



BUSINESS CONSUMER SERVICES AND HOUSING AGENCY

California
Department of
Consumer Affairs

Bureau of Automotive Repair Cal-VISTA Project Feasibility Study Report

August 13, 2015

Department of Technology Project Number 1110-114

Submitted By:

STATE OF CALIFORNIA
Department of Consumer Affairs
1625 North Market Blvd.
Sacramento, California 95834

Please consider the environment before printing

Revision History

REVISION	DATE OF RELEASE	DESCRIPTION	PURPOSE	AUTHOR
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v2	5/22/2015	Draft	For BAR, OIS, and Department of Technology review	Clay Leek
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v5	8/13/2015	Final	For Final Approval in response to Department of Technology comments	Clay Leek
v6	9/4/2015	Final	For Final Approval in response to Department of Technology comments	Clay Leek

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1 Executive Project Approval Transmittal

The Executive Project Approval Summary begins on the following page.

SIMM Section 20A		
Feasibility Study Report Executive Approval Transmittal		
		
State Entity Name		
Department of Consumer Affairs - Bureau of Automotive Repair		
Project Title (maximum of 75 characters)		Department of Technology Project Number
California Vehicle Inspection System TrAnsiton		1110-114
Project Acronym	State Entity Priority	Agency Priority
Cal-VISTA	1	1

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

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

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

I certify the acquisition of the applicable information technology (IT) product(s) or service(s) required by my Agency/state entity 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 pages).

APPROVAL SIGNATURES		
Information Security Officer		Date Signed
Printed name:	Walter Durette	
Enterprise Architect		Date Signed
Printed name:	Jason Piccione	
Chief Information Officer		Date Signed
Printed name:	Amy Cox-O'Farrell	
Budget Officer		Date Signed
Printed name:	Robert de los Reyes	
State Entity Director		Date Signed
Printed name:	Awet Kidane	
Agency Information Officer		Date Signed
Printed name:	Andrew Armani	
Agency Secretary		Date Signed
Printed name:	Anna Caballero	

1.1 IT Accessibility Certification

Yes or No

Yes	The Proposed Project Meets Government Code 11135 / Section 508 Requirements and no exceptions apply.
------------	---

Exceptions Not Requiring Alternative Means of Access

Yes or No	Accessibility Exception Justification
No	The Proposed IT project meets the definition of a national security system.
No	The Proposed 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.")
No	The Proposed IT acquisition is acquired by a contractor incidental to a contract.

Exceptions Requiring Alternative Means of Access for Persons with Disabilities

Yes or No	Accessibility Exception Justification
No	Meeting the accessibility requirements would constitute an "undue burden" (i.e., a significant difficulty or expense considering all Agency/state entity 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.
No	No commercial solution is available to meet the requirements for the IT project that provides for accessibility. 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.

Exceptions Requiring Alternative Means of Access for Persons with Disabilities

Yes or No	Accessibility Exception Justification
N/A	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. 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.

2 Information Technology Summary Package

The Information Technology Summary Package begins on the next page.

**INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION A: EXECUTIVE SUMMARY**

1. Submittal Date	07/15/2015
--------------------------	-------------------

	FSR	PSP Only	Other:
2. Type of Document	x		
Project Number	1110-114		

		Estimated Project Dates	
3. Project Title	California Vehicle Inspection System TrAnsition	Start	End
Project Acronym	Cal-VISTA	09/2015	10/2019

4. Submitting Agency/State Entity	Department of Consumer Affairs - Bureau of Automotive Repair
5. Reporting Agency	Business, Consumer Services and Housing

6.	Project Objectives
	<p>The following is a summary of the project objectives.</p> <p>Objective 1 – Ensure the continuity of the California Smog Check Program by extending the existing contract to bridge the gap until replacement hosting and application support services are obtained.</p> <p>Objective 2 – Align with State IT Policy by moving the California Vehicle Inspection System (Cal-VIS) to an approved Tier 3 data center.</p> <p>Objective 3 – Minimize the risk of this and future contract transitions by taking ownership of the system, and leveraging the State’s ownership of the existing system design, schema, source code, and data.</p> <p>Objective 4 – Continue to leverage strong, financially backed Service Level Agreements (SLA) to ensure the required service levels are met.</p> <p>Objective 5 – Continue to leverage a “no cost to the State” model to support the ongoing operation of the Cal-VIS.</p>

8.	Major Milestones	Est Complete Date
	FSR Development	07/2015
	FSR Approval	09/2015
	Contract Negotiations Complete	02/2016
	Contract Approval	06/2016
	Project Initiation and Planning Complete	10/2016
	RFP Development	12/2016
	RFP Approval	04/2017
	RFP Release	05/2017
	RFP Responses Due	10/2017
	Complete Build / System Testing	11/2017
	Complete User Acceptance Testing	12/2017
	Post Implementation Verification	01/2018
	RFP Vendor Selection	05/2018
	Transition to OTech Complete	05/2018
	Transition to New Vendor Complete	10/2018
	PIER	10/2019
	Key Deliverables	
	FSR	07/2015
	New Contract	02/2016

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION A: EXECUTIVE SUMMARY

Objective 6 – Continue to meet all functional requirements of the existing system including the timely transmission of smog certificates to the Department of Motor Vehicles (DMV).

Objective 7 – Pursuant to the Clean Air Act Amendment of 1990, enable California to remain in compliance with Environmental Protection Agency (EPA) rules, State mandate, and the State Implementation Plan (SIP).

SR Submitted to OTech	06/2016
System Design Document	08/2016
Project Charter	06/2016
System Design Document	07/2016
Project Schedule	09/2016
Project Management Plan	09/2016
RFP	12/2016
UAT Plan	03/2017
Cutover Plan	12/2017
System Acceptance Document	05/2018
RFP Award	05/2018
PIER	10/2019

7.	Proposed Solution
<p>The Bureau of Automotive Repair (BAR) proposes that the State of California negotiate with the current Cal-VIS Contractor to augment the current Statement of Work (SOW). These negotiations would result in a new contract. The new contract will include:</p> <ol style="list-style-type: none"> 1. Tasks to refresh the Cal-VIS to the Tenant Managed Services (TMS) area of the Office of Technology Services (OTech) Rancho Cordova Data Center and establish OTech as the primary processing facility; and 2. BAR ownership of the primary processing environment including hardware and hardware configurations. <p>In parallel with establishing OTech as the primary processing facility for the Cal-VIS, BAR will conduct a procurement to obtain competitively bid maintenance and operations services. A new vendor will be selected to provide these services after the system has been moved to OTech and the State has obtained ownership of the system.</p>	

INFORMATION TECHNOLOGY PROJECT SUMMARY
SECTION C: PROJECT RELEVANCE TO STATE AND/OR DEPARTMENTAL PLANS

Project #	1110-114
Doc. Type	FSR

Executive Contacts								
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INFORMATION TECHNOLOGY PROJECT SUMMARY
SECTION C: PROJECT RELEVANCE TO STATE AND/OR DEPARTMENTAL PLANS

1.	What is the date of your current Technology Recovery Plan (TRP)?	Date	09/2014
2.	What is the date of your current Agency Information Management Strategy (AIMS)?	Date	09/2008
3.	For the proposed project, provide the page reference in your current AIMS and/or strategic business plan.	Doc.	
		Page #	

Project #	1110-114
Doc. Type	FSR

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

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

Project #	1110-114
Doc. Type	FSR

Budget Augmentation Required?																						
No	<input checked="" type="checkbox"/>																					
Yes	<input type="checkbox"/>	If YES, indicate fiscal year(s) and associated amount:																				
		<table border="1"> <thead> <tr> <th>FY</th> <th>2015/16</th> <th>FY</th> <th>2016/17</th> <th>FY</th> <th>2017/18</th> <th>FY</th> <th>2018/19</th> <th>FY</th> <th>2019/20</th> </tr> </thead> <tbody> <tr> <td></td> </tr> </tbody> </table>	FY	2015/16	FY	2016/17	FY	2017/18	FY	2018/19	FY	2019/20										
FY	2015/16	FY	2016/17	FY	2017/18	FY	2018/19	FY	2019/20													

PROJECT COSTS

1.	Fiscal Year	2015/16	2016/17	2017/18	2018/19	2019/20	TOTAL
2.	One-Time Cost	\$241,561	\$1,741,889	\$1,914,556	\$73,607	\$0	\$3,971,613
3.	Continuing Costs			\$105,171	\$146,187	\$166,695	\$418,053
4.	TOTAL PROJECT BUDGET	\$241,561	\$1,741,889	\$2,019,727	\$219,794	\$166,695	\$4,389,666

PROJECT FINANCIAL BENEFITS

5.	Cost Savings/Avoidances						
6.	Revenue Increase						

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

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

Project #	1110-114
Doc. Type	FSR

VENDOR PROJECT BUDGET

1.	Fiscal Year	2015/16	2016/17	2017/18	2018/19	2019/20	TOTAL
2.	Primary Vendor Budget						
3.	Independent Oversight Budget		\$75,000	\$75,000			\$150,000
4.	IV&V Budget		\$210,000	\$210,000			\$420,000
5.	Other Budget	\$110,000	\$810,000	\$810,000	\$20,000		\$1,750,000
6.	TOTAL VENDOR BUDGET	\$110,000	\$1,095,000	\$1,095,000	\$20,000		\$2,320,000

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

Project #	1110-114
Doc. Type	FSR

RISK ASSESSMENT

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

General Comment(s)
<p>The Cal-VISTA Project will leverage a rigorous Risk Management process as defined in Section 7 – Risk Management Plan.</p>

3 Business Analysis

The conditionally approved Stage 1 Business Analysis (S1BA) is included in Appendix A.

4 Baseline Analysis

Through the baseline analysis of the existing California Vehicle Inspection System (Cal-VIS), BAR hopes to further explore the current information management practices related to the system. Understanding the baseline will ensure that advantages and disadvantages of potential changes to the current practices are understood and measured.

4.1 Current Method

The current method of operations has proven to be very successful. The existing system is hosted, maintained, and operated by an independent contractor in a third party data center utilizing a no cost to the state model. The current contractor, SGS Testcom (SGS) is compensated through a transactional fee charged directly to Smog Stations and is responsible to support and maintain the entire system including hardware, software, and network connectivity. The existing system continues to meet and exceed all of the original system objectives. The existing method of operations has allowed BAR to respond to rapidly changing vehicle technology and to mandated program changes. Strong, financially backed Service Level Agreements (SLAs) ensure that the required service levels are achieved. While the current method of operations has proven to be very successful, BAR believes that opportunities exist to significantly reduce the risk of this and future transitions, and to better align with Information Technology (IT) Policy as defined by the California Department of Technology (Department of Technology).

While BAR does own the existing Cal-VIS code, schema and data, BAR does not own the existing Cal-VIS hardware or hardware configurations. Many of the supporting software licenses are also not owned by the State (including Oracle). Additionally, the Cal-VIS is much more complex today than it was when it was transitioned in 2005. The system supports critical business processes through complex interfaces that did not exist when it was previously transitioned (e.g. CAP, STAR, and On-board Diagnostic (OBD) Testing). The potential impacts of a poorly executed transition are far greater than the previous transition, and could easily interrupt publically facing, mission critical business processes. The incumbent (SGS) has maintained the Cal-VIS since 2005 and has unique knowledge of the overall environment and the Cal-VIS hardware configuration.

4.1.1 Objectives of the Current System

The Cal-VIS was originally designed and implemented as a transactional system to electronically process smog check inspection data and transmit smog certificates to DMV. At the time of its development, the Cal-VIS had the following objectives:

- Enable DMV to obtain smog certification results in a manner that supports DMV's automated vehicle registration processes.
- Enable BAR to reduce program fraud, minimize certificate sales and handling costs, and efficiently process data.
- Pursuant to the Clean Air Act Amendment of 1990, enable California to remain in compliance with EPA rules, State mandate, and the State Implementation Plan (SIP) (required real-time data link to a host computer and data access).
- Changes applied to the Cal-VIS will cause no disruption in the transmission of test results, no loss of test records, and minimal impact, if any, to stations, technicians, and the motoring public.
- Implement a "no cost to the State" solution whereby the State is not billed for the design, development, testing, transition/implementation, and ongoing operation of the Cal-VIS.
- Utilize a pre-established process to periodically adjust the "cost-per-test" billing rate based on test volumes and inflation.

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- Minimize the risk of a transition by leveraging the State's ownership of current system design, schema, source code, and documentation.
- Ensure the Cal-VIS Contractor provides and maintains a strategy to refresh/upgrade/tune all hardware and software to meet performance requirements throughout the life of the contract.
- Ensure Cal-VIS is designed and resourced to sustain the projected volume and anticipated change of pace for the California Smog Check Program.
- Ensure system capabilities are robust enough to support expanding data processing and management reporting requirements.
- Leverage the State's ownership of current system design, schema, source code, and documentation.
- Establish and maintain a mutually agreeable SLA designed to ensure reliable and responsive Cal-VIS performance and sustainable high-quality service.
- Expand capabilities to support data retrieval and complex processing demand while securing an extensible, scalable solution to support future change.
- Support increased internal/external access to system capabilities and data
- Support state and local repair assistance, technician/station performance, and vehicle retirement programs by enabling authorized personnel to confirm or deny vehicle eligibility and to access vehicle records and test data on a real-time basis.
- Reduce State costs by eliminating BAR's dependency on outside program contractors to develop Cal-VIS front-end applications and management tools.

4.1.2 System's Ability to Meet Current and Projected Workloads

Under the current contract with SGS, the current system is capable of handling current and projected workload requirements indefinitely. Under the existing contract, SGS is responsible for performance tuning, and hardware/software refresh as well. Additionally, the current contract contains consulting hours to support unanticipated changes to the system.

4.1.3 User and Technical Staff Level of Satisfaction

BAR users and technical staff are satisfied with the current system. The "no cost to the state" model adopted to fund the system has provided numerous benefits with little risk to the state that would have been very difficult to obtain any other way. The system is highly available, flexible, and scalable. It has been enhanced over the years in response to evolving federal, state and local mandates and initiatives.

The Cal-VIS not only controls and manages program compliance, but also enables BAR management and staff to closely monitor inspection results and station performance. The system allows BAR staff to remotely manage aspects of the Smog Check Program that previously required a site visit. A wide range of web based tools (BAR Applications) are available to authorized BAR staff and have become essential to the execution of critical business functions.

Prior to the implementation of the Cal-VIS, BAR management and enforcement personnel had to wait an average of five to six months before station data was available for program and performance analysis. The system enables the stations and technicians to be held immediately accountable for poor performance or fraudulent activity.

The limitations of the current system and of some of its design features have become more apparent as program demands have increased. The recent implementation of On-board Diagnostic (OBD) testing has created a need for additional Data Warehouse and Business Intelligence (BI) capabilities to support complex and resource intensive data analysis and reporting activities. The recent implementation of OBD only testing has dramatically increased the volume and complexity of the data collected by the system. Additionally, the system has never fully supported ad-hoc reporting and complex query capabilities required by the program and

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has fallen further behind as external requests for program performance and impact and trend analysis have increased.

From a technical architecture perspective, opportunities do exist to improve the Cal-VIS. Technology has evolved since the Cal-VIS was designed and implemented in 2005. Specifically, data replication, and technologies supporting database high availability (HA) have matured considerably since the inception of the Cal-VIS. In conjunction with the DCA, BAR has evaluated each opportunity to improve the technical architecture of the Cal-VIS with careful consideration of both the benefit of the change, and the risk to the cost, quality, and schedule of the project.

4.1.4 Data Input and Characteristics

The Cal-VIS contains over 233 million Smog Check test records, as well as related ancillary data, and adds nearly 50,000 tests records per day. BAR only collects emissions related data from vehicles during a Smog Check, and does not collect any other data. The system transmits in near real-time to the DMV database an electronic certificate for each passing test result that automatically updates the DMV vehicle record (a mandated requirement for initial vehicle registration, registration renewal, and change-of-ownership). The system maintains 12,000+ active technician license records and 8,000+ active Automotive Repair Dealer (ARD) and station license records and updates those records nightly from BAR licensing. The system also contains more than 2 million gas calibration records, station performance and station audit reports. The system contains vehicle license plate numbers and Vehicle Information Numbers (VIN) in order to send the certificate of compliance for each vehicle to DMV for registration renewal purposes. There is no confidential information stored in the Vehicle Information Database (VID) relative to personal information about the registered vehicle owner (no first/last name, home address, etc.).

4.1.5 System Provisions for Security, Privacy, and Confidentiality

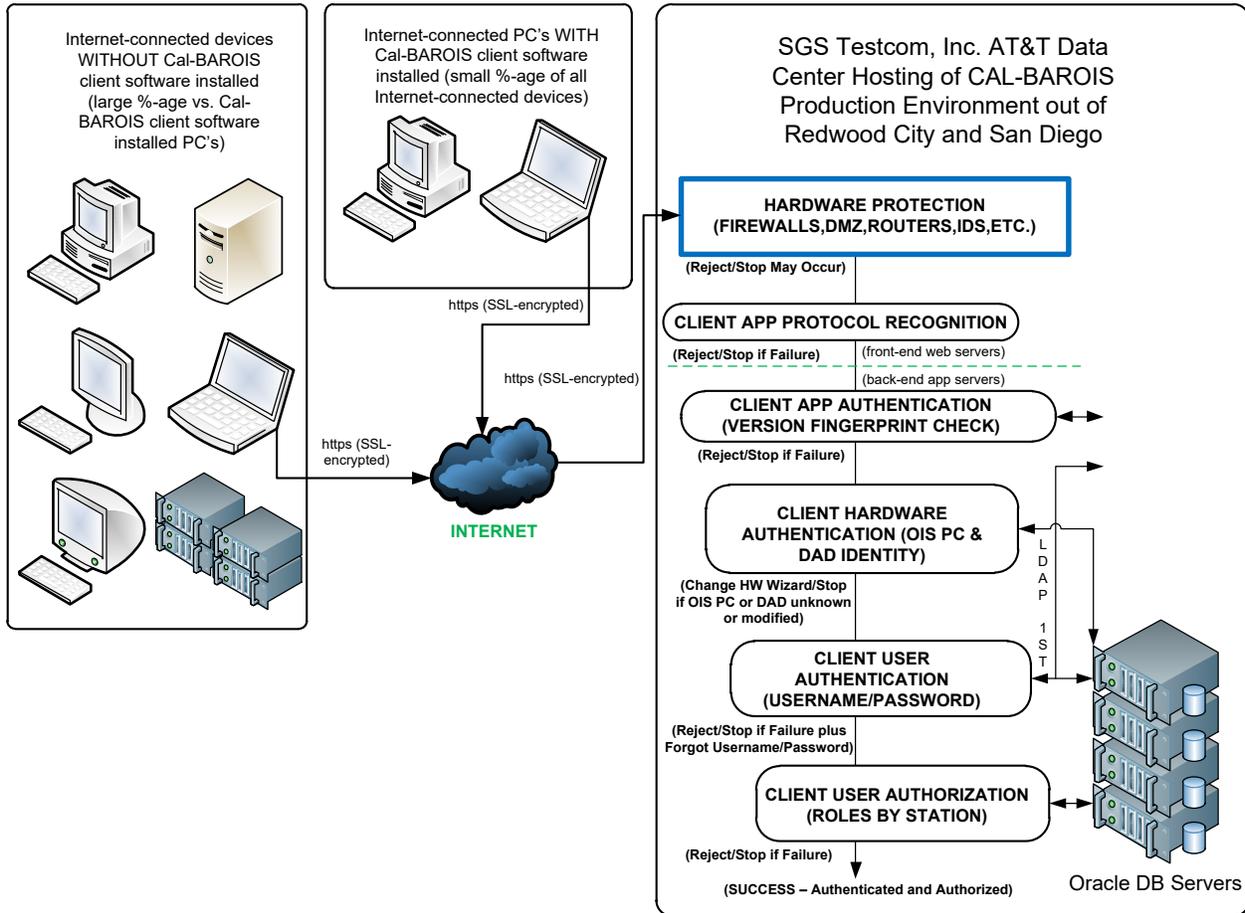
Security occurs at a number of levels, from physical security (door locks and card key entry) to system redundancy (at physically distant sites), backups, data archiving, network, and application access.

- Direct access to computer rooms employs additional security procedures that restrict access by unauthorized personnel.
- Novell Account Management (NAM) is used to support centralized role based security across the environment.
- Novell's eDirectory supports access and authorization for Hypertext Transfer Protocol (HTTP) and Secure Hypertext Transfer Protocol (HTTPS) users.
- A VPN provides secured information transport over the internet. Privacy and security are maintained through the use of tunneling protocols, encryption and security policies.
- In addition to user logins and role types to control access, the toll-free network supports automatic number identification (ANI) for authentication of all dial-up users.
- The system creates an audit trail to identify a specific individual who has responsibility for any transaction. Audit logs are maintained.
- Any information classified as private is encrypted using at minimum a 128-bit key on all systems directly accessible from the public internet.
- BAR application and database access are controlled at a number of levels, from the client tier (based on security levels) to the database tier, depending on the application.
- By contract, BAR owns all data and requires strict adherence to privacy and confidentiality agreements.
- Annual security audits are conducted.

Prior to the recent implementation of OBD only testing, all Vehicle Inspection System (VIS) connectivity to the Cal-VIS was through a dial up connection. A security model based on best practices from the banking industry

was adopted to accommodate the web based connectivity required to support the OBD Inspection System (OIS). A diagram of the OIS security model is below:

OIS Logical Security Diagram

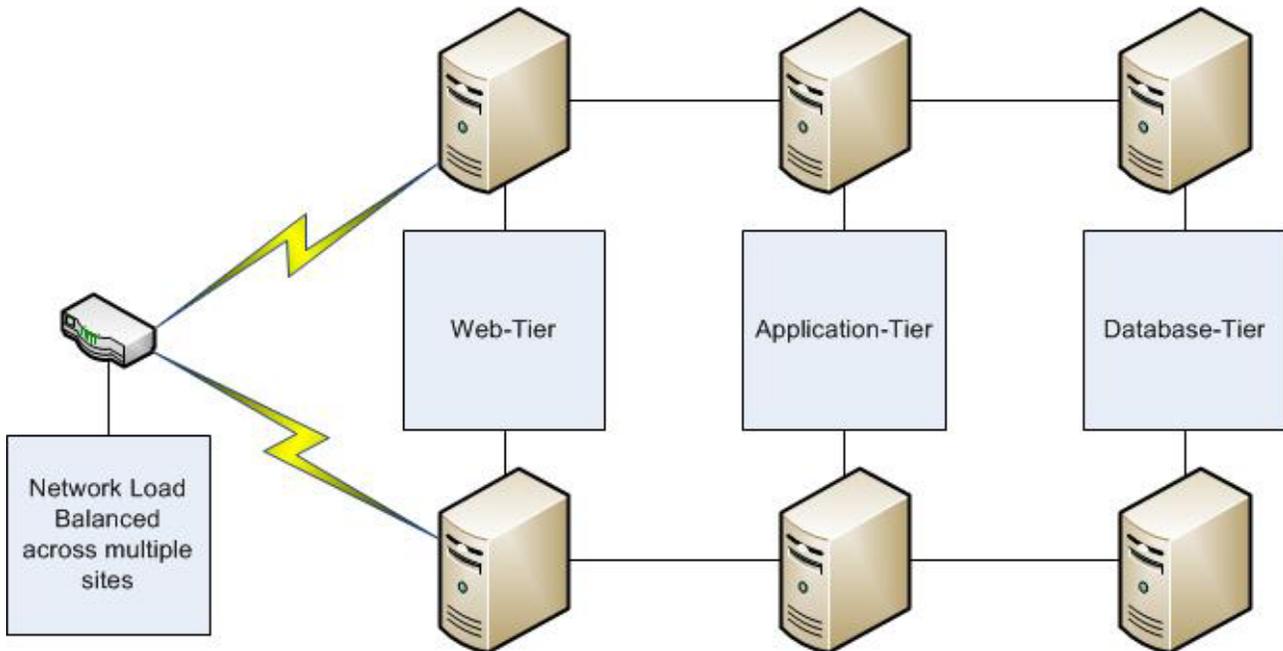


4.1.6 Equipment Requirements

Complete and accurate documentation of the entire system is available in the System Library. A summary of the equipment requirements is below. The Cal-VIS is composed of three tiered architecture in addition to a telecommunications network that supports connectivity to EIS across the state. The following equipment components support the Cal-VIS:

- High availability web-tier that supports HTTPS connectivity from OIS units across the state
- High availability application tier that supports OIS business logic
- High availability database tier (Oracle database software on Linux servers) used to maintain vehicle information, record inspection transactions, and produce reports that enable access to management, enforcement, and operational data
- A telecommunications network that supports secure, dial-up connectivity
- High availability, virtualized server environment supporting BAR Applications

4.1.6.1 3-Tier Architecture



4.1.6.2 Telecommunications Network

A telecommunications network that supports secure, dial-up connectivity between the Smog Check stations and the communication servers to facilitate electronic purchase and receipt of smog certificates, as well as receipt and transmission of vehicle specific data, inspection results, and program information and updates. The contractor maintains network connectivity between BAR, DCA, OTech, and the system's databases to provide access to program data and to facilitate on-line smog certificate updates to DMV. The system also supports direct DCA/BAR Local Area Network (LAN) connectivity to access data via "real-time" queries that originate from various BAR applications hosted by BAR.

4.1.6.3 BAR Applications

A virtualized Windows 2008R2 server environment and EMC storage area network (SAN) supports BAR Applications.

4.1.7 Software Characteristics

A number of applications and tools comprise the Cal-VIS:

- Internet Explorer based OIS hybrid client
- Windows based EIS software (proprietary to each manufacturer)
- JBoss-based web servers
- Java-based application servers
- Oracle database servers running on Linux
- Drools rules engine
- Hyperion Reporting
- Custom SQL Extract Transform Load (ETL) processes
- Java based web services
- Novell e-directory

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- Monitoring tools
- Version control tools
- Configuration Management tools
- Software build tools
- Code review tools

4.1.8 Internal and External Interfaces

The external systems that interface with Cal-VIS include:

- Vehicle Inspections Systems (VIS)
 - BAR-97 Emissions Inspection Equipment (EIS)
 - On-board Diagnostic (OBD) Inspection System (OIS)
- DMV/OTech
- DCA Licensing/OTech
- State designated bank
- BAR Applications
- Referee Applications
- Consumer Assistance Program (CAP) Application
- Roadside Inspection Data
- SAS Reporting and Analytics

4.1.8.1 Vehicle Inspections Systems (VIS)

The Cal-VIS must interface with all VIS including EIS and OIS. Network communications infrastructure is required to support and provide dial-up modem and secure web based access compatible with existing equipment, software, and the current EIS and OIS communications interface. Multiple environments are required to support numerous stakeholders including:

- Smog Check Stations
- Referee Stations
- BAR Roadside Teams
- Training Institutions
- OBD DAD Manufacturers
- Government Fleet Facilities
- Beta Testing Stations
- Development Team
- System Test Team
- User Acceptance Test (UAT) Team
- Certification Test Team
- BAR Enforcement / Field Offices

4.1.8.2 DMV/OTech

The Cal-VIS must interface with the DMV Mainframe application hosted by OTech. The system is capable of managing large batch data updates, as well as near real time transactions with the DMV mainframe application hosted by OTech. As well as maintaining over 31 million DMV vehicle records, one of the principal functions of the Cal-VIS is the establishment of a fully computerized smog certification program that does not require the use of printed certificates as proof of compliance. To meet this regulation the Cal-VIS must be capable of transmitting vehicle smog certificate records to DMV within 60 seconds of receipt of electronic test results. The

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middleware technology currently in use is IBM's MQSeries because it provides reliable and secure middleware services.

4.1.8.3 Licensing/OTech

The Cal-VIS must support the electronic transmission, collection, storage, and management of BAR Technician and Station licensing data received via direct connection from OTech. The system must interface with the DCA licensing system hosted by OTech. The DCA licensing application maintains ARD and Smog Station records and Smog Check Technician licensing records. The application is accessed via terminal emulation. In order to keep the Cal-VIS in sync with the BAR/Licensing, records extract files are ported to the system nightly using File Transfer Protocol (FTP).

4.1.8.4 State Bank

The Cal-VIS must transmit to the state's designated bank on a daily basis a National Automated Clearinghouse Association (NACHA) File that contains all electronic certificate orders placed that day by authorized stations. An electronic copy of all reports generated by the State Bank are transmitted to BAR and DCA's Accounting Unit.

4.1.8.5 BAR Applications

The Cal-VIS must interface with all BAR Applications. Thousands of people access system data via BAR Applications each day including BAR employees, industry, and the general public. Complex web-based tools developed by BAR provide restricted access to various levels of system data. The application tools provide BAR personnel with real-time capability to perform critical management functions including start-up and close stations, assign and remove analyzers and technicians, set and clear lockouts, update vehicle and station records, send messages, test software, fulfill certificate orders, configure vehicle test parameters, and monitor usage. BAR Applications, through the use of standard Open Database Connectivity (ODBC), Web Services, or direct SQL type mechanisms are able to interface with the Cal-VIS database.

4.1.8.6 Referee Applications

The Cal-VIS must interface with the Referee Data Manager and Referee Administrator applications. The Referee Data Manager and Referee Administrator applications reside on servers at the Referee Scheduling Center. The Referee System is a privately contracted program that primarily consists of stationary Referee Sites, and the Referee Scheduling Center. The Referee system generates more than 22,000 smog inspection records annually. The Referee Scheduling Center, Referee Management, BAR Management, and Referee Site personnel use the Data Manager and Referee Administrator databases to schedule appointments, manage workload, and monitor and manage the Referee program.

4.1.8.7 Consumer Assistance Program

The Cal-VIS must interface with the Consumer Assistance Program (CAP) application. BAR's Consumer Assistance Program manages a Vehicle Retirement Program and a Repair Assistance Program for qualifying vehicles that fail their smog inspection. The CAP application resides on BAR maintained servers but relies on vehicle data stored in the Cal-VIS to determine vehicle eligibility.

4.1.8.8 Roadside Inspection Data

The Cal-VIS must interface with authorized BAR personnel performing roadside inspections. BAR conducts periodic roadside pullovers in which vehicle smog inspections are performed and "real world" data is collected. This data is a key deliverable used by ARB to calculate current program effectiveness and develop future regulations supporting air quality.

4.1.8.9 SAS Reporting and Data Analytics

The Cal-VIS must interface with the SAS reporting and data analytics environment hosted by BAR. BAR utilizes SAS to support reporting needs and also to perform ad hoc reporting, fraud detection, and trend analysis.

4.1.9 Personnel Requirements

SGS, the Cal-VIS Contractor, houses, operates and manages the system based on state requirements, BAR business rules and approved Change Management Requests (CMRs). The contractor is fully responsible for managing and staffing all functions relative to providing and maintaining system hardware, software, communications interfaces, application development, and ongoing 24x7 services support. System changes and modifications are managed through a CMR process and are supported by consulting hours built into the contract. SGS maintains and monitors all system functions. This includes providing "Help Desk" services to assist stations and technicians with network communications and technical issues, and BAR with problem identification, "trouble ticket" tracking, and resolution. SGS interfaces with BAR at the Project/Program Manager level with the Project/Program Managers responsible for establishment of priorities, schedules, and management of resources.

4.1.10 System Documentation

BAR retains ownership of the system design, schema, source code, and data dictionary. Accordingly, BAR has access to a complete library of system documentation. BAR Applications are documented as well and the documentation is maintained in an internal Microsoft SharePoint repository. BAR maintains version control for its source code using Subversion (SVN).

4.1.11 Failures to Meet Objectives

The Cal-VIS continues to meet the transaction processing, reliability, and availability performance standards established in the initial contract. The system also continues to meet all functional requirements.

The existing system does lack the capability to support the growing demand for data mining, analysis, and reporting. BAR has taken proactive steps to grow capabilities supporting these demands and is working to implement a more mature model to support these demands moving forward. An internal effort to implement SAS as a tool to develop data mining, analysis and reporting capabilities was initiated in 2013.

4.2 Technical Environment

4.2.1 Expected Operational Life of Proposed Solution

It is anticipated the proposed solution will be viable for 7-10 years. The proposed solution will have to be flexible enough to accommodate unforeseen future changes including changes to the program, the addition of new programs, and changes in the technology environment. Cal-VIS capabilities and services will continue to be required for the foreseeable future. Reduction of harmful emissions and the improvement of air quality are long-term goals of federal, state, and local governments. Since emissions from mobile sources (primarily vehicles) account for 70% of California's air pollution, the need for a rigorous Smog Check inspection program, which has been found to be one of the state's most cost-effective tools in the fight against air pollution, is projected to continue well into the future.

4.2.2 Interaction of Proposed Solution with Other Systems

The interfaces to other systems are addressed in Section 4.1.8 of the FSR. The Cal-VIS computer hardware and software components must be fully compatible with all other systems to which it must interface. Statewide electronic connectivity between the system, VIS units and BAR-authorized users must continue uninterrupted.

4.2.3 State-level Information Processing Policies (Enterprise System Strategy)

The Cal-VIS is designed to adhere to all state-level policies for information processing. Following the 2008 Agency Information Management Strategy (AIMS) guidelines, BAR is working closely with the Department of Consumer Affairs (DCA) to ensure all plans are in alignment with the overarching goals and objectives of the DCA and the Business, Consumer Services and Housing Agency (BCSH).

In accordance with the Department's AIMS, BAR has sought to identify opportunities to improve program operations through the strategic use of IT. DCA and BAR are committed to establish and maintain a department-wide IT infrastructure, that is responsive to a changing technology landscape and that facilitates e-government initiatives.

BAR seeks to ensure that services supporting the Cal-VIS are procured and implemented in accordance with current laws, regulations and policies. BAR will operate in accordance with the State Information Management Manual (SIMM), State Administrative Manual (SAM), Technology Letters (TLs), and procurement guidelines. BAR leadership understands that there is a compelling need to consolidate IT services and operations to minimize overlap, redundancy, and cost in state operations. The current Cal-VIS hosting model does not align with policy as defined by IT Policy Letter (ITPL) 10-14 issued on October 29, 2010. Transitioning the Cal-VIS to an approved Tier III data center in alignment with State of California IT Policy will be carefully evaluated as part of this study. If planned correctly, the transition to an approved Tier III data center could significantly reduce the risk of negative impacts to mission critical business processes as part of this and future transitions.

4.2.4 Financial Constraints

The Cal-VIS will continue to be maintained and operated within the parameters of a “no-cost to the State” contract. BAR plans to continue to leverage the “no cost to the State” contract model.

BAR is not seeking a budget augmentation or increased funding for hardware, software, or equipment to support the transition to the Cal-VIS. BAR plans to absorb one-time IT project costs and continuing IT project costs. BAR plans to obtain one additional IT resource by redirecting a position from the program.

The current Cal-VIS contract resulted in cost savings to BAR of nearly \$310,000 per year by replacing BAR contract program developers with full-time contractor staff housed at BAR. BAR plans to continue to utilize full time contractor staff housed at BAR to take advantage of these cost savings.

4.2.5 Legal and Public Policy Constraints

BAR is required to operate a centralized computer based system (Health & Safety. Code, § 44037.1). However, the Smog Check Program, as administered by BAR, is also subject to federal regulation and approval by the United States Environmental Protection Agency (42 USC §7511a; and also 40 C.F.R. §§ 51.350, 51.351, 51.352, 51.353.). Federal regulation also calls for specialized data links and host computer system that serves both enforcement and analytical purposes (40 CFR §§ 51.358(b)(2), 51.361, 51.362, 51.365, 51.366.).

4.2.6 Agency Policy and Procedures Related to Information Management

BAR is working with the DCA to design and implement the Cal-VIS within the parameters established by the 2008 Agency Information Management Strategy (AIMS) and the DCA 2014-2016 Strategic Plan. DCA's Office of Information Services, which is responsible for all policies and procedures related to information management for the Department and its Boards and Bureaus. The Office of Information Services will provide departmental oversight for the project. DCA's Office of Information Systems works collaboratively with BAR's decentralized IT operations unit in providing support services and ensuring compliance with agency procedures.

To ensure that the transition of the Cal-VIS is achieved in accordance with DCA policies and procedures related to information management, BAR will work closely with the Office of Information Systems. In particular, the DCA Enterprise Project Services (EPS) will provide support during implementation in the area of Risk

Management and Project Management. Specifically, BAR has requested the EPS participate and provide ongoing guidance and oversight in these areas.

4.2.7 Anticipated Changes in Equipment, Software, or the Operating Environment

It is anticipated that the proposed solution will be compatible with the DCA network, equipment, interfaces, and overall operating environment.

4.2.8 Availability of Personnel Resources for Development and Operation

The maintenance and operations of the proposed solution will be supported by the Cal-VIS Contractor. The transition of the Cal-VIS will be supported by a combination of resources including:

- Cal-VIS Contractor
- BAR Staff
- Department of Technology Staff
- Independent Contractors
- DCA Staff
- OTech Staff (TMS)

4.3 Existing Infrastructure

BAR's computing needs are supplied by the Cal-VIS and its related interfaces, as well as BAR Applications hosted at BAR. Additionally, BAR maintains a robust office automation and desktop computing environment that staff rely upon to conduct day to day operations. Even though the office computing infrastructure at BAR is not within the scope of the Cal-VIS, it is important to note that the Cal-VIS is accessed by end-users from the BAR office computing infrastructure, for program management as well as program analysis and reporting purposes.

4.3.1 Desktop Workstations

The standard client desktop computer is Intel-based, running Windows 7 operating system. Currently, there are about 500 client desktops deployed throughout BAR's headquarters, DCA's Consumer Information Center (CIC), eleven field offices, and five documentation shops.

4.3.2 Client/Server Computing

Client/Server applications are usually deployed using a client computer (with a dedicated user application or browser) accessing either one or two tiers of services over the networking infrastructure. BAR operates multiple application servers, deployed on VMWare vCenter.

4.3.3 Mainframe Computing

Mainframe application hosting is provided by OTech for both BAR Licensing and DMV. The BAR Licensing application is housed on the OTech mainframe and accessed via terminal emulation. DMV Vehicle Registration and BAR ARD, Station, and Technician Licensing extract files are ported to the Cal-VIS nightly using File Transfer Protocol (FTP).

4.3.4 Vehicle Inspection Systems (VIS)

Since BAR is in the business of administering and managing the Smog Check Program, there is a continuing need to certify and ensure compatibility with the VIS equipment used throughout the State. At its headquarters location, BAR maintains a testing lab that includes all certified VIS (both EIS and OIS). Different versions of the EIS made by at least five different vendors are maintained in the testing lab. All EIS are built on Intel-based

processors, using a range of operating systems, including Microsoft DOS, IBM OS/2 and Windows OS. The OIS are built on Intel-based processors, and use Windows 7.x or Windows 8.x.

4.3.5 Middleware

Middleware, both software and hardware-based, is used by BAR to integrate applications, databases, platforms, and messaging systems. For client/server applications, distributed function application program interfaces (APIs) are provided using Oracle stored procedures (for Oracle database-centric applications) or Microsoft Active Server Pages (for Web-centric applications). Remote data API's are provided by Oracle SQL-Plus or standard SQL-based queries using ODBC tools. The existing Cal-VIS was designed in the early 2000's, prior to the development of newer types of middleware. Consequently, data downloads and uploads to the system are performed using a combination of FTP and custom download/upload programs.

4.3.6 Database

The Cal-VIS utilizes Oracle database management software (DBMS).

4.3.7 Network Infrastructure

DCA has implemented Microsoft products to provide network services. DCA's LAN uses an IP-only protocol stack. Windows domains are established for all Windows servers. Microsoft Active Directory provides all directory services for BAR network users including DNS, DHCP, file-sharing, and print services for BAR network users. Remote access to the network is provided by Juniper Junos Pulse remote access routers that contain a separate set of user ID's and passwords for authorization. There are Active Directory servers running on Windows 2008 servers located at all BAR offices.

The BAR Wide Area Network (WAN) is an MPLS network and is used to link the eleven field offices, five documentation shops, BAR headquarters, DCA headquarters, OTech and SGS. Digital T-1 circuits are provided to all field offices; however, the communication information rate varies depending upon the requirements for bandwidth.

4.3.8 Infrastructure Management

LAN administration, including the configuration of all local (field office and headquarters) routers and switches, is performed by DCA headquarters staff. OTech personnel administer the vendor who manages WAN-side configuration and routing. VMware vCenter, Microsoft System Center Configuration Manager (SCCM), and SolarWinds Orion are used for infrastructure monitoring and management. The BAR Help Desk uses CA Service Desk Manager to perform IT service management.

Systems management is provided by a host of custom-enabled functions and processes. Most of the major system applications have been email-enabled to automatically alert support personnel in the event of a problem. SolarWinds Orion is used to record messages from Simple Network Management Protocol (SNMP) agents and various vendor-provided solutions.

4.3.9 Application Development Methodology

Numerous Application Development Methodologies (ADM) have been leveraged as the Cal-VIS and internal BAR Applications have been developed and enhanced. Each application development effort is carefully evaluated before an ADM is selected. Historically, BAR has preferred agile development processes that emphasize an iterative, flexible approach with clearly defined process inputs and outputs. Because BAR owns the Cal-VIS source code and is not planning to make any functional changes as part of this project, BAR does not anticipate any application development will be necessary as part of this project.

4.3.10 Project Management Methodology

This section discusses the Project Management Methodology (PMM) that will be followed during the project. BAR believes strongly that establishing a rigorous PMM is critical to the success of any project. Firmly rooted in the Project Management Body of Knowledge (PMBOK) and the California Project Management Methodology (CA-PMM), the PMM is detailed in Section 6 of the FSR.

5 Proposed Solution

BAR has carefully assessed the implications of the proposed IT solution as it relates to the business problems and opportunities identified. The process used to determine the proposed solution included a detailed assessment of several different alternatives. BAR carefully evaluated the advantages and disadvantages of each option in terms of its ability to meet objectives and functional requirements, overall program costs and benefits, resources, and risk associated with the alternative. The two alternatives formally assessed were:

1. Require the existing contractor to refresh the Cal-VIS to OTech / Procure Cal-VIS support services

Augment the existing Statement of Work (SOW) and require the existing contractor to establish OTech as the primary processing facility for the Cal-VIS, and obtain ownership of the Cal-VIS including hardware and hardware configurations. Host the system at a Tier 3 State approved data center (OTech). Conduct a procurement to obtain Cal-VIS maintenance and operations services.

2. Procure Cal-VIS support services / Require the new contractor to refresh the Cal-VIS to OTech

Conduct a procurement to obtain development, testing, deployment, data conversion, cutover, and maintenance and operations services. Host the system at a Tier 3 State approved data center (OTech). Require the new contractor to refresh the Cal-VIS to OTech.

After researching each of these options, it was determined that Option #1 best meets the goals and objectives of BAR. Option #1 provides the following benefits:

1. Greatly reduces the risk of the transition to a new vendor
2. Provides the least risk of disruption to mission critical business functions
3. Effectively breaks the project into manageable phases
4. Allows BAR to align with State policy and host the Cal-VIS at a Tier 3 approved State data center
5. Substantially reduces resource requirements to test and validate the new system
6. Leverages BAR ownership of the Cal-VIS code, schema, and data
7. Allows BAR to continue to leverage a no cost to the state payment model
8. Allows BAR to begin the competitive bidding process as quickly as possible
9. Leverages the existing contractors knowledge of the system
10. Allows BAR to continue to monitor and enforce financially backed Service Level Agreements (SLAs)
11. Levels the playing field for potential bidders
12. Likely reduces the cost per test fee because of increased competition
13. Positions BAR to further align with the strategic vision of the state during the next refresh cycle

5.1 Solution Description

BAR is proposing the following high level strategy:

1. Negotiate with the existing vendor to augment the existing SOW. These negotiations would result in a new contract.
 - a. Negotiate the addition of tasks to establish OTech as the primary processing facility for the Cal-VIS. Move the system to the Tenant Managed Services (TMS) area of the OTech, Rancho Cordova Data Center. The current Cal-VIS Contractor will continue to be responsible to provide and support all required hardware and software.
 - b. Negotiate ownership of the Cal-VIS including hardware and hardware configurations. BAR anticipates taking ownership at the end of the contract.

2. In parallel with the transition to OTech, develop and publish a procurement to obtain competitively bid maintenance and operations services for the Cal-VIS.

5.1.1 Hardware

BAR plans to obtain ownership of the system including hardware and hardware configurations as part of contract negotiations with the existing vendor. These negotiations will result in a new contract. The proposed solution will leverage virtually the same hardware configuration that it does currently. Additional database servers will be integrated into the solution to facilitate HA at the primary processing facility. Oracle Real Application Clusters (RAC) will be used in combination with the additional database servers to address database HA. As part of the transition to OTech, hardware will be refreshed and ownership will be transferred from the current contractor to BAR. BAR anticipates that the system hosted at OTech will leverage new hardware whenever possible. The current Cal-VIS Contractor will be responsible to obtain the all necessary hardware to establish the system at OTech.

5.1.2 Software

The proposed solution will leverage virtually the same software that it does currently. Operating System and application software will not change. As the system is being refreshed and established at OTech, several changes to the system will be considered. Database and Data replication software will be upgraded to align with industry best practices. Currently, the Cal-VIS uses Oracle Streams (Streams) and custom Recon processes to replicate data across primary processing sites and archive databases. As support for Streams is scheduled to be deprecated with Oracle 12c, and will likely be completely unsupported as part of later Oracle releases, BAR plans to use Oracle Golden Gate to replace all features currently supported by Streams. BAR has conducted initial information gathering meetings with Oracle, and DCA and additional meetings will be scheduled with BAR, Oracle, the existing Cal-VIS Contractor, and DCA to finalize the details of the upgrade. These details will be codified in a new contract. The current Cal-VIS Contractor will be responsible to purchase and support all software required to establish the system at OTech. Additional information on the impact to Disaster Recover and Operational Recovery processes is available in Section 5.1.21.

5.1.3 Technical Platform

The proposed solution will be virtually identical to what is currently in place. The Cal-VIS Contractor (current and future) will continue to be responsible for managing, administering, updating, and supporting the network, servers, operating systems, storage, security, access, and all other components of the system.

5.1.4 Development Approach

The majority of the code supporting the Cal-VIS is custom development. BAR plans to leverage ownership of this code and does not plan to make any functional changes to the application that will require development as part of this project. Minor changes to the code that may be required to successfully implement the desired architectural enhancements will be the responsibility of the current Cal-VIS Contractor and will be developed in accordance with existing contractual requirements.

5.1.5 Integration Issues

The proposed solution effectively mitigates the potential impact of integration issues. By obtaining ownership of the hardware and hardware configurations and completing the move to OTech under the current contract, BAR ensures interfaces to other systems supporting mission critical business functions will be in place and functioning instead of rebuilt by a vendor that has no understanding of the current system.

5.1.6 Procurement Approach

BAR plans to work closely with the Department of Technology IT Project Oversight and Consulting Division (ITPOC) and the State Technology Procurement Division (STPD) to ensure the appropriate procurement vehicles are selected. The success of the proposed solution is highly dependent on early involvement and input

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from the Department of Technology. Delays to procurement tasks will likely result in additional non-competitive bids (NCB) with the existing Cal-VIS Contractor.

5.1.6.1 Proposed Prime Vendor Procurement Vehicle(s)

The initial procurement vehicle will be a new contract. The initial procurement will expand the existing SOW to include the transition of the Cal-VIS to OTech, and to extend the existing contract through October, 2018. The earlier a new contract is negotiated and approved, the earlier the existing Cal-VIS Contractor will be able to begin the work of establishing OTech as the primary processing facility for the Cal-VIS.

The second procurement vehicle will be an RFP. The second procurement will allow BAR to obtain maintenance and operations services.

5.1.6.2 Proposed Prime Vendor Contract Type

The initial Contract Type is "Other". This is a no cost to the State contract. The current Prime Vendor will receive a fee per transaction directly from Smog Check Stations.

The second Contract Type is "Other". This is a no cost to the State contract. The future Prime Vendor will receive a fee per transaction directly from Smog Check Stations.

5.1.6.3 Market Research

BAR maintains a list of interested parties and is currently aware of six companies interested in bidding the next opportunity to provide maintenance and operations services for the Cal-VIS. The Inspection and Maintenance (I&M) Industry is a large industry comprised of a wide variety of companies supporting the inspection and maintenance of vehicles around the world. The California Smog Check Program is one of the largest and most innovative programs in the world. The Cal-VIS has been developed and refined over the last decade to meet the unique legislative requirements of California. BAR anticipates a substantial amount of interest.

5.1.6.4 Personal Services

1. **Project Management Consultant 1** – The cost for this service is within the \$500,000 limit for California Multiple Award Schedule (CMAS) solicitations, thus a CMAS solicitation will be made for this service.
2. **Project Management Consultant 2** – The cost for this service is within the \$500,000 limit for CMAS solicitations however the duration required exceeds the 2 year maximum. A Master Services Agreement (MSA) will be made for this service.
3. **Independent Verification and Validation (IV&V) Consultant** - The cost for this service is within the \$500,000 limit for CMAS solicitations, thus a CMAS solicitation will be made for this service.
4. **Request for Proposal (RFP) Writing Services / Vendor Selection Consultant** – The cost for this service is within the \$500,000 limit for CMAS solicitations however the duration required exceeds the 2 year maximum. A MSA will be made for this service.
5. **Test Lead Consultant** – The cost for this service is within the \$500,000 limit for CMAS solicitations, thus a CMAS solicitation will be made for this service.
6. **Enterprise Architecture Services** – These services will be obtained through the DCA Office of Information Systems at no cost.
7. **Project Management Oversight** – These services will be obtained through the DCA Office of Information Systems at no cost.
8. **Project and Procurement Oversight Services** – These services will be obtained through Department of Technology under an existing Interagency Agreement (IAA).

Professional services with highly specialized skills, specific knowledge, experience and certifications are required on a limited basis to ensure the success of this project. BAR has no other alternative to obtain resources with the required skills, knowledge and experience. The timely, cost-effective, one-time acquisition of

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these resources is best achieved through the vehicles proposed. For these reasons the proposed procurement strategy meets the requirements of Government Code section 19130.

5.1.6.5 Small Business (SB) and Disabled Veteran Business Enterprise (DVBE)

The proposed RFP will include Small Business (SB) and Disabled Veteran Business Enterprise (DVBE) goals. Personal Services contracts will follow Department standards for SB and DVBE goals.

5.1.6.6 Contract(s) Term

The proposed term of the new contract must be negotiated with the existing vendor but BAR anticipates the existing contract will be extended through October, 2018. Negotiations will begin upon the approval of this FSR. BAR anticipates the existing contract will be extended an additional eighteen months through October, 2018. The proposed term of the maintenance and operations services contract will be seven years with 3 one year options.

5.1.6.7 IT Services

All known service contracts required are listed below.

CONTRACT #	CONTRACT TYPE	PLANNED AWARD	START DATE	END DATE	TOTAL VALUE	IAA?	PERFORMANCE BASED?	COMPETITIVELY AWARDED?
1	Project Management Consultant 1	10/15/2015	10/16/2015	10/15/2017	\$480,000	No	No	Yes CMAS
2	Project Management Consultant 2	01/30/2016	01/31/2016	6/30/2018	\$480,000	No	No	Yes MSA
3	IV&V Consultant	10/15/2016	10/16/2016	10/15/2018	\$420,000	No	No	Yes CMAS
4	RFP Writer / Vendor Selection Consultant	2/15/2016	2/16/2016	2/15/2019	\$410,000	No	No	Yes MSA
5	Test Lead Consultant	10/15/2016	10/16/2016	10/15/2018	\$380,000	No	No	Yes CMAS
6	Enterprise Architecture Services	Existing	N/A	N/A	N/A	Yes	No	No
7	Project Management Oversight	Existing	N/A	N/A	N/A	Yes	No	No
8	Project and Procurement Oversight Services	Existing	N/A	N/A	150,000	Yes	No	No

5.1.7 Technical Interfaces

No changes to the existing interfaces are proposed.

5.1.8 Accessibility

The existing system is compliant with Government Code 11135 and Section 508. No changes to the accessibility requirements are proposed. To ensure compliance, Accessibility Testing will occur as part of the UAT of the system once it has been refreshed to OTech.

5.1.9 Testing Plan

Rigorous testing will need to occur during and after the Cal-VIS is refreshed to OTech. The existing Cal-VIS Contractor will be required to perform extensive testing, quality assurance, and quality control of the system. End to end testing that demonstrates the system meets all functional, technical, and security related requirements will occur. The current Cal-VIS Contractor is contractually required to adhere to rigorous test methodologies and establish measurable, repeatable testing methods. Detailed test scripts and results are provided to BAR for review and approval throughout the testing process. The Cal-VIS Contractor has extensive knowledge of the Cal-VIS and is in a unique position to test and validate all aspects of operation prior to any production traffic being moved to the system at OTech. Additionally, extensive UAT will occur once the Cal-VIS Contractor has completed their testing. BAR has developed thousands of pages of test scripts and data validation procedures. A detailed UAT Plan will be developed and a detailed testing strategy will be planned and executed.

5.1.10 Resource Requirements

5.1.10.1 One Time Resources

Resources required to procure, test, and deploy the proposed solution will be drawn from a combination of BAR program and IT staff, Cal-VIS Contractor staff, contracted consultants, DCA staff, and Department of Technology staff. One-time resources required for the project are below.

5.1.10.2 BAR/DCA One Time Resources

A total of 12.8 Personnel Years (PY) will be redirected from BAR/DCA management, program and IT resources to support one-time project activities over the life of the project. The life of the project is estimated to be 49 months including one additional year to complete the Post Implementation Evaluation Report (PIER).

ROLE	FY 15/16	FY 16/17	FY 17/18	FY 18/19	TOTAL PYs
Executive Sponsor	.05	.15	.15		.35
IT Sponsor	.05	.10	.05		.20
IT Project Director	.15	.20	.20		.55
Business Project Director	0	.20	.20		.4
Project Manager	.3	1.4	.75	.20	2.65
Business SMEs	.15	1.8	3.1		5.05
IT SMEs	.35	.85	1.9	.10	3.20
DCA Enterprise Project Services	0	.10	.10		.2
DCA Enterprise Architect	0	.10	.10		.2
Totals	1.05	4.9	6.55	.3	12.8

5.1.10.3 BAR/DCA One Time Resource Labor Classifications

The following labor classifications will support the proposed roles.

ROLE	LABOR CLASSIFICATION	ANNUAL SALARY AND BENEFITS	TOTAL ONE TIME COST
Executive Sponsor	CEA C	\$165,488	\$57,750
IT Sponsor	CEA B	\$158,968	\$31,794

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IT Project Director	CEA A	\$137,647	\$75,706
Business Project Director	Air Quality Engineer (AQE) Supervisor	\$132,404	\$52,962
Project Manager	Data Processing Manager (DPM) III	\$114,910	\$304,512
Business SMEs (1-4)	AQE 2	\$123,039	\$621,347
IT SMEs (1-2)	Senior Information Systems Analysts (ISA)	\$101,173	\$323,752
DCA Enterprise Project Services	DPM III	\$114,910	\$22,982
DCA Enterprise Architect	DPM IV	\$127,523	\$12,752
Total			\$1,503,557

5.1.10.4 Maintenance and Operations Resources

With one exception, there will be no changes to the resources required to maintain and operate the system. The project will require one new permanent IT resource to provide technical oversight of the system beginning in fiscal year 2017/2018. This resource will be used to establish an Enterprise Architect role and will be redirected from the program. This senior resource will be responsible to review and approve all technical Cal-VIS documentation and monitor BAR, and the overarching technology landscape to ensure that opportunities to further align with industry best practices and the strategic vision of the State are taken advantage of. A Systems Software Specialist III is proposed to fill this role.

5.1.11 Training Plan

As no functional changes to the system are anticipated, training is not in scope.

5.1.12 On-going Maintenance

The Cal-VIS Contractor (current and future) will be responsible for maintenance and operation of the system. BAR plans to continue to leverage strong financially backed SLAs that ensure the Cal-VIS is available and performs as required. Current SLAs require the Cal-VIS to be available 99.9% of prime time hours. Numerous other SLAs exist that ensure the desired service levels are achieved.

5.1.13 Information Security

The proposed solution will meet or exceed Information Security and Privacy requirements as described in the State Administrative Manual (SAM) Chapter 5300 and, by extension, the moderate security controls contained in the National Institute of Standards and Technology (NIST) SP 800-53. BAR will carefully document and evaluate the numerous interface security controls. As the Cal-VIS is refreshed to OTech, BAR will complete a comprehensive risk assessment to ensure information security controls are in compliance with established policies, standards, and regulations.

5.1.14 Confidentiality

The proposed solution will leverage the same confidentiality requirements that it does today. BAR staff will continue to be limited to accessing only information that is applicable to their business. Strict security will continue to be maintained and only authorized personal with unique accounts will be given access to data. All data collected and stored by the Cal-VIS is the property of the state. The Cal-VIS Contractor is bound by strict confidentiality agreements and is not permitted to provide access to any third party without permission from BAR. To protect the integrity of the California Smog Check Program, BAR maintains strict policies and procedures around what data is accessible through Public Records Act (PRA) requests.

5.1.15 Impact on End Users

The proposed solution will have a minimal impact on end users. The goal of this transition is to provide a seamless transition to a system hosted at OTech, and then to seamlessly transition the maintenance and operations of the system to a new contract vehicle.

5.1.16 Impact on Existing System

The proposed solution will impact the existing system. As the Cal-VIS is refreshed to OTech, OTech will be established as the primary processing facility for the Cal-VIS. The system will be modified to include additional database servers, and one of the two existing primary processing sites will be decommissioned. Oracle RAC will be used to establish a highly available database tier. Resources to perform this work will be obtained as part of the contract negotiations with the existing Cal-VIS Contractor.

The transition to a new Cal-VIS Contractor will also impact the system. The new Cal-VIS Contractor will be required to build their own DR site to meet BARs Business Continuity and Disaster Recovery requirements which will be codified in the proposed RFP.

5.1.17 Consistency with Overall Strategies

This project will help BAR align with State policy and aligns with the DCA Strategic Plan, the BAR Strategic Plan and the 2015 California IT Strategic Plan. It supports the following strategic goals:

- Goal 1: Responsive, Accessible, and Mobile Government
- Goal 2: Leadership and Collaboration
- Goal 3: Efficient and Reliable Infrastructure and Services
- Goal 4: Secured Information
- Goal 5: Capable IT Workforce
- Goal 6: Responsive and Effective IT Project Procurement

5.1.18 Impact on Current Infrastructure

BAR does not anticipate any changes to BAR's existing information technology infrastructure. The Cal-VIS Contractor will continue to be responsible for managing all aspects of the Cal-VIS including the purchase and maintenance of all required hardware and software. Interfaces to BAR and DCA systems will remain unchanged. As noted in Section 5.1.16, it is planned that the Cal-VIS Contractor will decommission one of the existing data center sites once the system has been successfully refreshed to OTech.

5.1.19 Impact on Data Center(s)

The proposed solution allows BAR to comply with State policy regarding the utilization of Tier 3 State approved data centers. In order to evaluate all of the available hosting options, BAR has conducted meetings with OTech staff representing all of the different service offerings available. BAR has completed information gathering with representatives of Managed Service, CalCloud, Tenant Managed Services (TMS) Basic, and TMS Premium. After careful consideration, BAR has determined that TMS Basic is the most logical place to host the Cal-VIS.

BAR understands that hosting in CalCloud or Managed Services would more align with the strategic direction of the State. However, the CalCloud currently does not support Oracle. Transitioning the Cal-VIS away from Oracle would greatly increase the complexity, scope, and cost of this project. If the Cal-VIS was hosted in either CalCloud or Managed Service, it would be impossible to continue to enforce the financially backed SLAs that are currently in place. Even the selection of TMS Premium would jeopardize BARs ability to enforce SLAs as the network is managed by OTech. Lastly, hosting in Managed Services or CalCloud would make it very challenging to maintain a "no cost to the state" payment model.

BAR has notified the Service Manager of TMS of our intention to host Cal-VIS in TMS Basic. BAR understands that sufficient capacity does exist to host the Cal-VIS in TMS Basic. BAR already has a small footprint in TMS

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Basic that does have capacity to support additional hardware. BAR anticipates three additional racks will need to be needed to support the remaining hardware.

5.1.20 System Hosting/Data Center Consolidation

This project will allow BAR to align with State policy and host the Cal-VIS at an approved State Tier 3 Data Center.

5.1.21 Backup and Operational Recovery

The Cal-VIS Contractor (current and future) is responsible for providing system backup, disaster recovery, and operational recovery plans. The Cal-VIS is a mission critical system and requires a 99.9% uptime during peak hours. In the event of a regional disaster, the Cal-VIS is immediately failed over to the non-impacted site. BAR plans to continue to leverage strong financially backed SLAs to ensure that backup, disaster recovery and operational recovery requirements are met.

5.1.22 Public Access

The proposed solution will have no public access.

5.2 Rationale for Selection

BAR has carefully selected its list of potential alternatives. During the investigation of possibilities, numerous options were discussed. These options included procurement of a COTS/ MOTS product, custom development, long term NCB with the existing contractor, leveraging state staff to support the system, maintaining the current model, require the new Cal-VIS Contractor to refresh the system to OTech, require the existing Cal-VIS Contractor to refresh the system to OTech, and do nothing. A cursory review of some of these options indicated that the solution would not satisfy BAR's business objectives. Only options that satisfied BAR's objectives have been formally evaluated.

The evaluation criteria used in assessing the possible solutions are:

- **Levels of Risk** – Risks associated with the overall project regarding cost, quality, and schedule
- **Service Levels** – The ability of the solution to meet the required service levels
- **Alignment with State Policy** – Does the solution to align with State policy
- **Resources** – The resources required to complete the required work
- **Duration** – The duration required to complete the competitive bidding process

5.2.1 Proposed Alternative: Refresh the Cal-VIS to OTech / Procure Cal-VIS Support Services

This alternative allows BAR to best satisfy all objectives while minimizing risk. This option allows BAR to align with State policy and refresh the system to OTech. It minimizes the risk of this transition by leveraging the existing contractor's knowledge of the system. It expedites the competitive bidding process and encourages competition by elimination barriers to entry for bidders. This alternative significantly reduces the complexity and the resources required to accomplish project objectives.

5.2.1.1 Advantages

Refer to section 5.0 - Proposed Solution.

5.2.1.2 Disadvantages

There are no major disadvantages to the proposed solution. Minor disadvantages include:

- The proposed solution is dependent on a successful negotiation with the current Cal-VIS Contractor of a new contract
- The proposed solution is dependent on several procurement approvals

5.2.1.3 *Costs*

Costs are included in Section 8 – Economic Analysis Worksheets.

5.3 Other Alternatives Considered

5.3.1 Proposed Alternative: Procure Cal-VIS Support Services / Refresh the Cal-VIS to OTech

This alternative allows BAR to meet all objectives but with substantially more risk and the allocation of more resources. Additionally, it delays the competitive bidding process even further. It provides no benefits when compared to the proposed alternative.

5.3.1.1 *Advantages*

None

5.3.1.2 *Disadvantages*

Disadvantages include:

- Delays to the competitive bidding process because the transition to OTech cannot occur until after the RFP is awarded
- The project will be extended by at least two years resulting in additional one time project costs
- Substantially more risk because the incumbent contractors knowledge may not be leveraged
- Substantially more risk because of the complex data conversion and cutover from the existing system to the new system is likely to impact mission critical business processes.
- Substantially more resources will be required to test and verify the new system
- Competition will be stifled because of the large upfront investment to establish the new system

5.3.1.3 *Costs*

Costs are included in Section 8 – Economic Analysis Worksheets.

5.4 Recommendation

It is BAR's goal to execute a strategy that emphasizes the mitigation of risk and also allows BAR to expedite the competitive bidding process of support services. As noted in the S1BA, BAR began the development of an RFP to obtain maintenance and operations services to support the Cal-VIS in early 2012. In June of 2012, BAR was directed by the DGS to continue the development of an RFP to obtain these services. BAR submitted the RFP to Department of Technology for review and approval in July of 2014. In September 2014, BAR was informed by Department of Technology that the effort to obtain maintenance and operations services for the Cal-VIS would be treated as a project and therefore subject to SAM Sections 4819.31, 4819.34, 4819.35, 4904, 4920 and the submittal of a S1BA and FSR would be required prior to receiving approval to moving forward with procurement. Due to this delay, BAR must continue to extend the existing contract though NCBs until alternative services can be procured.

As previously mentioned, BAR does own the Cal-VIS source code, data, and schema; BAR does not own the entire Cal-VIS including hardware and hardware configurations. Options that did not allow BAR to leverage ownership of these assets were not considered. BAR believes that requiring the new contractor to refresh the Cal-VIS (as proposed in Option 2) would introduce substantial and unnecessary risk to the project. Even with the source code, data and schema the Cal-VIS is a very complex system and it would require a substantial upfront investment for a new contractor to build the Cal-VIS without the hardware and an understanding of the hardware configurations. Additionally, if the new contractor is required to build the Cal-VIS, the additional work to move the system to OTech would not begin until after the an RFP was awarded. This would likely delay the transition of the Cal-VIS to a new contractor even further. It would also create a risky, resource intensive, complex data conversion and cutover from one system to the other as traffic from one system is moved over to

the other. By negotiating ownership of the entire Cal-VIS including hardware and hardware configurations, and augmenting the existing vendor's SOW to include refreshing the Cal-VIS to OTech, BAR is able to complete the transition to a new vendor as quickly as possible. This approach will greatly simplify the transition to the new contractor and maintain operational continuity with minimal risk.

The proposed solution will allow BAR to level the playing field for bidders as it will not require a huge investment of time, money and resources for a new contractor to refresh the Cal-VIS. BAR believes that this will encourage competition and result in a more competitive procurement process and a better value for the State.

The proposed solution reduces the BAR resources required for testing and validation of the system during and after the transition. Requiring the existing Contractor to move the Cal-VIS as part of the current contract, allows BAR to leverage the existing vendor's extensive knowledge of the system. The existing architecture of the system will allow BAR to slowly transition production transactions to the system at OTech using established processes, and will greatly reduce the risk of negative impacts during the transition.

Finally, the proposed solution will allow BAR to align with State policy and host the Cal-VIS at a Tier 3 approved State data center. While TMS does meet State of California hosting requirements, BAR understands that the longer term vision of the State is moving toward cloud computing services. BAR believes moving the Cal-VIS to TMS is the first step toward aligning with the strategic vision of the State and plans to evaluate cloud computing services again at the next refresh cycle.

5.4.1 Describing Alternatives

5.4.1.1 Procure COTS/MOTS Product

The Cal-VIS meets all of BAR's functional needs. Vast amounts of resources have been expended to ensure the system meets all of the unique requirements of California. Because BAR owns the Cal-VIS source code, schema, and data, it does not make sense to invest the resources to implement a COTS/MOTS solution. Additionally, based on interviews with other jurisdictions and I&M solution providers, BAR is not aware of any off the shelf product that is capable of satisfying BAR's needs without major revisions and customizations.

5.4.1.2 Leveraging State Staff

This approach would require the addition of a substantial number of State Staff. It would not allow the BAR to continue to leverage the no cost to the State approach and would require legislative changes to support an increase to the cost per test. This is not a valid option because of the duration to complete this option and the challenge of acquiring and retaining qualified state personnel to support the Cal-VIS.

5.4.1.3 Custom Development

The Cal-VIS meets all of BAR's functional needs. Vast amounts of resources have been expended to ensure the system meets all of the unique requirements of California. Because BAR owns the source code, schema, and data, it does not make sense to invest the resources to rebuild the system from functional specifications.

5.4.1.4 Long Term NCB with the Existing Contractor

This approach would not allow BAR to competitively rebid Cal-VIS hosting and application support services as mandated by the State.

5.4.1.5 Maintain the Current Model

Continuing to host the system at a third party data would not allow BAR to align with State policy. Assuming BAR is permitted to host the Cal-VIS in TMS, BAR sees no advantages to continuing to host the system at a third party data center. Additionally, this model would potentially result in a complex, high risk transition to a new contractor and a new system.

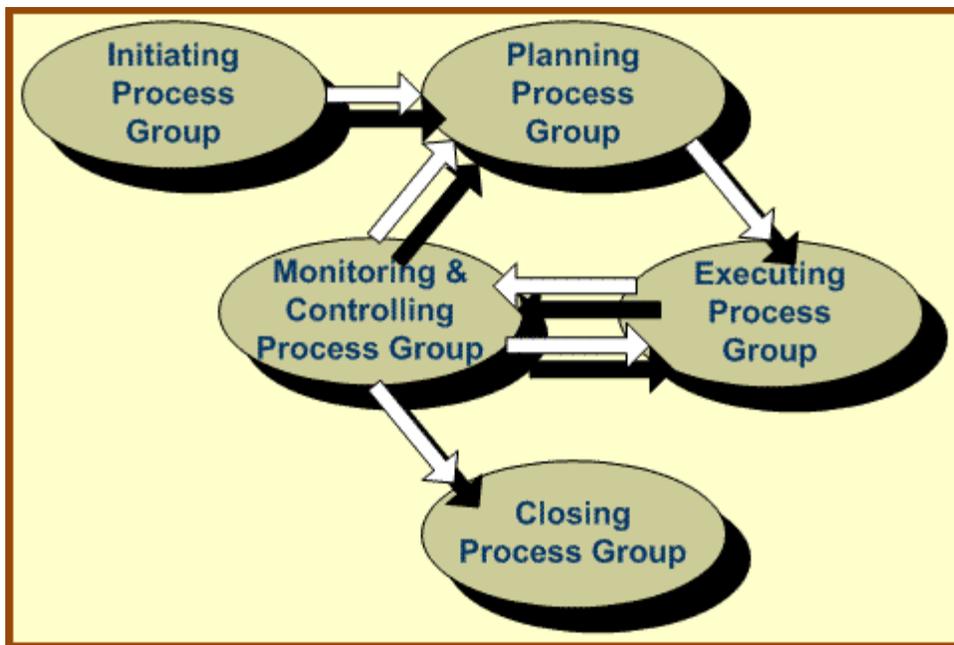
5.4.1.6 Do Nothing

This is not a viable option as it would essentially terminate the California Smog Check Program.

6 Project Management Plan

Effective Project Management is essential to the success of any project. A well written Project Management Plan (PMP) sets the baseline, clarifies expectations, and becomes the road map for successful completion. This project will be managed in accordance with the CA-PMM, and the PMBOK. These established methodologies cover all PMBOK Process Groups, including Project Initiation, Project Planning, Project Execution, Project Monitoring and Controlling and Project Closeout. The project will also incorporate to the appropriate extent the ten PMBOK knowledge areas: Integration, Scope, Time, Cost, Quality, Human Resources, Communications, Risk, Procurement and Stakeholder Management. The importance of project planning cannot be understated. The planning process will be rigorous and thorough and BAR believes that the level of detail is commensurate with the scope, complexity and risk of the project.

This PMP provides the approach to manage the Cal-VISTA Project. The framework for the management includes:

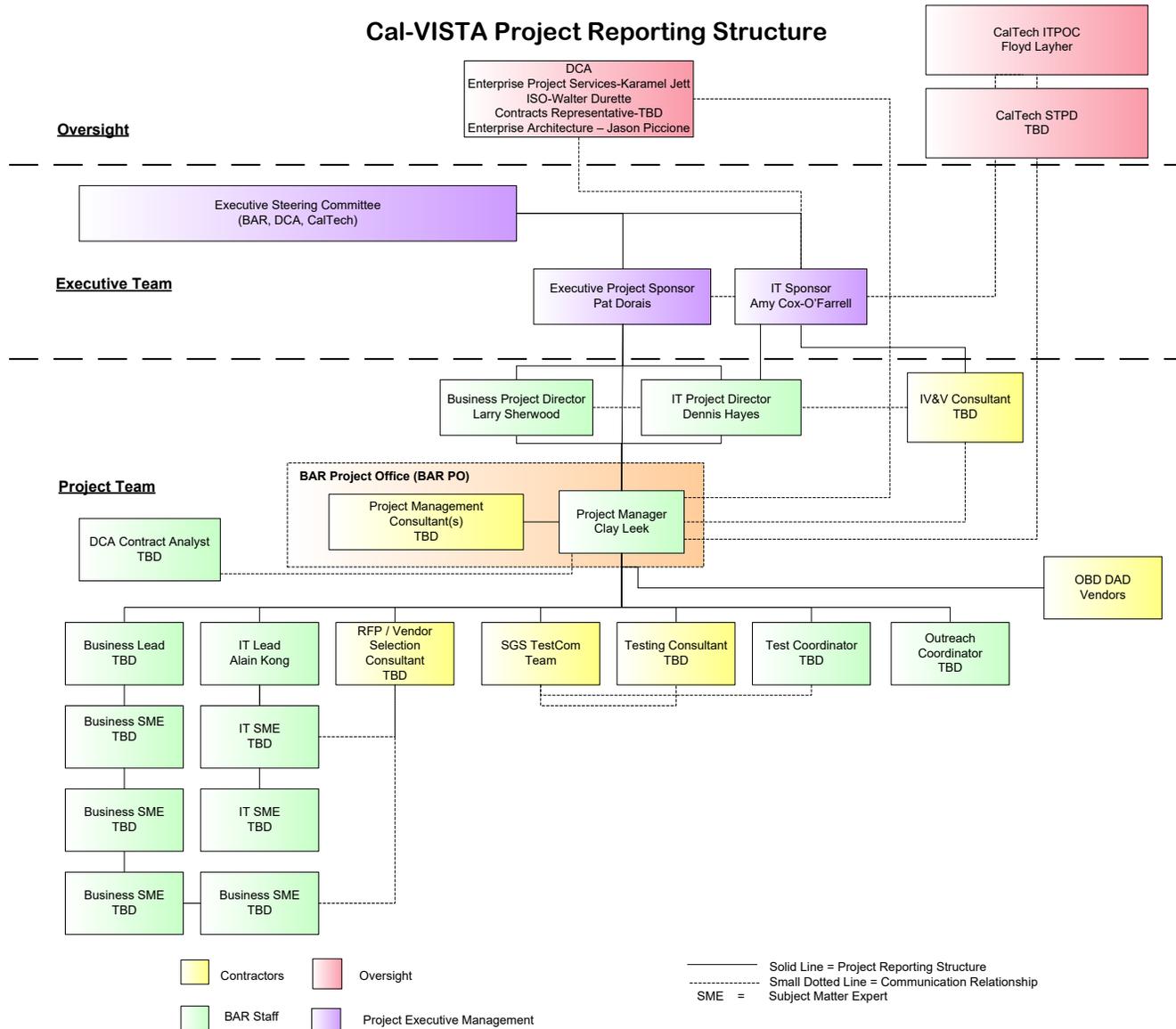


The Process Groups identified in the Figure above are described below:

- The **Initiating Processes** include the work of formally defining and authorizing a new project or project phase.
- The **Planning Processes** include the work of defining and refining project objectives, and planning the specific course of action required to attain the objectives and scope that the project was undertaken to address.
- The **Monitoring and Controlling Processes** include the work of regularly measuring and monitoring progress to identify variances from the project management plan so that corrective action can be taken when necessary to meet project objectives.
- The **Executing Processes** include the work of integrating the management of people and utilization of other resources to carry out the work.
- The **Closing Processes** include the work of formalizing the acceptance of the project's product, service, or result and bringing the project or a project phase to an orderly end.

6.1 Project Organization

The following organizational chart reflects the staffing and managerial hierarchy for the project.



6.2 Roles and Responsibilities

The following detailed roles and responsibilities support the Cal-VISTA Project.

6.2.1 BAR Executive Project Sponsor

- Champions, owns and is accountable for the overall success of the project
- Provide BAR executive support and strategic direction
- Sets and prioritizes project objectives
- Ensures project is adequately funded and available
- Ensures sustained buy-in at all levels

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- Advocate for the Cal-VISTA Project within the enterprise and with internal and external stakeholders
- Highest levels of escalation for issues/decisions and ensure resources are available for risk management as needed
- Approves the Project Charter, PMP and significant changes in scope, cost or schedule
- Empowers the Project Director and Manager with the appropriate authority
- Ensures an appropriately skilled Project Manager is selected for the project
- Provides final approval of project deliverables
- Chairs Steering Committee

6.2.2 Executive Steering Committee

- Primary stakeholders of the project with decision making authority regarding the project
- Ensures that resources, both business and technical, are made available for the project team
- Monitors project progress and metrics from the enterprise perspective
- Resolves issues and disputes regarding scope, cost, schedule and quality of the project

6.2.3 BAR State IT Sponsor

- Responsible to establish the IT governance model
- Ensures sustained buy-in at all levels
- Advocate for the Cal-VISTA Project within the enterprise and with internal and external stakeholders
- Serves as an escalation point for IT issues
- Keeps informed about project status

6.2.4 BAR Business Project Director

- Provides oversight of the project
- Ensures deliverables and functionality are achieved as defined in the Project Charter and subsequent project plans
- Coordinates and ensures that business organizational, policy, and procedure changes are implemented
- Facilitates sustained buy-in from all business resources
- Ensures timely availability of needed business resources
- Ensures effective management of all business resources assigned to the project
- Escalates decisions and issues, as needed, to the Project Sponsor
- Coordinates project related issues with other efforts
- Reviews and resolves significant issues that the Project Manager/Team cannot resolve
- Works directly with the Project Manager to ensure project management practices are being employed, including risk management as identified in the Risk Management Plan
- Assists in resolving risks and/or issues that have been escalated to this level by the Project Manager
- Reviews changes to the Cal-VISTA Project Schedule
- Communicates project status to the BAR Executive Project Sponsor, Project Team, BAR staff, and external stakeholders in cooperation with the BAR IT Project Director and BAR Project Manager

6.2.5 BAR IT Project Director

- Provides oversight of the project
- Ensures deliverables and functionality are achieved as defined in the Project Charter and subsequent project plans
- Coordinates and ensures that business organizational, policy, and procedure changes are implemented
- Ensures timely availability of needed IT resources

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- Facilitates sustained buy-in from all IT resources
- Serves as the primary liaison between the project and the Project Sponsor, Steering/Governance committee(s)
- Ensures effective management of all IT resources assigned to the project
- Escalates decisions and issues, as needed, to the Project Sponsor
- Coordinates project related issues with other efforts
- Reviews and resolves significant issues that the Project Manager/Team cannot resolve
- Works directly with the Project Manager to ensure project management practices are being employed, including Risk Management as identified in the Risk Management Plan
- Assists in resolving risks and/or issues that have been escalated to this level by the Project Manager
- Reviews changes to the Cal-VISTA Project Schedule
- Shields IT staff from unrealistic customer demands
- Communicates project status to the BAR Executive Project Sponsor, Project Team, BAR staff, and external stakeholders in cooperation with the BAR Business Project Director and BAR Project Manager

6.2.6 BAR Project Manager

- Plans the Project, including the creation and maintenance of the PMP
- Ensures deliverables and functionality are achieved as defined in the FSR and PMP
- Perform overall management of the project for BAR including day-to-day responsibility for activities within each phase, and management of the schedule for the project
- Acts as the principle interface to the contractors
- Accountable to the Project Directors and Project Sponsor for all Project Management Office (PMO) related activities
- Plans, directs, and oversees the day-to-day activities of the technical and program project teams
- Develops and/or oversees the master project schedule and all other project work plans
- Principal point of contact for control agencies, project contractors, and stakeholders
- Ensures that the project is implemented within the budget constraints
- Directs and manages project work in conformance with project scope, schedule, cost and quality and all other subsidiary plans incorporated into the overall Project Management Plan
- Accountable for the development, maintenance, and adherence to the Project Office infrastructure and support methodologies (e.g. processes, procedures, standards, and templates) that are in compliance with Best Practices and policies
- Accountable for the development, maintenance, and adherence to the PMO methodologies (e.g. processes, procedures, standards, and templates) that are in compliance with best practices and policies
- Communicates detailed project status to the Project Team
- Communicates project progress weekly to the BAR Project Directors and BAR Executive Project Sponsor
- Communicates project status to the BAR Executive Project Sponsor, BAR IT Sponsor, Project Team, Project Directors, BAR staff, and external stakeholders
- Reviews deliverables and change requests and makes a recommendation to the BAR Project Directors and BAR Executive Project Sponsor
- Coordinate project and stakeholder resource needs
- Identify, assess, prioritize, and manage risks

Feasibility Study Report**6.2.7 BAR PM Consultant(s) (PMC)**

- Assist with management of overall management of the project for BAR including day-to-day responsibility for activities within each phase, and management of the Project Schedule
- Assist with management and organization of state staff assignments
- Assist with oversight of the contractors
- Tracks and reports status of deliverables
- Accountable to the BAR Project Manager, BAR Project Directors, and BAR Executive Project Sponsor for all BAR PMO activities
- Plans, guides, and oversees the day-to-day internal activities that support the BAR PMO
- Provides guidance on PMBOK methodology and other industry-standard project management techniques
- Integrates all pieces and ensures consistency and continuity throughout procurement process and conformity to procurement standards, rules, and regulations
- Communicates project status to the BAR Project Directors, Project Team, BAR staff, and external stakeholders
- Escalates issues/concerns to the BAR Project Manager and the BAR Project Directors, as appropriate
- Prepares and submits weekly and monthly project status reports to BAR Project Manager, BAR Project Directors, BAR Executive Project Sponsor, and BAR IT Sponsor
- Performs project closeout activities
- Leads the effort to identify, document, manage and track risks and risk mitigation/contingencies on the project, leading risk identification sessions, ensuring regular reviews and follows the risk escalation process
- Monitors Risk Management efforts to ensure they do not adversely impact the project
- Maintains the Risk Management tools and documentation
- Modifies the Risk Management Plan to include agreed actions to avoid or reduce the impact of risks
- Responsible for ensuring risks that materialize are identified as issues are assigned, tracked, addressed and resolved in a timely manner
- Responsible for status reporting, Risk Management, and escalation of issues that cannot be resolved within the team
- Monitors contractor Risk Management efforts
- Assists in creating and implementing the Change Management Plan
- Oversees and coordinates the Change Management process
- Develops and maintains the Change Management Logs and Request for Changes documents
- Schedules and chairs all Change Management meetings
- Produces regular Change Management reports
- Identifies resistance and performance gaps, and works to develop and implement corrective actions

6.2.8 BAR IT Lead

- Directs and manages all work related to BAR Applications
- Directs and manages work in conformance with established BAR processes and procedures
- Communicates IT SMEs project progress weekly to the BAR Project Manager
- Accountable for the availability of BAR Applications throughout the project
- Escalates issues and concerns to the BAR Project Manager

6.2.9 BAR Business Lead

- Responsible to direct and manage all business related work

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- Communicates business staff project progress weekly to the BAR Project Manager
- Manages the development, documentation, and execution of the acceptance test plans, acceptance test design, acceptance test cases, and acceptance test procedures
- Serves as the point of contact for the OBD DAD Manufacturers
- Ensures assigned deliverables are completed as defined
- Escalates issues and concerns to the BAR Project Manager

6.2.10 BAR IT SME's

- Responsible to develop, test and deploy, any required changes to BAR Applications
- Responsible for any technical issues that may impact the BAR computing environment
- Produce meeting minutes and agendas
- Oversee contractor access to the OTech TMS environment
- Review all technical documentation

6.2.11 BAR Business SME's

- Answers key business questions
- Participants in business process re-engineering (if necessary)
- Communicates progress weekly to the BAR Business Lead
- Primary responsibility for establishing business requirements
- Participates in the user acceptance testing activities to ensure the proposed system meets all business requirements
- Escalates issues and concerns to the BAR Business Lead

6.2.12 BAR Test Coordinator

- Manages the distribution of BAR test items including Incidents, Problems and Changes
- Ensures the completion of scheduled testing
- Escalates test items that are delayed to the BAR Project Manager

6.2.13 State Outreach Coordinator

- Communicates project progress to key stakeholders including Smog Stations
- Coordinates Outreach and Deployment efforts
- Communicates progress weekly to the BAR Project Manager
- Escalates issues and concerns to the BAR Project Manager

6.2.14 State Contract Analyst

- Coordinates contract activities
- Communicates progress weekly to the BAR Project Manager
- Escalates issues and concerns to the BAR Project Manager

6.2.15 BAR Testing Consultant

- Leads the planning and execution of all UAT Testing
- Reviews upstream test results
- Work directly with the BAR Business Lead, BAR Project Manager, BAR Applications Team Lead, and SGS
- Escalates issues and concerns to the BAR Project Manager

6.2.16 RFP / Vendor Selection Consultant

- Leads the development of an RFP
- Assists with the vendor evaluation and selection process
- Escalates issues and concerns to the BAR IT Project Director

6.2.17 BAR IV&V Consultant

- Leads the Quality Assurance activities
- Creates and oversees processes for Quality Assurance are present and executed
- Assesses the system architecture
- Provides independent perspective for reviews and meetings
- Monitors project activities
- Evaluates project's adherence to industry standard Project Management methodologies
- Evaluates project Risk Management efforts
- Evaluates project progress towards completion of the project

6.2.18 DCA Enterprise Architect

- Provides input to the overall architecture of the proposed solution
- Participates in the review of technical design documentation
- Oversees alignment of the solution with the Enterprise Architecture goals of the Department
- Escalates issues and concerns to the BAR Project Manager and/or the IT Project Director

6.2.19 DCA Enterprise Project Services

- Provides independent perspective for reviews and meetings
- Monitors project activities
- Evaluates project's adherence to industry standard project management methodologies
- Evaluates project Risk Management efforts
- Evaluates project progress towards completion of the project
- Briefs the BAR IT Sponsor

6.2.20 DCA Information Security Officer (ISO)

- Coordinates DCA information security activities
- Reviews and analyzes security and privacy risks
- Validates the adequacy of proposed security controls
- Ensures the proposed system development and implementation adheres to State security policies and guidelines
- Participates in security audits

6.2.21 Department of Technology IT Project Oversight (ITPOC)

- Coordinates Department of Technology oversight activities
- Evaluates the Project to ensure that it is following a structured and defined approach
- Prepares periodic project assessments and progress reports in coordination with the Project Manager
- Collaborates with the Project Manager regarding project risks, and risk mitigation strategies as well as issue monitoring and resolution
- Provides feedback and direction as needed

6.2.22 Department of Technology State Technology Procurement Division (STPD)

- Coordinates Department of Technology procurement activities
- Reviews and approves project procurements that exceed the delegated authority of DCA
- Evaluates the procurement approach
- Provides feedback and direction as needed

6.2.23 SGS Testcom Team

- Control and manage all activities necessary to complete the necessary enhancements and to extend the Cal-VIS to OTech
- Configures and implements the Cal-VIS in accordance with the stated functional, security, and contractual requirements
- Coordinates project scheduling with the BAR Project Manager
- Conducts end to end testing including but not limited to unit, system, regression, stress, volume, and security
- Deliver a consolidated SGS Status Report to the BAR PM weekly
- Perform overall management of the project including day-to-day responsibility for activities within each phase, and management of the schedule for the project
- Ensure all SGS Project Management processes are defined and executed in accordance with State standards
- Coordinate development of deliverables and ensure deliverable quality
- Participate in the Risk Management, Issue Management, and Change Management processes including identification, assessment, prioritization, and management
- Reviews changes to the Cal-VISTA PMP and Cal-VISTA Project
- Ensures deliverables and functionality are achieved as defined in the contract

6.3 Key Stakeholders

6.3.1 Internal Stakeholders

The primary internal stakeholders for the Cal-VISTA Project stakeholders are those that reside within BAR including:

- Smog Check Operations, Engineering and Research Division
- Field Operations and Enforcement Division
- Technology Services Branch (TSB)
- Outreach
- Consumer Assistance & Administration Division

6.3.2 External Stakeholders

The primary external stakeholders for the Cal-VISTA Project stakeholders are:

- Air Resources Board (ARB)
- Department of Motor Vehicles (DMV)
- Department of Consumer Affairs (DCA)
- Business, Consumer Services and Housing Agency (BCSHA)
- Office of Technology Services (OTech)
- Department of Technology
- OBD DAD Vendors

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6.4 Project Priorities

Managing the Cal-VISTA Project will require the balancing of three factors: budget, schedule, and scope. Because these factors are interrelated, a change in one of them causes the others to change as well. The following table illustrates the priority and balance of these three factors.

	NOT FLEXIBLE (CONSTRAINED)	SOMEWHAT FLEXIBLE (ACCEPTED)	MOST FLEXIBLE (IMPROVED)
BUDGET	Cannot be exceeded	Willing to exceed original budget by a small amount, only if necessary	Willing to exceed original budget estimates if necessary. X
SCHEDULE	Cannot be exceeded	Willing to exceed original schedule by a small amount, only if necessary. X	Willing to exceed original schedule estimates if necessary.
SCOPE	Cannot be changed	Willing to expand/reduce original requirements somewhat, without compromising quality. X	Willing to exceed original requirements without compromising quality, if necessary.

6.5 Project Plan

Project planning defines the project activities to be performed, deliverables, and how the activities will be accomplished. Project planning helps define each major activity, estimate the time and resources required, and provide a framework for management review and control. The project planning activities and goals include:

- Clearly defining the scope of the effort
- Defining the approach (e.g., phasing, initial pilot project)
- Creating a Work Breakdown Structure (WBS)
- Creating a baseline project schedule
- Clearly defining milestones, deliverables, and dependencies
- Identifying assumptions and constraints
- Defining team roles and responsibilities

The Cal-VISTA Project Manager in conjunction with the Project Team and Project Management Consultant(s) will create and publish a PMP. The PMP will be based on CA-PMM and will describe what processes will be established to ensure objectives are met in timely, efficient, effective, and transparent manner. Progressive elaboration techniques will be leveraged to ensure that the PMP evolves and is updated to reflect approved changes and lessons learned from each phase. The PMP will address the following:

- Scope Management Plan
- Schedule Management Plan
- Cost Management Plan
- Risk/Issue Management Plan
- Procurement Management Plan
- Communications/Stakeholder Management Plan
- Change Management Plan

- Configuration Management Plan

6.5.1 Project Scope

The scope of the proposed solution includes:

- Extend the duration of the existing contract until Cal-VIS support services can be competitively bid
- Augment the existing contact to include tasks to refresh the Cal-VIS to OTech and tasks to support the agreed upon database enhancements
- Negotiate ownership of the entire Cal-VIS including hardware and hardware configurations with the existing contractor
- Refresh the Cal-VIS to OTech (TMS)
 - System Test Environment
 - UAT Environment
 - Sandbox 1 Environment
 - Sandbox 2 Environment
 - Sandbox 3 Environment
 - Emission Testing System (ETS) Environment
 - Production Environment
- Conduct a procurement to obtain Cal-VIS support services
- Transition Cal-VIS support services to the winning bidder

The scope of the proposed solution **does not** include:

- Functional changes or enhancements to the Cal-VIS

6.5.2 Project Assumptions

Initial project assumptions include:

- All deliverable review and approval durations will be completed as scheduled
- Department of Technology will give full support and commitment to this project
- DCA will give full support and commitment to this project
- BAR will give full support and commitment to this project
- Successful redirection of the additional IT Enterprise Architect (EA) position
- Approval of all one time resources is completed as scheduled
- Staffing levels identified are met
- Negotiations with the existing Cal-VIS contractor are successful
- Issues will be resolved in a timely manner

6.5.3 Project Phasing

To increase transparency and mitigate risk, the Cal-VISTA Project will be completed using a phased approach. The nature of the project naturally lends itself to a phased approach. The following is an overview of the proposed project phases.

6.5.3.1 Analysis

During the initial Analysis Phase BAR will conduct a thorough analysis of the proposed hardware changes and software upgrades to the Cal-VIS. This Phase will begin following the approval of the Cal-VISTA FSR. This analysis will occur in conjunction with the existing Cal-VIS Contractor and the DCA. Phase outputs will include:

- To-Be Design Documentation

Feasibility Study Report**6.5.3.2 Contract Negotiation**

During the Contract Negotiation Phase the State will negotiate with the existing Cal-VIS contractor. The State will negotiate ownership of the entire Cal-VIS including hardware and hardware configurations. Additionally, BAR is proposing to augment the existing Cal-VIS contractor's SOW to include refreshing the Cal-VIS to OTech and establishing OTech as the primary processing facility for the Cal-VIS. Phase outputs will include:

- A new contract with the current Cal-VIS Contractor
- Service Request to obtain the required rack space in TMS

6.5.3.3 Project Initiation/Planning/Design

Once the existing Cal-VIS contract has been augmented, the effort to refresh the Cal-VIS to OTech and execute the SOW codified in the new contract can begin. A brief Project Initiation Phase will occur to ensure that all stakeholders understand the scope, schedule, and roles and responsibilities. As BAR currently works very closely with the existing Cal-VIS contractor, BAR anticipates this will be a smooth initiation. Phase outputs include:

- OTech rack space acquired
- PMC1 and PMC2 onboard
- IV&V Consultant onboard
- RFP Writer onboard
- Test Lead onboard
- Project Charter/Kickoff
- Detailed WBS
- Project Schedule
- PMP
- Baseline Risk/Issue register
- Approved Design Documents
- Execute procurement(s)

6.5.3.4 Implementation/Testing

During the Implementation/Testing Phase the work to refresh the Cal-VIS to OTech will occur. The work will be carefully monitored and controlled. Phase outputs include:

- Test Plans
- Cutover Plan
- Risk/Issue updates
- Executed Test Scripts
- Cal-VIS refreshed to OTech

6.5.3.5 Cutover

During the Cutover Phase, production inspections will be moved to the new system. Once the Cal-VIS has been successfully refreshed to OTech and all testing has been completed, a systematic migration of production traffic to the new system will occur. Phase outputs will include:

- Executed Post Implementation Validation (PIV) scripts
- Weekly performance monitoring reports
- Acceptance of the Cal-VIS at OTech

Feasibility Study Report**6.5.3.6 Post Implementation**

During the PIV phase, system documentation will be completed, reviewed and approved by BAR. A final Lessons Learned report will be developed and one of the existing sites hosting the Cal-VIS will be decommissioned. Phase outputs will include:

- Decommission one existing data center site
- Lessons Learned Report
- Final System Documentation
- Project Repository audit and transition

6.5.3.7 Procurement

During the Procurement Phase maintenance and operations services for the Cal-VIS will be competitively rebid. This phase will be initiated at the conclusion of the Project Initiation/Planning/Design Phase and will be dependent on the acquisition of contract resources to develop the RFP. Completion of this phase will be dependent on the successful execution of a Cal-VIS support services contract. Phase outputs include:

- Development of an RFP
- Release of an RFP
- Award of an RFP

6.5.3.8 Transition

During the Transition Phase the support services of the Cal-VIS will be transitioned to the winning bidder. This phase will be initiated at the conclusion of the Procurement Phase and is also dependent on the completion of the Cutover and Post Implementation phases as well. Completion of this phase will be dependent on the successful transition of all services currently performed by the current Cal-VIS Contractor. Phase outputs include:

- Outreach to Smog Stations and Industry
- Establish a Help Desk solution
- Establish station billing mechanism
- Establish Disaster Recovery (DR) site
- Final contract closeout

6.5.3.9 Closeout

During the Closeout Phase the project will be formally closed. Phase outputs include:

- Complete a PIER

6.5.4 Project Schedule

The Cal-VISTA project will take approximately 37 months to complete (49 months including the PIER). The proposed project schedule is outlined below:

TASKS/MILESTONES	ESTIMATED START DATE	ESTIMATED COMPLETION DATE
Analysis	9/15/2015	11/15/2015
Develop To-Be Design	9/15/2015	11/13/2015
Contract Negotiation	11/16/2015	5/31/2016

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Negotiate New Contract	11/16/2015	2/15/2016
Approve New Contract – DCA	2/15/2016	3/30/2016
Approve New Contract – Department of Technology	3/31/2016	6/1/2016
New Contract Approved	6/1/2016	
Submit SR to OTech (TMS)	6/1/2016	
Project Initiation/Planning/Design	6/1/2016	10/30/2016
Develop Project Charter	6/1/2016	6/30/2016
Develop System Design Documents	6/1/2016	7/29/2016
Execute Procurement(s)	6/1/2016	10/31/2016
Develop Project Schedule	9/01/2016	9/30/2016
Project Management Plan (PMP)	9/1/2016	9/30/2016
Develop Baseline Risk/Issue Register	9/1/2016	9/30/2016
Implementation/Testing	10/3/2016	12/29/2017
Build/Configure/System Test Cal-VIS @ OTech	10/3/2016	11/30/2017
Develop UAT Plan	12/1/2016	3/31/2017
Execute UAT Testing	4/1/2017	12/29/2017
System Documentation Complete	5/1/2017	
Develop Cutover Plan	10/3/2017	12/29/2017
Cutover	1/1/2018	5/31/2018
Conduct PIV	1/1/2018	1/31/2018
Transition Production Traffic	2/1/2018	5/31/2018
Acceptance of Cal-VIS @ OTech	5/31/2018	
Post Implementation	6/1/2018	7/31/2018
Develop Final Lessons Learned Report	6/1/2018	6/30/2018
Final System Documentation Complete	7/31/2018	
Procurement	2/16/2016	5/31/2018

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Develop RFP	2/16/2016	12/30/2016
Approve RFP – DCA	1/1/2017	2/28/2017
Approve RFP – Department of Technology	3/1/2017	4/28/2017
Release RFP	5/1/2017	
Vendor Response	5/2/2017	10/31/2017
Vendor Selection	11/1/2017	5/31/2018
Transition	6/1/2018	10/12/2018
Establish Help Desk	6/1/2018	10/12/2018
Establish Station Billing Mechanism	6/1/2018	10/12/2018
Establish DR Site	6/1/2018	10/12/2018
Transition Complete	10/12/2018	
Closeout	10/15/18	10/15/2019
Develop PIER	10/14/2018	10/14/2019

6.6 Authorization Required

No special authorization outside of the standard Project Approval Lifecycle is required.

7 Risk Management Plan

Risk Management is the process of identifying, measuring, managing, and planning for the avoidance or occurrence of events or circumstances that threaten the success of a project. A risk is a threat of possible, but uncertain occurrence, which could negatively affect success in terms of scope, schedule, or cost. The purpose of risk management is to improve the likelihood of success by foreseeing risks, evaluating and assessing impacts, and developing mitigation and contingency strategies. This Risk Management Plan is based on SIMM guidelines and defines how risks associated with the Cal-VISTA project will be identified, analyzed, and managed. The proposed Risk Management methodology is consistent with the CA-PMM and will be used on an ongoing basis throughout the life of the project.

Issues are defined as unanswered questions and/or differences in opinion and must be managed conscientiously and in a timely manner. Issue Management brings visibility to issues, accountability for addressing them, and a timeframe for resolution. All projects have issues, regardless of their size, nature, or contract type. Issues must be identified and resolved in order to deliver outcomes as anticipated. The Issue Log is extremely important in controlling communications as it provides both a repository for what has already happened in the project and a platform for subsequent potential communications.

7.1 Risk Management Process

The Project Manager and the Project Management Office (PMO) will work closely with the Project Team and all stakeholders to ensure that risks are identified, analyzed, and managed throughout the life of the project. Risk Management for the Cal-VISTA project has already been started, but formalized processes will be initiated on the start date of the project. The Cal-VIS Contractor(s) will participate actively in Risk Management activities. Risk management takes proactive steps to achieve success by:

- Identifying risks early and throughout the project
- Qualifying and quantifying identified risks through rigorous analysis
- Developing a response plan and an owner for each identified risk
- Capturing and record risks in a central log or repository
- Monitoring and controlling each risk and its risk response

7.2 Roles and Responsibilities

The Project Manager is responsible for all Risk and Issue Management activities. The PMO will work closely with the Project Manager and the Project Team and stakeholders to ensure that all Project Team members participate in the Risk Management process. Risk Owners will communicate the status of risk activities assigned to them to the PMO for inclusion into the Risk Register.

7.3 Risk Reporting

The Project Manager will determine what risks need to be escalated to the Project Directors, and/or the Executive Project Sponsor, and/or the IT Sponsor. The Project Manager will work closely with the Project Directors and the IT Sponsor to determine what risks need to be escalated to what level based on the following matrix:

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	<u>RISK LEVEL</u>		
	RED / HIGH	YELLOW / MEDIUM	GREEN / LOW
STEERING COMMITTEE	X		
PROJECT DIRECTORS	X	X	
PROJECT MANAGER	X	X	X

7.3.1 Risk Register

#	Risks	Probability (1 - 5)	Potential Impact (1 - 5)	Risk Management Action must begin...	Risk Level* (1 - 25)	Cause	Consequences	Avoidance Plan	Mitigation Plan
1	Length of Control Agency approvals negatively impacts the schedule	4	5	Within the next six months	20 Red	The FSR, new contract, and or the RFP does not meet the requirements of Control Agencies and rework is required	The schedule is negatively impacted.	N/A	Meet frequently with Department of Technology communicate status frequently.
2	Implementation of architectural enhancements to the Cal-VIS	2	3	Six months to a year from now	3.96 Green	Unplanned complexity increases the level of effort to implement the approved architectural enhancements	The cost, quality and/or schedule may be impacted.	Do not make any architectural changes to the system as part of the new contract.	Leverage Enterprise Architecture expertise from DCA and the existing Cal-VIS Contractor and ensure the proposed changes are scoped appropriately.
3	Failure to successfully negotiate a new contract with the existing Cal-VIS Contractor	3	5	Six months to a year from now	9.9 Green	BAR and the existing Cal-VIS Contractor are unable to successfully negotiate the necessary changes to the existing contract.	End of the project. A Special Project Report (SPR) would be needed to re-baseline the project. Additional NCBs would be likely.	N/A	Carefully plan contract negotiations and leverage the BARs most qualified contract negotiation team.
4	PM Resources to Plan, Monitor, and Control Project Execution	4	5	Within the next six months	20 Red	Insufficient Project Management resources are available to the project.	Negative impacts to cost, quality, and schedule.	N/A	Obtain contracted Project Management resources as early in the project lifecycle as possible.
5	Cal-VIS Contractor cannot complete work on schedule	3	5	Over a year from now	4.95 Green	Loss of key staff, duration and/or complexity of work was underestimated	The schedule is negatively impacted.	N/A	Attempt to negotiate incentives and/or penalties to motivate the contractor to complete the work on or ahead of schedule
6	Knowledge and Experience with Formal Testing Methodologies	3	4	Over a year from now	3.96 Green	Lack of experience using of formal testing methodologies	Quality is negatively impacted. Testing is not repeatable or measureable.	N/A	Obtain a contracted Test Lead resource.

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8 Economic Analysis Worksheets (EAWs)

SIMM 20C, Rev. 09/2013

EXISTING SYSTEM/BASELINE COST WORKSHEET

Agency/state entity: Department of Cosumer Affairs / Bureau of A All costs to be shown in whole (unrounded) dollars.

Date Prepared: 6/12/2015

Project: Cal-VISTA

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts												
Continuing Information														
Technology Costs														
Staff (salaries & benefits)	2.5	245,347	2.5	245,347	2.5	245,347	2.5	245,347	2.5	245,347	2.5	245,347	15.0	1,472,082
Hardware Lease/Maintenance		0		0		0		0		0		0		0
Software Maintenance/Licenses		0		0		0		0		0		0		0
Contract Services		0		0		0		0		0		0		0
Data Center Services		0		0		0		0		0		0		0
Agency Facilities		0		0		0		0		0		0		0
Other		0		0		0		0		0		0		0
Total IT Costs	2.5	245,347	15.0	1,472,082										
Continuing Program Costs:														
Staff	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	52.8	6,515,736
Other		0		0		0		0		0		0		0
Total Program Costs	8.8	1,085,956	52.8	6,515,736										
TOTAL EXISTING SYSTEM COSTS	11.3	1,331,303	67.8	7,987,818										

SIMM 20C, Rev. 06/2014

EXISTING SYSTEM/BASELINE COST WORKSHEET

Agency/state entity: Department of Cosumer Affairs / Bureau of A All costs to be shown in whole (unrounded) dollars. Date Prepared: 6/12/2015

Project: Cal-VISTA

	Subtotal		FY 2019/20		FY 2020/21		FY 2021/22		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
Continuing Information										
Technology Costs										
Staff (salaries & benefits)	15.0	1,472,082	2.5	245,347	2.5	245,347	2.5	245,347	22.5	2,208,123
Hardware Lease/Maintenance		0		0		0		0		0
Software Maintenance/Licenses		0		0		0		0		0
Contract Services		0		0		0		0		0
Data Center Services		0		0		0		0		0
Agency Facilities		0		0		0		0		0
Other		0		0		0		0		0
Total IT Costs	15.0	1,472,082	2.5	245,347	2.5	245,347	2.5	245,347	22.5	2,208,123
Continuing Program Costs:										
Staff	52.8	6,515,736	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	79.2	9,773,604
Other		0		0		0		0		0
Total Program Costs	52.8	6,515,736	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	79.2	9,773,604
TOTAL EXISTING SYSTEM COSTS	67.8	7,987,818	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	101.7	11,981,727

Feasibility Study Report

SIMM 20C, Rev. 06/2014

PROPOSED ALTERNATIVE: Refresh the system to Otech / Bid Cal-VIS Support Services

Date Prepared: 6/12/2015

Agency/state entity: Department of Cosumer Affairs / Bureau of Automotive Re All Costs Should be shown in whole (unrounded) dollars.
Project: Cal-VISTA

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts												
One-Time IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	1.1	131,561	4.9	580,865	6.5	758,032	0.3	33,099	12.8	1,503,557
Hardware Purchase		0		0		0		0		0		0		0
Software Purchase/License		0		0		0		0		0		0		0
Telecommunications		0		0		0		0		0		0		0
Contract Services														
Software Customization		0		0		0		0		0		0		0
Project Management		0		40,000		460,000		460,000		440,000		20,000		960,000
Project Oversight		0		0		0		75,000		75,000		0		150,000
IV&V Services		0		0		0		210,000		210,000		0		420,000
Other Contract Services		0		0		70,000		350,000		370,000		0		790,000
TOTAL Contract Services		0		0		110,000		1,095,000		1,095,000		20,000		2,320,000
Data Center Services		0		0		0		66,024		61,524		20,508		148,056
Agency Facilities		0		0		0		0		0		0		0
Other		0		0		0		0		0		0		0
Total One-time IT Costs	0.0	0	0.0	0	1.1	241,561	4.9	1,741,889	6.5	1,914,556	0.3	73,607	12.8	3,971,613
Continuing IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	1.0	105,171	1.0	105,171	2.0	210,342
Hardware Lease/Maintenance		0		0		0		0		0		0		0
Software Maintenance/Licenses		0		0		0		0		0		0		0
Telecommunications		0		0		0		0		0		0		0
Contract Services		0		0		0		0		0		41,016		41,016
Data Center Services		0		0		0		0		0		0		0
Agency Facilities		0		0		0		0		0		0		0
Other		0		0		0		0		0		0		0
Total Continuing IT Costs	0.0	0	0.0	0	0.0	0	0.0	0	1.0	105,171	1.0	146,187	2.0	251,358
Total Project Costs	0.0	0	0.0	0	1.1	241,561	4.9	1,741,889	7.5	2,019,727	1.3	219,794	14.8	4,222,971
Continuing Existing Costs														
Information Technology Staff	2.5	245,347	2.5	245,347	2.5	245,347	2.5	245,347	2.5	245,347	2.5	245,347	15.0	1,472,082
Other IT Costs		0		0		0		0		0		0		0
Total Continuing Existing IT Costs	2.5	245,347	15.0	1,472,082										
Program Staff	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	52.5	6,515,736
Other Program Costs		0		0		0		0		0		0		0
Total Continuing Existing Program Costs	8.8	1,085,956	52.5	6,515,736										
Total Continuing Existing Costs	11.3	1,331,303	67.5	7,987,818										
TOTAL ALTERNATIVE COSTS	11.3	1,331,303	11.3	1,331,303	12.4	1,572,864	16.2	3,073,192	18.8	3,351,030	12.6	1,551,097	82.3	12,210,789
INCREASED REVENUES		0		0		0		0		0		0		0

Feasibility Study Report

SIMM 20C, Rev. 06/2014

PROPOSED ALTERNATIVE:

Refresh the system to OTech / Bid Cal-VIS Support Services

Date Prepared: 6/12/2015

Agency/state entity: Department of Cosumer Affairs / Bureau of Automotive Rep All Costs Should be shown in whole (unrounded) dollars.

Project: Cal-VISTA

	Subtotal		FY 2019/20		FY 2020/21		FY 2021/22		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs										
Staff (Salaries & Benefits)	12.8	1,503,557	0.0	0	0.0	0	0.0	0	12.8	1,503,557
Hardware Purchase		0		0		0		0		0
Software Purchase/License		0		0		0		0		0
Telecommunications		0		0		0		0		0
Contract Services										
Software Customization		0		0		0		0		0
Project Management		960,000		0		0		0		960,000
Project Oversight		150,000		0		0		0		150,000
IV&V Services		420,000		0		0		0		420,000
Other Contract Services		790,000		0		0		0		790,000
TOTAL Contract Services		2,320,000		0		0		0		2,320,000
Data Center Services		148,056		0		0		0		148,056
Agency Facilities		0		0		0		0		0
Other		0		0		0		0		0
Total One-time IT Costs	12.8	3,971,613	0.0	0	0.0	0	0.0	0	12.8	3,971,613
Continuing IT Project Costs										
Staff (Salaries & Benefits)	2.0	210,342	1.0	105,171					3.0	315,513
Hardware Lease/Maintenance		0		0		0		0		0
Software Maintenance/Licenses		0		0		0		0		0
Telecommunications		0		0		0		0		0
Contract Services		41,016								41,016
Data Center Services		0		61,524						61,524
Agency Facilities		0		0		0		0		0
Other		0		0		0		0		0
Total Continuing IT Costs	2.0	251,358	1.0	166,695	0.0	0	0.0	0	3.0	418,053
Total Project Costs	14.8	4,222,971	1.0	166,695	0.0	0	0.0	0	15.8	4,389,666
Continuing Existing Costs										
Information Technology Staff	15.0	1,472,082	2.5	245,347					17.5	1,717,429
Other IT Costs		0		0		0		0		0
Total Continuing Existing IT Costs	15.0	1,472,082	2.5	245,347	0.0	0	0.0	0	17.5	1,717,429
Program Staff	52.5	6,515,736	8.8	1,085,956	0.0	0	0.0	0	61.3	7,601,692
Other Program Costs		0		0		0		0		0
Total Continuing Existing Program Costs	52.5	6,515,736	8.8	1,085,956	0.0	0	0.0	0	61.3	7,601,692
Total Continuing Existing Costs	67.5	7,987,818	11.3	1,331,303	0.0	0	0.0	0	78.8	9,319,121
TOTAL ALTERNATIVE COSTS	82.3	12,210,789	12.3	1,497,998	0.0	0	0.0	0	94.6	13,708,787
INCREASED REVENUES		0		0		0		0		0

Feasibility Study Report

SIMM 20C, Rev. 06/2014

ALTERNATIVE #1: Bid Cal-VIS Support Services / Refresh the system to OTech

Date Prepared: 6/12/2015

Agency/state entity: Department of Cosumer Affairs / Bureau of Automotive I All Costs Should be shown in whole (unrounded) dollars.
Project: Cal-VISTA

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts												
One-Time IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.9	109,999	3.0	374,296	4.2	486,489	3.9	475,465	12.0	1,446,249
Hardware Purchase	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Software Purchase/License	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Telecommunications	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contract Services														
Software Customization	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	0	0	0	120,000	0	230,000	0	330,000	0	340,000	0	1,020,000	0	1,020,000
Project Oversight	0	0	0	0	0	75,000	0	75,000	0	75,000	0	150,000	0	150,000
IV&V Services	0	0	0	30,000	0	140,000	0	210,000	0	210,000	0	590,000	0	590,000
Other Contract Services	0	0	0	120,000	0	120,000	0	180,000	0	340,000	0	760,000	0	760,000
TOTAL Contract Services	0	0	0	270,000	0	565,000	0	795,000	0	890,000	0	2,520,000	0	2,520,000
Data Center Services	0	0	0	0	0	0	0	0	0	66,024	0	66,024	0	66,024
Agency Facilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total One-time IT Costs	0.0	0	0.0	0	0.9	379,999	3.0	939,296	4.2	1,281,489	3.9	1,431,489	12.0	4,032,273
Continuing IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	1.0	105,171	1.0	105,171	2.0	210,342
Hardware Lease/Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Software Maintenance/Licenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Telecommunications	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contract Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Data Center Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agency Facilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Continuing IT Costs	0.0	0	0.0	0	0.0	0	0.0	0	1.0	105,171	1.0	105,171	2.0	210,342
Total Project Costs	0.0	0	0.0	0	0.9	379,999	3.0	939,296	5.2	1,386,660	4.9	1,536,660	14.0	4,242,615
Continuing Existing Costs														
Information Technology Staff	2.5	245,347	2.5	245,347	2.5	245,347	2.5	245,347	2.5	245,347	2.5	245,347	15.0	1,472,082
Other IT Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Continuing Existing IT Costs	2.5	245,347	15.0	1,472,082										
Program Staff	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	52.8	6,515,736
Other Program Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Continuing Existing Program Costs	8.8	1,085,956	52.8	6,515,736										
Total Continuing Existing Costs	11.3	1,331,303	67.8	7,987,818										
TOTAL ALTERNATIVE COSTS	11.3	1,331,303	11.3	1,331,303	12.2	1,711,302	14.3	2,270,599	16.5	2,717,963	16.2	2,867,963	81.8	12,230,433
INCREASED REVENUES		0		0		0		0		0		0		0

Feasibility Study Report

SIMM 20C, Rev. 06/2014

ALTERNATIVE #1: Bid Cal-VIS Support Services / Refresh the system to OTech

Date Prepared: 6/12/2015

Agency/state entity: Department of Cosumer Affairs / Bureau of Automotive R All Costs Should be shown in whole (unrounded) dollars.

Project: Cal-VISTA

	SUBTOTAL		FY 2019/20		FY 2020/21		FY 2021/22		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs										
Staff (Salaries & Benefits)	12.0	1,446,249	8.2	994,132	2.1	251,010	0.2	21,608	22.5	2,712,999
Hardware Purchase		0		0		0		0		0
Software Purchase/License		0		0		0		0		0
Telecommunications		0		0		0		0		0
Contract Services										
Software Customization		0		0		0		0		0
Project Management		1,020,000		340,000		226,000		0		1,586,000
Project Oversight		150,000		0		0		0		150,000
IV&V Services		590,000		210,000		110,000		0		910,000
Other Contract Services		760,000		350,000		90,000		0		1,200,000
TOTAL Contract Services		2,520,000		900,000		426,000		0		3,846,000
Data Center Services		66,024		61,524		61,524		61,524		250,596
Agency Facilities		0		0		0		0		0
Other		0		0		0		0		0
Total One-time IT Costs	12.0	4,032,273	8.2	1,955,656	2.1	738,534	0.2	83,132	22.5	6,809,595
Continuing IT Project Costs										
Staff (Salaries & Benefits)	2.0	210,342	1.0	105,171	1.0	105,171	1.0	105,171	5.0	525,855
Hardware Lease/Maintenance		0		0		0		0		0
Software Maintenance/Licenses		0		0		0		0		0
Telecommunications		0		0		0		0		0
Contract Services		0		0		0		0		0
Data Center Services		0		0		0		0		0
Agency Facilities		0		0		0		0		0
Other		0		0		0		0		0
Total Continuing IT Costs	2.0	210,342	1.0	105,171	1.0	105,171	1.0	105,171	5.0	525,855
Total Project Costs	14.0	4,242,615	9.2	2,060,827	3.1	843,705	1.2	188,303	27.5	7,335,450
Continuing Existing Costs										
Information Technology Staff	15.0	1,472,082	2.5	245,347	2.5	245,347	2.5	245,347	22.5	2,208,123
Other IT Costs		0		0		0		0		0
Total Continuing Existing IT Costs	15.0	1,472,082	2.5	245,347	2.5	245,347	2.5	245,347	22.5	2,208,123
Program Staff	52.8	6,515,736	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	79.2	9,773,604
Other Program Costs		0		0		0		0		0
Total Continuing Existing Program Costs	52.8	6,515,736	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	79.2	9,773,604
Total Continuing Existing Costs	67.8	7,987,818	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	101.7	11,981,727
TOTAL ALTERNATIVE COSTS	81.8	12,230,433	20.5	3,392,130	14.4	2,175,008	12.5	1,519,606	129.2	19,317,177
INCREASED REVENUES		0		0		0		0		0

Feasibility Study Report

SIMM 20C, Rev. 06/2014

ECONOMIC ANALYSIS SUMMARY

Date Prepared: 6/12/2015

Agency/state entity: Department of Cosumer Affairs / Bureau of Automotive Repair All costs to be shown in whole (unrounded) dollars.
Project: Cal-VISTA

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
EXISTING SYSTEM														
Total IT Costs	2.5	245,347	2.5	245,347	2.5	245,347	2.5	245,347	2.5	245,347	2.5	245,347	15.0	1,472,082
Total Program Costs	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	52.8	6,515,736
Total Existing System Costs	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	67.8	7,987,818
PROPOSED ALTERNATIVE	Refresh the system to OTech / Bid Cal-VIS Support Services													
Total Project Costs	0.0	0	0.0	0	1.1	241,561	4.9	1,741,889	7.5	2,019,727	1.3	219,794	14.8	4,222,971
Total Cont. Exist. Costs	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	67.5	7,987,818
Total Alternative Costs	11.3	1,331,303	11.3	1,331,303	12.4	1,572,864	16.2	3,073,192	18.8	3,351,030	12.6	1,551,097	82.3	12,210,789
COST SAVINGS/AVOIDANCES	0.0	0	0.1	0	(1.1)	(241,561)	(4.9)	(1,741,889)	(7.5)	(2,019,727)	(1.3)	(219,794)	(14.6)	(4,222,971)
Increased Revenues	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net (Cost) or Benefit	0.0	0	0.1	0	(1.1)	(241,561)	(4.9)	(1,741,889)	(7.5)	(2,019,727)	(1.3)	(219,794)	(14.6)	(4,222,971)
Cum. Net (Cost) or Benefit	0.0	0	0.1	0	(1.0)	(241,561)	(5.9)	(1,983,450)	(13.3)	(4,003,177)	(14.6)	(4,222,971)		
ALTERNATIVE #1	Bid Cal-VIS Support Services / Refresh the system to OTech													
Total Project Costs	0.0	0	0.0	0	0.9	379,999	3.0	939,296	5.2	1,386,660	4.9	1,536,660	14.0	4,242,615
Total Cont. Exist. Costs	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	67.8	7,987,818
Total Alternative Costs	11.3	1,331,303	11.3	1,331,303	12.2	1,711,302	14.3	2,270,599	16.5	2,717,963	16.2	2,867,963	81.8	12,230,433
COST SAVINGS/AVOIDANCES	(0.1)	0	0.0	0	(0.9)	(379,999)	(3.0)	(939,296)	(5.2)	(1,386,660)	(4.9)	(1,536,660)	(14.1)	(4,242,615)
Increased Revenues	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net (Cost) or Benefit	(0.1)	0	0.0	0	(0.9)	(379,999)	(3.0)	(939,296)	(5.2)	(1,386,660)	(4.9)	(1,536,660)	(14.1)	(4,242,615)
Cum. Net (Cost) or Benefit	(0.1)	0	(0.1)	0	(1.0)	(379,999)	(4.0)	(1,319,295)	(9.2)	(2,705,955)	(14.1)	(4,242,615)		
ALTERNATIVE #2														
Total Project Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Cont. Exist. Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Alternative Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
COST SAVINGS/AVOIDANCES	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	67.8	7,987,818
Increased Revenues	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net (Cost) or Benefit	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	67.8	7,987,818
Cum. Net (Cost) or Benefit	11.3	1,331,303	22.6	2,662,606	33.9	3,993,909	45.2	5,325,212	56.5	6,656,515	67.8	7,987,818		

SIMM 20C, Rev. 06/2014

ECONOMIC ANALYSIS SUMMARY

Date Prepared: 6/12/2015

Agency/state entity: Department of Cosumer Affairs / Bureau of Automotive Repair All costs to be shown in whole (unrounded) dollars.
Project: Cal-VISTA

	SUBTOTAL		FY 2019/20		FY 2020/21		FY 2021/22		FY 2022/23		FY 2023/24		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
EXISTING SYSTEM														
Total IT Costs	15.0	1,472,082	2.5	245,347	2.5	245,347	2.5	245,347	0.0	0	0.0	0	22.5	2,208,123
Total Program Costs	52.8	6,515,736	8.8	1,085,956	8.8	1,085,956	8.8	1,085,956	0.0	0	0.0	0	79.2	8,773,604
Total Existing System Costs	67.8	7,987,818	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	0.0	0	0.0	0	101.7	11,981,727
PROPOSED ALTERNATIVE	Refresh the system to Otech / Bid Cal-VIS Support Services													
Total Project Costs	14.8	4,222,971	1.0	166,695	1.0	166,695	1.0	166,695	0.0	0	0.0	0	17.8	4,723,056
Total Cont. Exist. Costs	67.5	7,987,818	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	0.0	0	0.0	0	101.4	11,981,727
Total Alternative Costs	82.3	12,210,789	12.3	1,497,998	12.3	1,497,998	12.3	1,497,998	0.0	0	0.0	0	119.2	16,704,783
COST SAVINGS/AVOIDANCES	(14.6)	(4,222,971)	(1.0)	(166,695)	(1.0)	(166,695)	(1.0)	(166,695)	0.0	0	0.0	0	(17.6)	(4,723,056)
Increased Revenues	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net (Cost) or Benefit	(14.6)	(4,222,971)	(1.0)	(166,695)	(1.0)	(166,695)	(1.0)	(166,695)	0.0	0	0.0	0	(17.6)	(4,723,056)
Cum. Net (Cost) or Benefit	(14.6)	(4,222,971)	(1.0)	(166,695)	(1.0)	(166,695)	(1.0)	(166,695)	0.0	0	0.0	0	(17.6)	(4,723,056)
ALTERNATIVE #1	Bid Cal-VIS Support Services / Refresh the system to OTech													
Total Project Costs	14.0	4,242,615	9.2	2,060,827	3.1	843,705	1.2	188,303	0.0	0	0.0	0	27.5	7,335,450
Total Cont. Exist. Costs	67.8	7,987,818	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	0.0	0	0.0	0	101.7	11,981,727
Total Alternative Costs	81.8	12,230,433	20.5	3,392,130	14.4	2,175,008	12.5	1,519,606	0.0	0	0.0	0	129.2	19,317,177
COST SAVINGS/AVOIDANCES	(14.1)	(4,242,615)	(9.2)	(2,060,827)	(3.1)	(843,705)	(1.2)	(188,303)	0.0	0	0.0	0	(27.5)	(7,335,450)
Increased Revenues	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net (Cost) or Benefit	(14.1)	(4,242,615)	(9.2)	(2,060,827)	(3.1)	(843,705)	(1.2)	(188,303)	0.0	0	0.0	0	(27.5)	(7,335,450)
Cum. Net (Cost) or Benefit	(14.1)	(4,242,615)	(9.2)	(2,060,827)	(3.1)	(843,705)	(1.2)	(188,303)	0.0	0	0.0	0	(27.5)	(7,335,450)
ALTERNATIVE #2														
Total Project Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Cont. Exist. Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Alternative Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
COST SAVINGS/AVOIDANCES	67.8	7,987,818	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	0.0	0	0.0	0	101.7	11,981,727
Increased Revenues	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net (Cost) or Benefit	67.8	7,987,818	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	0.0	0	0.0	0	101.7	11,981,727
Cum. Net (Cost) or Benefit	67.8	7,987,818	11.3	1,331,303	11.3	1,331,303	11.3	1,331,303	0.0	0	0.0	0	101.7	11,981,727

Feasibility Study Report

SIMM 20C, Rev. 06/2014

PROJECT FUNDING PLAN

Agency/state entity: Department of Cosumer Affairs / Burea

All Costs to be in whole (unrounded) dollars

Date Prepared: 6/12/2015

Project: Cal-VISTA

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTALS	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
TOTAL PROJECT COSTS	0.0	0	0.0	0	1.1	241,561	4.9	1,741,889	7.5	2,019,727	1.3	219,794	14.8	4,222,971
RESOURCES TO BE REDIRECTED														
Staff	0.0	0	0.0	0	1.1	131,561	4.9	580,865	7.5	863,203	1.3	138,270	14.8	1,713,899
Funds:														
Existing System		0		0		110,000		1,161,024		1,156,524		81,524		2,509,072
Other Fund Sources		0		0		0		0		0		0		0
TOTAL REDIRECTED RESOURCES	0.0	0	0.0	0	1.1	241,561	4.9	1,741,889	7.5	2,019,727	1.3	219,794	14.8	4,222,971
ADDITIONAL PROJECT FUNDING NEEDED														
One-Time Project Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Continuing Project Costs	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
TOTAL PROJECT FUNDING	0.0	0	0.0	0	1.1	241,561	4.9	1,741,889	7.5	2,019,727	1.3	219,794	14.8	4,222,971
Difference: Funding - Costs	0.0	0	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	0.0	0

FUNDING SOURCE*	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTALS	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
General Fund	0%	0	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	0%	0
Special Fund	100%	0	100%	0	100%	241,561	100%	1,741,889	100%	2,019,727	100%	219,794	100%	4,222,971
Reimbursement	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
TOTAL FUNDING	100%	0	100%	0	100%	241,561	100%	1,741,889	100%	2,019,727	100%	219,794	100%	4,222,971

*Type: If applicable, for each funding source, beginning on row 29, describe what type of funding is included, such as local assistance or grant funding, the date the funding is to become available, and the duration of the funding.

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ADJUSTMENTS, SAVINGS AND REVENUES WORKSHEET

Agency/state entity: Department of Cosumer

Date Prepared: 6/12/2015

Project: Cal-VISTA

Annual Project Adjustments	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		
	PYs	Amts											
One-time Costs													
Previous Year's Baseline	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	
(A) Annual Augmentation /(Reduction)	0.0	0											
(B) Total One-Time Budget Actions	0.0	0											
Continuing Costs													
Previous Year's Baseline	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	
(C) Annual Augmentation /(Reduction)	0.0	0											
(D) Total Continuing Budget Actions	0.0	0											
Total Annual Project Budget Augmentation /(Reduction) [A + C]	0.0	0											

[A, C] Excludes Redirected Resources

Total Additional Project Funds Needed [B + D]

Annual Savings/Revenue Adjustments

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

Feasibility Study Report

SIMM 20C, Rev. 06/2014

PROJECT FUNDING PLAN

Agency/state entity: Department of Cosumer Affairs / Burea

All Costs to be in whole (unrounded) dollars

Date Prepared: 6/12/2015

Project: Cal-VISTA

	SUBTOTALS		FY 2019/20		FY 2020/21		FY 2021/22		TOTALS	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
TOTAL PROJECT COSTS	14.8	4,222,971	1.0	166,695	0.0	0	0.0	0	15.8	4,389,666
RESOURCES TO BE REDIRECTED										
Staff	14.8	1,713,899	1.0	105,171	1.0	105,171	1.0	105,171	17.8	2,029,412
Funds:										
Existing System		2,509,072		61,524		61,524		61,524		2,693,644
Other Fund Sources		0		0		0		0		0
TOTAL REDIRECTED RESOURCES	14.8	4,222,971	1.0	166,695	1.0	166,695	1.0	166,695	17.8	4,723,056
ADDITIONAL PROJECT FUNDING NEEDED										
One-Time Project Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Continuing Project Costs	0.0	0		0		0	0.0	0	0.0	0
TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
TOTAL PROJECT FUNDING	14.8	4,222,971	1.0	166,695	1.0	166,695	1.0	166,695	17.8	4,723,056
Difference: Funding - Costs	0.0	0	0.0	0	1.0	166,695	1.0	166,695	2.0	333,390
Total Estimated Cost Savings	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
Federal Fund	0%	0	0%	0	0%	0	0%	0	0%	0
Special Fund	100%	4222971	100%	166,695	100%	166,695	100%	166,695	100%	4,723,056
Reimbursement	0%	0	0%	0	0%	0	0%	0	0%	0
TOTAL FUNDING	100%	4,222,971	100%	166,695	100%	166,695	100%	166,695	100%	4,723,056

*Type: If applicable, for each funding source, beginning on row 29, describe what type of funding is included, such as local assistance or grant funding, the date the funding is to become available, and the duration of the funding.

ADJUSTMENTS, SAVINGS AND REVENUES WORKSHEET

SIMM 20C, Rev. 06/2014

Agency/state entity: Department of Cosur

Date Prepared: 6/12/2015

Project: Cal-VISTA

Annual Project Adjustments	FY 2019/20		FY 2020/21		FY 2021/22		Net Adjustments	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-time Costs								
Previous Year's Baseline	0.0	0	0.0	0	0.0	0		
(A) Annual Augmentation /(Reduction)	0.0	0	0.0	0	0.0	0		
(B) Total One-Time Budget Actions	0.0	0	0.0	0	0.0	0	0.0	0
Continuing Costs								
Previous Year's Baseline	0.0	0	0.0	0	0.0	0		
(C) Annual Augmentation /(Reduction)	0.0	0	0.0	0	0.0	0		
(D) Total Continuing Budget Actions	0.0	0	0.0	0	0.0	0	0.0	0
Total Annual Project Budget Augmentation /(Reduction) [A + C]	0.0	0	0.0	0	0.0	0		

[A, C] Excludes Redirected Resources

Total Additional Project Funds Needed [B + D]

0.0 0

Annual Savings/Revenue Adjustments

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

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9 Business/Technical Requirements

The following business and technical requirements provide an outline of the functions performed by not only the Cal-VIS but also the Cal-VIS Contractor. It is important to note that BAR is not proposing any functional changes to the Cal-VIS as part of this project.

REQUIREMENT ID	REQUIREMENT DESCRIPTION	SUPPORTING OBJECTIVE
F.1.1	The Cal-VIS Contractor will maintain, and support all components of the Cal-VIS including development, test, and production system environments.	#1, #6
F1.1.1	The Cal-VIS Contractor will establish the Cal-VIS primary processing facility at the OTech Rancho Cordova Data Center in the Tenant Managed Service (TMS) area.	#2
F.1.2	The Cal-VIS Contractor will grant BAR access rights to the Cal-VIS environments.	#1, #6
F.1.3	The Cal-VIS Contractor will design, develop, document, implement and maintain infrastructure and connectivity to support the electronic collection, storage, management, and manipulation of data received via direct connection, telephony, communication from BAR-certified EIS and BAR-certified OIS, personal computers, laptops, and other mobile computing solutions.	#1, #6
F.1.4	The Cal-VIS Contractor will provide and maintain statewide electronic connectivity and interface between the Cal-VIS, BAR-certified EIS and BAR-certified OIS, and BAR and/or its authorized agents.	#1, #6
F.1.5	The Cal-VIS must be capable of handling up to the maximum effective number of concurrent transactions from BAR-certified EIS and BAR-certified OIS.	#1, #6
F.1.6	The Cal-VIS must support 500 concurrent users of BAR applications.	#1, #6
F.1.7	The Cal-VIS Contractor will create new user accounts for BAR authorized personnel.	#1, #6
F.1.7.1	The Cal-VIS Contractor will grant permission levels for authorized users of the Cal-VIS based on the roles and responsibilities of the user.	#1, #6
F.1.8	The Cal-VIS Contractor will maintain detailed technical design documentation (e.g., hardware/software architecture, data dictionary, telecommunications networks, etc.) for the Cal-VIS.	#1, #6
F.1.9	The Cal-VIS Contractor will make all technical design documentation (e.g. hardware/software architecture, data dictionary, telecommunications networks, etc.) for the Cal-VIS available to authorized BAR staff.	#1, #6
F.1.10	The Cal-VIS Contractor will update existing documentation (e.g., hardware/software architecture, data dictionary, telecommunications networks, etc.) for the Cal-VIS when errors or shortfalls are identified.	#1, #6

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F.1.11	The Cal-VIS Bidder will identify both graphical and narrative system documentation for all proposed modifications to the existing system, including, at a minimum:	#1, #6
F.1.11.1	The network (LAN/WAN) communication topologies	#1, #6
F.1.11.2	The database and all proposed data storage designs and standards	#1, #6
F.1.11.3	Any Contractor-designed applications or interfaces	#1, #6
F.1.11.4	Physical network infrastructure and connectivity between Cal-VIS and other entities	#1, #6
F.1.11.5	Data flow diagrams	#1, #6
F.1.11.6	Work flow diagrams	#1, #6
F.1.11.7	Functional decomposition of all proposed application systems	#1, #6
F.1.12	The Cal-VIS Contractor will be responsible for up-to-date documentation of all system specifications.	#1, #6
F.1.12.1	The Cal-VIS Contractor will update and maintain current system specifications and related Cal-VIS documentation to incorporate all changes made to the system over time.	#1, #6
F.1.13	The Cal-VIS Contractor will maintain and update equipment, software and licenses to be used by Contractor personnel housed at BAR.	#1, #6
F.1.14	The Cal-VIS Contractor will maintain clear and accurate on-line and/or written documentation of software license ownership and the assignment of those licenses.	#1, #6
F.1.15	The Cal-VIS Contractor will provide authorized BAR personnel access to System test environments that replicate the production environments in order to test Cal-VIS programming changes and perform system testing activities, e.g. view and update table and field level values, run test case scenarios, modify responses, capture raw data.	#1, #6
F.1.16	The Cal-VIS Contractor will work with BAR Engineering and technical staff to develop the tools required to conduct BAR-certified EIS and BAR-certified OIS software and communication link testing as well as to support BAR's activities related to acceptance, reliability and performance testing.	#1, #6
F.1.17	The Cal-VIS Contractor will shall back-up all system software, configuration tables, and production data to external media.	#1, #6
F.1.18	The Cal-VIS Contractor will store back-up of all system software, configuration tables, and production data copies at a secure offsite location.	#1, #6
F.1.19	The Cal-VIS Contractor will document all back-up/restore procedures.	#1, #6
F.1.20	The Cal-VIS Contractor will annually test the system back-up to demonstrate its viability and provide a written report to the BAR within 30 days of each test.	#1, #6

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F.1.21	The Cal-VIS Contractor will continue to assist BAR with the development and deployment of Cal-VIS application and program software	#1, #6
F.1.22	The network communications infrastructure must continue to support and provide the following capabilities, at a minimum:	#1, #6
F.1.22.1	Dial-up modem access compatible with existing BAR-certified EIS equipment, software, and the current BAR certified EIS Communications Interface to VID functional specifications, with 24x7 availability.	#1, #6
F.1.22.2	High-bandwidth access (bandwidth to be approved by BAR) for connectivity to BAR, State Data Center, and the Referee Scheduling Center with 24x7 availability	#1, #6
F.1.22.3	Secure VPN access and connectivity for data transfer over the public Internet	#1, #6
F.1.22.4	Industry standard communication protocols	#1, #6
F.1.22.5	Industry standard transmission security and encryption of data during transmission.	#1, #6
F1.23	The Cal-VIS Contractor's solution must be compatible with existing State Data Center, DCA/BAR, and DMV Networks.	#1, #6
F1.24	The Cal-VIS Contractor's solution must provide data bandwidth, lines, and network capacity that are sufficient to facilitate peak hour demand.	#1, #6, #7
F1.25	The Cal-VIS Contractor will protect all servers and services accessed by the public by firewall system(s) located between the server and each external network entry point that include(s) provisions for packet filtering, protocol filtering, application gateway security mechanisms, and circuit-level gateways.	#1, #6
F1.26	The Cal-VIS Contractor will log and analyze network activities to identify changes to network configuration or performance that may cause or indicate security threats or vulnerabilities.	#1, #6
F1.27	The Cal-VIS Contractor will supply toll free access via a primary number (local node) and must provide for seamless routing to a secondary phone number for BAR-certified EIS located throughout the state. (Primary and secondary numbers shall not be located within the same network node.)	#1, #6
F1.28	The Cal-VIS Contractor will design, develop, implement, and maintain a data storage repository for retention of all Cal-VIS data.	#1, #6
F1.29	The Cal-VIS Contractor's solution will provide a wide-range of data analysis, reporting, documentation, and data management capabilities including but not limited to the following:	#1, #6
F1.30	On-line database input and bulk (batch) database input from multiple data sources	#1, #6
F1.31	Multiple simultaneous queries and reports, both simple and complex, which span one or more years	#1, #6

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F1.32	On-line analytical processing to support data mining and other complex analysis activities	#1, #6
F1.33	On-demand, immediate access to Cal-VIS data in all data storage repositories, from a variety of desktop tools and applications	#1, #6
F1.34	The Cal-VIS Contractor will perform a gap analysis of the current Cal-VIS and provide an optimization plan	#1, #6
F1.35	The Cal-VIS Contractor will continuously optimize and tune the databases within the Cal-VIS.	#1, #6
F1.36	The Cal-VIS Contractor will continue to be responsible for the following interfaces:	#1, #6
F.1.36.1	BAR-certified EIS	#1, #6
F.1.36.2	BAR-certified OIS	#1, #6
F.1.36.3	Referee Administration	#1, #6
F.1.36.4	Referee Scheduler	#1, #6
F.1.36.5	BAR applications	#1, #6
F.1.36.6	Manufacturer development testing	#1, #6
F.1.36.7	State Bank	#1, #6
F.1.36.8	DMV	#1, #6
F.1.36.9	DCA/BAR Licensing	#1, #6
F.1.37	The Cal-VIS Contractor will continuously monitor the interface to DMV and notify both BAR and DMV via e-mail within 30 minutes of any delays or disruption in the on-line process that prevents the timely transmission of vehicle smog certificates to DMV.	#1, #6
F.1.38	The Cal-VIS Contractor will periodically test and report their intrusion detection infrastructure to verify its effectiveness and performance.	#1, #6
F.1.39	The Cal-VIS Contractor will complete and provide reports of independent audits to be performed at least once each year. The audits must verify that all security precautions have been implemented and maintained.	#1, #6
F.1.40	The Cal-VIS Contractor will provide access to audit logs, audit programs, and audit utilities to staff of the DCA/BAR Information Security Office, DCA/BAR auditors, Bureau of State Audits, and the Legislative Auditors.	#1, #6
F.1.41	The Cal-VIS Contractor will display a privacy statement for each Web page that displays or allows access to private information.	#1, #6
F.1.42	The Cal-VIS Contractor will establish and maintain processes and procedures so that the ability to perform functions or obtain information in response to the presentation of any authentication information can be disabled immediately upon notification of compromise.	#1, #6
F.1.43	The Cal-VIS Contractor will install all software and hardware manufacturer recommended fixes for security vulnerabilities on all systems immediately upon notification of the availability of the fix, or disable the affected system.	#1, #6

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F.1.44	The Cal-VIS Contractor will only apply fixes downloaded from signed sources and the fix will be checked for integrity.	#1, #6
F.1.45	The Cal-VIS Contractor will remove or disable all applications, components, and services that are not required for the business functionality of the systems before the system is placed into production.	#1, #6
F.1.46	The Cal-VIS Contractor will identify, authenticate, and log all activities that involve changes to system configuration so the specific individual or entity that performed the activity can be identified. Logging must include recording of commands to start and stop logging.	#1, #6
F.1.47	Physical security practices for each facility shall continue to protect all Cal-VIS assets.	#1, #6
F.1.48	The Cal-VIS Contractor will immediately investigate incidents involving unauthorized or accidental modification, destruction, disclosure, loss, or access to the Cal-VIS. This includes incidents involving loss, damage, or misuse of information assets.	#1, #6
F.1.49	The Cal-VIS Contractor must notify appropriate law enforcement agencies immediately if an incident might constitute a criminal act.	#1, #6
F.1.50	The Cal-VIS Contractor will complete an incident report and submit copies to the BAR Chief, the DCA Chief of the Office of Information Services (OIS), and the BAR Cal-VIS Project Manager, within twenty-four (24) hours of the Cal-VIS Contractor becoming aware of an incident.	#1, #6
F.1.51	The Cal-VIS Contractor will provide a computerized Help Desk System that tracks incidents and problems. This system shall be used for station and inspector/technician incident and problem management.	#1, #6
F.1.52	The Cal-VIS Contractor will provide BAR with access to computerized Help Desk System and the capability to view all Help Desk entries.	#1, #6
F.1.53	The Cal-VIS Bidder will document the process to monitor and escalate unresolved incidents and/or problems in their Help Desk Plan.	#1, #6
F.1.54	The Cal-VIS Contractor will record, escalate, track, and ensure resolution of all incidents and problems.	#6
F.1.55	The Cal-VIS Contractor will log initial and subsequent contacts, record confirmation of assignment, and coordinate services to resolve problems and set priorities.	#1, #6
F.1.56	The Cal-VIS Contractor will provide toll free, technical and customer service Help Desk support to assist stations, inspectors and State personnel with, but not limited to, the following troubleshooting and problem resolution issues:	#1, #6
F.1.56.1	Station enrollment	#1, #6
F.1.56.2	Station start-up	#1, #6
F.1.56.3	Billing	#1, #6
F.1.56.4	Certificate sales	#1, #6
F.1.56.5	BAR-certified EIS communications	#1, #6

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F.1.56.6	BAR-certified OIS communications	#1, #6
F.1.56.7	BAR-certified OIS software incidents	#1, #6
F.1.57	The Cal-VIS Contractor will support and monitor smog certificate ordering and sales in a manner that will facilitate the secure, traceable electronic sale and transmission of smog certificates.	#1, #6
F.1.58	The Cal-VIS Contractor is responsible for establishing and maintaining a relationship and an electronic interface with the State Bank, identified by the BAR, and shall continue to transmit to that bank on a daily basis a National Automated Clearing House Association (NACHA) file that contains all electronic smog certificate orders placed that day by authorized stations.	#1, #6
F.1.59	Contractor must provide documentation within 1 business day to BAR upon request.	#1, #6
F.1.60	The Cal-VIS Contractor will continue to monitor and reconcile all files and/or reports returned from the State Bank relative to transaction confirmation, account information accuracy and debit verification.	#1, #6
F.1.61	The Cal-VIS Contractor shall continue to transmit upon receipt of banking information, a zero sum ACH record (known as "pre-notification") to confirm the account information will be accepted, along with signed authorization.	#1, #6
F.1.62	The Cal-VIS Contractor shall continue to transmit to the BAR and/or the DCA's Accounting Unit an electronic copy of all reports generated by the State Bank.	#1, #6
F.1.63	The Cal-VIS Contractor shall be responsible for notifying the authorized station contact if an ACH application is incomplete or the zero sum NACHA record is rejected, and for working with the station to resolve the discrepancy.	#1, #6
F.1.64	The Cal-VIS Contractor shall continue to clearly set forth procedures, to be approved by BAR, to maintain BAR licensee information.	#1, #6
F.1.65	The Cal-VIS Contractor shall continue to work with BAR, and other BAR authorized entities, to facilitate the conversion of Program Areas to different Program Area status.	#1, #6
F.1.66	The Cal-VIS must provide the full functionality of the current Cal-VIS to support Referee functions.	#1, #6
F.1.67	The Cal-VIS Contractor shall provide BAR read-only access to the Invoice and Detailed Transaction reports, per station, from the Cal-VIS Services Billing System	#1, #6
F.1.68	The Cal-VIS Contractor shall provide detailed Transaction Report to customers, at no cost, upon request. The report will be provided by email, regular mail or fax. The Detail Transaction Report displays all inspection activity by date / time, specific analyzer, description of the transaction, and includes the certificate number (if one was issued). The report also must include all certificate purchases for the period as well as any charges and administrative fees.	#1, #6

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F.1.69	The Cal-VIS Contractor shall continue to design, develop, maintain and support on-line access to program data and facilitate timely, accurate generation of management and enforcement reports.	#1, #6
F.1.70	The Contractor's Data Repository solution shall continue to support, at minimum, the need for the following reports and information for Management and Program Evaluation:	#1, #6
F.1.71	The Cal-VIS will be upgraded to meet changing requirements as a result of changes due to Federal or State regulations or legislations.	#1, #6
F.1.72	The Cal-VIS Contractor will provide necessary data security controls to prevent unauthorized access.	#1, #6
F.1.73	The vendor will be responsible for maintaining compliance with any federal level regulatory or reporting requirement changes.	#1, #6
F.1.74	The Cal-VIS will keep inspection results in an active data file for a minimum of 60 months from each inspection. The Contractor shall have access to the data file to screen for previous inspection within three hundred sixty-five (365) days prior to the owner's registration deadline.	#1, #6

Appendix A - Stage 1 Business Analysis

The conditionally approved S1BA and the S1BA Scorecard begin on the following page.



Stage 1 Business Analysis

General Information

Agency or State Entity Name:

Consumer Affairs Regulatory Boards, Department of

Organization Code:

1110

Name of Proposal:

Continuity of the Smog Check Program

Proposed Start Date:

December, 2014

Department of Technology Project Number:

1110-114

Submittal Information

Submission Date:

10/21/2014

Contact First Name:

Clayton

Contact Last Name:

Leek

Contact email:

clayton.leek@dca.ca.gov

Contact Phone:

(916) 501-6436

Business Sponsor and Key Stakeholders

Executive Sponsors

Title	First Name	Last Name	Business Program Area
Chief	Patrick	Dorais	Bureau of Automotive Repair
Deputy Chief	Dennis	Hayes	Smog Check Operations - Engineering and Research Division
Manager	Clayton	Leek	Technology Services Branch
Chief Information Officer	Amy	Cox-O'Farrell	Department of Consumer Affairs

Business Owners

Title	First Name	Last Name	Business Program Area
Chief	Larry	Sherwood	Engineering and Research Branch
Manager - Equipment Certification	Paul	Hedglin	Engineering and Research Branch
Manager - Technical Support	Joe	Pedrosa	Engineering and Research Branch
Manager - Program Evaluation	Garrett	Torgerson	Engineering and Research Branch

Manager - Audits and Roadside	Michael	Lafferty	Engineering and Research Branch
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Key Stakeholders				
Title	First Name	Last Name	Business Program Area/Group	External
DMV Liaison	Frank	Briones	Department of Motor Vehicles	<input checked="" type="checkbox"/>
ARB Liaison	John	Urkov	Air Resources Board	<input checked="" type="checkbox"/>
Deputy Chief	Patty	Wohl	Licensing, Administration & Consumer Assistance Division	<input type="checkbox"/>
Deputy Chief	Dan	Povey	Field Operations & Enforcement Division	<input type="checkbox"/>
Oversight	Floyd	Layher	California Technology Agency	<input checked="" type="checkbox"/>
Project Management Office	Karamel	Jett	Department of Consumer Affairs	<input type="checkbox"/>
Procurement Lead	Nick	DeAngelis	Department of Consumer Affairs	<input type="checkbox"/>

Business Analysis	
1.1 Business Drivers	
Financial Benefit:	<input checked="" type="checkbox"/> Increased Revenues <input checked="" type="checkbox"/> Cost Savings <input type="checkbox"/> Cost Avoidance
Mandate(s):	<input checked="" type="checkbox"/> State <input checked="" type="checkbox"/> Federal
Improvement:	<input checked="" type="checkbox"/> Better services to citizens <input type="checkbox"/> Efficiencies to program operations <input type="checkbox"/> Technology refresh
1.2 Statutes or Legislation	
Statutes or Legislation:	<input type="checkbox"/> New statutes or potential legislation <input type="checkbox"/> Changes to existing legislation <input checked="" type="checkbox"/> Not Applicable
Bill Number:	<input type="text"/>
Legal Code:	<input type="text"/>
Additional Information:	See Section 1.3 for additional information on applicable Bills and Legal Codes.
1.3 Program Background and Context	
<p>Over 30 million motor vehicles are registered in California, of which 24.7 million are subject to Smog Check inspections. The California Department of Consumer Affairs (DCA), Bureau of Automotive Repair (BAR), is responsible for the administration of California's vehicle inspection and maintenance program, known as "Smog Check." Smog Check is meant to help ensure that in-use vehicles stay clean as they age. The BAR is mandated by State law to administer and enforce California's Smog Check Program. The Department of Motor Vehicles (DMV) is mandated by State law to require a certificate of compliance/non-compliance as a prerequisite to registration of vehicles.</p>	

Senate Bill 33 (Presley, Chapter 892, Statutes of 1982), amended on a number of subsequent occasions, created the California Smog Check Program. However, the inability of all state programs, including the California program, to achieve national clean air targets, led to passage of the federal Clean Air Act Amendments of 1990 and the November 1992 U.S. EPA adoption of more stringent program requirements. California responded to the new federal requirements in March 1994 when Governor Wilson signed three bills which changed the California Smog Check Program, including Assembly Bill 2018 (Katz, Chapter 27, Statutes of 1994) that mandated the creation of the Electronic Transmission (ET) System. Section 44037.1 of the Health and Safety Code, as added by AB 2018, required BAR to design and establish the equipment necessary to operate a centralized computer database and computer network that is readily accessible by all licensed Smog Check technicians on a real-time basis.

In response to the State mandate, and to DMV requests for automation of the certificate process, BAR initiated the ET Project. The ET System, including a centralized database, known as the Vehicle Information Database (VID) was implemented in mid-1996. The primary business drivers were:

1. DMV needed to create a "paperless" smog certificate to automate vehicle registration, strengthen program integrity, and reduce paper certificate handling costs.
2. BAR needed to reduce program fraud, minimize certificate sales and handling costs, and enhance efficiencies and timeliness of high-volume data processing.
3. USEPA regulation and State mandate required central database implementation and real-time access to improve communication and oversight.

The ET System enables BAR and DMV to electronically process in real-time nearly 50,000 smog certificates per day, 12.9 million annually. The ET System's remote electronic access to station performance, vehicle test records, and reporting tools removed BAR field staff ties to the office, enabling staff to conduct more on-site quality assurance inspections and enforcement activities in the field. Conversion to electronic certificates reduced program fraud that stemmed from theft or inappropriate use of paper certificates. Conversion to "paperless" smog certificates eliminated DMV's need to manually process certificates, thereby providing substantial PY cost savings. The ET System also controls and supports nearly all aspects of the California Smog Check Program, including: enforcement; certificate ordering and payment (program funding); station, technician, and equipment authorization and licensing; inspection results receipt, transmission, storage; and system access. Since the inception of the ET System, it has been hosted and maintained through a no cost to the state contract. Currently, SGS Testcom is responsible to maintain and operate the ET System and receives a fee per test directly from Smog Stations.

The ET System is extremely critical to the success of the California Smog Check Program. The ET System provides for electronic sale and issuance of certificates which account for \$91 million of BAR's annual funding. This system has evolved into the processor that facilitates and controls statewide Smog Check inspections generating more than \$940 million in annual billing for the test and repair industry. The following BAR business programs rely on the ET System to perform critical business functions.

Technology Services Branch (TSB)

The TSB is responsible for supporting technology to ensure all BAR business programs can operate successfully. The TSB is responsible for the management of ET System operations.

Engineering and Research Branch

The Engineering Branch is responsible for Smog Check Program requirements and ongoing Research and Development. Engineering and Research Branch staff are the subject matter experts that support the Smog Check Program and the Roadside Inspection Program.

Licensing, Administration & Consumer Assistance (LACA) Division

The Licensing, Administration & Consumer Assistance Division is responsible to administer the Consumer Assistance Program (CAP) and to oversee the licensing and regulation of automotive repair dealers and technicians who specialize in the inspection and repair of lamp, brake, and smog control systems.

Field Operations & Enforcement Division

The Enforcement Division mediates consumer complaints, conducts investigations, disciplines registered auto repair

dealers who fail to comply with the Automotive Repair Act or its regulations, and takes action against unlicensed individuals.

1.4 Business Problem or Opportunity Summary

The major business driver for this proposal is the pending ET System contract expiration and State law. State Administrative Manual (SAM), Chapter 5201, and Public Contract Code (PCC), Section 10301 requires that contracts to be competitively re-bid at the end of the contract term. The current contract expires 10/15/2015. Both BAR and DMV believe that the ET System must continue to operate uninterrupted. Without a contract in place, the ET System, BAR's central database and program control center will cease to function. Smog Check equipment across the state will cease to operate. If either the award of the new contract or extension of the existing contract does not occur, the State is at risk of:

1. Termination of the Smog Check Program due to the loss of \$91+ million in operating revenue
2. Financial loss to 8,000+ Smog Check stations may result in claims against the State
3. Financial loss to 12,000+ active technicians
4. Loss of additional State revenues from federal sources due to non-compliance with EPA clean air regulations
5. Waived/postponed DMV certificate requirements
6. Failure to retire high polluting vehicles
7. Third-party litigation under federal clean air act
8. Loss of consumer protection in the automotive purchase and repair marketplace
9. Deterioration in public health and the environment
10. Widespread media and political backlash

The following objectives must be achieved:

1. The Bureau of Automotive Repair needs to obtain hosting and application support services for the ET System
2. The Bureau of Automotive Repair needs to extend the existing contract to bridge the gap until hosting and application support services can be obtained

1.5 Business Problems or Opportunities and Objectives Table

ID Problems and Opportunities

- | | |
|---|--|
| 1 | Problem - Both BAR and DMV believe that the ET System must continue to operate uninterrupted. Without a contract in place, the ET System, BAR's central database and program control center will cease to function. The current contract expires 10/15/2015. |
|---|--|

ID Objective

- | | |
|-----|---|
| 1.1 | The Bureau of Automotive Repair needs to obtain hosting and application support services for the ET System. |
|-----|---|

Metric	Baseline	Target	Measurement Method
ET System Availability	.999	.999	Service Level Agreement (SLA) Reports

ID Objective

- | | |
|-----|---|
| 1.2 | The Bureau of Automotive Repair needs to extend the existing contract to bridge the gap until hosting and application support services can be obtained. |
|-----|---|

Metric	Baseline	Target	Measurement Method
ET System Availability	.999	.999	Service Level Agreement (SLA) Reports

1.6 Strategic Business Alignment	
Strategic Business Goals	Alignment
<p>Department of Consumer Affairs Mission Statement To protect consumers through effective enforcement activities and oversight of California’s licensed professionals.</p>	<p>DCA’s Mission Statement focuses on ensuring that Boards and Bureaus clearly understand their responsibility to protect consumers through effective enforcement and oversight. Continued operation of the ET System will allow BAR to protect the health and interests of California consumers by administering an effective vehicle emissions reduction program and ensuring quality automotive repair services from its licensees.</p>
<p>Bureau of Automotive Repair Mission Statement The Bureau of Automotive Repair (BAR) protects the health and interests of California consumers by administering an effective vehicle emissions reduction program and ensuring quality automotive repair services from its licensees.</p>	<p>BARs’ Mission Statement focuses on ensuring that BAR aligns with the overarching mission of DCA. Continued operation of the ET System will allow BAR to protect the health and interests of California consumers by administering an effective vehicle emissions reduction program and ensuring quality automotive repair services from its licensees.</p>
<p>BAR Strategic Plan Goal 1 - BAR communication efforts will inform, educate, and empower</p> <p>1.1 - Accelerate retirement of high-polluting vehicles through targeted program solicitation.</p>	<p>Goal 1 of BARs’ Strategic Plan focuses on ensuring consumers and licensees receive regular, clear, effective communication on all BAR programs. BAR regularly conducts industry outreach, consumer outreach, and licensee outreach to ensure all stakeholders have an opportunity to voice concerns and opinions.</p> <p>Goal 1.1 specifically addresses stakeholder outreach promoting the retirement of high polluting vehicles through targeted outreach.</p> <p>Continued operations of the ET System would allow for continued operations of the Consumer Assistance Program (CAP) and ties back to the business programs identified in Section 1.3 and the narrative in Section 1.4.</p>
<p>BAR Strategic Plan Goal 1 - BAR communication efforts will inform, educate, and empower</p> <p>1.2 - Provide online Consumer Assistance Program (CAP) application services for repair assistance and vehicle retirement</p>	<p>Goal 1 of BARs’ Strategic Plan focuses on ensuring consumers and licensees receive regular, clear, effective communication on all BAR programs. BAR regularly conducts industry outreach, consumer outreach, and licensee outreach to ensure all stakeholders have an opportunity to voice concerns and opinions.</p> <p>Goal 1.2 specifically addresses stakeholder outreach promoting the retirement of high polluting vehicles by allowing consumers to apply for CAP services online.</p> <p>Continued operation of ET System would allow consumers to continue to apply for Consumer Assistance Program (CAP) services online and ties back to the business programs identified in Section 1.3 and the narrative in Section 1.4.</p>

<p>BAR Strategic Plan Goal 2 - BAR enforcement will continue to protect consumers from illegal and unethical practices.</p> <p>2.4 - Partner with law enforcement and other agencies to identify vehicles with tampered emissions control systems, as commonly found in street racing.</p>	<p>Goal 2 of BARs' Strategic Plan aligns directly with both the DCA and BAR Mission statements. It focuses on ensuring consumers are protected from illegal and unethical practices in the automotive repair industry.</p> <p>Goal 2.4 specifically addresses ongoing efforts to work collaboratively with other agencies to ensure that vehicles with tampered emissions control systems are identified and remediated.</p> <p>Continued operation of ET System would allow BAR to continue to support this goal through the Roadside Inspection Program and the Smog Check Program which ties back to the business programs identified in Section 1.3 and the narrative in Section 1.4.</p>
<p>BAR Strategic Plan Goal 2 - BAR enforcement will continue to protect consumers from illegal and unethical practices.</p> <p>2.5 - Work with DMV and the Referee to identify and take action against counterfeit Vehicle Identification Numbers.</p>	<p>Goal 2 of BARs' Strategic Plan aligns directly with both the DCA and BAR Mission statements. It focuses on ensuring consumers are protected from illegal and unethical practices in the automotive repair industry.</p> <p>Goal 2.5 specifically addresses ongoing efforts to work toward reducing fraud in the automotive industry. Data gathered by BAR during a routine smog check can assist in the identification of counterfeit Vehicle Identification Numbers.</p> <p>Continued operation of ET System would allow BAR to continue to support this goal through the Smog Check Program which ties back to the business programs identified in Section 1.3 and the narrative in Section 1.4.</p>
<p>BAR Strategic Plan Goal 2 - BAR enforcement will continue to protect consumers from illegal and unethical practices.</p> <p>2.6 - Identify and take action against persons involved in selling and purchasing fraudulent smog certificates.</p>	<p>Goal 2 of BARs' Strategic Plan aligns directly with both the DCA and BAR Mission statements. It focuses on ensuring consumers are protected from illegal and unethical practices in the automotive repair industry.</p> <p>Goal 2.6 specifically addresses ongoing efforts to reduce fraud occurring in the Smog Check Program.</p> <p>Continued operation of ET System would allow the BAR Enforcement Division to continue to investigate and prosecute persons selling and purchasing fraudulent smog certificates which ties back to the business programs identified in Section 1.3 and the narrative in Section 1.4.</p>
<p>BAR Strategic Plan Goal 3 - BAR will continue to implement innovative strategies for achieving the emissions reduction goals of the Smog Check Program.</p>	<p>Goal 3 of BARs' Strategic Plan focuses on ensuring that innovation and industry best practices are leveraged to ensure that emission reduction goals are met and if possible exceeded.</p>

3.1 - Introduce an advanced inspection program for model-year 2000 and newer vehicles.

Goal 3.1 specifically addresses the implementation of an On-board Diagnostic (OBD) Inspection System. The BAR has successfully developed and tested the OBD Inspection System (OIS) and is in the process of deploying it statewide. As of October 2014, Over 4,000 stations are conducting OBD inspections. As of January 2015, BAR anticipates that over 70% of vehicles eligible for a smog inspection will receive an OIS test.

Continued operation of ET System would allow the Engineering and Research Branch to continue to develop innovative solutions to ensure emissions reduction goals are met. It would also allow continued operation and improvement of the OIS which ties back to the business programs identified in Section 1.3 and the narrative in Section 1.4.

BAR Strategic Plan
Goal 3 - BAR will continue to implement innovative strategies for achieving the emissions reduction goals of the Smog Check Program.

Goal 3 of BARs' Strategic Plan focuses on ensuring that innovation and industry best practices are leveraged to ensure that emission reduction goals are met and if possible exceeded.

3.2 - Evaluate and update the STAR Program to improve the quality of inspections.

Goal 3.2 specifically addresses the implementation of the STAR Program. The STAR Program is designed to improve the quality of inspections by evaluating and scoring technician and station performance.

Continued operation of ET System would allow the Engineering and Research Branch to operate and continue to improve the STAR Program which ties back to the business programs identified in Section 1.3 and the narrative in Section 1.4.

BAR Strategic Plan
Goal 3 - BAR will continue to implement innovative strategies for achieving the emissions reduction goals of the Smog Check Program.

Goal 3 of BARs' Strategic Plan focuses on ensuring that innovation and industry best practices are leveraged to ensure that emission reduction goals are met and if possible exceeded.

3.3 - Continue to collect roadside emissions data and streamline auditing procedures for program evaluation purposes.

Goal 3.3 specifically addresses the collection and analysis of data collected as part of the Roadside Testing Program. Data collected as part of this program is critical for program evaluation and auditing purposes.

Continued operation of ET System would allow the Engineering and Research Branch to operate and continue to improve the Roadside Testing Program which ties back to the business programs identified in Section 1.3 and the narrative in Section 1.4.



Gate 1 Business Analysis Criteria Scorecard

ITPOC Administrative Evaluation	
Submittal Completeness	
<input checked="" type="checkbox"/> General Information	<input checked="" type="checkbox"/> 1.3 Program Background and Context
<input checked="" type="checkbox"/> Business Sponsor and Key Stakeholders	<input checked="" type="checkbox"/> 1.4 Business Problem or Opportunity Summary
<input checked="" type="checkbox"/> 1.1 Business Drivers	<input checked="" type="checkbox"/> 1.5 Business Problem or Opportunity and Objectives Table
<input checked="" type="checkbox"/> 1.2 Statutes or Legislation	<input checked="" type="checkbox"/> 1.6 Strategic Business Alignment
Comments <div style="border: 1px solid black; height: 30px;"></div>	
ITPOC Content Evaluation	
1.3 Program Background & Context	Assessment
Have all business programs impacted by this proposal been identified?	<input checked="" type="radio"/> Meets Requirements <input type="radio"/> Deficiencies
<div style="border: 1px solid black; height: 20px;"></div>	
Has an overview of each impacted business program area been provided?	<input checked="" type="radio"/> Meets Requirements <input type="radio"/> Deficiencies
<div style="border: 1px solid black; height: 20px;"></div>	
1.4 Business Problem or Opportunity Summary	Assessment
How well has the business need, issue or problem that this proposal will address been defined?	<input checked="" type="radio"/> Meets Requirements <input type="radio"/> Deficiencies
<div style="border: 1px solid black; height: 20px;"></div>	
How well has the importance of this project been described, including why the proposal is being considered at this time?	<input checked="" type="radio"/> Meets Requirements <input type="radio"/> Deficiencies
<div style="border: 1px solid black; height: 20px;"></div>	
Have the effects and/or impact of the statutes or mandates been identified? (if applicable)	<input checked="" type="radio"/> Meets Requirements <input type="radio"/> Deficiencies
<div style="border: 1px solid black; height: 20px;"></div>	
Has the business impact of not executing the proposal been described?	<input checked="" type="radio"/> Meets Requirements <input type="radio"/> Deficiencies
<div style="border: 1px solid black; height: 20px;"></div>	
Have information security and/or privacy considerations been described, such as confidentiality, integrity and availability?	<input checked="" type="radio"/> Meets Requirements <input type="radio"/> Deficiencies
<div style="border: 1px solid black; height: 20px;"></div>	

BAR to include privacy and security consideration in the FSR.

1.5 Business Problem or Opportunity and Objectives Table	Assessment
Have the individual problems and opportunities that are expected to be met by this proposal been identified?	<input checked="" type="radio"/> Meets Requirements <input type="radio"/> Deficiencies
Have expected short-term and long-term objectives been identified? Is there one objective for each business problem or opportunity? Are they specific, measurable and realistic?	<input checked="" type="radio"/> Meets Requirements <input type="radio"/> Deficiencies
Have measurements for each objective been identified? Will the measurements adequately provide the data necessary to determine if the objectives have been met?	<input checked="" type="radio"/> Meets Requirements <input type="radio"/> Deficiencies
1.6 Strategic Business Alignment	Assessment
Has an adequate description of how the proposal will help to achieve the strategic goals been provided?	<input checked="" type="radio"/> Meets Requirements <input type="radio"/> Deficiencies
Critical Partner Evaluation	
Enterprise Architecture	Yes
Can the Business Problem or Opportunity and Objectives be validated against the Business Strategy for alignment?	<input checked="" type="checkbox"/>
Is the proposal in accordance with the organization's target (future state) enterprise architecture and enterprise roadmap (if these artifacts are available)?	<input checked="" type="checkbox"/>
Not Applicable. The future state enterprise architecture and enterprise roadmap of the DCA/BAR are not available.	
Are there any reference architectures, reusable assets, and/or shared business services in existing state-wide standards and guidance that can be included in Stage 2 Alternatives Analysis?	<input checked="" type="checkbox"/>
Not applicable. The S1BA is related to continuing an existing mission critical program.	
IT Project Oversight and Consulting Division	Yes
Does the organization have capacity to take on more projects during the proposed time period of project initiation?	<input checked="" type="checkbox"/>
Does the organization and project management infrastructure have (or appear to have) experience with similar projects and a demonstrated capability of delivering the project successfully?	<input checked="" type="checkbox"/>
Does the proposal provide any opportunity for leveraging other existing initiatives or services in	

state?	<input checked="" type="checkbox"/>
No.	
What, if any, issues and/or risks do you see that would affect the Stage 2 Alternative Analysis?	<input checked="" type="checkbox"/>
None.	
Identify which of the following goals of the California IT Strategic Plan align with this proposal. Select all that apply:	
<input type="checkbox"/> Accessible and Mobile Government	<input type="checkbox"/> Information is an Asset
<input checked="" type="checkbox"/> Leadership and Collaboration Yield Results	<input type="checkbox"/> Capable Information Technology Workforce
<input type="checkbox"/> Efficient, Consolidated, and Reliable Infrastructure and Services	
California Information Security Office	Yes
Are there any privacy or confidentiality laws or regulations which will require a Privacy Impact Assessment?	<input checked="" type="checkbox"/>
None stated.	
Have any information security and or privacy program requirements (SAM Section 5100, and SAM Chapter 5300) not been addressed, or require significant program remediation?	<input checked="" type="checkbox"/>
None stated.	
Customer Delivery Division	Yes
Is there any opportunity to leverage Data Center Services?	<input checked="" type="checkbox"/>
Potentially. BAR should investigate OTech hosting solutions.	
Office of Geospatial Information Systems	Yes
Is there any opportunity to leverage Geospatial Information Systems?	<input checked="" type="checkbox"/>
N/A	
Is there an opportunity to leverage existing GIS infrastructure and services?	<input checked="" type="checkbox"/>
N/A	
Gate 1 Exit Criteria	
Criteria	Comment
Enterprise Architecture has reviewed <input checked="" type="checkbox"/>	Business case in FSR will require additional details to clarify how the BAR business programs interact with
IT Project Oversight and Consulting Division has <input checked="" type="checkbox"/>	

reviewed and approved		the ET System and the role of the Air Resources Board in the Smog Check Program. Recommend the FSR business case include these additional details.
California Information Security Office has reviewed	<input checked="" type="checkbox"/>	
Customer Delivery Division has reviewed	<input checked="" type="checkbox"/>	OTech has several hosting service options available that may be appropriate for the ET System. Recommend BAR explore possible hosting options with OTech.
Office of Geospatial Information Systems has reviewed	<input checked="" type="checkbox"/>	
Business Analysis deliverable is acceptable	<input checked="" type="checkbox"/>	
Approval of the proposal(based on what is known at this stage) is highly probable	<input checked="" type="checkbox"/>	

California Department of Technology Decision

Assessment

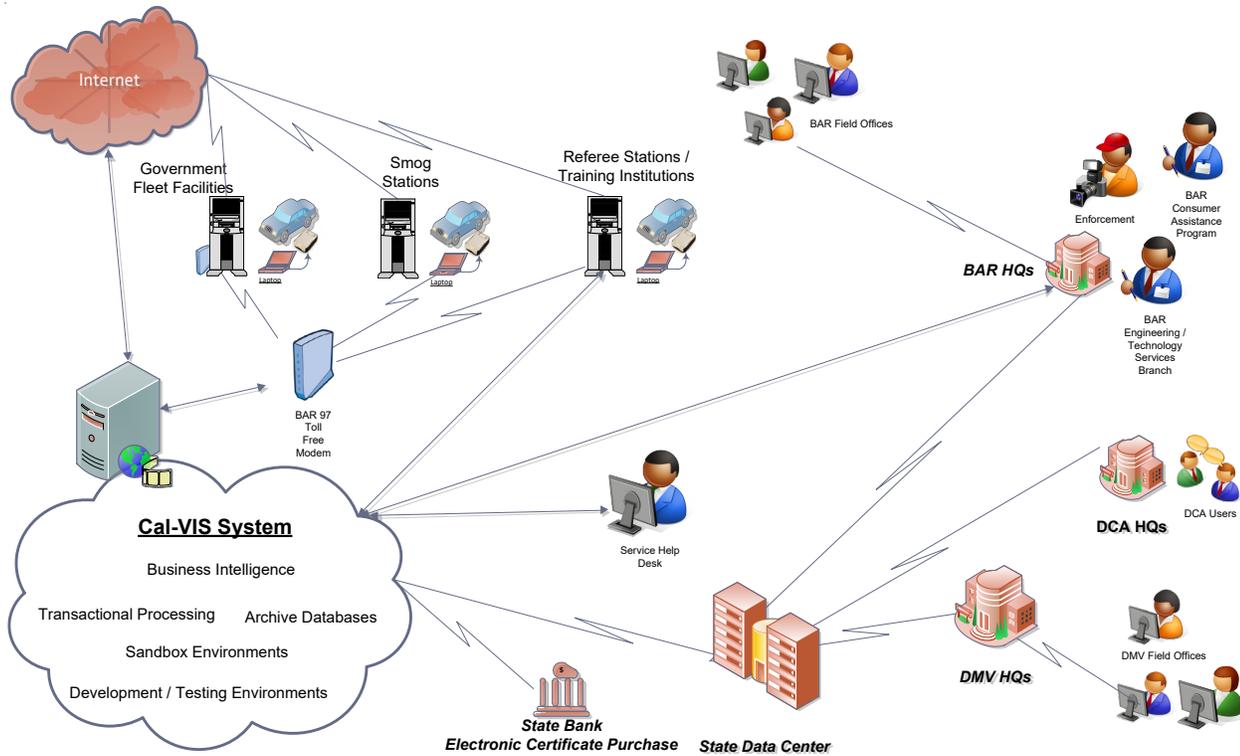
- Approved
 Not Approved
 Approved with conditions
 Withdrawn

Explanation

The California Department of Technology has completed the review of the Stage 1 Business Analysis for the Continuity of the Smog Check Program. The Bureau of Automotive Repair is approved to begin the work on a feasibility study, the next step of the Project Approval Process, with the following conditions:

1. The Program Background and Context narrative must be refined to further clarify how the BAR business programs interact with the ET System and the role of the Air Resources Board in the Smog Check Program.
2. BAR must consult with OTech on the feasibility of hosting the ET System and include this as an option in the alternatives analysis.
3. Revise the proposal start date to reflect when project work will begin following the anticipated approval date of the FSR.

Appendix B - Cal-VIS Interfaces Summary



Appendix C - Complexity Assessment

Business Complexity

Instructions: On a scale of .5 - low to 4-high (0 = N/A), rate each applicable attribute and compute the Business Complexity by dividing the total by the number of items rated above zero. [Notes: Business and technical complexity will be computed automatically in this worksheet, using the ratings you enter. Move your pointer over each attribute cell, marked with a red triangle, to see a definition of the attribute.]

Low Complexity		Business Attribute	High Complexity	Rating	
0	1	2	3		
		Static	Business rules	Changing	0.5
		Static	Current Business Systems	Changing	0.5
		Known and Followed	Decision Making Process	Not Known	0.5
		Low	Financial Risk to State	High	0.5
		Local	Geography	State Wide	2
		Clear and Stable	High Level Requirements	Vague	2
		Few & Routine	Interaction with Other Departments and Entities	Many and New	0.5
		None	Impact to Business Process	High	1
		Few & Straight Forward	Issues	Multiple & Contentious	1
		High	Level of Authority	Low	0.5
		Clear	Objectives	Vague	0.5
		Established	Policies	Non-existent	0.5
		Minimal	Politics	High	0.5
		Familiar	Target Users	Unfamiliar	0.5
		Experienced	Project Manager's Experience	Inexperienced	0
		Experienced	Team	Inexperienced	0.5
		Loose	Time Scale	Tight	1
		Low	Visibility	High	1
				Total:	13.5
				Complexity:	0.8

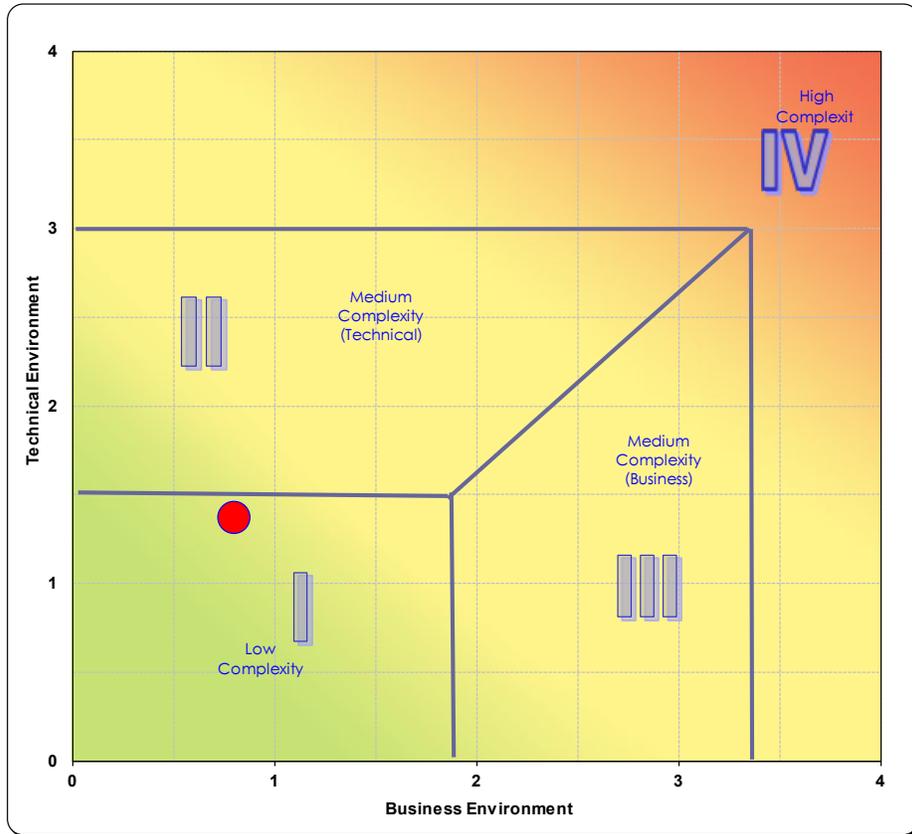
Technical Complexity

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	State wide	0
Established		Delivery Mechanism	New	0
Local		Geography	State wide	2
Proven		Hardware	New	1
Stand-alone		Level Of Integration	Tightly Integrated	1
Proven/Stable		Networks (L/W)	New	0
In place		New Technology Architecture	Not in place	1
9-5, Mon-Fri		Operations	24-hour, 7-day	4
Expert		PM Technical Experience	Novice	0
Established and in use		Scope Management Process	None	1
Light		Security	Tight	1.5
Proven		Software	New	1
Established and In Use		Standards And Methods	None	0.5
Experienced		Team	Inexperienced	0.5
High		Tolerance To Fault	Low	1
Low		Transaction Volume	High	2
			Total:	16.5
			Complexity:	1.4

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	<input type="text" value="0.8"/>
	Technical Complexity	<input type="text" value="1.4"/>

Suggested Project Manager Skill Set Guidelines

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

PM Level: 2

Experience: 3 – 5 years as a key team member on a medium or large IT project or as a Project Manager on small or medium IT project. Technical experience commensurate with the proposed technology.

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

Feasibility Study Report

Glossary

This glossary includes of acronyms and key terms used in this FSR.

ACRONYM	DEFINITION
ADM	Application Development Methodologies
AIMS	Agency Information Management Strategy
ANI	Automatic Number Identification
API	Application Program Interfaces
AQE	Air Quality Engineer
ARB	Air Resource Board
ARD	Automotive Repair Dealer
BAR	Bureau of Automotive Repair
BCP	Budget Control Proposal
BI	Business Intelligence
Cal-VIS	California Vehicle Inspection System
Cal-VISTA	California Vehicle Inspection System TrAnsitioN
CAP	Consumer Assistance Program
CA-PMM	California Project Management Methodology
CEA	Career Executive Assignment
CIC	Consumer Information Center
CMAS	California Multiple Award Schedule
CMR	Change Management Requests
COTS	Commercial Off The Shelf
DBMS	Database Management Software
DCA	Department of Consumer Affairs
DGS	Department of General Services
DHCP	Dynamic Host Configuration Protocol
DMV	Department of Motor Vehicles
DNS	Domain Name System

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DPM	Data Processing Manager
DR	Disaster Recovery
DVBE	Disabled Veteran Business Enterprise
EIS	Emissions Inspection System
EPA	Environmental Protection Agency
EPS	DCA Enterprise Project Services
ETL	Extract Transform Load
ETS Environment	Emission Testing System Environment
FSR	Feasibility Study Report
FTP	File Transfer Protocol
HA	High Availability
HTTP	Hypertext Transfer Protocol
HTTPS	Secure Hypertext Transfer Protocol
IAA	Interagency Agreement
I&M	Inspection and Maintenance
ISA	Senior Information Systems Analyst
IT	Information Technology
ITPL	IT Policy Letter
ITPOC	IT Project Oversight and Consulting Division
IV&V	Independent Verification and Validation
LAN	Local Area Network
MOTS	Modified Off The Shelf
MPLS	Multiprotocol Label Switching
MSA	Master Services Agreement
NAM	Novell Account Management
NCB	Non-competitive bid
OBD	On-board Diagnostic

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OBD DAD	On-board Diagnostic Data Acquisition Device
ODBC	Open Database Connectivity
OIS	OBD Inspection System
OTech	Office of Technology Services
PIER	Post Implementation Evaluation Report
PIV	Post Implementation Validation
PMBOK	Project Management Body of Knowledge
PMO	Project Management Office
PMP	Project Management Plan
PMM	Project Management Methodology
PRA	Public Records Act
PY	Personnel Year
RAC	Real Application Clusters
RFP	Request for Proposal
S1BA	Stage One Business Analysis
SAM	State Administrative Manual
SAN	Storage Area Network
SB	Small Business
SCCM	Microsoft System Center Configuration Manager
SGS	SGS Testcom
SIMM	State Information Management Manual
SLA	Service Level Agreement
SIP	State Implementation Plan
SNMP	Simple Network Management Protocol
SOW	Statement of Work
STPD	State Technology Procurement Division
SVN	Subversion

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TLs	Technology Letters
TMS	Tenant Managed Services
UAT	User Acceptance Test (UAT)
VID	Vehicle Information Database
VIN	Vehicle Information Numbers
VIS	Vehicle Inspection System
WAN	Wide Area Network
WBS	Work Breakdown Structure

TERM	DEFINITION
Automatic Number Identification (ANI)	Technology used to identify the phone number from which the call originated.
BAR Applications	Applications developed, maintained, and owned exclusively by BAR that currently reside on BAR servers that interact with tables currently located on the VID.
BAR Emissions Inspection System (EIS)	A BAR-certified emissions analyzer. The BAR EIS is capable of performing 4-gas, static-state emissions testing, as well as, an Acceleration Simulation Mode 5-gas vehicle emissions test. The EIS components include a dynamometer and allows for the measurement of NOx, as well as HC, CO, CO2, and O2.
BAR OBD Inspection System (OIS)	A BAR-certified analyzer comprised of a computer, printer, bar-code scanner, and a certified On-board Diagnostic Data Acquisition Device (OBD DAD).
California Vehicle Inspection System (Cal-VIS)	The core system including network, infrastructure, database and applications that support the California Smog Check Program. This system was originally known as the Electronic Transmission (ET) System and later as the Next Generation Electronic Transmission (NGET) System.
Cal-VIS Contractor	The primary Contractor selected to establish and operate the Cal-VIS for the State of California.
Consumer Assistance Program (CAP)	The BAR program that provides financial assistance enabling consumers to complete the biennial Smog Check requirement or retire the vehicle.
Inspection and Maintenance (I&M)	Automotive inspection programs, administered by a government entity, in which a vehicle is inspected and, if the emissions exceed

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	program standards, the vehicle must be repaired and re-tested.
On-board Diagnostic Data Acquisition Device (OBD DAD)	A device that has been certified by BAR and that when integrated with the OIS is capable of collecting and reporting data from 1996 and newer vehicles in accordance with BARs specification.
Smog Certificate	An electronic certificate issued by a VIS and used by the DMV to satisfy a smog requirement associated with the vehicle registration process.
STAR	The BAR program that evaluates and reports Station and Technician performance.
User Acceptance Testing	Tests performed which are intended to determine compliance of Equipment and Software with the requirements.
Vehicle Inspection System (VIS)	A term inclusive all vehicle inspection systems including the BAR EIS and the BAR OIS.