



Feasibility Study Report

ON

**Centralized Customer Flow Management
and Appointment Systems**

CCFMAS

DMV # 2010-010

Field Operations Division

CTA Revision: December 12, 2011

December 1, 2011

Version
3.0

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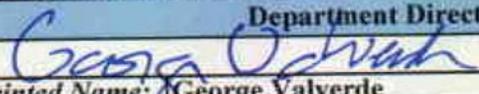
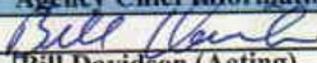
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1.0 EXECUTIVE PROJECT APPROVAL TRANSMITTAL

Information Technology Project Request External/Reportable Feasibility Study Report Executive Approval Transmittal		
		
Department Name	Department Priority	Agency Priority
Department of Motor Vehicles (DMV)	1	1
Project Title (maximum of 75 characters)		
Centralized Customer Flow Management <input type="checkbox"/> and Appointment Systems		
Project Acronym	Technology Agency Project Number	FSR Approval Date
CCFMAS		
<p>I am submitting the attached Feasibility Study Report (FSR) in support of our request for the California Technology Agency Secretary's approval to undertake this project.</p> <p>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).</p> <p>I have reviewed and agree with the information in the attached Feasibility Study Report.</p> <p>I also certify that the acquisition of the applicable information technology (IT) product(s) or service(s) required by my department that are subject to Government Code 11135 applying Section 508 of the Rehabilitation Act of 1973 as amended meets the requirements or qualifies for one or more exceptions (see following page).</p>		
APPROVAL SIGNATURES		
Department Chief Information Officer		Date Signed
 Printed Name: Bernard C. Soriano		2-Dec-2011
Department Budget Officer		Date Signed
 Printed Name: Robert Crockett		12/2/11
Department Director		Date Signed
 Printed Name: George Valverde		12/05/11
Agency Chief Information Officer		Date Signed
 Printed Name: Bill Davidson (Acting)		12/7/2011
Agency Secretary		Date Signed
 Printed Name: Traci Stevens (Acting)		12/8/11

1.1 IT Accessibility Certification

<p>Feasibility Study Report Executive Approval Transmittal IT Accessibility Certification</p>	
<p>Yes or No</p>	
<p>YES</p>	<p>The Proposed Project Meets Government Code 11135 / Section 508 Requirements and no exceptions apply.</p>
	<p>The proposed project does not change the current system's accessibility for customers with disabilities. The project has employee assistance to enter the system, has sound and visual directive to the work stations, and allows wheelchair access in the work station areas. The Department of Motor Vehicle's current reasonable accommodations for employees with disabilities will still apply.</p>
<p>Exceptions Not Requiring Alternative Means of Access</p>	
<p>Yes or No</p>	<p>Accessibility Exception Justification</p>
<p>NO</p>	<p>The IT project meets the definition of a national security system.</p>
<p>NO</p>	<p>The IT project will be located in spaces frequented only by service personnel for maintenance, repair, or occasional monitoring of equipment (i.e., "Back Office" Exception.)</p>
<p>NO</p>	<p>The IT acquisition is acquired by a contractor incidental to a contract.</p>
<p>Exceptions Requiring Alternative Means of Access for Persons with Disabilities</p>	
<p>Yes or No</p>	<p>Accessibility Exception Justification</p>
<p>NO</p>	<p>Meeting the accessibility requirements would constitute an "undue burden" (i.e., a significant difficulty or expense considering all agency resources). Explain: Describe the alternative means of access that will be provided that will allow individuals with disabilities to obtain the information or access the technology.</p>

**Feasibility Study Report
Executive Approval Transmittal**

**IT Accessibility Certification
(continued)**

Exceptions Requiring Alternative Means of Access for Persons with Disabilities

Yes or No	Accessibility Exception Justification
NO	<p>No commercial solution is available to meet the requirements for the IT project that provides for accessibility.</p> <p>Explain:</p> <p>Describe the alternative means of access that will be provided that will allow individuals with disabilities to obtain the information or access the technology.</p>
NO	<p>No solution is available to meet the requirements for the IT project that does not require a fundamental alteration in the nature of the product or its components.</p> <p>Explain:</p> <p>Describe the alternative means of access that will be provided that will allow individuals with disabilities to obtain the information or access the technology.</p> <p>The Department currently provides employees the following Assistive Devices:</p> <p>Screen Reader - Software that reads the contents of web page out loud. Two common screen readers are JAWS and Window-Eyes.</p> <p>Touch Screen - A screen that allows an individual to navigate the page using his or her hands without the fine-motor control required for the mouse.</p> <p>Head Pointer - A stick, placed in a person's mouth or mounted on a head strap, which an individual utilizes to interact with a keyboard or touch screen.</p>

2.0 INFORMATION TECHNOLOGY (IT): PROJECT SUMMARY PACKAGE

2.1 Section A: Executive Summary

1.	Submittal Date	December 12, 2011	
2.	Type of Document	Feasibility Study Report	
	Project Number	DMV # 2010-010	Technology Agency #
3.	Project Title	Centralized Customer Flow Management and Appointment Systems	
	Project Acronym	CCFMAS	Estimated Project Dates
			Start
			July 2, 2012
4.	Submitting Department	Department of Motor Vehicles	End/Implementation
			May 24, 2016
5.	Reporting Agency	Business, Transportation and Housing	PIER/Closure
			October 19, 2017

6.	Project Objectives		
	<p>The proposed solution must meet the following objectives:</p> <ol style="list-style-type: none"> 1. Acquire a robust Customer Flow Management System (CFMS) to reduce failures and malfunctions by 70% after 1 year of implementation. 2. Reduce the percentage of customers waiting over 30 minutes from 40% to 30% after 1 year of implementation and from 30% to 20% after 2 years of implementation. 3. Reduce the altercation/incident occurrences involving customers by 25% after 1 year of implementation. 4. Increase the customer satisfaction rate in regards to wait times from 63% to 70% after 1 year of implementation and from 70% to 80% after 2 years of implementation. 5. Increase the number of field offices (FOs) utilizing the Customer Queuing System from 80% (currently 133 offices) to 100% (currently 170 offices). 6. Allow all FOs, statewide, to have access to CFMS which will increase data collection in FOs from 80% to 100% giving a complete perspective on statewide analytics. 7. Increase the number of appointments/virtual queue customers from 23% to 50% after 2 years of implementation. 8. Keep current with operating systems, vulnerability patches, and software updates without adversely impacting CFMS. 9. Ability to update, develop, and support the Customer Appointment System (CAS) using a common/modern programming language. 10. Centrally manage and update CFMS statewide. Reduce resources necessary for major/minor updates. 		

7.	Proposed Solution		
	<p>DMV will select, through the RFP process, a vendor to install and customize a centralized, web-enabled, non-proprietary COTS Customer Flow Management System and integrated Customer Appointment System with all related IP-based hardware.</p>		

8. Project Schedule Summary	
Centralized Customer Flow Management and Appointment System	
Major Milestones	Estimated Completion Date
Centralized Customer Flow Management and Appointment System	5/24/2016
Initiation	10/29/2012
Planning	4/22/2014
Execution and Control	5/24/2016
Close-out	11/25/2017
PIER	11/25/2017
Key Deliverables	
Project Approval	7/2/2012
Contract Award	4/15/2014
Requirements Finalized	9/3/2014
Design Finalized	1/29/2015
Installation and Programming Completed	5/11/2015
Test Results Approved	10/1/2015

2.2 Section B: Project Contacts

Executive Contacts								
	First Name	Last Name	Area Code	Phone #	Ext.	Area Code	Fax #	E-Mail
Agency Secretary	Traci	Stevens	(916)	323- 5400		(916)	323- 5440	Traci.Stevens@bth.ca.gov
Dept. Director	George	Valverde	(916)	657- 6940		(916)	657- 7393	George.Valverde@dmv.ca.gov
Budget Officer	Robert	Crockett	(916)	657- 7034		(916)	657- 6851	Robert.Crockett@dmv.ca.gov
Chief Information Officer	Bernard C.	Soriano	(916)	657- 7626		(916)	657- 8044	Bernard.Soriano@dmv.ca.gov
Project Sponsor	Kathy P.	Bibbs	(916)	657- 7840		(916)	657- 8123	Kathy.Bibbs@dmv.ca.gov

Direct Contacts								
	First Name	Last Name	Area Code	Phone #	Ext.	Area Code	Fax #	E-Mail
Doc. Prepared By	Karen	Burrows	(916)	657- 2938		(916)	657- 8123	Karen.Burrows@dmv.ca.gov
Primary Contact	Karen	Burrows	(916)	657- 2938		(916)	657- 8123	Karen.Burrows@dmv.ca.gov
Project Manager	TBD - Level 3							
Project Mgmt. Office Contact	Laura	West	(916)	657- 9086		(916)	657- 7370	Laura.West@dmv.ca.gov
	Michael	Kramer	(916)	657- 8653		(916)	657- 7370	Mike.Kramer@dmv.ca.gov
Technical Manager	Brian	Wong	(916)	657- 8319		(916)	657- 3549	Brian.Wong@dmv.ca.gov
Business Manager	Graciela	Pelayo-Hallum	(916)	657- 3896		(916)	657- 8123	Graciela.Pelayo-Hallum@dmv.ca.gov

2.3 Section C: Project Relevance to State and/or Department/Agency Plans

1.	What is the date of your current Operational Recovery Plan (ORP) which is the DMV Disaster Recovery Plan?	Date	10/7/2010
2.	What is the date of your current Agency Information Management Strategy (AIMS) which is the DMV Information Technology Strategic Plan (ITSP)?	Date	12/2010
3.	For the proposed project, provide the page reference in your current AIMS/ITSP and/or Strategic Business Plan (SBP).	Doc.	ITSP
		Page #	10-14

4.	Is the project reportable to control agencies?	Yes
If YES, CHECK all that apply:		
X	a) The project involves a budget action.	
	b) The 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 exceed the departmental cost threshold and the project does not meet the criteria of a desktop and mobile computing commodity expenditure (see State Administrative Manual (SAM) 4989 - 4989.3).	
	d) The project meets a condition previously imposed by Finance.	

2.4 Section D: Budget Information

Budget Augmentation Required?	Yes	If YES, indicate fiscal year(s) and associated amount:									
		FY	2012/13	FY	2013/14	FY	2014/15	FY	2015/16	FY	2016/17
			\$250,000		\$580,000		\$9,994,529		\$488,982		\$228,380

PROJECT COSTS

1.	Fiscal Year (FY)	2012/13	2013/14	2014/15	2015/16	2016/17	TOTAL
2.	One-Time Cost	709,615	1,196,829	10,850,113	1,329,817	0	\$14,086,374
3.	Continuing Costs	0		0	283,075	1,357,516	\$1,640,591
4.	TOTAL PROJECT BUDGET	\$709,615	\$1,196,829	\$10,850,113	\$1,612,892	\$1,357,516	\$15,726,965

PROJECT FINANCIAL BENEFITS

5.	Cost Savings/Avoidances	\$0	\$0	\$0	\$0	\$0	\$0
6.	Revenue Increase	\$0	\$0	\$0	\$0	\$0	\$0



2.5 Section E: Vendor Project Budget

Vendor Cost for FSR Development (if applicable)	\$
Vendor Name	

VENDOR PROJECT BUDGET

1.	Fiscal Year	2012/13	2013/14	2014/15	2015/16	2016/17	TOTAL
2.	Primary Vendor Budget	0	500,000	8,195,107	0	0	\$8,695,107
3.	Independent Oversight Budget	0	0	0	0	0	\$0
4.	IV&V Budget	0	0	0	0	0	\$0
5.	Other Budget	250,000	80,000	24,120	0	0	\$354,120
6.	TOTAL VENDOR BUDGET	\$250,000	\$580,000	\$8,219,227	\$0	\$0	\$9,049,227

(Applies to SPR only)

PRIMARY VENDOR HISTORY SPECIFIC TO THIS PROJECT

7.	Vendor Name	
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.									

2.6 Section F: Risk Assessment Information

Has a Risk Management Plan been developed for this project?	No
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General Comment(s)
<p>The Risk Management Plan will be developed during the project planning phase in accordance with DMV standards created by the Enterprise Project and Portfolio Management (EPPM) Office, the Technology Agency California Project Management Methodology (CA-PMM), and the Technology Agency IT Project Oversight Framework. Identification of risks and development of mitigation plans for individual risk will be developed by the Project Manager and the Project Team.</p> <p>In addition, a completed Office of Information Security and Privacy Protection (OISPP) Questionnaire will be included in this document as Attachment # 2.</p>

3.0 BUSINESS CASE

3.1 Business Program Background

One of the primary functions of the Department of Motor Vehicles (DMV) is to provide prompt, accurate, and courteous service to all customers. DMV utilizes the resources of its network of Field Offices (FOs) to serve customers in person and to employ Information Technology (IT) as a means of improving service and controlling costs.

The DMV FOs, perhaps the most familiar governmental entity to California's residents, makes virtually all departmental services available to the public. The FOs performs mission-critical driver licensing, vehicle registration, and occupational licensing functions. The FOs also offer alternative service options, such as outreach service, travel runs, and off-site testing for commercial drivers. Outreach services and travel runs deliver "as needed" services in areas where work volumes do not justify locating a permanent FO (e.g. small remote communities, military bases, and large employer sites).

The DMV also provides services to the public through the mail, telephone, Internet, and indirectly through public/private partnerships. In response to mailed and telephone requests, customers are provided forms, pre-addressed envelopes, and guidelines that contain detailed instructions on how to complete transactions and make payments. Customers completing transactions via the Internet can use certain debit cards, credit cards, and electronic funds transfer for payment. In light of these alternative delivery systems, almost 27 million Californians¹ still visit a DMV FO each year. DMV strives to respond quickly to customer needs and to coordinate activities to provide a high standard of service to all affected entities. One of the primary concerns of the Department is the efficiency of customer service in FOs.

DMV's strategy of making customer service the cornerstone of its programs and operations relies on information and computer technology to support workers serving California's increasingly diverse population. Improving customer service requires DMV Managers to have the ability to monitor, track, and manage service levels throughout the business day. DMV management and executive staff require information regarding peak workload periods and office trends in order to appropriately allocate resources. One of the goals of the Department's Strategic Information Technology Plan (SITP) is to support and improve business processes and overall customer service by exploring and implementing innovative IT solutions. In response to that goal, the DMV has tested and implemented various FO efficiency methods, such as bar code readers and scanners, sophisticated line management tools, and additional IT resources for managing and reducing customer wait-times.

¹ Q-Matic Queue System 2009 Annual Report

CUSTOMER QUEUING SYSTEM:

In an effort to improve customer service in the FOs, an internal FSR approved the installation of test queuing systems in three FOs in the Los Angeles area. The first installation was completed on September 15, 1997. A two-year pilot project, to test usage of the queue system technology in a larger sampling of FOs, was submitted on September 9, 1998. The pilot project, (Customer Queuing System Expansion Pilot, Department of Finance [DOF] Project #2740-141), was approved by DOF on July 12, 1999. Due to the pilot project's success, queue technology was implemented in 135 FOs with the approval of the following FSRs:

- Customer Queuing System Expansion (DMV Project #2000-019, DOF Project #2740-155) approved by DOF on August 28, 2001.
- Customer Queuing System Expansion to Mid-size Offices (DMV Project #2004-536, DOF Project #2740-175) approved by DOF on May 3, 2005.

The Customer Queuing System (CQS) tracks and stores the current and historical wait-times and workload information. The system provides real-time and historical information relating to peak workload periods, work-mix, and resources available. The data allows DMV managers to determine when staffing adjustments should be made to best meet customer needs. The real-time work-mix analysis and actions assure the appropriate expertise is available to serve DMV customers. Management analysis of the historical data is also conducted at DMV Headquarters (HQ) where staff is assigned to develop a variety of customized reports for use by the Directorate and others.

The DMV has as an additional component to the CQS which is a Light-Emitting Diode (LED) Scrolling Messaging Board. The messaging board provides a venue for displaying a 105-character message of concern in English to FO customers. Some specific uses of the messaging board is the display of appointment and non-appointment wait-times, wait-times for surrounding FOs, and the option of providing for other standard messages as defined by DMV HQ.

The Department is currently in the process of submitting a Non-Competitive Bid (NCB) with existing Queuing vendor Q-Matic Corporation to update and enhance the Customer Queuing System (CQS) software and to extend the NCB contract to May 2014, with an option to extend for two additional years, through May 2016. In addition, DMV is supporting an internal FSR that will be replace the obsolete and failing existing CQS operating software, video interface device software (Venus), analog lobby TV monitors, and client ticket printers that are currently beyond their expected operational life.

CUSTOMER APPOINTMENT SYSTEM:

The DMV developed an in-house customized Customer Appointment System (CAS), which resides on the International Business Machine (IBM) mainframe located at the Office of Technology Services – Data Center. It allows FO and Telephone Service Center (TSC) staff to make appointments for the public and to facilitate all services the DMV offers. Appointments allow FO managers to maximize customer service by matching staff coverage with customer workflow. Shifting customer visits away from peak workload times, preparing customers for visits, and personalizing the transaction process are all achieved through the appointment scheduling process.

The DMV initiated a project beginning in January, 2001 called the Online Self-Service Scheduling System Pilot DMV Field Office Appointment (DMV Project #1998-556, DOF Project #2740-150) approved June 15, 2000. The project added new features to the existing CAS. This allowed customers to “self-schedule” certain appointments via the Internet and through the DMV Interactive Voice Response/Advance Speech Processing (ASP/IVR) telephone network.

3.2 Business Problem or Opportunity

1.0 The Field Office Division monitors customer FO workload demands and DMV service levels/resources available in order to provide customers the most timely and efficient service.

1.1 The quality of customer service is inhibited because of Customer Queuing System (CQS) failures and malfunctions.

The existing CQS is close to reaching critical levels of system/application failure, with increasing occurrences of data corruption, hardware malfunction and integration incompatibility. These frequent failures result in the DMV FO staff reverting to a manual customer flow process until the incidents are resolved and the system restored to operational levels (See chart A below). Failures of CQS cause significant disturbance in a FO. FO Office Managers scramble to assess where the system malfunctions may have occurred, determine how to manage and reestablish customer flow and attend to confused customers. Without an electronic system in place, the manual process is extremely cumbersome and results in excessive wait times for customers.

Chart A

Remedy Incidents Tracking (Fiscal Years)

Incidents	2007-08	2008-09	2009-10	2010-11
Hardware and Software Failures	456	512	651	970

Market Research

The DMV released two Requests for Information (RFI) to obtain supplier input regarding the availability of enhancements or replacements of the current automated systems. Information was requested on what features were contained in COTS packages and how a Customer Appointment System may integrate with the CFMS. DMV found that current open market technology is available that will meet all business functional requirements for the CFMS, with some customization required.

1.2 Excessive wait times and overcrowding in lobby and parking lot areas result in increased numbers of altercations involving customers.

Implementing the CQS has been critical in reducing the customer wait-time from 3-4 hours to averages that are less than half of that extreme (See chart B below). Reverting back would result in more customers in the lobby and

parking lots, increased wait times, and increased likelihood of verbal/physical altercations (See chart C below). To maintain current wait-times without the CQS, DMV would have to consider expanding the number of customer service windows and/or include longer business hours such as Saturday openings, and resulting in increased overtime usage.

Chart B

Queue Database (Fiscal Years)

Performance Measures	2007-08	2008-09	2009-10	2010-11
Customers Served within 30 minutes	78%	62%	50%	61%

Chart C

Incident Report Database (Fiscal Years)

Office Incidents	2007-08	2008-09	2009-10	2010-11
Number of Physical Altercations	17	38	29	33
Number of Verbal Altercations	69	79	104	88

1.3 There is an opportunity to utilize new technology (virtual queue) to improve customer satisfaction.

Modern technology such as virtual queuing and wireless/e-appointments can be implemented to give customers freedom to minimize their time in the offices and parking lots while assuring them a place in line. With the existing system, the customer satisfaction rating of wait times is only 63% (see chart D). By leveraging modern technology, the Department anticipates the customer satisfaction rating to increase to 80% after 2 years of implementation.

Chart D

Direct Quarter (Fiscal Years)

Performance Measure	2007-08	2008-09*	2009-10*	2010-11*
Percentage of Customers Satisfied with Length of Wait Time	77%	75%	58%	63%

1.4 Not all field offices operate with the benefit of the CQS. Data collected from the CQS system used to make informed business decisions is incomplete without every office participating.

The queuing system provides an accurate, reliable means to collect meaningful data to evaluate FO performance. Currently the department has 170 FO's statewide. Only 80% percent of the field offices have a CQS; however 20% of the offices (33 FO's) do not. By providing the remaining 33 FOs with the Customer Flow Management System, the DMV will be able to collect all data representing every FO transaction. With data from this broad transaction base, the DMV will have a complete source of information for strategic decision-making, new projections of future workloads, staffing resources, and facilities requirements. Additionally, this data provides an accurate source of information for communicating FO performance to both internal and external DMV stakeholders.

2.0 The Field Office Division provides appropriate staffing to efficiently service customers with or without appointments.

2.1 There is an opportunity to better manage the customer work flow through appointment and virtual queuing.

Currently 23% of our customers make appointments for their visits, up from 8% in 2010. The Department's goal is to have 50% of our customers conducting their visit by appointments/virtual queue 2 years after implementation. By integrating the CQS with the CAS, office managers will have complete and readily-available information as well as the tools to analyze appointment trends in order to properly staff workstations and assess training deficiencies.

3.0 The DMV IT community supports the queuing system and appointment system.

3.1 Software dependencies prevent IT staff from keeping current on vulnerability patches, software updates, and operating system updates posing a significant threat to security. For example, any upgrades to the Java JRE renders 100% of field offices unable to use the CQS.

The current version of the CQS and most of its software dependencies are obsolete and are no longer supported. Numerous vulnerabilities exist within the system placing DMV's network at extreme risk of being compromised. The existing CQS and its dependencies are unable to be upgraded without adversely affecting the system. Within the last 2 years, the department experienced two state-wide failures of the CQS when a critical Java security patch was accidentally deployed to these systems. The current environment is dependent on an operating system that is near its end-of-life support cycle. Future operating systems beyond Windows XP are not compatible.

3.2 The Customer Appointment System (CAS) is written in a legacy programming language that will soon become unsupported.

The DMV CAS was a solution developed in-house over 20 years ago using the Natural programming language and ADABAS database. Natural and ADABAS are both obsolete and programmers with the knowledge of how to support and write code for them are rare. Because of the significant customizations to the CAS over the years, and given the scarce resources of Natural and ADABAS programmers, the Department is severely limited in acquiring these resources. As a result, the current appointment system will soon become unsupported, and with the loss of experienced and knowledgeable programmers versed in Natural, there is a risk of catastrophic system failure.

3.3 Decentralized management of existing system consumes significant IT resources to manage and update system.

Because each of the 133 field office's CQS are independent of one other, significant resources are needed to perform major and minor updates to the system. For example: updating the message displayed on the "LED Signboard" takes an average of 5 to 10 minutes for each of the 133 offices. These messages may be updated as often as twice per month requiring between 11 and 22 work hours to complete each update, as opposed to a centralized system that could update all signboards in minutes. Maintaining a consistent system among all CQS proves to be a daunting task.

3.3 Business Objectives

DMV's goal of making customer service the cornerstone of its programs and operations relies heavily on information and computer technology to support employees, who serve California's increasingly diverse population. Improving customer service requires that DMV management have the ability to monitor, track, and manage service levels throughout the business day. DMV management and executive staff require information regarding peak workload periods and office trends in order to appropriately allocate resources.

Upgrading the queuing system creates an opportunity for the Department to resolve the compatibility and system issues while providing additional services to our customers.

The project will achieve the following objectives:

1.1.1 Acquire a robust CFMS to reduce failures and malfunctions by 70% after 1 year of implementation.

By having a stable and consistent CFMS, the Department can drastically reduce the risk of reverting back to a manual process.

1.2.1 Reduce the percentage of customers waiting over 30 minutes from 40% to 30% after 1 year of implementation and from 30% to 20% after 2 years of implementation.

By utilizing the virtual queue and appointment system the actual wait times will be decreased.

1.2.2 Reduce the altercation/incident occurrences involving customers by 25% after 1 year of implementation.

Utilization of the virtual queue and appointment system will lessen time spent in parking lots and lobbies thus reducing the opportunity for customer involved altercations to occur.

1.3.1 Increase the customer satisfaction rate in regards to wait times from 63% to 70% after 1 year of implementation and from 70% to 80% after 2 years of implementation.

Currently 63% of our customers are satisfied with the wait times. By reducing wait times, the Department anticipates satisfaction rates to increase to 80% 2 years after implementation. A likely customer experience is as follows:

A customer recognizes the need to visit a DMV office and visits the remote queue web site via their cellular telephone. The customer notices the local FO has a 20 minute wait and initiates a queue ticket request (virtual ticket) via their cellular telephone browser, txt messaging application, or by calling a toll-free number. The customer then makes their way to the local office where they are already queued for service and the customer awaits a call for their previously issued virtual ticket. The system should have the additional capability of notifying customers of changing offices conditions (emergency closure), updates to office queue wait-times, and the ability to extend their queue position (i.e. push out queue position by 30 minutes), on an opt-in basis. The system should also have the capability of providing customers with the option of receiving call-back reminders of queue status, and other informational notifications.

1.4.1 Increase the number of FO's utilizing the CQS from 80% (currently 133 offices) to 100% giving a complete perspective on statewide analytics.

1.4.2 Allow all FOs, statewide, to have access to the new Customer Flow Management System (CFMS).

By providing the remaining 33 FOs with CFMS, it will enable FO managers to more efficiently allocate staff to serve customers. The FOs will also have the ability to produce valuable data allowing DMV regional managers to monitor the FOs on a real-time basis. Wait-times accessible via the Internet will provide customers with the information to aid them in selecting when and where to visit a field office.

2.1.1 Increase the number of appointments/virtual queue customers from 23% to 50% 2 years after implementation.

By increasing the number of customers utilizing appointments/virtual queue, management will have real time information readily available to appropriately staff and to efficiently serve customers.

3.1.1 Keep current with operating systems, vulnerability patches, and software updates.

3.2.1 Ability to update, develop, and support the CAS using a common/modern programming language.

The Department is currently migrating to more modern web-based languages to ensure that a pool of qualified programmers will be available to support all DMV systems in the future.

3.3.1 Centrally manage and update CFMS statewide. Reduce resources necessary for major/minor updates.

Traceability Matrix

Business Area	Business Problem or Opportunity	Business Objectives
<p>1.0 The Field Office Division (FOD) monitors customer FO workload demands and DMV service levels/resources available in order to provide customers the most timely and efficient service.</p>	<p>1.1 The quality of customer service is inhibited because of CQS failures and malfunctions.</p>	<p>1.1.1 Acquire a robust CFMS to reduce failures and malfunctions by 70% after 1 year of implementation.</p>
	<p>1.2 Excessive wait times and overcrowding in lobby and parking lot areas result in increased numbers of altercations involving customers.</p>	<p>1.2.1 Reduce the percentage of customers waiting over 30 minutes from 40% to 30% after 1 year of implementation and from 30% to 20% after 2 years of implementation.</p>
		<p>1.2.2 Reduce the altercation/incident occurrences involving customers by 25% after 1 year of implementation.</p>
	<p>1.3 There is an opportunity to utilize new technology (virtual queue) to improve customer satisfaction.</p>	<p>1.3.1 Increase the customer satisfaction rate in regards to wait times from 63% to 70% after 1 year of implementation and from 70% to 80% after 2 years of implementation.</p>

Business Area	Business Problem or Opportunity	Business Objectives
	<p>1.4 Not all field offices operate with the benefit of the CQS. Further, data collected from the CQS system used to make informed business decisions is incomplete without every office participating.</p>	<p>1.4.1 Increase the number of FO's utilizing the CQS from 80% (currently 133 offices) to 100% (currently 170 offices).</p>
		<p>1.4.2 Allow all FOs, statewide, to have access to CFMS which will increase data collection in FOs from 80% to 100% giving a complete perspective on statewide analytics.</p>
<p>2.0 The FOD provides appropriate staffing to efficiently service customers with or without appointments.</p>	<p>2.1 There is an opportunity to better manage the customer work flow through appointment and virtual queuing.</p>	<p>2.1.1 Increase the number of appointments/virtual queue customers from 23% to 50% after 2 years of implementation.</p>
<p>3.0 The DMV IT community supports the queuing system and appointment system.</p>	<p>3.1 Software dependencies prevent IT staff from keeping current on vulnerability patches, software updates, and operating system updates posing a significant threat to security. For example, any upgrades to the Java JRE renders 100% of field offices unable to use the CQS.</p>	<p>3.1.1 Keep current with operating systems, vulnerability patches, and software updates without adversely impacting CFMS.</p>

Business Area	Business Problem or Opportunity	Business Objectives
	<p>3.2</p> <p>The Customer Appointment System (CAS) is written in a legacy programming language that will soon become unsupported.</p>	<p>3.2.1</p> <p>Ability to update, develop, and support the CAS using a common/modern programming language.</p>
	<p>3.3</p> <p>Decentralized management of existing system consumes significant IT resources to manage and update system.</p>	<p>3.3.1</p> <p>Centrally manage and update CFMS statewide. Reduce resources necessary for major/minor updates.</p>

3.4 Business Functional Requirements

The proposed solution must meet the following business functional requirements:

Customer Queuing System:

1. Provide centralized web-enabled technology to integrate the solution in all FOs statewide.
2. Provide the ability to utilize non-proprietary hardware peripherals.
3. Provide the ability to control queuing of the Automated Knowledge Testing Machines by receiving a message from the machines indicating that they are available for use.
4. Provide the ability to display queue information on LED message boards.
5. Provide a Structured Query Language (SQL) type ad hoc report generator for customized reports.
6. Include the ability to extract “live” data on demand from a statewide perspective through the report generator.
7. Collect customer wait-time data continuously in real-time and without the need for manual data gathering.

8. Collect data on the actual number of windows open, the actual number of people waiting, the average wait-time by station type (e.g. drivers license or vehicle registration appointment/non-appointment) and the approximate wait-time for the next customer. Averages should be based on the data for every customer, not just a few.
9. Gather data electronically into a format appropriate for migration into a relational database management system on site in a personal computer environment and into an off-site consolidating relational database.
10. Contain all components necessary to ensure virus free networking with the current environment as well as the successful exchange and sharing of files and data.
11. Differentiate between customers with transactions and persons accompanying them. Report to office managers how many of the people in the lobby are actually there to do business, i.e.; ascertain the true number of customers waiting to be served.
12. Capture the number of customers served by category, giving complete and accurate numbers of customers.
13. Make current wait-times available via the Internet so customers can choose non-peak times for their field office visits.
14. Make all information continually available by display on a monitor and through print, including the wait-time of customers as they are called as well as the customer with the longest wait.
15. Provide for all data to be continually available and accessible in text or graphics format.
16. Allow management to prioritize transactions by station and allow management or designated employees to make on-line adjustments to these priorities.
17. Require employees to sign on and off the system when leaving the window for breaks or lunch. The system must show the current status of each service station and employee.
18. The system must capture the number of customers served by type of transaction.
19. Issue the customer a ticket containing a service number that allows the customer to sit or move about while waiting.
20. The system must hold the customer service number in queue and automatically recall those who do not respond at the first call. This allows customers to retrieve children, use the rest room or go outside without fear of "losing their place" and not being served. Lapse time until recall to be determined by the department.
21. Provide a visual and an audible voice emulated method of calling the next customer.
22. Provide a method to quickly and efficiently direct the customer to the available window for service.

23. Allow the option of printing the expected wait-time and/or an informational message or logo on the ticket.
24. Display the actual wait-time for the customer at the station calling the customer.
25. Provide displays visible to all customers indicating the next service number called. The queue prompt must be visible from anywhere in the general lobby area.
26. Provide an automatic silent warning on the supervisor's monitor when customer wait-times exceed a set (adjustable by management) threshold.
27. The system solution must conform to DMV information security policies and to State Administrative Manual (SAM) information security guidelines.
28. Equipment and software must meet DMV's technology architecture standards.
29. Differentiate and identify those customers with multiple transactions to be processed, and report the information to the supervisor's central monitor throughout the day.
30. Provide the ability to capture FO customers' special language needs and other specialized transactions with additional categories.
31. Provide the ability to re-categorize the customer at the service window according to the type of business transaction identified.
32. Provide a remote queuing capability for customers to enter specific office queues from web-interface, mobile application and/or telephone.
33. Must be designed using commonly used IT community programming languages and infrastructure.
34. Must be able to support eXtensible Markup Language (XML).
35. Ability to migrate system data into a "comma separated value" or similar format.
36. Ability to perform global (statewide) updates.
37. Ability to define multiple workstation profiles for a FO. This includes but is not limited to:
 - a. Providing workstation ID.
 - b. Providing workstation hours by date.
 - c. Providing the ability to include breaks and lunch times.
 - d. Providing the ability to define what tasks can be performed at the workstation.
 - e. Providing exception open/close at the day/time level.

38. Ability to list ALL defined workstations, opened and closed by office.
39. The system solution must conform to DMV information security policies and to SAM information security guidelines, specifically SAM 5100, which mandates the use of American National Standards Institute and Federal Information Processing Standards.
40. Customization and modification utilizes a custom code or Adaptive Pattern approach and must not embed the custom code in the commercial COTS application.
41. Must have a source code escrow to ensure maintenance of the software in the event that the potential vendor files for bankruptcy or otherwise fails to maintain and update the software as promised in the software license agreement.
42. The potential vendor must provide a traceability matrix from the business, technical, and functional requirements to the custom code modifications.

Customer Appointment System:

43. Include a self-service check-in via scanning of a two dimensional (2-D) bar code or the latest in technology for automatic appointment customer entry.
44. Ability to define open/close days for appointments at the enterprise and FO level.
45. Ability to define a FO appointment profile by regional office or FO. This includes but not limited to:
 - a. Providing FO level information: FO Number, FO Name, FO Address
 - b. Providing FO open/close time by day of week.
 - c. Providing tasks performed at the FO.
 - d. Providing task durations.
 - e. Providing exceptions for FO open/close dates at the day/time level.
46. Ability to adjust appointment times can be performed at the enterprise, region, or each FO level but must be limited to specific personnel.
47. Ability to define multiple tasks to a workstation.
48. Ability to model or project appointment availability and needs at the enterprise, region, or FO level.
49. Ability to calculate the number of appointments available for each workstation.
50. Ability for an FO to print appointment lists by any or all of the following criteria: customer last and first name, customer first and last name, customer telephone number, customer e-mail address, FO name, workstation number, task, date, and time.

51. Ability for an office or Telephone Service Center to make appointment “inquiries” by using any or all of the following criteria: FO name, customer last and first name, DL number, customer telephone number, customer e-mail address, FO workstation number, task, date and time.
52. All methods and validation to make appointments must be the same for customers and DMV personnel, but with the capability to override certain validations by DMV personnel only.
53. Must have the ability to validate customer’s eligibility following DMV requirements prior to making certain types of appointments.
54. Flexibility to modify appointment availability from current date to 12 months in advance.
55. Ability for a customer to schedule an appointment with: customer last and first name, FO name, FO address, appointment date/time, type of appointment, and customer preferred communications method.
56. Send automatic appointment reminders per the customer’s preferred communications method (e-mail, telephone text message, telephone, etc.) to customers with: FO name, FO address, date, time and type of appointment, within a pre-determined time period, before scheduled appointment.
57. The customer and DMV must be able to make/view/cancel appointment(s).
58. Customer must be provided with the option to input FO name or locate via a map.
59. Customer must be provided with a confirmation page that includes a 2-dimensional bar code or the latest in technology identifying the appointment.
60. Must have the ability to incorporate additional features and functions offered as a result of technology changes and readily available within the corporate community but not necessarily described in this document.

4.0 BASELINE ANALYSIS

4.1 Current Method

CUSTOMER QUEUING SYSTEM:

The DMV has 170 FOs of which 137 operate with the benefit of a queuing system, which processes about 27 million customers² a year. The system utilizes electronic queue management equipment and computer data collection technology to assist in managing FO customer traffic and the collection of critical customer service data. The CQS is a centralized system located at DMV HQ which collects customer service information and generates real-time information on PC monitors strategically located within the FO. It also generates scheduled/standard reports and on-demand/ad hoc reports. Customer service can be tracked and monitored by the FO management, the Region Administrator Office staff, and at DMV HQ located in Sacramento. The formatted customer service information is stored on a HQ file server for consolidation of current and historical for analysis and reporting.

A FO customer first reports to the ‘Start Here’ Station where a FO Technician issues a ticket, based on the customer’s business need. The ticket contains the following information:

- Customer number
- Category of service selected
- Current date/time
- Informational message or logo

Once a ticket has been issued, the system recognizes that customer is waiting for service. Customers may be seated or are free to walk around while they wait their turn for service. The system creates an invisible queue to track customer wait-times. As FO Technicians become available, they use their web browser to interface with the queuing system and show their availability, which dispatches the next customer to their window. The system tracks the availability of service windows and FO Technicians.

Current wait-times by category are displayed on a scrolling LED message board in the FO, visible to incoming customers. The customer’s ticket number is called out by voice simulation and is visually displayed on television monitors located throughout the FO to inform customers which workstation number they need to report to for service.

The FO Management Team can obtain the following information from the CQS:

- The longest wait-time for current customers;
- Which FO Technicians are currently available to service customers;

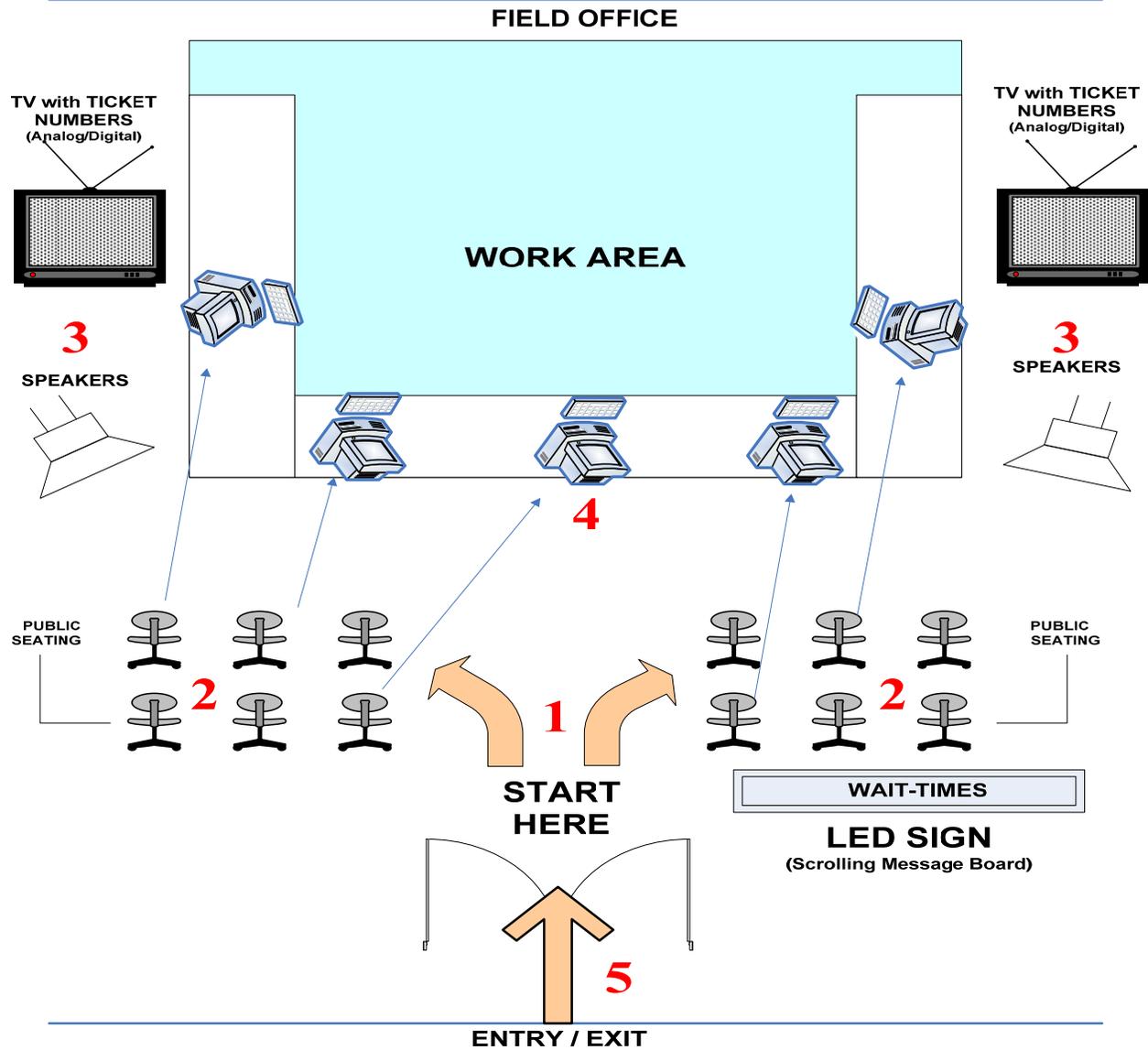
² Q-Matic Queue System 2009 Annual Report

- Which FO Technicians are currently serving customers;
- How many customers are waiting for each service category;
- What the average wait-time is for each service category;
- What the average service-time is for each service category;
- The total number of customers served;
- Visual warning (color changes) when wait-time thresholds are about to be exceeded; and
- Visual warning (color changes) when wait-time thresholds have been exceeded.

A supervisor can set workstation service priorities to allow for the best possible customer flow and for focused FO Technician training when required. Priorities are assigned to workstations based on the current workload demand. The supervisor can immediately respond to changes in the workload by allocating more workstations to provide the service most in demand, or by adjusting the service priorities of one or more workstations.

All data is collected and stored on the centralized CQS file server located in the HQ complex. The system handles only non-confidential customer tracking, customer wait-time, and staff deployment information that does not infringe on privacy. Information is secured by user identification and password protection. The system supports backup processes and security measures to protect data from destruction and unauthorized alteration.

FIELD OFFICE CUSTOMER PROCESS FLOW DIAGRAM
CUSTOMER QUEUE SYSTEM



1. Customer enters the FO and receives a ticket number at the ‘Start Here’ Station.
2. Customer takes a seat to wait their turn. Wait-times are displayed on the scrolling LED sign along with the last ticket number called.
3. The customers’ ticket number is called out by voice simulation (speakers) and is visually displayed on the television monitors to inform customers which workstation number to report to for service.
4. The customers reports to the workstation and the FO Technician completes the customer transaction.
5. The customer leaves the FO.

Thirty-Three Field Offices without a Customer Queuing System:

The Department currently does not use a CQS for controlling the flow of customers in 33 of the smaller FOs. Most of the small-sized FOs utilizes a self-service take-a-ticket system, which enables the customer to sit while waiting to be called. Customers are required to stand in a line while waiting for service in the FOs not using a take-a-ticket system. Non-appointment customers are served on a first-come, first-served basis. During various times throughout the day, a DMV employee may “monitor” customers in the lobby to provide direct customer service to review paperwork, provide information, and help with forms to ensure the customer is adequately prepared to receive service when they reach the counter. Appointment customers are provided priority service upon arrival to the FO.

Reports and Data Collection:

The CQS stores data so that reports can be generated on demand or at pre-scheduled print times. The reports provide information about activities that have occurred in a FO and are reviewed on a daily basis by the FO Management Team. Wait-times, service levels, and other related data are reviewed in the reports and are discussed among the management team and employees in the FOs. This information is used for capacity planning and staff scheduling, and has proven to be a valuable tool for management and employees in identifying how to optimize the operation of an office so that customer service levels are improved and wait-times are reduced. The reports provide information to identify trends so that changes can be made to serve customers more efficiently, and then to provide feedback so that the result of the changes can be reviewed.

The system captures wait-time and service time for each customer provided with a ticket. Wait-time is measured when a ticket is issued at the “Start-Here” counter, and ends when that ticket number is called to a workstation. Service time begins when a ticketed customer is called to a workstation and ends when the next customer is called to the workstation, or when the technician logs off of the queue system.

Customized report presentations are requested by executive management, media, and others to measure FO performance as a result of legislative action, coordinated work slowdowns, and office closures. In addition to these specialized requests, HQ staff develops a variety of routine reports using data from the queue system but the collection and compilation of the data is inefficient. HQ staff is required to access the standard reports from the queue system and transmit the data manually into more presentable formats such as Microsoft Excel. The development of customized reports may take anywhere from two hours to two weeks to produce depending on the complexity of the data request. Some of the reports are produced on a monthly schedule because they take that long to produce while others are produced to show daily and weekly trends. Most ad hoc requests for customized reports require a group of staff members to complete separate portions of the report due to the complexity and time involved in the manual extraction and input process.

CUSTOMER APPOINTMENT SYSTEM:

The system allows FO and TSC technicians to schedule customer appointments for DL, VR, drive tests, and some other services that FOs provides to the public. DMV Technicians access the Appointment System using an interface on the RS6000 processor terminal (dumb terminal connected to the mainframe) to the ADABAS database to schedule customer appointments.

Each FO Manager must establish separate hours of operation, define all services they provide to the community, and assign time allotments to each service; these are referred to as “tasks”. A workstation is set-up for each technician that will perform each task. Workstations also include “closure” time to accommodate lunches, breaks, and vacations. This is performed for each technician, in each FO statewide. Only the FO Manager and limited authorized personnel from the FO may access the set-up screens.

The FO Manager completes a quarterly FO Profile document every three months which contains the following information:

- Hours of operation
- Tasks offered to the public
- How much time is allotted for each “task” offered
- Directions and a map to the office

The FO Profile document is submitted to the TSC Database maintenance group for input into the FO Profile Database which is accessible to all TSC Technicians via the Intranet. The information is used to assist TSC Technicians in creating a customer appointment.

The TSC Technicians access the FO Profile before scheduling a customer appointment. They “toggle” from the DMV Appointment System to the Intranet FO Profile Web Page, retrieve the necessary information, “toggle” back to the DMV CAS and begin the process of establishing a customer appointment.

In January 2001, the Online Self-Service Scheduling System project was developed to make office visit appointments for DL and VR available to the public via the Internet. The system allows one type of appointment (Driver License or Vehicle Registration) per customer. The Online Self-Service Schedule System did not replace the DMV Customer Appointment System; it is merely a “front page” that allows customers to access the DMV Appointment System via the Internet, 24 hours a day, and 7 days a week.

In May 2006, the Online Self-Service Scheduling System was enhanced to give customers the ability to schedule appointments via the Internet for non-commercial (Class C) and motorcycle (Class M) behind-the-wheel drive tests. This enhanced the on-line aspect of the appointment system by allowing customers to make an appointment for multiple transactions utilizing one date and time, and to establish multiple appointments for multiple customers.

4.2 Technical Environment

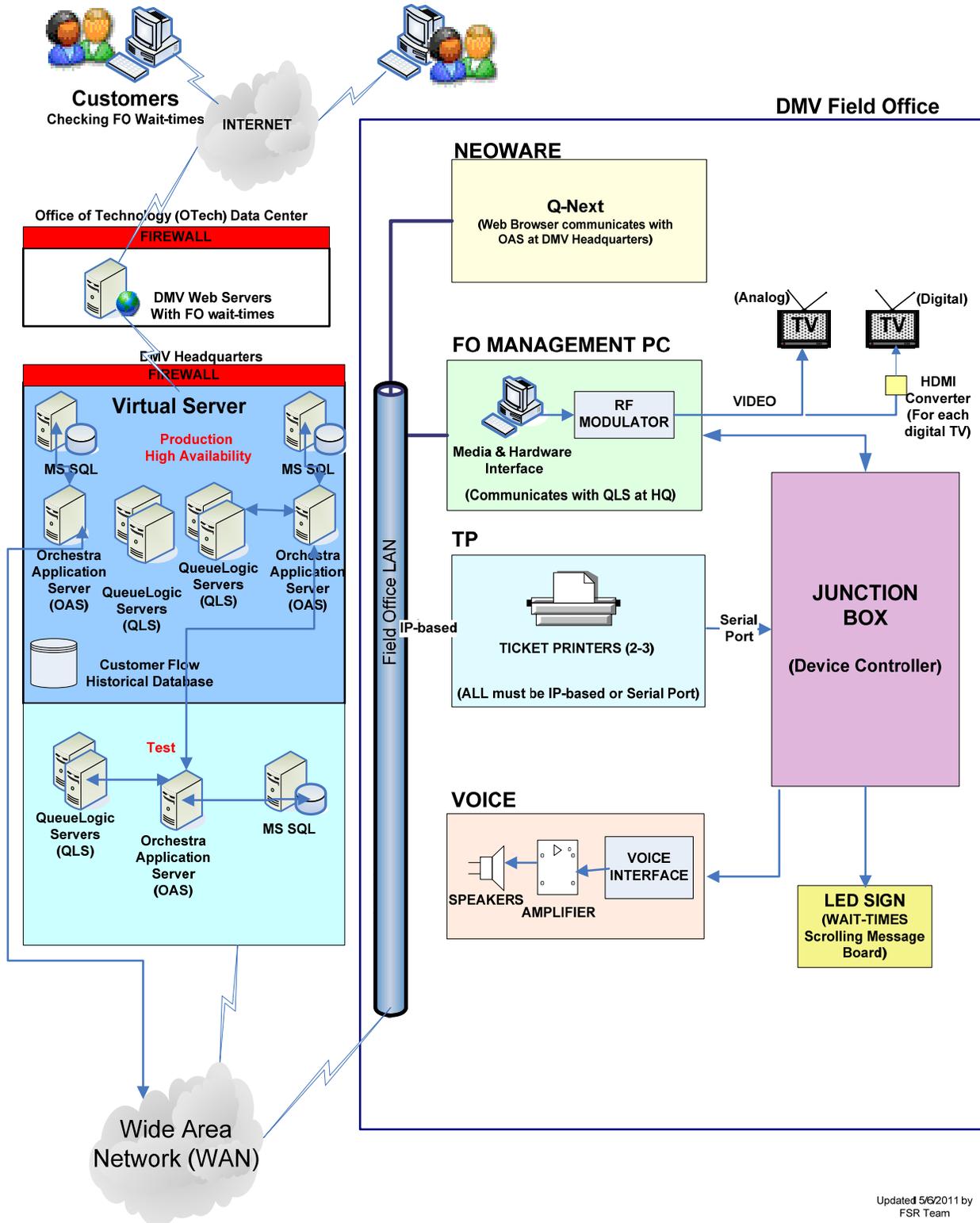
4.2.1 Existing Infrastructure

CUSTOMER QUEUING SYSTEM:

The current centralized, web-enabled CQS is housed on virtual servers located at DMV HQ. It utilizes customized COTS software to capture and store the dynamics about a customer's visit to a FO. Data such as wait-time, transaction time, number of customers served, etc., are stored on a HQ file server where the detailed data is utilized to identify peak workload periods, service levels, and other management information. This environment supports only administrative processes and is not considered an enterprise system. Information is secured by user identification and password protection.

The system peripherals are wired through FO access ducts and other modular furniture. A dedicated electrical circuit is installed to operate all hardware components. Modifications to the building were not required. All procured software and hardware components are proprietary.

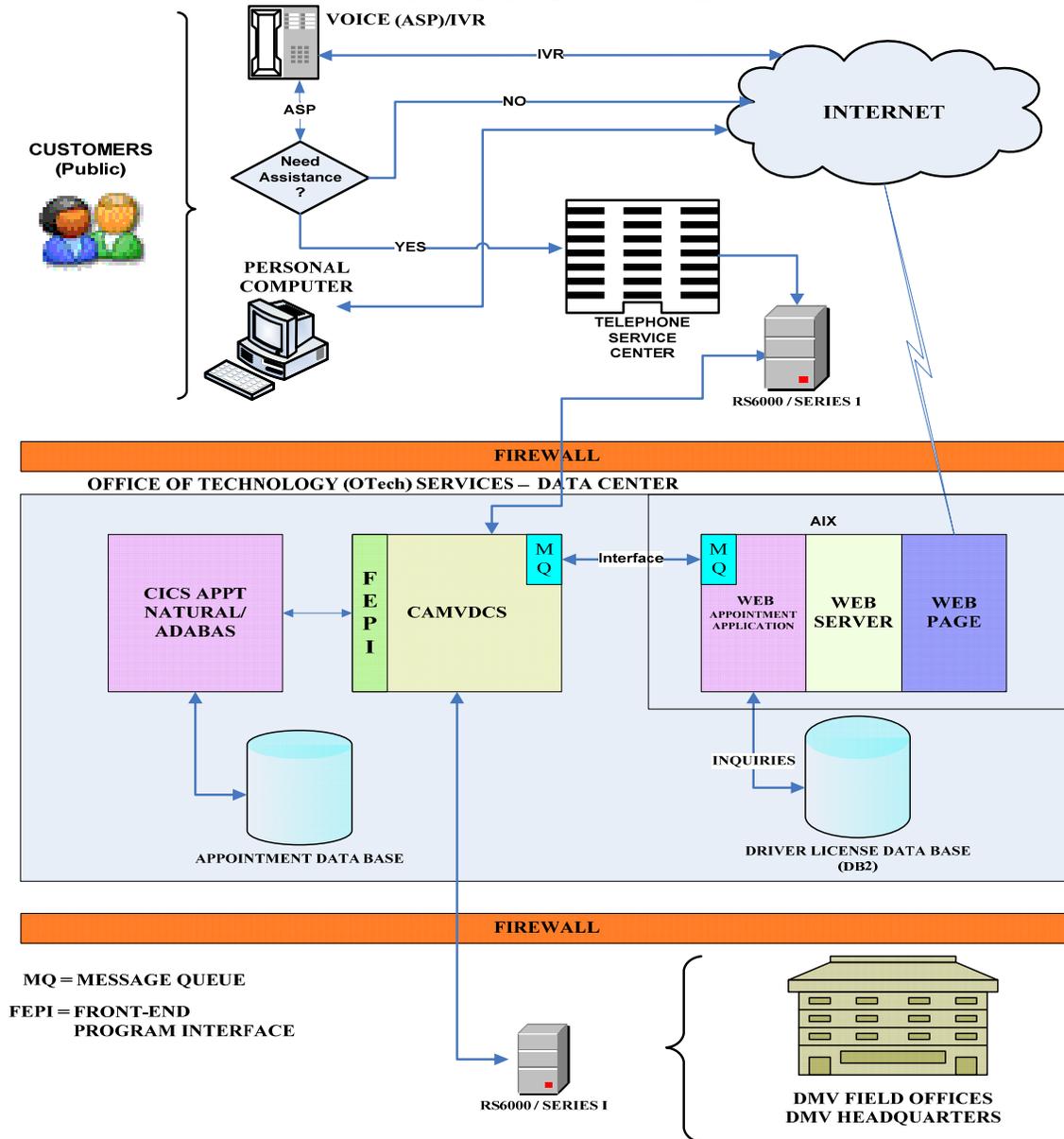
EXISTING QUEUE SYSTEM & BROADCAST WAIT-TIMES FOR FIELD OFFICES



CUSTOMER APPOINTMENT SYSTEM:

The DMV CAS is housed on mainframe hardware located at the OTech – Data Center and is a part of the DMV Automation (DMVA) application that runs the VR and DL program applications. It is also housed on an Internet server located at OTech – Data Center, which allows the public to make appointments via the Internet. No other hardware is associated with the operation of the DMV Appointment System.

EXISTING APPOINTMENT SYSTEM INFRASTRUCTURE DIAGRAM



5.0 PROPOSED SOLUTION

DMV will select, through the RFP process, a vendor to install and customize a centralized, web-enabled non-proprietary COTS Customer Flow Management System and integrated Customer Appointment System with all related IP-based hardware.

5.1 Solution Description

The proposed solution is to utilize technology that operates on a web-enabled platform, with an open architecture design. The systems will be enterprise-wide which operate in the “.net” environment. This technology must be designed to operate in DMV’s and OTech-Data Center’s standard environment. The potential vendor will be required to customize the software to meet all DMV project objectives and business functional requirements.

The solution will include a report generator which utilizes technologies such as SQL that allows users to extract data to customize and formulate the information into presentable layouts.

Data will be maintained in a centralized database located at the OTech – Data Center and all interaction will be through the DMV network. Data will be secured, protected, and maintained internally on the DMV Network. Access is restricted via firewall protection, and security is augmented using Windows Authentication to access the application and run reports. Security levels will be established by the System Administrator, with highly configurable user and device profiles. The system will allow third party Application Programming Interface to securely access the system through the DMV network in 172 locations (170 FOs and 2 HQ Test Sites).

An architectural fit review must be performed on the proposed solution to ensure that it adheres to enterprise principles, standards, blueprints, the To-Be (future) state, and DMV’s strategic and business plans. The review mitigates DMV’s risk of buying or building systems that are duplicative, incompatible, and costly to maintain and integrate.

The selected vendor will utilize the same “open market” solution to include a new CAS that integrates and works in concert with the CFMS. The new CAS will replace the current system. Modifications to the ASP/IVR appointment application will be necessary to integrate the new CAS. The selected vendor will be required to customize the software to meet all DMV project objectives and business functional requirements.

Procure/Install the CFMS and a report generator.

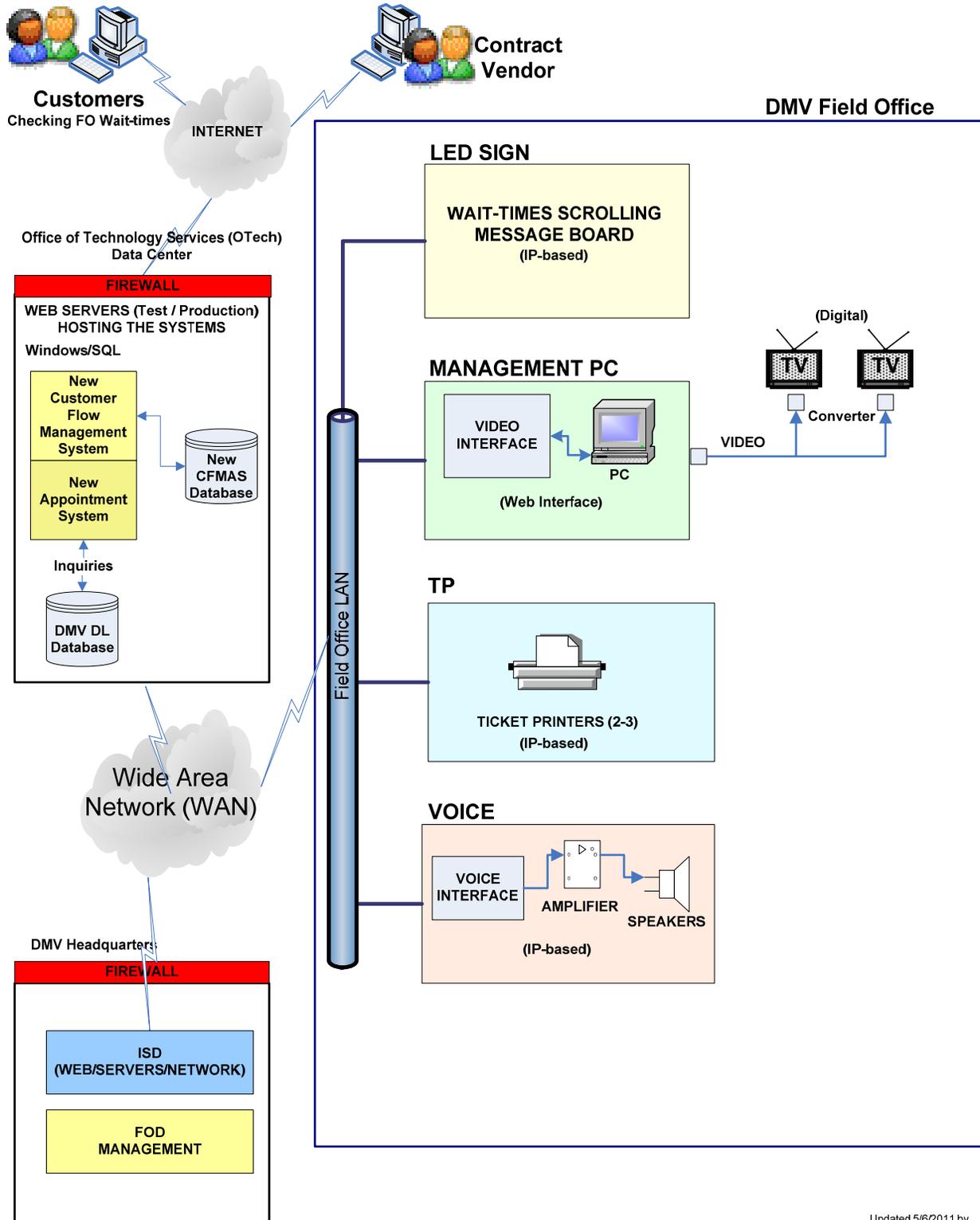
The selected vendor will install and configure customized, centralized, web-enabled COTS CFMS technology. The selected vendor will also provide user training/manuals and system maintenance for application source upgrades. The

system will track and manage DMV FO customer traffic and wait-times in all FOs statewide, and include an SQL or equivalent data tool for customized presentation of reports. The enterprise system will utilize a central web server, which is accessed through an Internet browser, provides enhanced report capabilities, and contains open architecture software configuration for future integration of other DMV program enhancements.

The proposed CFMS solution allows the Department to fully utilize CFMS in all 172 locations.

The CFMS will utilize commercially available hardware peripherals. The enhanced system provides the functionality needed across all geographic locations that have direct connectivity to the DMV network.

PROPOSED QUEUE SYSTEM & BROADCAST WAIT-TIMES FOR FIELD OFFICES



Procure/Install the Customer Appointment System

The selected vendor will also provide a CAS solution that integrates and works in concert with the CFMS. The CAS will replace the current system. Modifications to the ASP/IVR Appointment Application will be necessary to integrate with the new CAS. The selected vendor will be required to customize the software to meet all DMV project objectives and business functional requirements. The selected vendor will also provide user training/manuals and system maintenance for application source upgrades.

In addition to a web-enabled CAS, the CFMS will also provide a system (integrated or Software as a Service [SAAS]) through which appointment or non-appointment customers may enter specific office queue systems from remote locations (i.e. via cellular telephone or web). For example, a customer recognizes the need to visit a DMV office and visits the remote queue web site via their cellular telephone. The customer notices the local FO has a 20 minute wait and initiates a queue ticket request (virtual ticket) via their cellular telephone browser. The customer then makes their way to the local office where they are already queued for service and the customer awaits a call for their previously issued virtual ticket. The system should have the additional capability of notifying customers of changing offices conditions (emergency closure), updates to office queue wait-times, and the ability to extend their queue position (i.e. push out queue position by 30 minutes), on an opt-in basis. The system should also have the capability of providing customers with the option of receiving call-back reminders of queue status, and other informational notifications.

The new system will allow customers to make an appointment (in-person, telephone, web-initiated [e-mail, telephone text message, etc.]), and then “check in” on-line 24 to 48 hours in advance of the appointment time. An automatic e-mail, telephone text message, or telephone reminder to the customer, prior to the on-line check-in process will be included and additional customer reminders via the customers preferred communications method (e-mail, telephone text message, telephone, etc.) after check-in would be generated by the system. This will help remind customers of the upcoming appointment and decrease instances of missed appointments. Similar to the airline ‘online check-in process’, the customer will print an appointment confirmation (boarding pass) which includes a bar code that will be presented to a ‘stand-alone’ scanner when they arrive in the FO, separate from ‘walk-in’ customers without a scheduled appointment. The customer will automatically be entered into the customer flow with other appointment customers and avoid the need of waiting for an appointment ticket at the ‘Start Here’ line. This will help ensure that appointment customers are provided with expedient service.

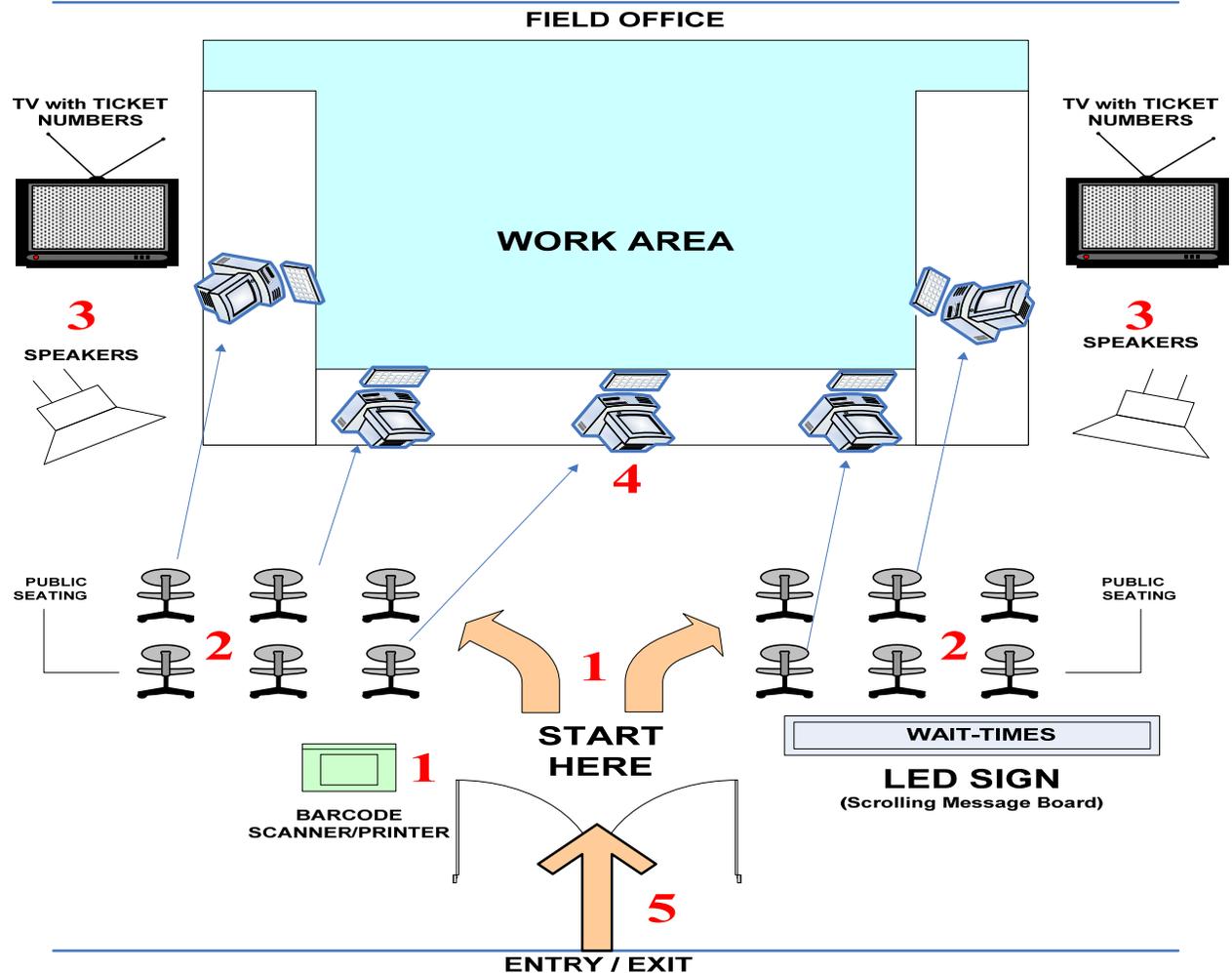
System Roll-out

The two HQ Test sites will be the first locations to have the CFMS and CAS installed and tested, which will occur by May, 2015. Once the CFMS and CAS have been fully tested and placed into the Production environment, the CFMS will be rolled out to the remaining locations in the following stages:

DEPLOYMENT SCHEDULE	
Pilot Offices:	
October 2, 2015	San Andreas (non-CQS office), Jackson (non-CQS office), Lodi, and Sacramento (Broadway)
Roll-Out	
November 2, 2015	2 non-CQS offices AND 9 CQS offices
November 16, 2015	2 non-CQS offices AND 9 CQS offices
November 30, 2015	2 non-CQS offices AND 9 CQS offices
December 14, 2015	2 non-CQS offices AND 9 CQS offices
December 28, 2015	2 non-CQS offices AND 9 CQS offices
January 11, 2016	2 non-CQS offices AND 9 CQS offices
January 25, 2016	2 non-CQS offices AND 9 CQS offices
February 8, 2016	2 non-CQS offices AND 9 CQS offices
February 22, 2016	2 non-CQS offices AND 9 CQS offices
March 7, 2016	2 non-CQS offices AND 9 CQS offices
March 21, 2016	2 non-CQS offices AND 9 CQS offices
April 4, 2016	2 non-CQS offices AND 9 CQS offices
April 18, 2016	2 non-CQS offices AND 9 CQS offices
May 2, 2016	2 non-CQS offices AND 9 CQS offices
May 16, 2016	3 non-CQS offices AND 9 CQS offices

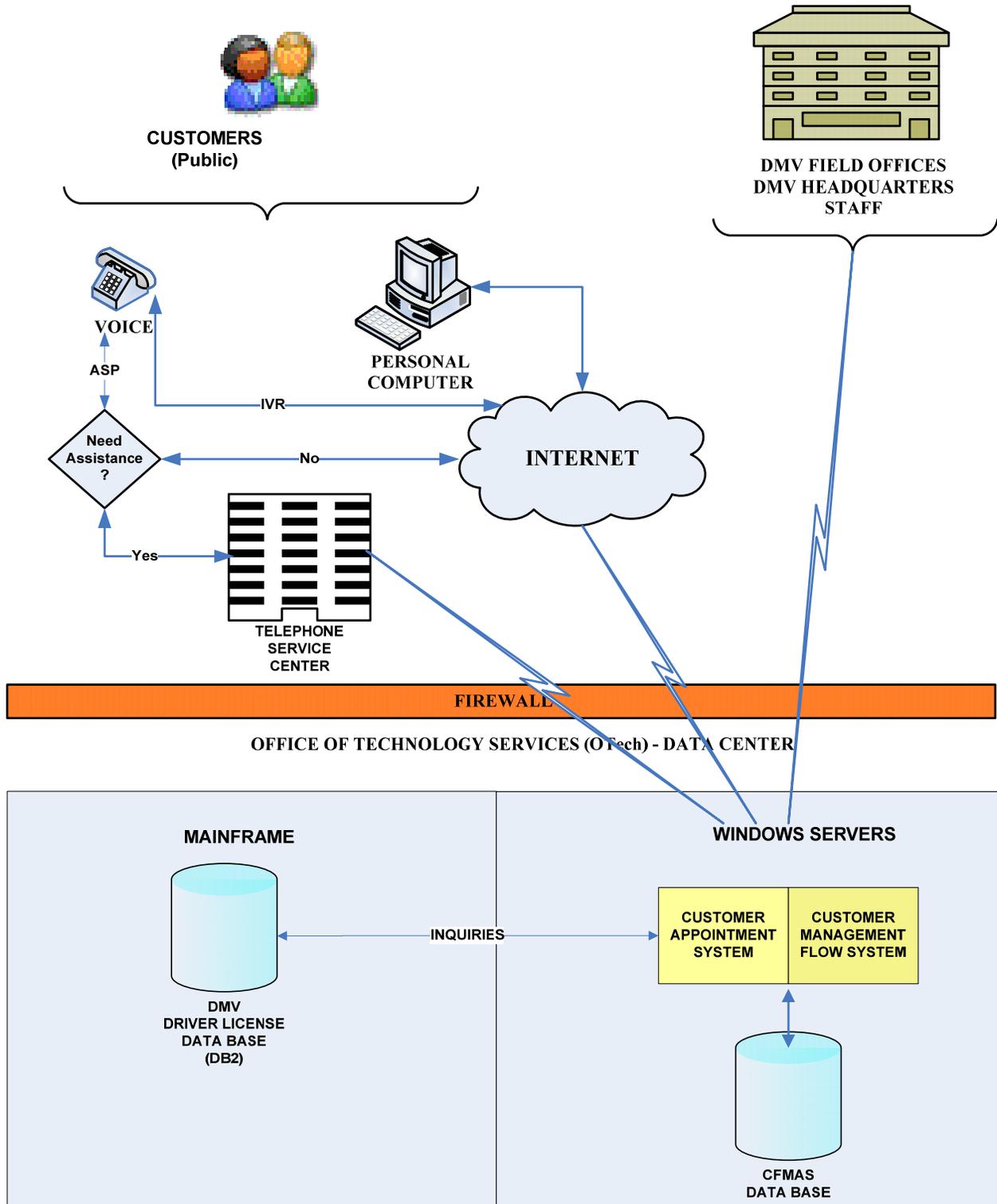
Note: Until the deployment has been completed, the existing CQS will run parallel to the new CFMS.

FIELD OFFICE CUSTOMER PROCESS FLOW DIAGRAM
CUSTOMER QUEUE SYSTEM



1. On-line Appointment Customers: Enters the FO and checks in using the barcode scanner which automatically enters them into the queue system.
 All other Appointments/Walk-in Customers: Enters the FO and receives a ticket number at the ‘Start Here’ Station.
2. Customer takes a seat to wait their turn. Wait-times are displayed on the scrolling LED sign along with the last ticket number called.
3. The customers’ ticket number is called out by voice simulation (speakers) and is visually displayed on the television monitors to inform customers which workstation number to report to for service.
4. The customers reports to the workstation and the FO Technician completes the customer transaction.
5. The customer leaves the FO.

PROPOSED SOLUTION APPOINTMENT SYSTEM INFRASTRUCTURE DIAGRAM



5.1.1 Hardware

The following hardware will be supplied by the selected vendor and will be non-proprietary/IP-based and owned by DMV:

- Client Ticket Printers
- System Controllers (Smart Box)
- Lobby TV Monitors (Digital)
- Tilt and Ceiling Monitor Mounts
- LED Message Boards
- Servers
- Speakers
- Amplifiers
- Barcode Scanner/Printer Devices
- Including any other hardware needed to implement the solution.

The OTech – Data Center will provide and house the necessary servers and will charge DMV a monthly service fee.

5.1.2 Software

The selected vendor will provide customized, non-proprietary, integrated COTS software packages for the CFMS and CAS which meet DMV's business functional requirements.

5.1.3 Technical Platform

The CFMS and CAS applications must operate in the DMV web-enabled '.NET' environment and must be able to support XML.

5.1.4 Development Approach

The CFMS and CAS will be a COTS application software solution that will require customization by the selected vendor to meet all business functional requirements. Modifications to the ASP/IVR appointment application will be necessary to integrate with the CAS. The selected vendor will work in partnership with the existing ASP/IVR vendor to perform the necessary modifications for the new CAS solution. The selected vendor will need to develop the interface to the Driver License database.

The OTech – Data Center staff will maintain all servers for CFMS and CAS.

5.1.5 Integration Issues

The CFMS and the CAS COTS solution must be fully integrated.

5.1.6 Procurement Approach

The proposed solution will utilize an open market, competitive bid methodology through a formal Request for Proposal (RFP).

5.1.7 Technical Interfaces

The CAS must interface with the DL Shadow Database through SQL. The ASP/IVR will interface with the CAS through XML.

5.1.8 Accessibility

The proposed solution will follow the Americans with Disability Act of 1990 Section 508 guidelines.

5.1.9 Testing Plan

The testing plan will be part of the deliverables from the selected vendor. The DMV will work with the vendor to produce a test plan that describes in detail the approach that will be used for each of the following:

- Unit Testing
- Systems and Integration Testing
- Performance/Load/Stress Testing
- Specified User Group Acceptance Testing (Including functional and performance/reliability testing)
- Vulnerability and Penetration Test
- Regression Testing
- User Acceptance Testing

The Test Plan shall describe the methodology of each of the following:

- Testing events
- Testing team members and roles
- Test environment and testing results tracking software
- Test data source
- Approach to developing test cases

- Test case formats, types, and defect resolution procedure

5.1.10 Resource Requirements

The proposed solution will involve the following resources:

- DMV Staff – work with selected vendor in all phases of the proposed solution.
- RFP Consultant – work with DMV staff to develop the RFP.
- Selected vendor – work with DMV staff on all phases of the proposed solution and work with ASP/IVR on the CAS interface.
- ASP/IVR contractor (CalNet) – work with DMV and the selected vendor on the CAS interface.

5.1.11 Training Plan

The training plan will be developed by the selected vendor and must be approved by DMV. Knowledge transfer by the selected vendor to DMV staff must be completed before project implementation and must include all necessary documentation and manuals. The selected vendor is responsible for training the DMV HQ “staff trainers”. The DMV staff trainers will be responsible for training the FO and TSC staff. The selected vendor will also provide user training/manuals and system maintenance for application source upgrades.

5.1.12 Ongoing Maintenance

The CFMS and CAS customized COTS software will be maintained by the selected vendor. Network connectivity is jointly the responsibility of DMV and the OTech – Data Center. DMV will be the system administrators for both integrated systems.

5.1.13 Information Security

Information Security Risk Assessment will be performed by DMV; the selected vendor must comply with DMV Security Policy and Procedures.

5.1.14 Confidentiality and Information Privacy

In order to maintain confidentiality, appropriate safeguards including if deemed applicable, Privacy Impact Assessment will be utilized to ensure DMV is in compliance with the State of California Technology Agency, SAM, Office of Information Security, and the Department’s Information Security and Privacy Policies and Standards.

There will not be access from the system to any other system that contains information relevant to the following:

- Freedom of Information Act
- Information Practices Act
- California Public Records Act
- State Records Management Act
- All DMV and vendor personnel must complete confidentiality statements. Vendor personnel may be required to complete Form 700s also.

5.1.15 Impact on End Users

Field Office and TSC staff will need to be trained on the new CFMS and CAS by the DMV “staff trainers”. Training by the DMV “staff trainers” will also be required for FO staff on the new ticket printers and barcode scanner/printers.

5.1.16 Impact on Existing System

The proposed solution will replace the existing CQS and CAS.

5.1.17 Consistency with Overall Strategies

The proposed solution embraces web-based technologies and is consistent with State Technology Agency, DMV Strategic and IT Goals in the following manner:

California OCIO IT Strategic Plan 2010	
<p>CONCEPT 1: IT as reliable as a utility</p>	<p>The proposed solution provides the agile, effective, extensible, reliable, and secure IT infrastructure and shared services necessary to meet programmatic needs of state agencies.</p>
<p>CONCEPT 5: Economic and Sustainable</p>	<p>The proposed solution ensures that the state’s management and use of technology contributes to efficient government operations and furthers the state’s environmental goals through the implementation of green IT best practices and policies.</p>
DMV Strategic Plan 2010	
<p>GOAL 1: SERVICE Enhance services to our internal and external customers.</p>	<p>The proposed solution aligns DMV products, services and resources with current and evolving customer needs.</p>
<p>GOAL 2: WORKFORCE Strengthen and support the professionalism and skill of our workforce.</p>	<p>The proposed solution enhances our workforce capabilities to meet current and evolving business needs and demographics.</p>
<p>GOAL 3: SAFETY Enhance traffic safety through internal programs and partnerships.</p>	<p>The proposed solution expands traffic safety related projects and programs, and ensures drivers are qualified and competent to use the roadways.</p>
DMV IT Strategic Plan 2010	
<p>GOAL 1: Enable DMV to Enhance Service Delivery Options</p>	<p>The proposed solution institutes practices and policies that increase levels of communication, collaboration, and customer service.</p>
<p>GOAL 2: Attract, Develop, and Retain a Skilled Workforce</p>	<p>The proposed solution brings the Queuing process current with today’s commercial offerings. By using the Web-based service component, the department is positioned to be more competitive in seeking interest from the existing academic community to hire and stay with the department long term.</p>
<p>GOAL 4: Commit to Utilizing Effective IT Practices</p>	<p>The proposed solution will develop and implement a cohesive business Internet strategy to ensure an appropriate web-presence with the most efficient and effective use of resources.</p>

5.1.18 Impact on Current Infrastructure

The CQS will no longer reside at DMV; the new CFMS will be housed at OTech. Bandwidth to FOs may need to be increased depending on vendor solution.

5.1.19 Impact on Data Center(s)

The existing CAS will no longer reside on the IBM mainframe at OTech. It will reside on Windows servers. The new CFMS and CAS will be housed at the OTech – Data Center.

5.1.20 Data Center Consolidation

The proposed solution is consistent with the State's data center requirements.

5.1.21 Backup and Operational Recovery

OTech Data Center will maintain the current Backup and Operational Recovery (OR) guidelines and update them as required. Regular OR testing will be conducted in coordination with DMV and OTech. The proposed solution must comply with DMV Operational Recovery Planning Guidelines and the SAM, Section 4813 and 4813.1, to assure appropriate level of protection for the Departments' assets.

5.1.22 Public Access

Public access is provided through the Internet and telephone systems; however, the solution does not provide direct public access to any of the DMV databases.

5.1.23 Cost and Benefits

Costs:

See Section 8 – Economic Detail Worksheets (EAWs) for details.

Benefits:

The project will provide the following benefits:

1. Use of modern technology to ensure programmer availability for support and maintenance in the future.
2. Provide Management Information System and ad-hoc reporting capabilities for strategic planning.
3. The automated appointment eligibility verification process should eliminate human errors in scheduling ineligible customers for

appointments. The benefit of the new technology will increase appointment availability and reduce unnecessary in-person customer visits to FOs.

4. The web-enabled solution will provide the full range of application benefits offered via the Intranet/Internet. This will allow the Department to configure the primary applications for customer flow and appointments while concurrently strategizing future enhancements that will be “plug-and-play” add-ons. These can include:
 - Access to DMVs data (informational only – wait-times, etc.) on a national level.
 - Interfacing with on-line appointment features not inherent with the existing service.
 - Enhancing the department’s readiness to deploy Assistance Centers and Outreach Programs.
 - Delivering Learning Assistance Programs for online interactive courses and video teleconferencing.
 - Providing more active windows for public view of DMV Public Service Announcements and statistics.
 - Provide for remote queuing capabilities, and incorporation of mobile technologies (web, mobile applications, cell, etc.) into the products available.
5. Of the 170 FOs statewide, there are 33 FOs that do not operate with the benefit of the CQS. They do however; use the DMV in-house developed Appointment System. With the new system in place, the non-queuing FOs will have the full benefit of the web-based service to include the enhanced appointment component. This eliminates the need for additional customization to provide for an appointment system in both queuing and non-queuing FOs. Having all FOs connected via the web-enabled solution provides DMV with the ability to fully assess business trends, staffing needs, and the effects of new legislation in a statewide perspective. This communal platform eliminates the requirement to train migrating managers from non-queue to queue, non-web appointment system to web-enabled appointment system.
6. The proposed solution connects a CAS to the CFMS as a component. Data from the appointment activity would be captured and archived at the DMV repository. This will allow DMV to retrieve data from both components and present the results in managerial queries or reports as it is needed. DMV managers can refine the data presentations to “fit” the business need and in turn route them electronically to any point in

the web community. Full view of the business activity by DMV management eliminates the data gap present in the current system. The new system will collect information on scheduled appointments that customers follow through on as well as information to determine the ‘no show’ rate. This allows DMV managerial staff to project future appointment scheduling and determine staffing needs during any peak appointment hours. Web-enabled services eliminates the need to interface the appointment component to the IBM Series 1 or RS 6000 processors and is fully compatible with the DMV Information Technology Modernization Project which will require support from this project to provide the new Appointment FO interface.

7. The CFMS will include a variety of standard reports and a report generator to allow for ad hoc data to be presented differently from the standard reports. DMV HQ staff will be able to develop customized reports using data from the CFMS as required by FO and/or DMV Executive staff. The development of customized reports will be instantaneous and can be routed via electronic means resulting in quicker delivery. Having a web-based report generator eliminates the need to solicit system development support to produce reports which can take as long as a month to develop and produce in the current system. Customized data presentation gives FO managers the ability to readily assess staff training deficiencies. Management will be able to identify long transaction times of employees and identify if they are struggling with certain types of transactions and address as necessary on a real-time basis.
8. By allowing appointment status and statistical data to flow electronically to and from the Queuing System gives DMV managers dynamic oversight of the work flow within any given Field Office. It will allow the managers to observe the “as-is” condition of the clientele’s needs for that business cycle. It will provide for instant balancing of customers desiring Driver License service vs. Registration service. It dramatically influences the wait-times by allowing managers to better assign customers to appropriately trained staff and process their transactions on a more efficient basis.

5.1.24 Sources of Funding

See Section 8.0 – EAWs –Project Funding Plan.

5.2 Rationale for Selection

- **Rationale:**

DMV’s business plan for the 21st century showcases the vision that will take DMV into the future with a renewed focus on improved customer service. This

overall vision reduces the workload in FOs with the delivery of other service improvements, and enables customers to conduct some business without a personal visit to a DMV FO. The web-enabled CFMS that includes the replacement of the existing CAS, is an integral part of the future of customer service at DMV. Without these systems working in concert with each other, DMV will not have a way to facilitate the future customer service improvements envisioned.

The DMV has improved customer flow in FOs in the last several years with use of the current queue system. The solution to install web-enabled CFMS technology and include an Appointment System to work in concert with it will address the deficiencies of the current systems and provide additional customer service improvements in the future on a statewide basis. Business process improvements will be achieved with regard to system maintenance and data reports, and the open market procurement methodology will help strengthen future procurement justifications.

5.3 Other Alternatives Considered

Alternative #1: *Procure and Install Web-Enabled CFMS Technology only and Convert (in-house) the existing Appointment System to DB2-JAVA.*

5.3.1 Describing Alternatives

Alternative #1: *Procure and Install Web-Enabled CFMS Technology Only and Convert (in-house) the Appointment System to DB2-JAVA.*

5.3..1.1. Description

The current CQS and the DMV CAS do not integrate with each other. This approach would address the business, technical, and functional requirements separate from one another so that the more customization factors of the CAS could occur at a later date. With the advent of a web-enabled open architecture environment, future integration is not an issue, only complete system functionality to meet all of the DMV's and our customer's needs.

5.3..1.2. Costs

The estimated One-time IT Project Costs are \$11,405,203; Continuing IT Costs are \$3,160,559 resulting in Total Project Cost of \$14,565,762. See Section 8.0 – EAWs for details.

5.3..1.3. Benefits

1. Budget request requires fewer monies initially.
2. Reduced complexity by not including the CAS replacement.
3. Still allows for future integration of the CAS with the CFMS.

5.3..1.4. Advantages

1. Supplier solution software will not require as much customization to meet the initial CFMS business functional requirements.
2. Additional business functional requirements may be identified, after the CFMS is in place, which will affect the design of the CAS.
3. Less immediate impact to the affected Division and Branch entities throughout the DMV.
4. Conversion maintains the current business process for FO Managers and technicians using the appointment module and reporting methods. There would be minimal training and/or orientation to use the converted method and customers already accustomed to the appointment process would not be exposed to the enhanced, more complex tools offered in the Web-based interactive platform.
5. DMV would have more control over modifications to the appointment business rules. Legislative demands or DMV driven business changes can be performed quickly by using in-house analytical and programming staff.
6. Converting to current software language allows for wider pool of language-specific programmers to augment existing Enterprise Development staff.
7. Delaying CAS interface to queuing module allows for funding projection beyond current implementation year. Reduces cost to interface appointment module with queuing module in that conversion to current software language will already be in place.

5.3..1.5. Disadvantages

1. A separate FSR is required.
2. Budget monies are requested separately.
3. The CAS replacement will occur at a later date.
4. DMV continues to utilize disparate systems for queue management and appointment management.
5. Not all CFMS functionality will be used initially.

Alternative #1 is a viable solution and the costs are detailed in the EAWs. However, it was not selected due to its inability to interface with the report engine and databases available in the CQS. This alternative will not give on-line access and control of appointment status and data except as an after-business action. DMV Managers will continue to be reactionary to business events that were introduced by customers using the non-integrated CAS. When demands for “as-is” status are required by Executive Staff or Field Office Division (FOD) Management the response time will be delayed as much as 5-10 working days to allow for the DMV CAS host to capture and report the data as requested. FOD management influences that are affected by the appointment benefit will be grossly late in arriving while appointment system hosts capture and prepare the reports for management to use as decision sources. The CAS will not be accessible by the same Web-based host as the CQS and therefore not available for enhancements that might include virtual queuing or other state/agency browsers.

6.0 PROJECT MANAGEMENT PLAN

6.1 Project Manager Qualifications

Project Manager Level: 4

Experience: 5+ years working as Project Manager or Project Director on large IT projects. Technical experience commensurate with the proposed technology.

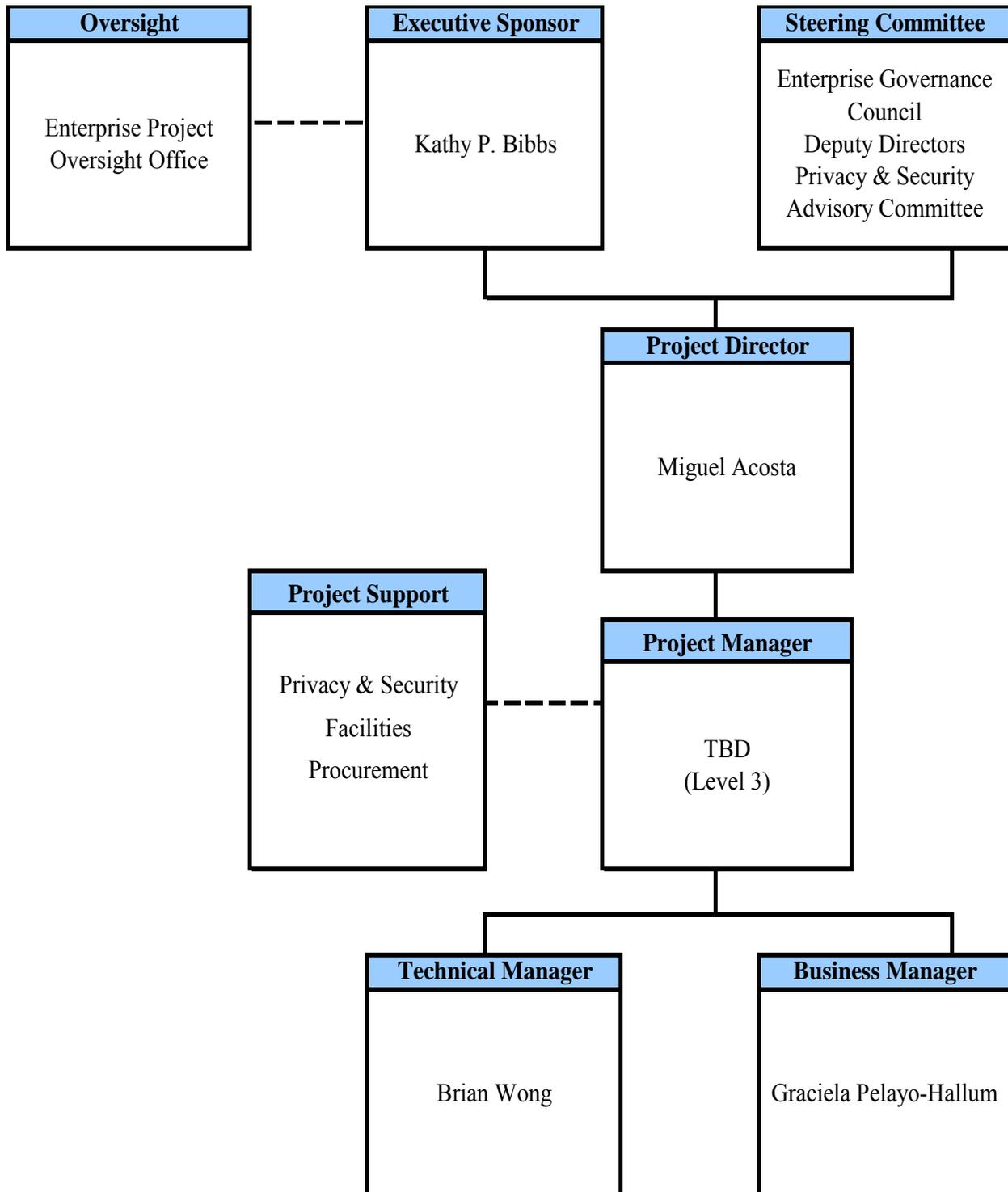
Professional Knowledge: Strong working knowledge of the California Project Management Methodology (CA-PMM); CA Budgeting, Procurement and Contracting processes; department's methodology; and Software Development Life Cycle.

Note: The Project Manager must be California Qualified (Cal-Q) Certified, unless granted an exception by the Technology Agency. The Project Manager must have the required primary/secondary courses completed and/or experience documented and approved in accordance with the skill level/years of experience required by the Project Manager and the project.

6.2 California Project Management Methodology

The Project Management Methodology used by the DMV follows the Technology Agency CA-PMM guidelines as stipulated in the Statewide Information Management Manual (SIMM), Section 17.

6.3 Project Organization



6.4 Project Priorities

Decisions are guided by the following project trade-off matrix:

Schedule	Scope	Resources	Quality
2	3	4	1

- 1 = Most important/constrained factor – the factor cannot be changed.
- 2 = Next most important factor – the factor is somewhat flexible to the project circumstance.
- 3 = Factor can be adjusted.
- 4 = Most flexible of the four factors.

6.5 Project Plan

6.5.1 Project Scope

- In Scope:
 1. Install web-enabled CFMS technology to replace the current queuing system in all FOs.
 2. Include a report generator with the CFMS and CAS that utilizes Microsoft SQL Server database or equivalent for on demand customization of performance factor reports.
 3. Include an integrated CAS with the CFMS.
- Out of Scope:
 1. The support of two separate CAS.

6.5.2 Project Assumptions

1. The current CQS and the future CFMS will require simultaneous support during implementation phase – roll-out to FOs.
2. The new CAS will be required to function simultaneously with the existing CQS and the new CFMS until all FO rollouts have been completed.
3. The new terminals in the FOs and TSCs will support a web-browser version for staff to use the CFMS and CAS.

6.5.3 Project Phasing

This project will not be completed in phases.

6.5.4 Roles and Responsibilities

The Project Management Roles and Responsibilities used by the DMV follows the CA-PMM guidelines as stipulated in SIMM, Section 17.

6.5.5 Project Schedule

Schedule dates are predicated on what is known to date, the impact of future legislation, specifically bills with associated fees, could have a critical impact to the schedule.

Project Schedule		
Task	Estimated Start Date	Estimated Completion Date
Centralized Customer Flow Management and Appointment System	7/2/2012	5/24/2016
Initiation	7/2/2012	10/29/2012
Project Approval	7/2/2012	7/2/2012
RFP Contractor Awarded	7/9/2012	10/29/2012
Planning	10/30/2012	4/22/2014
Contract Award	3/4/2014	4/15/2014
Execution and Control	10/29/2012	5/24/2016
Analysis	10/29/2012	9/3/2014
Document Requirements	10/29/2012	9/3/2014
Design	9/4/2014	1/29/2015
Create System Design Documents	9/4/2014	1/29/2015
Build	12/16/2014	5/11/2015
Build Solution	12/16/2014	5/11/2015
Test	5/12/2015	10/1/2015
Test Results Approved	5/12/2015	10/1/2015
Implementation	10/2/2015	5/24/2016
Training	10/2/2015	5/24/2016
Staged Rollout	10/2/2015	5/24/2016
Close-out	5/25/2016	11/25/2017
Close Out Project Artifacts	5/25/2016	11/25/2017
Close Out Project Contracts	5/25/2016	11/25/2017

6.6 Project Monitoring and Oversight

6.6.1 Project Monitoring

DMV follows the standard requirements and CA-PMM status tracking and reporting requirements for project deliverables, schedule and budget.

Based on the Criticality/Risk Rating, the project is considered high and the project status reports will be submitted to Technology Agency monthly.

6.6.2 Oversight

An independent review and analysis will be conducted to determine if the project is on track to be completed within the estimated schedule and cost, and compliance with the CA-PMM and other industry standard project management practices, such as Institute of Electrical and Electronics Engineers and the Project Management Body of Knowledge. Project oversight will identify and quantify any issues and risks affecting these project components.

Submission of the Independent Project Oversight Report (IPOR) will be on a monthly basis for a project classified by the Technology Agency as high criticality and on a quarterly basis for a project classified as medium criticality. Independent Validation and Verification Reports may be submitted in addition to the IPOR.

IT project oversight is assessed on a project-by-project basis by the Technology Agency's Project Management Office to determine the oversight resources required for each IT project. Delegated projects are assessed on a project-by-project basis by the Department's Chief Information Officer (CIO).

6.7 Project Quality

In conjunction with the steps outlined in the Project Monitoring section above, the Project Team will:

1. Review the status of tasks, milestones, and deliverables at status meetings. In the event of unanticipated tasks or delays in return of required information from outside groups or agencies, outline contingency plan will be done to keep project on track.
2. Following completion of a milestone or deliverable, conduct a review to assure adherence to the identified business needs, objectives, and scope, including meeting any measurable requirements.

6.8 Change Management

Each significant change that impacts the scope, project definition, or specifications will be identified, evaluated, and tracked throughout closure of the project.

6.9 Authorization Required

The project requires the following to review and approve this FSR:

1. DMV Project Sponsor (initial)
2. DMV Assistant CIO (initial)
3. DMV CIO (signature)
4. DMV Budget Officer (signature)
5. DMV Director (signature)
6. Business, Transportation, & Housing Chief Information Officer (signature)
7. Business, Transportation, & Housing Secretary (signature)
8. California Technology Agency (approval memo/e-mail)

7.0 RISK MANAGEMENT PLAN

The Risk Management Plan will adhere to the DMV standards created by the EPM Office, the CA-PMM, and the Technology Agency IT Project Oversight Framework.

The Risk Management Plan includes:

- Risk Identification Process
- Risk Escalation Process
- Probability and Impact Identification
- Plans for monitoring high and medium level risks
- Approach to measuring the effectiveness of the risk response plans

7.1 Risk Register

#	Risks	Probability (1-5)	Potential Impact (1-5)	Risk Management Action Must Begin...	Risk Level (1-25)*	
1	Audit and Control Needs	1	2	Over a year from now	0.66	Green
2	Budget	3	5	Within the next six months	15	Yellow
3	Client/Server Architecture	1	2	Over a year from now	0.66	Green
4	Customer Sophistication				0	Green
5	Design and Implementation	2	1	Over a year from now	0.66	Green
6	Development Environment	1	1	Over a year from now	0.33	Green
7	External Environment				0	Green
8	Facilities	1	1	Over a year from now	0.33	Green
9	Human Resources: Skills, Availability	1	1	Over a year from now	0.33	Green
10	Infrastructure	1	2	Over a year from now	0.66	Green
11	Legislation				0	Green
12	Litigation	1	1	Over a year from now	0.33	Green
13	Management Processes	1	1	Over a year from now	0.33	Green
14	Other Projects	1	2	Over a year from now	0.66	Green
15	Paradigm Shift	1	1	Over a year from now	0.33	Green
16	Regulations				0	Green
17	Requirements Management	1	1	Over a year from now	0.33	Green
18	Schedule	4	4	Over a year from now	5.28	Green
19	Sponsorship Commitment	1	3	Over a year from now	0.99	Green
20	Structure of Installed Systems	1	2	Over a year from now	0.66	Green
21	Supplier/Vendor Capability/Capacity	1	3	Over a year from now	0.99	Green
22	System Architecture	1	1	Over a year from now	0.33	Green
23	Technology	3	4	Over a year from now	3.96	Green
24	Turnover	3	3	Over a year from now	2.97	Green

* 1-9 = Low Risk Level (Green), 10-15 = Medium Risk Level (Yellow), 16-25 = High Risk Level (Red)

Probability Scale
<20%
21 - 40%
41 - 60%
61 - 80%
>80%

Impact Scale	
1	Less than a 5% change to schedule, scope, budget, or quality
2	5 - 10% change to schedule, scope, budget, or quality
3	11 - 15% change to schedule, scope, budget, or quality
4	16 - 24% change to schedule, scope, budget, or quality
5	25% or greater change to schedule, scope, budget, or quality

What process(es) will be used to identify risks?

The following process(es) will be used to identify risks
<p>Through the use of risk identification methods and the application of industry standards (e.g., Technology Agency, IEEE, PMI), the Risk/Project Manager will search for and identify potential issues and concerns which could impact the overall success of the project. Methods to identify risks may include: monitoring project activities, examining artifacts and documentation, observing, interviewing, polling, surveying, brainstorming, participating in discussions and meetings, conducting focus sessions, and applying the Technology Agency Oversight guidelines. These potential issues and concerns result in candidate risks.</p> <p>Risk identification methods will collect candidate risk inputs from the Project participants. Project participants include the Project team, stakeholders, and the Contractor.</p>

Describe the process to be used to escalate risks the resolutions of which are beyond the project manager’s level of authority?

The process used to escalate risks beyond the PM's level of authority is

Risk escalation is determined by analyzing a risk and calculating the Risk Level (impact on the project, the probability it will occur, and the timing of when it would occur.) The Project will use the following table as a guide in determining the escalation of individual risks.

Guide for Determination of Risk Escalation				
Risk Level	Low (1-9)	Medium (10-12)	Medium (13-15)	High (16-25)
Risk Reviewer(s)	Project Team	Sponsor	Steering Committee	Steering Committee
		Project Team	Sponsor	Sponsor

What are your plans for monitoring the high and medium level risks?

The plans for monitoring the high and medium level risks are

The Risk/Project Manager will review the medium and high risks at the weekly Project Team Meeting. The information presented will include the status of risk mitigation and contingency action plans, changes in risk level (probability, impact, and risk management timing), triggers, and review timeframe. All Risk updates will be recorded in the Department of Motor Vehicles Enterprise Project Management Risk Management Database.

What is your approach to measuring the effectiveness of the risk response plans?

The approach to measuring the effectiveness of the plan is

The Risk Management processes will be monitored throughout the project life-cycle phases to ensure the Risk Management approach is effective and in accordance with the Technology Agency CA-PMM guidelines. Any changes identified will be updated in the Risk Management Plan and communicated with the Project Team.

#	Risks	Cause	Consequences	Avoidance Plan	Mitigation Plan	Transference	Acceptance	Contingency Plan
1	Audit and Control Needs	Requirements are not clearly understood	Inability to monitor and secure application	Ensure requirements are identified and included in design and build	Involve IPO and ISO early in project			Ensure quality control is performed during the project
2	Budget	Funding not approved	Project cannot proceed	Unable to avoid	No mitigation plan to implement			Research other resources
3	Client/Server Architecture	Inability to upgrade system	Application will not be deployed	Ensure architecture entity is aware of requirements	Schedule vendor application install early so delays are not realized			Adjust Schedule, possible SPR
4	Customer Sophistication	N/A	N/A	N/A	N/A			
5	Design and Implementation	Vendor software will not install	Application will not be deployed	Ensure architecture entity is aware of requirements	Identify all requirements, ensure all SMEs are involved, include roles and responsibilities in PM plans			Adjust Schedule, possible SPR
6	Development Environment	Inability to upgrade system	Application will not be deployed	Ensure architecture entity is aware of requirements	Identify all requirements, ensure all SMEs are involved, include roles and responsibilities in PM plans			Adjust Schedule, possible SPR
7	External Environment	N/A	N/A	N/A	N/A			
8	Facilities	Cannot provide adequate power or network	Delay in implementation	Ensure facility entity is aware of requirements	Identify all requirements, ensure all SMEs are involved, include roles and responsibilities in PM plans			Adjust Schedule, possible SPR
9	Human Resources: Skills, Availability	Lack of IT knowledge	Delay in implementation	Assign resources with the most knowledge to complete the task	Be aware and proactive in requesting resources with the correct knowledge level			Allow for more time in schedule is resources assigned are not familiar with tasks assigned.
10	Infrastructure	Insufficient WAN Capacity	Delays in implementation	Ensure infrastructure entity is aware of requirements	Identify all requirements, ensure all SMEs are involved, include roles and responsibilities in PM plans			Adjust Schedule, possible SPR
11	Legislation	N/A	N/A	N/A	N/A			N/A
12	Litigation	Unfair bid	Delays in implementation	Ensure DGS is involved in the bid process	No mitigation plan to implement			Adjust Schedule, possible SPR

#	Risks	Cause	Consequences	Avoidance Plan	Mitigation Plan	Transference	Acceptance	Contingency Plan
13	Management Processes	Establishing priorities	Delays in implementation	Upper management commitment to the project	Awareness of competing priorities, changes in priorities and adjust priorities accordingly			Reassess current status and mitigate
14	Other Projects	Higher level projects are identified	Delays in implementation	Upper management commitment to the project	Awareness of competing priorities, changes in priorities and adjust priorities accordingly			Reassess current status and mitigate
15	Paradigm Shift	Move to Centralized monitoring	Staff resistance to change in Field Office	Communicate change and benefits to staffs in Field Office	No mitigation plan to implement			Continue communicating the changes and offer additional training
16	Regulations	N/A	N/A	N/A	N/A			
17	Requirements Management	Not all SMEs involved in identification of requirements	Delays in implementation	Ensure all SMEs are identified	Work with Department to have SMEs assigned to project			Identify missed requirements, Change request / SPR
18	Schedule	Schedule too aggressive	Project will not start and finish on time	Adjust Schedule in FSR	Perform concurrently and add resources to meet schedule dates			Add more resources and/or adjust schedule dates
19	Sponsorship Commitment	Establishing priorities	Delays in implementation	Upper management commitment to the project	Awareness of competing priorities, changes in priorities and adjust priorities accordingly			Reassess current priority or confirm project priority
20	Structure of Installed Systems	Does not work with the Ease application	Delays in implementation	Document equipment to be replaced in RFP	No mitigation plan to implement			Ensure quality control is performed during the project
21	Supplier/Vendor Capability/Capacity	Resources not available	Delays in implementation	Ensure all vendor resources are identified	Ensure mitigation plane is written to contract			Adjust Schedule, possible SPR
22	System Architecture	Network issues connecting FO with host server	Delays in implementation	Ensure infrastructure entity is aware of requirements	Identify all requirements, ensure all SMEs are involved, include roles and responsibilities in PM plans			Adjust Schedule, possible SPR
23	Technology	Compatibility Issues	Delays in implementation	Document equipment to be replaced in RFP	No mitigation plan to implement			Ensure quality control is performed during the project
24	Turnover	Retirement, Promotions, etc.	Delays in implementation	Ensure all resources are identified to replace existing staff	Identify those resources earlier in in project and work with management to bring new staff up to speed			Adjust Schedule, possible SPR



#	Risks	Trigger Event	Owner	Response Plan Effectiveness	Residual Risks	Secondary Risks	Risk Status	Closure Date
1	Audit and Control Needs	Missing requirements						
2	Budget	Funding not approved						
3	Client/Server Architecture	Integration testing						
4	Customer Sophistication	N/A						
5	Design and Implementation	Integration testing						
6	Development Environment	Integration testing						
7	External Environment	N/A						
8	Facilities	Integration testing						
9	Human Resources: Skills, Availability	Resources assigned to other competing priorities						
10	Infrastructure	Slow access to network						
11	Legislation	N/A						
12	Litigation	Vendor contest bid						
13	Management Processes	Delays in project activities						
14	Other Projects	Delays in project activities						
15	Paradigm Shift	Delays in implementing						
16	Regulations	N/A						
17	Requirements Management	Design and test						
18	Schedule	Delays in project activities						
19	Sponsorship Commitment	Lack of involvement in project activities						
20	Structure of Installed Systems	Design and test						
21	Supplier/Vendor Capability/Capacity	Delays in build						
22	System Architecture	Field Office cannot connect to server						
23	Technology	Design and test						
24	Turnover	Delays in project activities						

8.0 ECONOMIC ANALYSIS WORKSHEETS (EAWs)

EXISTING SYSTEM/BASELINE COST WORKSHEET

All costs shown in whole (unrounded) dollars.

	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	TOTAL
	PYs	Amts	PYs	Amts	PYs	Amts
Continuing Information						
Technology Costs						
Staff (salaries & benefits)	2.6	\$250,288	2.6	\$250,288	2.6	\$250,288
Hardware Lease/Maintenance		\$0		\$0		\$0
Software Maintenance/Licenses		\$0		\$0		\$0
Contract Services		\$463,032		\$463,032		\$463,032
Data Center Services		\$0		\$0		\$0
Agency Facilities		\$21,000		\$21,000		\$21,000
Other		\$155,016		\$155,016		\$155,016
Total IT Costs	2.6	\$889,336	2.6	\$889,336	2.6	\$889,336
Continuing Program Costs:						
Staff	53.6	\$2,575,115	53.6	\$2,575,115	53.6	\$2,575,115
Other		\$0		\$0		\$0
Total Program Costs	53.6	\$2,575,115	53.6	\$2,575,115	53.6	\$2,575,115
TOTAL EXISTING SYSTEM COSTS	56.2	\$3,464,451	56.2	\$3,464,451	56.2	\$3,464,451

CONTINUING EXISTING SYSTEM COST WORKSHEET

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

	FY 2012/13		FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		TOTAL	
	PYs	Amts	PYs	Amts								
Continuing Existing Costs												
Information Technology Staff	2.6	250,288	2.6	250,288	2.6	250,288	2.4	229,431	0.0	0	10.2	980,295
Other IT Costs		639,048		639,048		639,048		585,794		0		2,502,938
Total Continuing Existing IT Costs	2.6	889,336	2.6	889,336	2.6	889,336	2.4	815,225	0.0	0	10.2	3,483,233
Program Staff *	53.6	2,575,115	53.6	2,575,115	53.6	2,575,115	53.6	2,575,115	53.4	2,553,753	267.8	12,854,213
Other Program Costs		0		0		0		0		0		0
Total Continuing Existing Program Costs	53.6	2,575,115	53.6	2,575,115	53.6	2,575,115	53.6	2,575,115	53.4	2,553,753	267.8	12,854,213
Total Continuing Existing Costs	56.2	3,464,451	56.2	3,464,451	56.2	3,464,451	56.0	3,390,340	53.4	2,553,753	278.0	16,337,446

* All staff cost savings will be redirected to other duties.



PROPOSED ALTERNATIVE: Procure and install a customized COTS centralized, web-enabled Customer Flow Management and integrated Customer Appointment System.

All costs shown in whole (unrounded) dollars.

	FY 2012/13		FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs												
Staff (Salaries & Benefits)	4.3	459,615	5.9	616,829	8.5	855,584	10.8	1,029,817	0.0	0	29.6	2,961,845
Hardware Purchase		0		0		0		0		0		0
Software Purchase/License		0		0		0		0		0		0
Telecommunications		0		0		0		0		0		0
Contract Services												
Software Customization		0		500,000		8,195,107		0		0		8,695,107
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		250,000		80,000		24,120		0		0		354,120
TOTAL Contract Services		250,000		580,000		8,219,227		0		0		9,049,227
Data Center Services		0		0		11,520		0		0		11,520
Agency Facilities		0		0		900,393		0		0		900,393
Other		0		0		863,389		300,000		0		1,163,389
Total One-time IT Costs	4.3	709,615	5.9	1,196,829	8.5	10,850,113	10.8	1,329,817	0.0	0	29.6	14,086,374
Continuing IT Project Costs												
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.4	40,839	4.7	490,088	5.1	530,927
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		56,836		682,028		738,864
Data Center Services		0		0		0		21,600		21,600		43,200
Agency Facilities		0		0		0		0		0		0
Other		0		0		0		163,800		163,800		327,600
Total Continuing IT Costs	0.0	0	0.0	0	0.0	0	0.4	283,075	4.7	1,357,516	5.1	1,640,591
Total Project Costs	4.3	709,615	5.9	1,196,829	8.5	10,850,113	11.2	1,612,892	4.7	1,357,516	34.7	15,726,965
Continuing Existing Costs												
Information Technology Staff	2.6	250,288	2.6	250,288	2.6	250,288	2.4	229,431	0.0	0	10.2	980,295
Other IT Costs		639,048		639,048		639,048		585,794		0		2,502,938
Total Continuing Existing IT Costs	2.6	889,336	2.6	889,336	2.6	889,336	2.4	815,225	0.0	0	10.2	3,483,233
Program Staff	53.6	2,575,115	53.6	2,575,115	53.6	2,575,115	53.6	2,575,115	53.4	2,553,753	267.8	12,854,213
Other Program Costs		0		0		0		0		0		0
Total Continuing Existing Program Costs	53.6	2,575,115	53.6	2,575,115	53.6	2,575,115	53.6	2,575,115	53.4	2,553,753	267.8	12,854,213
Total Continuing Existing Costs	56.2	3,464,451	56.2	3,464,451	56.2	3,464,451	56.0	3,390,340	53.4	2,553,753	278.0	16,337,446
TOTAL ALTERNATIVE COSTS	60.5	4,174,066	62.1	4,661,280	64.7	14,314,564	67.2	5,003,232	58.1	3,911,269	312.6	32,064,411
INCREASED REVENUES		0		0		0		0		0		0



**Procure and install web-enabled CFMS Technology only and convert (in-house) the existing
ALTERNATIVE #1: Appointment System to DB2-Java.**

All costs shown in whole (unrounded) dollars.

	FY 2012/13		FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs												
Staff (Salaries & Benefits)	4.5	477,748	6.2	647,299	9.8	951,620	9.7	942,295	0.0	0	30.1	3,018,962
Hardware Purchase		2,201,831		0		0		0		0		2,201,831
Software Purchase/License		4,334,788		0		0		0		0		4,334,788
Telecommunications		0		0		0		0		0		0
Contract Services												
Software Customization		0		350,000		0		0		0		350,000
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		80,000		24,120		112,400		0		0		216,520
TOTAL Contract Services		80,000		374,120		112,400		0		0		566,520
Data Center Services		0		11,520		16,200		0		0		27,720
Agency Facilities		0		257,683		530,310		0		0		787,993
Other		167,389		0		300,000		0		0		467,389
Total One-time IT Costs	4.5	7,261,756	6.2	1,290,622	9.8	1,910,530	9.7	942,295	0.0	0	30.1	11,405,203
Continuing IT Project Costs												
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	2.5	271,583	3.2	360,442	5.7	632,025
Hardware Lease/Maintenance		0		0		153,510		153,510		153,510		460,530
Software Maintenance/Licenses		0		353,201		353,201		353,201		353,201		1,412,804
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		163,800		163,800		163,800		163,800		655,200
Total Continuing IT Costs	0.0	0	0.0	517,001	0.0	670,511	2.5	942,094	3.2	1,030,953	5.7	3,160,559
Total Project Costs	4.5	7,261,756	6.2	1,807,623	9.8	2,581,041	12.2	1,884,389	3.2	1,030,953	35.8	14,565,762
Continuing Existing Costs												
Information Technology Staff	2.6	250,288	2.6	250,288	2.6	250,288	0.4	41,284	0.2	22,284	8.4	814,432
Other IT Costs		639,048		639,048		639,048		53,254		210,886		2,181,284
Total Continuing Existing IT Costs	2.6	889,336	2.6	889,336	2.6	889,336	0.4	94,538	0.2	233,170	8.4	2,995,716
Program Staff	53.6	2,575,115	53.6	2,575,115	53.6	2,575,115	53.6	2,575,115	53.4	2,553,753	267.8	12,854,213
Other Program Costs		0		0		0		0		0		0
Total Continuing Existing Program Costs	53.6	2,575,115	53.6	2,575,115	53.6	2,575,115	53.6	2,575,115	53.4	2,553,753	267.8	12,854,213
Total Continuing Existing Costs	56.2	3,464,451	56.2	3,464,451	56.2	3,464,451	54.0	2,669,653	53.6	2,786,923	276.2	15,849,929
TOTAL ALTERNATIVE COSTS	60.7	10,726,207	62.4	5,272,074	66.0	6,045,492	66.2	4,554,042	56.8	3,817,876	312.0	30,415,691
INCREASED REVENUES		0		0		0		0		0		0



ECONOMIC ANALYSIS SUMMARY

All costs shown in whole (unrounded) dollars.

	FY 2012/13		FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
EXISTING SYSTEM												
Total IT Costs	2.6	889,336	2.6	889,336	2.6	889,336	2.6	889,336	2.6	889,336	13.0	4,446,680
Total Program Costs	53.6	2,575,115	53.6	2,575,115	53.6	2,575,115	53.6	2,575,115	53.6	2,575,115	268.0	12,875,575
Total Existing System Costs	56.2	3,464,451	56.2	3,464,451	56.2	3,464,451	56.2	3,464,451	56.2	3,464,451	281.0	17,322,255
PROPOSED ALTERNATIVE												
Procure and install a customized COTS centralized, web-enabled Customer Flow Management and integrated Customer Appointment System.												
Total Project Costs	4.3	709,615	5.9	1,196,829	8.5	10,850,113	11.2	1,612,892	4.7	1,357,516	34.7	15,726,965
Total Cont. Exist. Costs	56.2	3,464,451	56.2	3,464,451	56.2	3,464,451	56.0	3,390,340	53.4	2,553,753	278.0	16,337,446
Total Alternative Costs	60.5	4,174,066	62.1	4,661,280	64.7	14,314,564	67.2	5,003,232	58.1	3,911,269	312.6	32,064,411
COST SAVINGS/AVOIDANCES	(4.3)	(709,615)	(5.9)	(1,196,829)	(8.5)	(10,850,113)	(11.0)	(1,538,781)	(1.9)	(446,818)	(31.6)	(14,742,156)
Increased Revenues		0		0		0		0		0		0
Net (Cost) or Benefit	(4.3)	(709,615)	(5.9)	(1,196,829)	(8.5)	(10,850,113)	(11.0)	(1,538,781)	(1.9)	(446,818)	(31.6)	(14,742,156)
Cum. Net (Cost) or Benefit	(4.3)	(709,615)	(10.2)	(1,906,444)	(18.7)	(12,756,557)	(29.7)	(14,295,338)	(31.6)	(14,742,156)		
ALTERNATIVE #1												
Procure and install web-enabled CFMS Technology only and convert (in-house) the existing Appointment System to DB2-Java.												
Total Project Costs	4.5	7,261,756	6.2	1,807,623	9.8	2,581,041	12.2	1,884,389	3.2	1,030,953	35.8	14,565,762
Total Cont. Exist. Costs	56.2	3,464,451	56.2	3,464,451	56.2	3,464,451	54.0	2,669,653	53.6	2,786,923	276.2	15,849,929
Total Alternative Costs	60.7	10,726,207	62.4	5,272,074	66.0	6,045,492	66.2	4,554,042	56.8	3,817,876	312.0	30,415,691
COST SAVINGS/AVOIDANCES	(4.5)	(7,261,756)	(6.2)	(1,807,623)	(9.7)	(2,581,041)	(10.0)	(1,089,591)	(0.6)	(353,425)	(31.0)	(13,093,436)
Increased Revenues		0		0		0		0		0		0
Net (Cost) or Benefit	(4.5)	(7,261,756)	(6.2)	(1,807,623)	(9.7)	(2,581,041)	(10.0)	(1,089,591)	(0.6)	(353,425)	(31.0)	(13,093,436)
Cum. Net (Cost) or Benefit	(4.5)	(7,261,756)	(10.7)	(9,069,379)	(20.4)	(11,650,420)	(30.4)	(12,740,011)	(31.0)	(13,093,436)		



PROJECT FUNDING PLAN

All costs shown in whole (unrounded) dollars

	FY 2012/13		FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		TOTALS	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
TOTAL PROJECT COSTS	4.3	709,615	5.9	1,196,829	8.5	10,850,113	11.2	1,612,892	4.7	1,357,516	34.7	15,726,965
RESOURCES TO BE REDIRECTED												
Staff	4.3	459,615	5.9	616,829	8.5	855,584	11.2	1,070,656	4.7	490,088	34.7	3,492,772
Funds:												
Existing System		0		0		0		53,254		639,048		692,302
Other Fund Sources		0		0		0		0		0		0
TOTAL REDIRECTED RESOURCES	4.3	459,615	5.9	616,829	8.5	855,584	11.2	1,123,910	4.7	1,129,136	34.7	4,185,074
ADDITIONAL PROJECT FUNDING NEEDED												
One-Time Project Costs	0.0	250,000	0.0	580,000	0.0	9,994,529	0.0	300,000	0.0	0	0.0	11,124,529
Continuing Project Costs	0.0	0	0.0	0	0.0	0	0.0	188,982	0.0	228,380	0.0	417,362
TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR	0.0	250,000	0.0	580,000	0.0	9,994,529	0.0	488,982	0.0	228,380	0.0	11,541,891
TOTAL PROJECT FUNDING	4.3	709,615	5.9	1,196,829	8.5	10,850,113	11.2	1,612,892	4.7	1,357,516	34.7	15,726,965
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
FUNDING SOURCE*												
General Fund	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Federal Fund	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Special Fund	100%	709,615	100%	1,196,829	100%	10,850,113	100%	1,612,892	100%	1,357,516	100%	15,726,965
Reimbursement	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
TOTAL FUNDING	100%	709,615	100%	1,196,829	100%	10,850,113	100%	1,612,892	100%	1,357,516	100%	15,726,965

Additional Information: Redirected Division Funding Source

DIVISION(S) FUNDING	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17
One-Time Costs	ISD/EXE/ASD/FOD/ CPD	ISD/EXE/ASD/FOD/ CPD	ISD/EXE/ASD/FOD	ISD/EXE/ASD/FOD	
Continuing Costs		ISD/FOD	ISD/FOD	ISD/FOD	ISD/FOD



ADJUSTMENTS, SAVINGS AND REVENUES WORKSHEET
(California Technology Agency Use Only)

Annual Project Adjustments	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	Net Adjustments				
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts		
One-time Costs										
Previous Year's Baseline	0.0	0	0.0	250,000	0.0	580,000	0.0	9,994,529	0.0	300,000
(A) Annual Augmentation /(Reduction)	0.0	250,000	0.0	330,000	0.0	9,414,529	0.0	(9,694,529)	0.0	(300,000)
(B) Total One-Time Budget Actions	0.0	250,000	0.0	580,000	0.0	9,994,529	0.0	300,000	0.0	0
Continuing Costs										
Previous Year's Baseline	0.0	0	0.0	0	0.0	0	0.0	0	0.0	188,982
(C) Annual Augmentation /(Reduction)	0.0	0	0.0	0	0.0	0	0.0	188,982	0.0	39,398
(D) Total Continuing Budget Actions	0.0	0	0.0	0	0.0	0	0.0	188,982	0.0	228,380
Total Annual Project Budget Augmentation /(Reduction) [A + C]	0.0	250,000	0.0	330,000	0.0	9,414,529	0.0	(9,505,547)	0.0	(260,602)

[A, C] Excludes Redirected Resources

Total Additional Project Funds Needed [B + D]

0.0	11,541,891
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Annual Savings/Revenue Adjustments

Cost Savings	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Increased Program Revenues		0		0		0		0		0

Attachments

- 1. Economic Detail Worksheets – Proposed Solution**
- 2. OISPP Questionnaire**
- 3. Complexity Assessment**
- 4. Acronyms**



1. Economic Detail Worksheets – Proposed Solution

Proposed Solution - One-time IT Staff Costs

IT Staff (Class Title/Division/IT Duties)	Monthly Salary	Fiscal Year 2012/13				Fiscal Year 2013/14			
		Reg Hrs	OT Hrs	PYs	Staff Cost	Reg Hrs	OT Hrs	PYs	Staff Cost
Information Systems Division (ISD)									
Systems Software Specialist III (Supervisory)									
Technical Manager - CFMS - RFP/Project	\$7,302	180		0.10	\$13,647	0		0.00	\$0
Systems Software Specialist III (Technical)									
Drive Test Validation for Appointment System - RFP/Project	\$6,953	112		0.06	\$8,086	140		0.07	\$10,107
Staff Information Systems Analyst - Specialist									
Telecommunication - RFP/Project	\$5,766	202		0.11	\$12,116	250		0.14	\$14,967
Senior Programmer Analyst (Specialist)									
(3) Subject Matter Experts - RFP/Project	\$6,340	1,153		0.64	\$75,926	1,400		0.78	\$92,167
Systems Software Specialist III (Technical)									
Server Team - RFP/Project	\$6,953	133		0.07	\$9,626	165		0.09	\$11,912
Systems Software Specialist III (Technical)									
Network Security - RFP/Project	\$6,953	80		0.04	\$5,775	135		0.07	\$9,746
One-time IT Staff Cost Page Subtotals		1,861	0	1.0	\$125,176	2,090	0	1.2	\$138,899



Proposed Solution - One-time IT Staff Costs

IT Staff (Class Title/Division/IT Duties)	Monthly Salary	Fiscal Year 2012/13			Continued	Fiscal Year 2013/14			Continued
		Reg Hrs	OT Hrs	PYs	Staff Cost	Reg Hrs	OT Hrs	PYs	Staff Cost
Executive Division (EXE)									
Data Processing Manager III									
Managing the Project including RFP	\$7,679	889		0.50	\$70,882	1,085		0.61	\$86,510
Senior Information Systems Analyst (Specialist)									
Internal Project Oversight - including RFP	\$6,340	413		0.23	\$27,211	700		0.39	\$46,083
Staff Information Systems Analyst - Specialist									
IPO - Privacy Impact Assessment for CMFS and Appointment System - RFP Analysis/Design/Test	\$5,766	10		0.00	\$598	30		0.01	\$1,796
Staff Information Systems Analyst - Specialist									
ISO - Information Security Review for CMFS and Appointment System	\$5,766	15		0.00	\$898	35		0.01	\$2,095
Systems Software Specialist III (Technical)									
Enterprise Architecture Infrastructure and Security Review for CMFS and Appointment System	\$6,953					39		0.02	\$2,815
Administrative Services Division (ASD)									
Staff Information Systems Analyst - Specialist									
IT Acquisition Services	\$5,766	200		0.11	\$11,973	100		0.05	\$5,986
Staff Services Manager I									
Facilities - Planning and Implementation	\$5,603					30		0.01	\$1,745
Associate Business Management Analyst									
Facilities - Planning and Implementation	\$4,874					20		0.01	\$1,012
One-time IT Staff Cost Page Subtotals		1,527	0	0.8	\$111,562	2,039	0	1.1	\$148,042



Proposed Solution - One-time IT Staff Costs

IT Staff (Class Title/Division/IT Duties)	Monthly Salary	Fiscal Year 2012/13				Fiscal Year 2013/14			
		Reg Hrs	OT Hrs	PYs	Staff Cost	Reg Hrs	OT Hrs	PYs	Staff Cost
Field Office Division (FOD)									
Manager V, DMV									
Project Business Manager - RFP/Project	\$6,180	889		0.50	\$57,049	1,204		0.67	\$77,263
Manager III, DMV									
Project Coordination Activities - RFP/Project	\$4,876	593		0.33	\$30,007	889		0.50	\$45,011
Manager II, DMV									
Project Coordination Activities - RFP/Project	\$4,055	555		0.31	\$23,352	832		0.46	\$35,028
Associate Governmental Program Analyst									
Project Coordination Activities - RFP/Project	\$4,874	593		0.33	\$29,995	889		0.50	\$44,993
Staff Services Analyst - General									
Project Coordination Activities - RFP/Project	\$3,632	593		0.33	\$22,348	889		0.50	\$33,523
Staff Information Systems Analyst - Specialist									
Involved with Analysis/Design/Build Activities with vendor and ISD staff - RFP/Project	\$5,766	593		0.33	\$35,482	889		0.50	\$53,223
Assistant Information Systems Analyst									
(2) Involved with Analysis/Design/Build Activities with vendor and ISD staff - RFP/Project	\$4,005	593		0.33	\$24,644	889		0.50	\$36,966
One-time IT Staff Cost									
Page Subtotals		4,407	0	2.5	\$222,877	6,481	0	3.6	\$326,007



Proposed Solution - One-time IT Staff Costs

IT Staff (Class Title/Division/IT Duties)	Monthly Salary	Fiscal Year 2012/13				Fiscal Year 2013/14			
		Reg Hrs	OT Hrs	PYs	Staff Cost	Reg Hrs	OT Hrs	PYs	Staff Cost
Communications Program Division (CPD)									
Staff Services Manager I									
Oversee and coordinate project activities, make or elevate project related decisions	\$5,603					10		0.00	\$581
Staff Information Systems Analyst - Specialist									
Oversee and coordinate project activities, make or elevate project related decisions	\$5,766					20		0.01	\$1,197
Associate Information Systems Analyst (Spec)									
Maintain schedule, Assist with design and supporting documents, act as SME, test application	\$5,258					20		0.01	\$1,091
Associate Governmental Program Analyst									
Maintain schedule, Assist with design and supporting documents, act as SME, test application	\$4,874					20		0.01	\$1,012
One-time IT Staff Cost									
Page Subtotals		0	0	0.0	\$0	70	0	0.0	\$3,881
One-time IT Staff Cost									
Fiscal Year Totals		7,795	0	4.3	\$459,615	10,680	0	5.9	\$616,829



Proposed Solution - One-time IT Staff Costs

IT Staff (Class Title/Division/IT Duties)	Monthly Salary	Fiscal Year 2014/15				Fiscal Year 2015/16			
		Reg Hrs	OT Hrs	PYs	Staff Cost	Reg Hrs	OT Hrs	PYs	Staff Cost
Information Systems Division (ISD)									
Systems Software Specialist III (Supervisory)									
Technical Manager - CFMS	\$7,302	150		0.08	\$11,372	92		0.05	\$6,975
Systems Software Specialist III (Technical)									
Drive Test Validation for Appointment System	\$6,953	180		0.10	\$12,995	122		0.06	\$8,808
Staff Information Systems Analyst - Specialist									
Telecommunication	\$5,766	500		0.28	\$29,934	234		0.13	\$14,009
Senior Programmer Analyst (Specialist)									
(3) Subject Matter Experts	\$6,340	1,400		0.78	\$92,167	1,381		0.77	\$90,916
Systems Software Specialist III (Technical)									
Server Team	\$6,953	165		0.09	\$11,912	154		0.08	\$11,118
Systems Software Specialist III (Technical)									
Network Security	\$6,953	135		0.07	\$9,746	130		0.07	\$9,385
Systems Software Specialist II (Technical)									
System Testing (CFMS & Appointment System)	\$6,329	52		0.02	\$3,417	108		0.06	\$7,097
Staff Information Systems Analyst - Specialist									
System Testing (CFMS & Appointment System)	\$5,766	100		0.05	\$5,986	200		0.11	\$11,973
Associate Information Systems Analyst (Spec)									
System Testing (CFMS & Appointment System)	\$5,258	100		0.05	\$5,459	200		0.11	\$10,919
One-time IT Staff Cost									
Page Subtotals		2,782	0	1.5	\$182,988	2,621	0	1.4	\$171,200



Proposed Solution - One-time IT Staff Costs

IT Staff (Class Title/Division/IT Duties)	Monthly Salary	Fiscal Year 2014/15				Fiscal Year 2015/16			
		Reg Hrs	OT Hrs	PYs	Staff Cost	Reg Hrs	OT Hrs	PYs	Staff Cost
Executive Division (EXE)									
Data Processing Manager III									
Managing the Project	\$7,679	1,085		0.61	\$86,510	1,054		0.59	\$84,038
Senior Information Systems Analyst (Specialist)									
Internal Project Oversight	\$6,340	590		0.33	\$38,842	540		0.30	\$35,550
Systems Software Specialist III (Technical)									
Enterprise Architecture Infrastructure and Security Review for CMFS and Appointment System	\$6,953	39		0.02	\$2,815	35		0.01	\$2,526
Staff Information Systems Analyst - Specialist									
IPO/ISO CMSS and Appointment System - RFP/Analysis/Design/Test	\$5,766	45		0.02	\$0	45		0.02	\$0
Administrative Services Division (ASD)									
Training Officer I									
Training for Trainers	\$4,875					80		0.04	\$4,049
Staff Services Manager I									
Facilities - Planning and Implementation	\$5,603	45		0.02	\$2,618	30		0.01	\$1,745
Associate Business Management Analyst									
Facilities - Planning and Implementation	\$4,874	400		0.22	\$20,244	750		0.42	\$37,958
One-time IT Staff Cost Page Subtotals		2,204	0	1.2	\$151,029	2,534	0	1.4	\$165,866



Proposed Solution - One-time IT Staff Costs

IT Staff (Class Title/Division/IT Duties)	Monthly Salary	Fiscal Year 2014/15				Fiscal Year 2015/16			
		Reg Hrs	OT Hrs	PYs	Staff Cost	Reg Hrs	OT Hrs	PYs	Staff Cost
Field Office Division (FOD)									
Manager V, DMV									
Project Business Manager	\$6,180	1,204		0.67	\$77,263	1,150		0.64	\$73,798
Manager III, DMV									
(5) Project Coordination/Implementation Activities	\$4,876	3,085		1.73	\$156,199	3,223		1.81	\$163,186
Manager II, DMV									
(8) Training and Implementation	\$4,055	2,650		1.49	\$111,569	3,920		2.20	\$165,038
Associate Governmental Program Analyst									
(3) Training and Implementation	\$4,874	1,328		0.74	\$67,211	2,778		1.56	\$140,597
Staff Services Analyst - General									
Training and Implementation	\$3,632	493		0.27	\$18,578	692		0.38	\$26,107
Staff Information Systems Analyst - Specialist									
Testing, Training and Implementation	\$5,766	650		0.36	\$38,914	692		0.38	\$41,448
Assistant Information Systems Analyst									
(2) Testing, Training and Implementation	\$4,005	685		0.38	\$28,497	1,686		0.94	\$70,094
One-time IT Staff Cost Page Subtotals		10,095	0	5.6	\$498,231	14,141	0	7.9	\$680,268



Proposed Solution - One-time IT Staff Costs

IT Staff (Class Title/Division/IT Duties)	Monthly Salary	Fiscal Year 2014/15				Fiscal Year 2015/16			
		Reg Hrs	OT Hrs	PYs	Staff Cost	Reg Hrs	OT Hrs	PYs	Staff Cost
Communications Program Division (CPD)									
Staff Services Manager I									
Oversee and coordinate project activities, make or elevate project related decisions	\$5,603	125		0.07	\$7,272	40		0.02	\$2,327
Staff Information Systems Analyst - Specialist									
Oversee and coordinate project activities, make or elevate project related decisions	\$5,766	95		0.05	\$5,687	60		0.03	\$3,592
Associate Information Systems Analyst (Spec)									
Maintain schedule, Assist with design and supporting documents, act as SME, test application	\$5,258	102		0.05	\$5,569	60		0.03	\$3,275
Associate Governmental Program Analyst									
Maintain schedule, Assist with design and supporting documents, act as SME, test application	\$4,874	95		0.05	\$4,808	65		0.03	\$3,289
One-time IT Staff Cost									
Page Subtotals		417	0	0.2	\$23,336	225	0	0.1	\$12,483
One-time IT Staff Cost									
Fiscal Year Totals		15,498	0	8.5	\$855,584	19,521	0	10.8	\$1,029,817



Proposed Solution - One-time IT Contract Services Costs

Software Customization/Development	Cost Totals by Fiscal Year					
	2012/13	2013/14	2014/15	2015/16	2016/17	
Vendor Contract to procure/install customized, centralized COTS package web-enabled Customer Flow Management and integrated Customer Appointment System (includes all hardware and software - Equipment will be owned by DMV) <i>See page 39 of the FSR Narrative for hardware component details</i>		\$500,000	\$8,195,107			
Total Hardware/Software Customization/Development	\$0	\$500,000	\$8,195,107	\$0	\$0	\$0
Project Management						
Total Project Management Costs	\$0	\$0	\$0	\$0	\$0	\$0
Project Oversight						
Total Project Oversight Costs	\$0	\$0	\$0	\$0	\$0	\$0
Independent Verification & Validation (IV & V) Services						
Total IV&V Costs	\$0	\$0	\$0	\$0	\$0	\$0
Other Contract Services						
Contractor to write the Request for Proposal (RFP)	\$250,000					
Department of General Services (DGS) Administrative Charges for RFP		\$80,000				
ASP/IVR English/Spanish Script Development, Professional Voice Recordings (134 hours @ \$180 per hour)			\$24,120			
Total Other Services Costs	\$250,000	\$80,000	\$24,120	\$0	\$0	\$0
Total One-time IT Contract Services Costs	\$250,000	\$580,000	\$8,219,227	\$0	\$0	\$0

Proposed Solution - One-time IT Data Center Services Costs

Data Center Services	Data Center Costs by Fiscal Year					
	2012/13	2013/14	2014/15	2015/16	2016/17	
Windows/Microsoft SQL Server Setup Charges 6 Servers (8hrs per Server @ \$240/hr)			\$11,520			
Total One-time IT Data Center Services Costs	\$0	\$0	\$11,520	\$0	\$0	\$0

Proposed Solution - One-time IT Agency Facilities Costs

Agency Facilities Costs	Agency Facilities Costs by Fiscal Year					
	2012/13	2013/14	2014/15	2015/16	2016/17	
CUSTOMER FLOW MANAGEMENT SYSTEM						
Additional Dedicated Electrical Circuits for 33 Existing FOs and 2 New FOs(35 CFMS @ \$2,800 each plus tax)			\$106,575			
Cable Drops (397 @ \$350 each plus tax)			\$151,108			
Modular Furniture Reconfiguration Parts for 8 FOs (8 FOs @ \$5,000 each + Tax)			\$43,500			
Cabling to reconfigure MSF (8 FOs @ \$1500 per reconfiguration)			\$12,000			
Ceiling/Floor/Wall Mount Monitor Installation (estimated 467 monitors @ \$350 each - tax included)			\$163,450			
Cabling for Monitor to CAT-5E (estimated 510 @ \$350 each - tax included)			\$178,500			
Speaker & Speaker cabling installation (estimated 1,022 @ \$130 each - tax included)			\$132,860			
Installation of Barcode Scanner/Printer Devices (172 Devices @200 per device)			\$34,400			
Installation of IP-based Client Ticket Printers (390 Tickets printers @ \$200 per printer)			\$78,000			
Total One-time IT Agency Facilities Costs	\$0	\$0	\$900,393	\$0	\$0	\$0

Proposed Solution - One-time IT Other Costs

Other Costs	Other Costs for Fiscal Year					
	2012/13	2013/14	2014/15	2015/16	2016/17	
CUSTOMER FLOW MANAGEMENT SYSTEM						
Lobby Signage (33 FOs @ \$100 ea + 8.75% Tax)			\$3,589			
Client Ticket Printer Paper (1 Year Supply) 390 Ticket Printers @ \$420 per printer per year			\$163,800			
CFMS and CAS - Travel/Per Diem for FOD Staff to Train End Users and Equipment Installation/Testing (2 Trainers @ 137 sites + 1 Trainer @ 33 sites x \$977.20 ea)				\$300,000		
ASP/IVR Appointment Application Modifications, Back-end Integration (400 hours @ \$240 per hour) (Workorder using existing Cal- Net Contract)			\$96,000			
ASP/IVR Applications Modifications/Development (Workorder using existing Cal-Net Contract)			\$600,000			
Total One-time IT Other Costs	\$0	\$0	\$863,389	\$300,000	\$0	\$0



Proposed Solution - Continuing IT Staff Costs

IT Staff (Class Title/Division/IT Duties)	Monthly Salary	Fiscal Year 2015/16			Fiscal Year 2016/17			Fiscal Year		
		Reg Hrs	PYs	Staff Cost	Reg Hrs	PYs	Staff Cost	Reg Hrs	PYs	Staff Cost
Information Systems Division (ISD)										
Systems Software Specialist II (Technical)										
System maintenance - updates	\$6,329	21	0.01	\$1,369	250	0.14	\$16,430			
Associate Information Systems Analyst (Spec)										
System maintenance - updates	\$5,258	33	0.01	\$1,820	400	0.22	\$21,839			
Systems Software Specialist III (Technical)										
Database, Server, and Application System Administration	\$6,953	146	0.08	\$10,529	1,750	0.98	\$126,349			
Senior Information Systems Analyst (Specialist)										
Establish user access control, resetting passwords, troubleshooting, coordinate FO repairs	\$6,340	150	0.08	\$9,875	1,800	1.01	\$118,501			
Field Operations Division (FOD)										
Associate Governmental Program Analyst										
Development of Statistical Reports, Training & Technical Support	\$4,874	341	0.19	\$17,246	4,089	2.30	\$206,969			
Administrative Services Division (ASD)										
Accounting Administrator I, Specialist										
Fiscal costing/tracking and review	\$5,354	21	0.01	\$1,158	250	0.14	\$13,898			
Associate Accounting Analyst										
Fiscal costing/tracking	\$5,118	42	0.02	\$2,214	450	0.25	\$23,913			
Continuing IT Staff Cost Fiscal Year Totals		691	0.4	\$40,839	8,289	4.7	\$490,088	0	0.0	\$0

Proposed Solution - Continuing IT Contract Services Costs

Contract Services	Contract Cost Totals by Fiscal Year					
	2012/13	2013/14	2014/15	2015/16	2016/17	
Vendor Contract for continuing maintenace of CFMS & CAS (includes all hardware and software)				\$56,836	\$682,028	
FY 15/16 - 1 month FY 16/17 - 12 months						
Total Continuing IT Contract Service Costs	\$0	\$0	\$0	\$56,836	\$682,028	\$0

Proposed Solution - Continuing IT Data Center Services Costs

Data Center Services	Data Center Cost by Fiscal Year					
	2012/13	2013/14	2014/15	2015/16	2016/17	
Windows/Microsoft SQL Server Maintenace Charges				\$21,600	\$21,600	
Total Continuing IT Data Center Service Costs	\$0	\$0	\$0	\$21,600	\$21,600	\$0

Proposed Solution - Continuing IT Other Costs

Other Costs	Other Costs by Fiscal Year					
	2012/13	2013/14	2014/15	2015/16	2016/17	
Client Ticket Printer Paper (1 Year Supply) 390 Ticket Printers @ \$420 per printer per year				\$163,800	\$163,800	
Total IT Other Costs	\$0	\$0	\$0	\$163,800	\$163,800	\$0

2. OISPP Questionnaire

State of California

California Technology Agency

**Questionnaire for Information Security
and Privacy Components
in Feasibility Study Reports
and Project-Related Documents**

SIMM 20D

April 2011

Questionnaire for Information Security and Privacy Components in Feasibility Study Reports and Project-Related Documents

The following Questionnaire assists state agencies with describing the information security and privacy components associated with an IT project in its Feasibility Study Reports and other project-related documents. The Office of Information Security reviews these documents to ensure information security and privacy components are addressed by the state agency and provide its recommendations to the California Technology Agency.

If any of the answers could be considered sensitive in nature, the agency should address them in a separate addendum marked “Confidential” and included as an attachment to the document.

DMV INFORMATION PRIVACY OFFICER (IPO) and SECURITY OFFICER (ISO) ROLE AND RESPONSIBILITIES

1. What are the roles and responsibilities of the IPO and ISO in relationship to this project?

Role of IPO

The DMV’s IPO will participate in the development of the Request for Proposal (RFP). An IPO representative will function as a subject matter expert (SME) from the planning stage through implementation of the project. The IPO requires specific documentation be created based on the input from the Project Team, including a Privacy Impact Assessment, identification of any privacy vulnerabilities and risks, a summary of mitigating actions to address an identified privacy risks to ensure safeguards are operational. Most importantly, identify as to what privacy policies must be developed to avoid, mitigate, or eliminate risk to data maintained in the system.

Role of ISO

The DMV’s ISO reviewed and provided input on the Feasibility Study Report and will participate in the development of the RFP. An ISO representative will function as a SME from the planning stage through implementation of the project. The ISO requires specific documentation from the project team, including a System Security Plan, an information security risk analysis, information security requirements, and an information security review to ensure safeguards are operational. The ISO also supports projects by developing policies and standards so that project teams have a clear direction.

2. Will the IPO and ISO be involved in developing and reviewing the security requirements?

IPO – Yes

ISO – Yes

3. Will the ISO be involved in developing and reviewing the security testing efforts?

Ideally and in accordance with National Institute of Standards and Technology, a certification should be performed. However at this time, funds have not been allocated and currently, the ISO staff does not have the expertise to certify and accredit this system. At a minimum, the ISO will ensure a light-weight certification process takes place in the form of a security review of documents to ensure critical safeguards are in place and operational.

4. Has the IPO and ISO participated in the response to these questions and signed off on the project-related document(s)?

IPO – Yes

ISO – Yes, the ISO has participated in the response to these questions

PROPOSED SYSTEM

1. Who will be the designated owner of the proposed system (system)?

The designated owner will be the Deputy Director of the Field Operations Division (FOD).

2. Who will be the custodians and users of the system?

The custodian of the appointment system will be the Office of Technology Services (OTech); the custodian of the customer flow management data will be DMV. Both will be managed by the DMV. The users of the system are from FOD and the Communication Programs Division.

3. Has the data for the system been classified by the owner? Explain.

Yes, the Data Resource Manager has classified the data as personal.

4. Does the project require development of new application code or modification of existing code? Explain.

Although the project will be a COTS application, it will require some customization by the vendor in order to meet all business, technical, and functional requirements. Modifications to the ASP/IVR appointment application will be necessary to integrate with the new appointment system.

5. Will your agency share the data for the system with other entities? If so, who?

- a. Federal partners – No

- b. Local city/county partners – No

- c. State agency partners –No
- d. Judicial branch –No
- e. Universities –No
- f. Researchers –No
- g. Others –No

6. If data for the system is to be shared with other entities, will your agency implement data exchange agreements with the entities? Explain.

The data will not be shared.

7. Are there checkpoints throughout the software development life cycle (SDLC) verifying and certifying that the security requirements are being met?

Yes, the ISO will be involved throughout the project software development life cycle. These checkpoints will be built into the project schedule. The project will follow the recommendations set forth by the ISO.

8. At what points will risk assessments be performed throughout the SDLC?

Yes, IPO will be involved throughout the Customer Flow Management System and Application system project Software Development Life. These checkpoints will be built into the project schedule. The Customer Flow Management System and Appointment System project will have a privacy impact assessment and recommendations set forth by the IPO.

9. At what point will vulnerability assessments be performed once the system is put into production (e.g., ongoing risk management after implementation)?

IPO Response: (See response above)

10. Will this system collect federal data? If so, have you yet determined the National Institute for Standards and Technology 800-53 rating (i.e., high / medium / low)?

IPO Response: There will be no additional privacy assessments performed unless there is a modification to the production system that affects personal information.

11. Does DMV's Five Year IT Capital Plan address information security and privacy as related to this system?

Yes

Technical Complexity

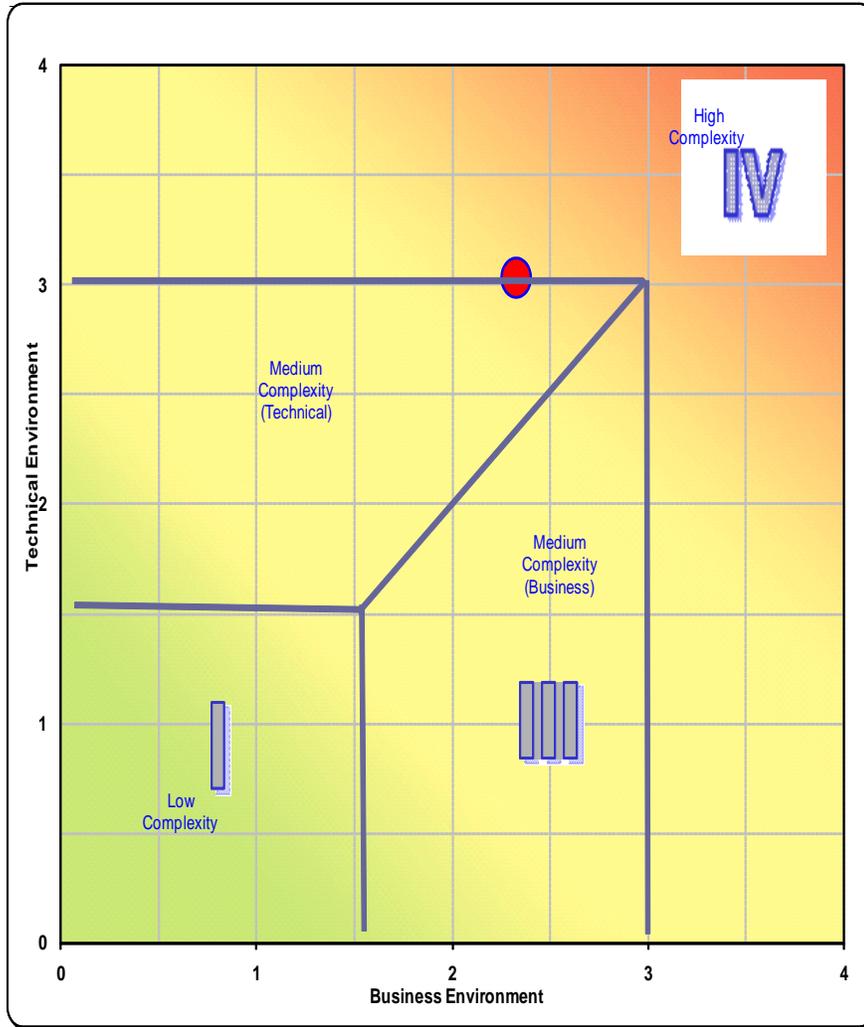
Instructions: On a scale of 0-low to 4-high, rate each applicable attribute and compute the Technical Complexity by dividing the total by the number of items rated above zero. Use the definitions in the student notebook for clarity.

Low Complexity		Technical Attribute	High Complexity	Rating
0	1	2	3	
Local		Communications - The area(s) to which communications to the project will be needed.	State wide	4
Established		Delivery Mechanism - The method by which the products of the project will be delivered to the client.	New	2.5
Local		Geography - The area(s) where the project will be implemented.	State wide	4
Proven		Hardware - Machinery and equipment: CPU, disks, tapes, modem, cables, printers, monitors, etc.	New	1
Stand-alone		Level Of Integration - The degree to which the project combines the activities of multiple applications or systems.	Tightly Integrated	4
Proven/Stable		Networks (L/W) - LAN: A communications network that serves users within a confined geographical area. It is made up of servers, workstations, a network operating system and a communications link. WAN: A communications network that serves a wide geographical area such as a state or a country. A WAN requires the network facilities of common carriers.	New	4
In place		New Technology Architecture - The design of a computer system setting the standard for all devices that connect to it and all the software that runs on it.	Not in place	4
9-5, Mon-Fri		Operations - The hours that the product (or the project) will be in use.	24-hour, 7-day	4
Expert		PM Technical Experience - The level of project specific technical knowledge and experience possessed by the project manager.	Novice	
Established and in use		Scope Management Process - The process by which change to scope is evaluated and then either dropped or integrated into the project.	None	0.5
Light		Security - The degree to which the project needs protection from theft, copying, or corruption.	Tight	4
Proven		Software - Instructions for the computer: system software is made up of control programs, and application software is any program that processes data.	New	3
Established and In Use		Standards And Methods - The specifications and practices for either software or hardware that are widely in use that will guide us through the development of the project.	None	0.5
Experienced		Team - The technical experience level of the team.	Inexperienced	2
High		Tolerance To Fault - The degree to which defects can be tolerated.	Low	4
Low		Transaction Volume - Number of requests, activities, orders, etc.	High	4
			Total:	45.5
			Complexity:	3.0

Complexity Diagram

Instructions: Plot your project in the appropriate complexity zone.

[Note: Your project will be plotted automatically in this worksheet, using the values computed in the previous tables.]



Scores	Business Complexity	2.3
	Technical Complexity	3.0

Suggested Project Manager Skill Set Guidelines

Complexity		Duration		Budget		Resources	
<input type="checkbox"/>	Zone 1	<input type="checkbox"/>	< 6 months	<input type="checkbox"/>	<\$500K	<input type="checkbox"/>	< 5
<input type="checkbox"/>	Zone II, Medium Zone III, Medium	<input type="checkbox"/>	< 1 year	<input type="checkbox"/>	<\$1M	<input type="checkbox"/>	<10
<input type="checkbox"/>	Zone II, High Zone III, High	<input type="checkbox"/>	>1 year; < 3 years	<input type="checkbox"/>	>\$1M; <\$5M	<input type="checkbox"/>	11 – 20
<input checked="" type="checkbox"/>	Zone IV	<input checked="" type="checkbox"/>	>3 years; <10 years	<input checked="" type="checkbox"/>	>\$5M; <\$100M	<input type="checkbox"/>	21 – 40
		<input type="checkbox"/>	>10 years	<input type="checkbox"/>	>\$100M	<input checked="" type="checkbox"/>	40+

PM Level: 4

Experience: 5+ years working as Project Manager or Project Director on large IT projects . Technical experience commensurate with the proposed technology.

Professional Knowledge: Strong working knowledge of the CA-PMM; CA Budgeting, Procurement and Contracting processes; department’s methodology; and Software Development Life Cycle.

For Oversight Purposes:
Zone I = Low Criticality/Risk
Zones II and III = Medium Criticality/Risk
Zone IV = High Criticality/Risk

Assess the complexity of the project periodically: every two - three months and/or at the conclusion of each phase

4. Acronyms

Acronyms	Description
ADABAS	Adaptable Data Base
AIMS	Agency Information Management Strategy
ASD	Administrative Services Division
ASP	Advance Speech Processing
Cal-Q	California Qualified
CA-PMM	California Project Management Methodology
CAS	Customer Appointment System
CCFMAS	Centralized Customer Flow Management and Appointment System
CFMS	Customer Flow Management System
CIO	Chief Information Officer
CRF	Change Request Form
CQS	Customer Queuing System
DMV	Department of Motor Vehicles
DMVA	Department of Motor Vehicles Automation
DOF	Department of Finance
EAWs	Economic Analysis Worksheet(s)
EPM	Enterprise Project Management
EXE	Executive Division
FO	Field Office(s)
FOD	Field Operations Division
FSR	Feasibility Study Report
FY	Fiscal Year
HQ	Headquarters
IEEE	Institute of Electrical and Electronics Engineers
IBM	International Business Machine
IPO	Information Privacy Office
IPOR	Independent Project Oversight Report
ISD	Information Systems Division
ISO	Information Security Office
IT	Information Technology
ITSP	Information Technology Strategic Plan
IV&V	Independent Verification and Validation
IVR	Interactive Voice Response
LED	Light-Emitting Diode

Acronyms	Description
NCB	Non-Competitive Bid
OISPP	Office of Information Security and Privacy Protection
ORP	Operational Recovery Plan
PIER	Post Implementation Evaluation Report
PMBOK	Project Management Body of Knowledge
PY	Personnel Year
SAM	State Administrative Manual
SBP	Strategic Business Plan
SDLC	Systems Development Life Cycle
SIMM	Statewide Information Management Manual
SPR	Special Project Report
TSC	Telephone Service Center
XML	Extensible Markup Language