.5	1,066,409	22.9	(19,587,170)
Increased Revenues		0		0		0		0		0		0
Net (Cost) or Benefit	(0.4)	382,086	(0.4)	(8,387,889)	(0.4)	(6,587,888)	(0.4)	(6,059,888)	24.5	1,066,409	22.9	(19,587,170)
Cum. Net (Cost) or Benefit	(0.4)	382,086	(0.8)	(8,005,803)	(1.2)	(14,593,691)	(1.6)	(20,653,579)	22.9	(19,587,170)		
ALTERNATIVE #3												
Custom Front-End with AOC Back-End												
Total Project Costs	0.4	22,914	0.4	6,992,889	0.4	6,992,888	0.4	6,472,388	2.0	185,500	3.6	20,666,579
Total Cont. Exist. Costs	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	26.5	1,386,909	0.0	0	106.0	5,547,636
Total Alternative Costs	26.9	1,409,823	26.9	8,379,798	26.9	8,379,797	26.9	7,859,297	2.0	185,500	109.6	26,214,215
COST SAVINGS/AVOIDANCES	(27.3)	(1,027,737)	(27.7)	(9,952,267)	(28.1)	(22,973,498)	(28.5)	(28,512,886)	20.9	(19,772,680)	(90.7)	(82,239,068)
Increased Revenues		0		0		0		0		0		0
Net (Cost) or Benefit	(27.3)	(1,027,737)	(27.7)	(9,952,267)	(28.1)	(22,973,498)	(28.5)	(28,512,886)	20.9	(19,772,680)	(90.7)	(82,239,068)
Cum. Net (Cost) or Benefit	(27.3)	(1,027,737)	(55.0)	(10,980,004)	(83.1)	(33,953,502)	(111.6)	(62,466,388)	(90.7)	(82,239,068)		

PROJECT FUNDING PLAN

Department: California Highway Patrol

All Costs to be in whole (unrounded) dollars

Date Prepared: 03/31/2008

Project: Statewide Automated Citation System (SACS)

	FY	2008/09	FY	2009/10	FY	2010/11	FY	2011/12	FY	2012/13	SUBTOTALS	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
TOTAL PROJECT COSTS	0.4	22,914	0.4	2,359,555	0.4	13,426,232	0.4	6,464,888	2.0	725,500	3.6	22,999,089
RESOURCES TO BE REDIRECTED												
Staff	0.4	22,914	0.4	31,555	0.4	31,555	0.4	31,555	0.0	0	1.6	117,579
Funds:												
Existing System		0		0		0		0		0		0
Other Fund Sources (OTS Grant TR-0810)		0		598,000		728,000		1,235,711		0		2,561,711
TOTAL REDIRECTED RESOURCES	0.4	22,914	0.4	629,555	0.4	759,555	0.4	1,267,266	0.0	0	1.6	2,679,290
ADDITIONAL PROJECT FUNDING NEEDED												
One-Time Project Costs	0.0	0	0.0	1,730,000	0.0	12,666,677	0.0	5,197,622	0.0	0	0.0	19,594,299
Continuing Project Costs	0.0	0	0.0	0	0.0	0	0.0	0	2.0	725,500	2.0	725,500
TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR	0.0	0	0.0	1,730,000	0.0	12,666,677	0.0	5,197,622	2.0	725,500	2.0	20,319,799
TOTAL PROJECT FUNDING	0.4	22,914	0.4	2,359,555	0.4	13,426,232	0.4	6,464,888	2.0	725,500	3.6	22,999,089
Difference: Funding - Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Estimated Cost Savings	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0