



# Stage 2 Preliminary Assessment

Department of Technology, SIMM 19B, Revision 7/1/2015

## 2.1 General Information

Agency or State Entity Name:

Motor Vehicles, Department of

Organization Code:

2740

Proposal Name:

Front End Applications Sustainability

Department of Technology Project Number:

2740-218

## 2.2 Preliminary Submittal Information

Contact Information:

Contact First Name:

Brian

Contact Last Name:

Wong

Contact Email:

brian.wong@dmv.ca.gov

Contact Phone Number:

(916) 657-8319

Preliminary Submission Date:

9/20/2016

Preliminary Project Approval Executive Transmittal:

File Attachment

## 2.3 Stage 2 Preliminary Assessment

### 2.3.1 Impact Assessment

Yes No

1. Has the Agency/state entity identified and committed subject matter experts from all business sponsors and key stakeholders?

2. Are all current baseline systems that will be impacted by this proposal documented and current (e.g., data classification and data exchange agreements, privacy impact assessments, design documents, data flow diagram, data dictionary, application code, architecture descriptions)?

3. Does the Agency/state entity anticipate needing support from the Department of Technology's Statewide Technology Procurement Division to conduct market research for this proposal (Market Survey, Request for Information)?

4. Does the Agency/state entity anticipate submitting a budget request to support the procurement activities of this proposal?

5. Could this proposal involve the development and/or purchase of systems to support activities included in Financial Information System for California (FISCAL) (e.g., financial accounting, asset management, human resources, procurement/ordering, inventory management, facilities management)?

6. Does the Agency/state entity have a designated Chief Architect or Enterprise Architect to lead the development of baseline and alternative solutions architecture descriptions?
7. Will the Agency/state entity's Information Security Officer be involved in the development and review of any security related requirements?
8. Does the Agency/state anticipate performing a business-based procurement to have vendors propose a solution?

### 2.3.2 Business Complexity Assessment

Business Complexity:  Business Complexity Zone:  High  Medium  Low

## Stage 2 Alternative Analysis

### 2.4 Submittal Information

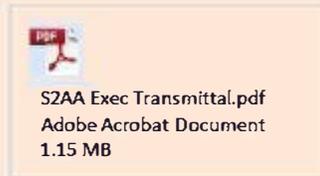
Contact Information: (Use Contact Information from Preliminary Submittal Information )

<b>Contact First Name:</b>	<b>Contact Last Name:</b>
<input type="text" value="Jerry"/>	<input type="text" value="Henson"/>
<b>Contact Email:</b>	<b>Contact Phone Number:</b>
<input type="text" value="jerry.henson@dmv.ca.gov"/>	<input type="text" value="(916) 657-1995"/>
<b>Submission Date:</b>	
<input type="text" value="12/20/2017"/>	

**Submission Type:**

- New Submission  Updated Submission (Post-Approval)
- Updated Submission (Pre-Approval)  Withdraw Submission

**Project Approval Executive Transmittal:**



**Condition(s) from Previous Stage(s):**

<b>Condition #</b>	<input type="text"/>
<b>Condition Category</b>	<input type="text"/>
<b>Condition Sub-Category</b>	<input type="text"/>
<b>Condition</b>	<input type="text"/>
<b>Assessment</b>	<input type="text" value="Select or type..."/>
<b>Agency/state Entity Response</b>	<input type="text"/>
<b>Status</b>	<input type="text" value="Select or type..."/>

### 2.5 Baseline Processes and Systems

## 2.5.1 Description

The Department of Motor Vehicles (DMV) is responsible for the provisions of the California Vehicle Code (CVC), Code of Regulations, and policies that relate to ownership, issuance of title, licensing, and registration of vehicles, trailers and vessels. Pursuant to that responsibility, DMV registers and titles more than 32 million registered vehicles in the state, as well over 800,000 vessels. In addition to annual renewal of vehicles and biennial renewal for vessels, the department processes more than 5 million transfers of ownership and more than 3 million initial (original) applications for registration and titling. These transactions are conducted in the DMV Automation (DMVA) system which is the subject of this report.

### **Key Business Processes**

#### **1. Vehicle Registration (VR)**

Key business processes relating to the vehicle registration program include:

- Vehicle and vessel registration and titling
- Revenue to State and Local Governments
- Compliance with Federal, State and Local Mandates
- Financial Responsibility (Insurance), Safety Recalls, and Tax Compliance
- Special Plate Programs
- Collection of Delinquent Accounts, Unpaid Parking/Toll Violations, Dishonored Checks/Credit Card Payments
- Collection and distribution of fees for both VR and Driver License programs through the Control Cashier process

The DMV is also responsible for the provisions of CVC, Code of Regulations, and policies that pertain to occupations and industries related to vehicles. For example, DMV issues more than 68,000 motor carrier permits annually.

#### **2. Business Partners**

DMVA also serves as the primary interface for participants in the Business Partner Automation (BPA) program. These are licensed entities authorized to act in place of the department for select VR transactions. BPA benefits DMV and its customer base by diverting approximately 4.2 million transactions annually from DMV field offices. BPA participants pay a \$4 transaction fee for each completed registration transaction, currently generating \$20 million in annual revenue for the Motor Vehicle Account.

#### **3. Occupational Licensing**

Key business processes relating to the occupational licensing programs include:

- Licensing and regulating
- Manufacturers of vehicles
- Vehicle dealers and salespersons
- Registration services
- Vehicle transporters
- Dismantlers
- Driving schools and instructors
- Traffic schools and instructors;
- Investigating consumer complaints relating to individuals and organizations involved in motor vehicle industries; and,
- Initiating administrative and legal remedial actions against non-compliant individuals and organizations in motor vehicle industries.

#### **4. Control Cashiering (CC)- Accounting**

DMV collects over \$8 billion in fees annually, which includes all revenue received through the field offices, self-service kiosks, renewal transactions by mail, Internet payments, Franchise Tax Board receipts, Business Partners (BPs), and Auto Clubs (e.g. AAA). The majority of the fees are collected through the issuance and renewal of vehicle registrations. Approximately 86 percent of the funds DMV collects are distributed to local governments, law enforcement, and a wide variety of state agencies. Administration of the programs and processes to manage

the workload associated with the collection and distribution of funds relies primarily on the DMVA system that supports them. A significant portion of the fees DMV collects is dependent on DMVA systems for accurate accounting.

**Key Systems Impacted**

The above referenced Business processes are supported by the impacted DMVA Vehicle Registration and Control Cashier (VR/CC) system currently running on [REDACTED] throughout the State. [REDACTED]

The DMVA system is [REDACTED]

**2.5.2 Business Process Workflow**



2740218 Business Process Workflow v4.pdf  
Adobe Acrobat Document  
305 KB

**2.5.3 Current Architecture Information**

**Business Function/Process(es)**

Vehicle Registration

Occupational Licensing (OL)

Control Cashiering

**Application, System or Component:**

DMVA System

**COTS, MOTs or Custom:**

Custom Application

**Name/Primary**

**Technology:**

**Runtime Environment**

**Cloud Computing Used?**

Yes  No

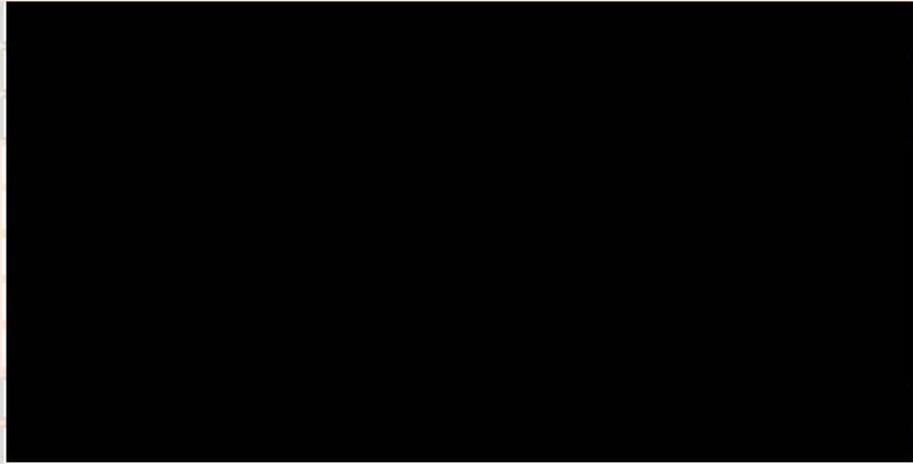
If "Yes", Specify: Select...

Server/Device Function:

Hardware:

Operating System:

System Software:



System Interfaces:

Data Center Location:

### Security

Access:

(check all that apply)

Public  Internal State Staff  External State Staff

Other, specify:

Type of Information:

(check all that apply)

Personal  Health  Tax  Financial  Legal  Confidential

Other, specify:

Protective Measures:

(check all that apply)

Technical Security  Identity Authorization and Authentication

Physical Security  Backup and Recovery

Other, specify:

### Data Management

Data Owner

Name:

Title:

Business Program:

Data Custodian

Name:

Title:

Business Program:

## 2.5.4 Current Architecture Diagram



2740 218 Current Architecture.pdf  
Adobe Acrobat Document  
59.8 KB

## 2.5.5 Security Categorization Impact Table



2740 218 Security Categorization.pdf  
Adobe Acrobat Document  
103 KB

## SECURITY CATEGORIZATION IMPACT TABLE SUMMARY

SECURITY

OBJECTIVE	LOW	MODERATE	HIGH
Confidentiality	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Integrity	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Availability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

## 2.6 Mid-Level Solution Requirements

Requirements:



2740-218 FES  
Midlevel\_Requirements  
v4.xlsm  
Microsoft Excel Macro-  
Enabled Worksheet  
297 KB

## 2.7 Assumptions and Constraints

Assumptions/Constraints	Description/Potential Impact
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
The project budget will be approved	Without an approved budget, the project will not be able to proceed.
DMV will work with the California Department of Technology (CDT) and the Department of Finance (DOF) to ensure that funding will be available, as planned, throughout the project's life.	The project will be conducted as a partnership with CDT and DOF whose support is required for the project to be successful.

<p>Program requirements will not change substantially during project implementation.</p>	<p>Although it is not anticipated, a substantial change in the program requirements may significantly change the scope of the project which could lead to project cost overruns and schedule slippages.</p>
<p>Higher priority issues will not impact the schedule or resource needs.</p>	<p>A key to the success of the project dictates that key DMV resources are available for the project. Their absence from the project could lead to project cost overruns and schedule slippages.</p>
<p>Executive sponsorship will continue through project completion.</p>	<p>Constant support from executive sponsorship will ensure resources are continuously available for the project.</p>
<p>The CDT/DOF will review and approve the project.</p>	<p>The control agencies support is necessary to start the project and will ensure external influences will not impact the successful completion of the project</p>
<p>DMV will adopt Agile methodology to streamline the project schedule and delivery.</p>	<p>The Systems Integrator staff must be highly trained in agile methodology. In addition, with the assistance of an Agile Coach, DMV will need to establish a process and a training program to support the adoption of agile.</p>
<p>Qualified DMV program and technical staff will be available to participate, as needed, during the sprints.</p>	<p>The project will not be successful if key program and technical staff are not committed to the successful completion of the project.</p>
<p>The Systems Integrator staff will be highly trained in agile development and will assist DMV personnel by integrating knowledge transfer into project operations.</p>	<p>Knowledge transfer is a key component to ensuring a successful transition to DMV staff maintaining the system.</p>
<p>Suppliers, vendors, consultants, and State staff will perform their assignments related to the project in a competent and timely manner.</p>	<p>Delays by any of the project partners could adversely impact the project schedule.</p>
<p>Issues will be resolved and risks mitigated on a timely basis.</p>	<p>Issues and risks that are not addressed in a timely basis could impact the project scope, budget and/or schedule.</p>
<p>The proposed solution shall maintain the ability to process the transactions from business partners' systems and have minimal impact to BPs.</p>	<p>The solution shall maintain the ability to process the transactions from Business Partners' systems through American Association of Motor Vehicle Administrators (AAMVA) net (UNI) and Web Services. The solution shall not require changes in business partners' systems, and require minimal training for BP technicians.</p>
<p>The solution shall maintain the ability to provide Auto Clubs front-end applications to process transactions and have minimum impact to Auto Clubs</p>	<p>The solution shall maintain the ability to provide ACs front-end applications to process transactions, and require minimal training to AC technicians.</p>
<p>The recommendations outlined in the ITM Assessment will be reviewed and considered</p>	<p>An independent assessment was performed on the ITM project and recommendations were made on how the DMV can improve its ability to successfully complete large projects and recommendations on how the DMV can move forward with its</p>

The GeoTAX solution used for calculating local tax, and the National Motor Vehicle Title Information System (NMVTIS) query solution for vehicle history and title information will be implemented prior to this effort.

modernization efforts.

The solution for this effort is only required to interface with pre-existing GeoTax and NMVTIS solutions.

## 2.8 Dependencies

Element	Description
Development tools	Develop a standard for the development tools that the vendors will use during the project. This will ensure that the transition of the technologies is consistent with the DMV knowledge and skills for the ongoing system maintenance and operations once the project is completed.
Testing strategy	The testing strategy will serve as a guide to how we verify the major aspects of the replacement of DMVA shall be developed.
Preparing environments	The environments for the development, integration testing (IT), system testing (ST), user acceptance testing (UAT), and training will need to be setup and configured. The development and IT would need to be available before the vendor can start the design and analysis phases of the project. ST and UAT would need to be established before testing can begin. Additionally, the training environment will need to be established to allow curriculum development in order to train the users.
Requirements and related artifacts	Gathering and producing the requirements and other artifacts needed for Agile software development is essential in building and testing the DMVA replacement system.

## 2.9 Market Research

### 2.9.1 Market Research Methodologies/Timeframes

Methodologies used to perform market research (check all that apply):

- |                                                                                                               |                                                          |
|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> Request for Information (RFI)                                                        | <input type="checkbox"/> Trade shows                     |
| <input checked="" type="checkbox"/> Internet Research                                                         | <input checked="" type="checkbox"/> Published Literature |
| <input checked="" type="checkbox"/> Vendor Forums/Presentation                                                | <input type="checkbox"/> Leveraged Agreements            |
| <input checked="" type="checkbox"/> Collaboration with other Agencies/state entities or governmental entities | <input checked="" type="checkbox"/> Other, specify:      |

Survey in AAMVA

Time spent conducting market research:

Over 1 Year

Date market research was started:

5/3/2016

Date all market research was completed:

6/23/2017

### 2.9.2 Results of Market Research

The DMV used several different methodologies to perform the market research. DMV officially started the market research on May 3, 2016, but the actual market research effort tracked back to the fall 2014. Business sponsors, key stakeholders, business analysts and technical staff were involved in the market research and analysis of results.

### **Market Research Methodologies and Activities**

#### **1. Collaboration with other Agencies/state entities, governmental entities, and non-profit organization**

The DMV developed and published a System Reengineering and Replacement Survey with AAMVA for jurisdictions to complete in May of 2016. AAMVA is a nonprofit organization representing the state officials in the United States who administer and enforce motor vehicle laws. The department received responses from 26 out of 36 jurisdictions indicating they have undertaken a major system reengineering or replacement technology project in the past 10 years involving system changes in vehicle registration processing, revenue cashing and allocation, dealer or registration/tag agent licensing. DMV selected thirteen states from two solution categories – Commercial off-the-shelf (COTS)/ Modified off-the-shelf (MOTS), and custom development to complete a follow-up survey, but received no response. DMV then selected three states to meet with via tele-conference: two states from COTS/MOTS solution category, which are using two different major COTS/MOTS solutions in the market; and one state from custom solution category. A small work group met with representatives from each state to complete the follow-up survey questions.

#### **2. Internet Research**

The department has conducted internet research on technologies and the movement in DMV system modernization in the other states. We also studied numerous publicly available procurement documents of other states on DMV system modernization.

#### **3. Vendor Forums/Presentation**

Fast Enterprise and Tech Mahindra made presentations regarding their COTS DMV system solutions. The implementation strategies were discussed during the meeting. The products have great functionalities and usability. The department has also discovered the followings:

- a. The business process and workflow in the COTS solutions are quite different from the department's current business processes and workflow. If the department chooses a COTS solution, it needs to document the existing business processes and requirements in details, and conduct gap analysis. For the difference of each business process or requirement, the department has to make a decision on either customizing the COTS product to meet our requirement, or re-engineering our business process.
- b. Data cleansing and migration is needed to adopt the COTS solution.
- c. The incremental deployment with phased approach will help alleviate the impact and risk in certain level, but the overall risk and magnitude of impact are huge.
- d. All the internal and external applications/systems conducting certain functions of VR and Revenue cashing/distribution or interfacing with current VR and CC system need to be assessed and handled—retired, replaced, or migrated to the COTS solution.

#### **4. Published Literature**

The department studied the System Modernization Best Practices document published by AAMVA's System Modernization Working Group in May 2017. This document drew on the expertise in motor vehicle agencies and industry. It provides a roadmap to assist those in or about to begin their modernization journey. Below are some key points from the document:

- a. System modernization projects require commitment at every level of government and necessitate a significant investment in time, money, and resources.
- b. There is no one-size-fits-all solution. Take the time to research out other jurisdictions who have system modernization experience.
- c. System modernization program efforts include multiple projects, each supporting an element of the vision. Separate efforts may include a data cleansing project, a BPR project, and an infrastructure modernization project, to name a few.

Data cleansing efforts, inherently tied to data migration, should be considered similar in size to the modernization effort.

Here are the findings based on the information collected from survey, Internet research, and outreach.

Table 1 shows the DMV system modernization status of the top 10 states in the past 10 years.

	State Motor-Vehicles Registration Total (2015)	Population (2016)	Modernization Status and Solution
California	29,424,012	39,250,017	Under project approval life cycle
Texas	21,864,841	27,862,596	Custom Solution
Florida	16,105,008	20,612,439	Custom Solution
New York	10,638,765	19,745,289	Issued System Modernization Request for Information (RFI) on 6/12/17
Pennsylvania	10,598,694	12,784,227	Custom Solution
Illinois	10,595,254	12,801,539	NO
Ohio	10,438,591	11,614,373	Custom Solution
Michigan	8,294,108	9,928,300	Custom Solution, contract terminated
Georgia	8,137,621	10,310,371	Under procurement

Table 2 shows 11 states that selected COTS/MOTS solution for vehicle registration processing, revenue cashiering and allocation.

Table 2. States Using COTS/MOTS Solution in DMV System Modernization in the Past 10 Years\*

	State Motor- Vehicles Registration Total (2015)	Population (2016)	Vendor
Washington	6,725,467	7,288,000	Fast Enterprises
Colorado	5,005,172	5,540,545	Fast Enterprises
Connecticut	2,841,764	3,576,452	3M*
Oklahoma	2,988,512	3,923,561	Fast Enterprises
Nevada	2,316,056	2,940,058	Tech Mahindra
Kansas	2,634,856	2,907,289	3M*
Arkansas	2,772,214	2,988,248	Fast Enterprises
Utah	2,229,193	3,051,217	Fast Enterprises
Mississippi	2,068,853	2,988,726	Fast Enterprises
New Mexico	1,823,445	2,081,015	Fast Enterprises
New Hampshire	1,296,137	1,334,795	Tech Mahindra

\*3M's contract with Connecticut was terminated, and the project with Kansas reported a schedule delay.

**Table 3 shows brief information of the three states selected for follow-up.**

	<b>Solution Type</b>	<b>Vendor</b>	<b>Core Business Function Supported</b>	<b>Details of Solution</b>
<b>Washington</b>	COTS/MOTS	Fast Enterprises	VR, DL, and Revenue cashiering and allocation.	Based on N-tier Architecture and Microsoft technologies: .NET, SQL Server and Windows Server.
<b>Nevada</b>	COTS/MOTS	Tech Mahindra	VR, DL, Revenue cashiering and allocation.	Based on COTS Motor Vehicle Enterprise Solution (MOVES) platform, core technologies are Oracle/Siebel/CRM/LINUX.
<b>Texas</b>	Custom Development	Deloitte	Vehicle registration titling, permits, and Revenue cashiering and allocation.	No new business functions. Refactoring both Front-end and back-end from client/server technology, ADABAS, and Natural to Java and DB2.

***Texas Department of Transportation***

Texas is the second largest state in United States. The Texas Department of Transportation (DOT) is responsible for the initial registration, renewal registration and vehicle title transfers for Texas citizens. The Texas Department of Public Safety (DPS) issues and renews driver licenses and ID cards.

In 2013, Texas DOT began a "refactoring" project with custom development to modernize the Registration and Titling System (RTS) by converting the system from Natural and ADABAS to Java and DB2 without adding new business functions, along with transitioning the RTS from a mainframe to a more modern platform. The vendor is Deloitte. This project targets to complete by December 2018. The total project cost is \$71 million, in which \$62 million is contract/consultant services costs. The project has two phases:

1. Focus on the front-end, and implement front-end web client using jobs
2. Covert and deploy the back-end all at the same time

***Nevada Department of Motor Vehicles***

Nevada ranked 37<sup>th</sup> in the state population in 2016. The Nevada DMV's System Modernization Project will replace the existing and aging Common Business Oriented Language (COBOL) mainframe and PowerBuilder applications running on disparate platforms with an integrated application that runs on a consolidated platform. The modernized solution provides services to support the following key business functions: Titling, Registration, Drivers Licensing, Permits, International Registration Plan (IRP), International Fuel Tax Agreement (IFTA), Occupational and Business Licensing, Financials and Inventory. The selected solution for Nevada DMV System is a MOTS solution based on Tech Mahindra's Motor Vehicle Enterprise Solution (MOVES) on Oracle COTS platform with the core components of Siebel Custom Relationship Management (CRM), Business Process Management and Oracle database. This solution is based on high-end and specially engineered server hardware from Oracle. The total project implementation cost is \$98 million (not including state staff, miscellaneous and facility operation cost), in which \$28 million is data cleansing/migration cost, and \$55 million is the development cost to vendor Tech Mahindra, and \$15 million for agency infrastructure.

The project started in July 2015, and is estimated to take approximately five years. The system will be implemented and deployed in 3 phases:

1. Occupational and Business Licensing, Financials and Inventory, and data conversion of all customer data
2. Vehicle Registration and titling, IRP
3. Driver's License, Audit

***Washington Department of Licensing***

Washington ranked 15<sup>th</sup> in the state population in 2016. The Washington Department of Licensing (DOL) awarded contract to Fast Enterprises, LLC (FAST) through sole-source procurement in January 2015. FAST will provide its COTS FastDS-VS software and associated support services, including legacy-data conversion, software configuration, user training, and system testing. The Washington DOL will use FastDS-VS to manage vehicle titling and registration as well as driver and professional licensing programs

This project has a two-year process for the data migration. It has two phases, and both phases include Business Process Re-engineering (BPR):

1. Implement the vehicle titling and registration business function. This phase replaces 50 applications and 100+ database programs related to vehicle registration.
2. Implement the driver license business function. This phase replaces 100 applications and 100+ database related to driver license.

#### Summary of Findings from Market Research

California is the largest state in the United States, with a population of 39 million and 29 million registered motor vehicles. The top 10 states that have undertaken system reengineering or replacement effort in the past 10 years are all using a custom solution. Research has shown, the bigger states tend to improve the current system by upgrading it to a more-modern technology platform. Some states, such as Texas, choose to do refactoring – a relatively smaller upgrade (but the project is not small, with the price tag of \$71 million). The complexity of the DMV system, the Vehicle Laws and Regulations tend to be comparable to the number of registered vehicles and the size of state population. The bigger the state, the more complex the DMV system, and the bigger impact and risk of system modernization.

There is increasing interest and adoption in COTS/MOTS products. Table 2 shows that Fast Enterprises' DMV system has the most adoption of all COTS/MOTS solutions in all states; however, these states are much smaller in population compared to California. As of June 2017, Washington is the biggest state to implement Fast Enterprise's Fast D S-VS system. Washington has 6 million motor-vehicle registration and 7 million population - about one fifth of California's number. California DMV has not been able to find a real-world successful case of a COTS/MOTS DMV system adoption in a state comparable to the size of California.

One of the key things learned from the market research is that there is no one-size-fits-all solution. Each state chooses a solution that best fit their needs and unique situation, and implements it in a phased approach - generally two to three phases. The breakdown of phases is also unique in each state, with the consideration of the logical components, services supported, risk, and overhead. DMV plans to incorporate what was learned into the project planning, requirement generation, solution analysis, and procurement strategy.

## 2.10 Alternative Solutions

### 2.10.1 Solution Type

Recommended  Alternative

### 2.10.2 Name

Technology Upgrade for Sustainability

### 2.10.3 Description

The proposed solution uses an incremental approach to upgrade the DMVA VR/CC front-end systems by migrating the user interface platforms to EASE, a centralized, [REDACTED] currently used by DL front-end application.

DMV is planning to adopt an agile methodology to streamline the project schedule and delivery. Some of the benefits of using the Agile methodology are:

- earlier and continuous delivery of product;
- deliver value to the customer sooner;
- determine viability of the vendor earlier; and

- facilitate better team work, collaboration, and communication which will result in a higher quality in the development teams.

Additionally, DMV will have the Agile framework in place for future DMV projects, enabling DMV to deliver IT projects with greater customer satisfaction.

The proposed solution will upgrade and deploy the system in two phases based on the impacted business functions and users. Phase One will upgrade the BPA. Phase Two will upgrade Auto clubs, field offices and headquarters. This alternative satisfies all of the business functional requirements and objectives set forth in the Stage 2 Alternative Analysis. Additionally, the proposed solution best meets the need to modernize the BPA and DMVA VR/CC systems while minimizing the risk of disruption to external business partners and field office operations.

**Approach** (check all that apply)

- Increase staff - new or existing capabilities
- Modify the existing business process or create a new business process
- Reduce the services or level of services provided
- Utilize new or increased contracted services
- Enhance the existing IT system
- Create a new IT system
- Perform a business-based procurement to have vendors propose a solution
- Other, specify:

**2.10.4 Benefit Analysis**

**Benefits/Advantages**

- [REDACTED]
- Allows for quick releases into production by incrementally releasing EASE VR and CC to a smaller subset of users.
- Uses proven technology solutions.
- Leverages modern object-oriented programming methodology.
- Leverages EASE framework, a standardized front-end platform for both DL and VR, which DMV has the knowledge and ability to support going forward.
- Implements more current programming languages and tools, which will improve DMV’s ability to obtain and retain skill support resources.
- Minimizes risk by applying lessons learned from the previous project that converted DMVA DL to EASE DL.
- Minimizes risk by implementing one group of users at a time and applying lessons learned to the next group.
- Higher likelihood of success than other options, as evidenced by successful incremental enhancement efforts at DMV.
- Minimizes risk of disruption to external business partners and field office operations.
- Better positions DMV for future web solutions.
- Positions DMV for future development of a fully relational database for core data.
- Phased approach allows multiple decision points for assessing project progress.

**Disadvantages**

- **Requires custom development.**
- Risks dependency on vendor knowledge and resources for development and system maintenance.
- Increases coordination with multiple releases of application and user groups.
- Increases ongoing costs.

### Anticipated Time to Achieve Objectives After Project Go-Live

Objective Number	Within 1 Year	2 Years	3 Years	4 Years	Over 4 Years
1.1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Anticipated Time to Achieve Financial Benefits After Project Go-Live

Financial Benefit	Within 1 Year	2 Years	3 Years	4 Years	Over 4 Years
Increased Revenues	<input type="radio"/>				
Cost Savings	<input type="radio"/>				
Cost Avoidance	<input type="radio"/>				
Cost Recovery	<input type="radio"/>				

### 2.10.5 Assumptions and Constraints

The following are the two major constraints that influenced the selection of this approach:

- As the DMV implements changes to the systems, it must continue to support the daily workload and changes as a result of legislative mandates.
- Changes imposed on the DMV's field office technicians must be minimized. Such changes can be very expensive and disruptive to deploy. Training 4,000 DMV employees and another 2,000 AC employees to use a new system, coordinating the technology rollout with the training, and mitigating the productivity impact of the field office learning curve are major events with very high probability of negative impact to the public.

### 2.10.6 Implementation Approach

Identify the type of existing IT system enhancement or new system proposed (check all that apply):

- Enhance the current system
- Develop a new custom solution
- Purchase a Commercial off-the-Shelf (COTS) system
- Purchase or obtain a system from another government agency (Transfer)
- Subscribe to a Software as a Service (SaaS) system
- Other, specify:

Identify cloud services to be leveraged (check all that apply):

- Software as a Service (SaaS) provided by OTech
- Software as a Service (SaaS) provided by commercial vendor
- Platform as a Service (PaaS) provided by OTech
- Platform as a Service (PaaS) provided by commercial vendor
- Infrastructure as a Service (IaaS) provided by OTech
- Infrastructure as a Service (IaaS) provided by commercial vendor
- No cloud services will be leveraged by this alternative. Provide a description of why cloud services are not being leveraged:

The newly developed VR/CC application will reside with the previously modernized DL front-end application. First, the cloud services offered at OTech do not currently provide a comparable platform. Second, putting VR/CC and DL in the same hosting environment is more cost effective for migration and future maintenance.

The choice of migrating to cloud services for both DL and VR/CC may be re-evaluated once the VR/CC application

modernization is completed.

**Identify who will modify the existing system or create the new system (check all that apply)**

- Agency/state entity IT staff
- A vendor will be contracted
- Inter-agency agreement will be established with another governmental agency. Specify Agency name(s):

Other, specify:

**Identify the implementation strategy:**

- All requirements will be addressed in this proposed project in a single implementation.
- Requirements will be addressed in incremental implementations in this proposed project.
- Some requirements will be addressed in this proposed project. The remaining requirements will be addressed at a later date.

Specify the year when remaining requirements will be addressed:

**Identify if the technology for the proposed project will be mission critical and public facing:**

- The technology implemented for this proposed project will be considered mission critical and public facing.

**2.10.7 Architecture Information**

**Business Function/Process(es)**

VR  
OL  
CC

**Application, System or Component:**

DMVA

**COTS, MOTS or Custom:**

Custom Application

**Name/Primary Technology:**

[REDACTED]

**Runtime Environment**

**Cloud Computing Used?**

Yes  No

[REDACTED]

**Server/Device Function:**

[REDACTED]

**Hardware:**

[REDACTED]

**Operating System:**

[REDACTED]

**System Software:**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**System Interfaces:**

[REDACTED]

**Data Center Location:** State Data Center Operated by Department of Technology

### Security

**Access:** (check all that apply)  
 Public  Internal State Staff  External State Staff  
 Other, specify: BPs, ACs, Auto Dealerships and Salvage Companies

**Type of Information:** (check all that apply)  
 Personal  Health  Tax  Financial  Legal  Confidential  
 Other, specify:

**Protective Measures:** (check all that apply)  
 Technical Security  Identity Authorization and Authentication  
 Physical Security  Backup and Recovery  
 Other, specify: Disaster Recovery

### Data Management

<b>Data Owner</b>	<b>Name:</b>	Barbie Robards
	<b>Title:</b>	Data Resource Manager
	<b>Business Program:</b>	Registration Operations Division
<b>Data Custodian</b>	<b>Name:</b>	Mainframe Services ■ Support
	<b>Title:</b>	Database Administrator
	<b>Business Program:</b>	OTech Data Center

### 2.10.1 Solution Type

Recommended  Alternative

### 2.10.2 Name

COTS/MOTS

### 2.10.3 Description

This alternative would implement a COTS/MOTS as the solution for California. There are vendors with pre-developed DMV solutions that can be implemented for CA DMV. These solutions tend to be general solutions that are adaptable for any state or country that wants to use their solutions.

Under this option, the DMV will replace the existing DMVA VR/CC front-end application with a COTS/MOTS vendor solution. By selecting this option, it is expected that a major portion of the vehicle registration and control cashing business functionality will be incorporated into the COTS/MOTS product.

A COTS/MOTS vendor solution that best meets the business needs of the DMV would be selected. ■ selected solution will, out of the box, provide the most comprehensive solution and be easily configured into DMV's unique technical environment. Because of the multitude of supporting business applications that interface with the VR and CC application and the fact that the DMV has some unique processes, the packaged solution will require some degree of customization.

A gap analysis would be needed to determine CA DMV functionality versus what the COTS/MOTS vendor solution delivers. All systems, reports, interfaces, and access would need to be assessed. For each such gap, the DMV will decide whether to ignore it (remove the requirement and conform to the tool); change how DMV will do something outside the COTS/MOTS solution (modify the business process); or build something to bridge the gap (extend the solution with customized coding). All functionality gaps would require prioritization and the DMV will need to be prepared to adapt current business processes to the COTS/MOTS vendor solution's workflow capabilities and limitations.

A COTS/MOTS solution typically includes cohesive front-end, mid-tier, and database. Adopting a COTS/MOTS solution requires a separate data migration effort (not included in the costing) prior to implementation. The back-

end database structure must be converted to the COTS/MOTS structure and synchronized until EASE DL migrates to the COTS/MOTS vendor solution. Data entities and attributes will need to be mapped from the existing back end database to the COTS/MOTS entities and attributes. Where data gaps are identified (the solution doesn't handle some of the existing data entities or attributes), DMV will need to decide how to handle the data. In addition, all the historic VR and CC data would need to be migrated into the new database structure.

Legislation would need to stop for the duration of the transition to the new system. The new technical architecture would need to be implemented at OTech with extensive load/performance testing to ensure system capacity for CA DMV.

**Approach** (check all that apply)

- Increase staff - new or existing capabilities
- Modify the existing business process or create a new business process
- Reduce the services or level of services provided
- Utilize new or increased contracted services
- Enhance the existing IT system
- Create a new IT system
- Perform a business-based procurement to have vendors propose a solution
- Other, specify:

### 2.10.4 Benefit Analysis

#### Benefits/Advantages

- "Turnkey" solution for typical DMV business needs.
- Can be a vendor hosted and managed solution.
- Vendor stays on top of federal vehicle regulation changes.
- California can leverage functionality already developed, tested, and in use in other states
- The cost of current and future enhancements can be shared among other users of the core product selected, reducing California's share of costs.
- California can benefit from vendor experience and other states' best practices in the implementation and maintenance of the solution.

#### Disadvantages

- This solution would change the user interface, which requires extensive training to DMV FO, HQ and AC technicians.
- This solution would change the communication interface to the internal and external systems. The external entities who access the system via direct connect, such as Law Enforcement Agent, Department of Justice (DOJ), Insurance companies, banks, and other state, county, and local entities. The impact to our external stakeholders would be significant.
- No product exists that fully meets the needs of California DMV's current business; therefore, this solution would require extensive system modifications or significant business process reengineering.
- Some vendors would require ongoing system changes to be frozen during the implementation period, including any legislation impacting DMV. This would mean no new legislative bills impacting DMV during the time of system development.
- [REDACTED]
- This solution will necessitate DMV and BPs to modify their current business processes, forms and procedures in order to work within the confines of the COTS/MOTS.
- This solution would require DMV to initiate a separate data conversion project. This would require a significant investment in time, resources and costs to restructure DMV's data to allow migration to the database in the chosen COTS/MOTS system before implementation.
- California DMV would be in a Non-Competitive Bid contract with this vendor for the life of the COTS/MOTS system.
- All COTS/MOTS products in the market require the adoption of the whole system including front-end,

mid-tier, and backend database, whereas the scope of this proposal is front-end system only.

- Adoption of COTS/MOTS implicates every detailed business process, and the requirements of the current system and the candidate COTS products be identified. Once identified, a gap analysis would need to be performed. Each identified gap would need to be analyzed and a determination made regarding the action required to remedy the gap, such as modifying the product or changing the business processes. It also implicates all the internal and external systems communicating with the current VR system would need to be assessed for future action - migrate, replace, or retire.
- Adopting COTS/MOTS for VR would result in two separate systems for DMV's core businesses - VR and DL. This would create difficulty in system integration. To integrate with the COTS/MOTS VR system, it typically requires the already-converted DL system be migrated to the COTS/MOTS system platform.
- DMV's existing website infrastructure would need to be migrated to work with the COTS/MOTS VR system.
- DMV's Financial Accounting System needs to be modified to work with the COTS/MOTS Control Cashiering system.

#### Anticipated Time to Achieve Objectives After Project Go-Live

Objective Number	Within 1 Year	2 Years	3 Years	4 Years	Over 4 Years
1.1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#### Anticipated Time to Achieve Financial Benefits After Project Go-Live

Financial Benefit	Within 1 Year	2 Years	3 Years	4 Years	Over 4 Years
Increased Revenues	<input type="radio"/>				
Cost Savings	<input type="radio"/>				
Cost Avoidance	<input type="radio"/>				
Cost Recovery	<input type="radio"/>				

### 2.10.5 Assumptions and Constraints

**This alternative is a viable solution only if the following assumptions are true:**

- The COTS/MOTS solution is either modifiable to meet any detailed requirements or DMV is willing to modify its business processes.
- CA DMV and the CA legislature are willing to accept the dependency on the COTS vendor for all future changes if it is not easily configurable by DMV staff, including what can be changed, how much it costs to change, and when can be implemented.
- CA DMV and CA legislature are willing to accept the risk of the COTS vendor going out of business or the product not being supported one day.

**Constraints:**

- Commercial Off-the-Shelf product is AS-IS with out-of-box features and limited configurable modification, the future changes including legislative mandates is doable or not depending on the product and the negotiation with vendor.
- CA DMV would be in a Non-Competitive Bid contract with the vendor providing the COTS/MOTS solution for the duration of this relationship.
- DMV does not currently have staff with the skills necessary to quantify the impact, scope, cost, complexity and risk involved with the adoption of a COTS/MOTS solution.

### 2.10.6 Implementation Approach

**Identify the type of existing IT system enhancement or new system proposed (check all that apply):**

- Enhance the current system
- Develop a new custom solution

- Purchase a Commercial off-the-Shelf (COTS) system
- Purchase or obtain a system from another government agency (Transfer)
- Subscribe to a Software as a Service (SaaS) system
- Other, specify:

**Identify cloud services to be leveraged (check all that apply):**

- Software as a Service (SaaS) provided by OTech
- Software as a Service (SaaS) provided by commercial vendor
- Platform as a Service (PaaS) provided by OTech
- Platform as a Service (PaaS) provided by commercial vendor
- Infrastructure as a Service (IaaS) provided by OTech
- Infrastructure as a Service (IaaS) provided by commercial vendor
- No cloud services will be leveraged by this alternative. Provide a description of why cloud services are not being leveraged:

DMV preference is to host the system in the same environment as the DL system, [REDACTED]

**Identify who will modify the existing system or create the new system (check all that apply)**

- Agency/state entity IT staff
- A vendor will be contracted
- Inter-agency agreement will be established with another governmental agency. Specify Agency name(s)

Other, specify:

**Identify the implementation strategy:**

- All requirements will be addressed in this proposed project in a single implementation.
- Requirements will be addressed in incremental implementations in this proposed project.
- Some requirements will be addressed in this proposed project. The remaining requirements will be addressed at a later date.

Specify the year when remaining requirements will be addressed:

**Identify if the technology for the proposed project will be mission critical and public facing:**

- The technology implemented for this proposed project will be considered mission critical and public facing.

**2.10.7 Architecture Information**

**Business Function/Process(es)**

VR and titling, control cashing for vehicle registration, and occupational license

**Application, System or Component:**

Full scale Vehicle Registration (VR) System, Control Cashiering System for VR and ...

**COTS, MOTS or Custom:**

Modified off-the-shelf (MOTS)

**Name/Primary Technology:**

web technologies (HTML, CSS, JavaScript, JQuery), Java-based application develo...

**Runtime Environment**

**Cloud Computing Used?**

Yes  No

If "Yes", specify: Select...

**Server/Device Function:** typically runs on the virtual servers with Oracle Enterprise Linux as the operating...

**Hardware:** typically runs on the virtual servers with Oracle Enterprise Linux as the operating...

**Operating System:** Oracle Enterprise Linux.

**System Software:**

Java/J2EE

Oracle Service Bus

Siebel Customer relationship Management (CRM)

Oracle Policy Automation

Oracle Relationship Database Management System (RDBMS)

Oracle Enterprise LINUX

**System Interfaces:** All of the internal/external systems and applications interfacing the current VR a...

**Data Center Location:** State Data Center Operated by Department of Technology

**Security**

**Access:** (check all that apply)

Public  Internal State Staff  External State Staff

Other, specify: BPs, ACs, Auto Dealerships and Salvage Companies

**Type of Information:** (check all that apply)

Personal  Health  Tax  Financial  Legal  Confidential

Other, specify:

**Protective Measures:** (check all that apply)

Technical Security  Identity Authorization and Authentication

Physical Security  Backup and Recovery

Other, specify:

**Data Management**

**Data Owner**

**Name:** Tam Le

**Title:** Data Resource Manager

**Business Program:** Registration Operations Division

**Data Custodian**

**Name:** Mainframe Services Support

**Title:** Database Administrator

**Business Program:** OTech Data Center

**2.10.1 Solution Type**

Recommended  Alternative

**2.10.2 Name**

**New Custom Solution**

**2.10.3 Description**

This alternative would design and develop a complete new custom system to replace the front-end VR and CC system. The difference between this alternative and the recommended solution is that this alternative solution would not leverage EASE framework.

By selecting this solution, it is expected DMV's VR/CC and DL front-end will be in different systems. In the future, if VR and DL require more integration, a separate integration component would need to be developed, or the DL Front-end would need to be migrated to the new VR/CC front-end technology platform.

Additionally, this option would require more training and knowledge transfer for the technical aspect. DMV will likely need more resources with different skillsets to support VR/CC and DL because of the different technologies.

**Approach** (check all that apply)

- Increase staff - new or existing capabilities
- Modify the existing business process or create a new business process
- Reduce the services or level of services provided
- Utilize new or increased contracted services
- Enhance the existing IT system
- Create a new IT system
- Perform a business-based procurement to have vendors propose a solution
- Other, specify:

**2.10.4 Benefit Analysis**

**Benefits/Advantages**

- Can help build internal expertise in modern technologies as DMV and vendor staff work together.
- Could maximize the use of modern technical solutions in the DMV environment.
- Creates the opportunity to review and redesign business processes and business rules, without the constraints of prior practice.

**Disadvantages**

- This solution does not meet the objective of quickly establishing sustainability and stability of the DMVA system.
- Limits leveraging lessons learned from previous projects.
- High risk of long-term dependency on the solution vendor.
- High risk of introducing and maintaining new technologies.

**Anticipated Time to Achieve Objectives After Project Go-Live**

Objective Number	Within 1 Year	2 Years	3 Years	4 Years	Over 4 Years
1.1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Anticipated Time to Achieve Financial Benefits After Project Go-Live**

Financial Benefit	Within 1 Year	2 Years	3 Years	4 Years	Over 4 Years
Increased Revenues	<input type="radio"/>				
Cost Savings	<input type="radio"/>				
Cost Avoidance	<input type="radio"/>				
Cost Recovery	<input type="radio"/>				

**2.10.5 Assumptions and Constraints**

- Extensive vendor support, DMV business area staff, and Information Systems Division (ISD) staff resources can be provided for requirements gathering, design, development, testing, and implementation tasks.
- DMVA system is stable and sustainable to wait for the new custom solution to complete.
- Strong support from external stakeholders, make necessary changes to integrate/migrate to the new system.
- Willing to accept this solution with relative high cost, high risk, and lengthy schedule.

### 2.10.6 Implementation Approach

Identify the type of existing IT system enhancement or new system proposed (check all that apply):

- Enhance the current system
- Develop a new custom solution
- Purchase a Commercial off-the-Shelf (COTS) system
- Purchase or obtain a system from another government agency (Transfer)
- Subscribe to a Software as a Service (SaaS) system
- Other, specify: Complete re-design, development, and implementation of the systems.

Identify cloud services to be leveraged (check all that apply):

- Software as a Service (SaaS) provided by OTech
- Software as a Service (SaaS) provided by commercial vendor
- Platform as a Service (PaaS) provided by OTech
- Platform as a Service (PaaS) provided by commercial vendor
- Infrastructure as a Service (IaaS) provided by OTech
- Infrastructure as a Service (IaaS) provided by commercial vendor
- No cloud services will be leveraged by this alternative. Provide a description of why cloud services are not being leveraged:

Dependent on the chosen vendor's proposal.

Identify who will modify the existing system or create the new system (check all that apply)

- Agency/state entity IT staff
- A vendor will be contracted
- Inter-agency agreement will be established with another governmental agency. Specify Agency name(s)
- Other, specify:

Identify the implementation strategy:

- All requirements will be addressed in this proposed project in a single implementation.
- Requirements will be addressed in incremental implementations in this proposed project.
- Some requirements will be addressed in this proposed project. The remaining requirements will be addressed at a later date.

Specify the year when remaining requirements will be addressed:

Identify if the technology for the proposed project will be mission critical and public facing:

- The technology implemented for this proposed project will be considered mission critical and public facing.

### 2.10.7 Architecture Information

#### Business Function/Process(es)

VR and titling, control cashing for vehicle registration, and occupational license

Application, System or Component:

DMVA VR/CC/OL

**COTS, MOTS or Custom:** [REDACTED]

**Name/Primary Technology:** [REDACTED]

**Runtime Environment**

**Cloud Computing Used?** [REDACTED]

**Server/Device Function:** [REDACTED]

**Hardware:** [REDACTED]

**Operating System:** [REDACTED]

**System Software:** [REDACTED]

**System Interfaces:** [REDACTED]

**Data Center Location:** [REDACTED]

**Security**

**Access:**  
(check all that apply)

Public  Internal State Staff  External State Staff

Other, specify: BPs, ACs, Auto Dealerships and Salvage Companies

**Type of Information:**  
(check all that apply)

Personal  Health  Tax  Financial  Legal  Confidential

Other, specify: [REDACTED]

**Protective Measures:**  
(check all that apply)

Technical Security  Identity Authorization and Authentication

Physical Security  Backup and Recovery

Other, specify: Disaster Recovery

**Data Management**

**Data Owner**

**Name:** Barbie Robards

**Title:** Data Resource Manager

**Business Program:** Registration Operations Division

**Data Custodian**

**Name:** Mainframe Services [REDACTED] Support

**Title:** Database Administrator

**Business Program:** OTech Data Center

## 2.11 Recommended Solution

### 2.11.1 Rationale for Selection

The recommended solution, Technology Upgrade for Sustainability, is the most viable option for this proposal. [REDACTED]

**1. Meets objectives and requirements**

The recommended solution fully meets the objectives identified in the Stage 1 Business Analysis (S1BA), and the requirements identified in Stage 2 Alternative Analysis (S2AA). It converts all the [REDACTED] programs to a modern language, [REDACTED] eliminates the dependency on scarce resources, [REDACTED] Additionally, it meets the objective of quickly establishing sustainability and stability of the DMVA system.

**2. Long-term solution for DMV catastrophic hardware failure and the source of problems**

[REDACTED]

[REDACTED]

### 3. Most feasible considering the availability of resources

[REDACTED] The COTS/MOTS alternative would require extensive internal and external resources on requirement gathering, gap analysis, data modeling, data migration, development, testing, and implementation tasks. A new custom solution without leveraging the EASE framework would require extensive resources to re-design the front-end framework. Based on the EASE DL Independent Analysis, the EASE DL application EASE framework is operational and in good condition in terms of reusability, maintainability, reliability, application security, scalability and performance. Currently DMV is working on addressing the findings noted in the assessment. In a summary, compared to other two alternatives, the recommended solution is most feasible considering the availability of internal and external resources.

### 4. Taking the recommendations from Grant Thornton

Upon termination of the DMV Information Technology Modernization (ITM) project, DMV hired an external consultant, Grant Thornton, to perform an independent, objective assessment of various aspects of the ITM project. This assessment identified the following list of key recommendations:

- Implement a Modernization Program Management Office.
- Implement smaller interrelated projects.
- Assess workforce capacity and training needs.

This proposal and its recommended solution of a technology upgrade for sustainability have taken into account the recommendations. DMV plans implement a Modernization Program Management Officer, which will enhance DMV legacy systems with a long-term objective of providing uninterrupted services for the people of California. To reduce risks DMV plans to implement the project in phases based on customer base.

### 5. Uses proven technology solutions, and minimizes risk

The proposed solution has higher likelihood of success, as evidenced by successful incremental enhancement efforts at DMV. [REDACTED]

### 6. Least impact to the stakeholders

Research indicates the COTS/MOTS products available in the market require adoption of the whole system including front-end, mid-tier, and back-end database. The scope of this proposal is to replace the front-end system only. The COTS/MOTS solution will require changes to the communication interface for both internal and external systems, which will have a significant impact to DMV's stakeholders.

### 7. Disadvantages do not eliminate the recommended alternative

- If DMV were to choose a COTS/MOTS solution, DMV would be at the mercy of COTS contractor for future changes. The State of California may not have control over what changes, such as legislative mandates, can be made or when to make those changes. Lastly, if DMV chose a COTS/MOTS solution for VR and CC, we may need to implement the DL COTS/MOTS solution due to future demands for integration. Additionally, it may be perceived by the public as throwing away the investment of previous projects.
- Choosing COTS/MOTS solution is technically the starting point of outsourcing California's whole VR, DL, and Identity business to a private vendor.
- Compared to the New Custom System solution, the recommended solution leverages the EASE Framework developed in the previous project, and provides better integration with DL front-end application.

In conclusion, the proposed solution best meets the objectives and requirements. It leverages the existing EASE framework, integrates with current DL front-end application, and has lowest foreseeable risk, and least impact to stakeholders

 File Attachment

### 2.11.2 Technical/Initial CA-PMM Complexity Assessment

**Complexity**

**Complexity Zone**

Technical Complexity Score:

- Zone I Low Criticality/Risk
- Zone II/III Medium Criticality/Risk
- Zone IV High Criticality/Risk

### 2.11.3 Procurement and Staffing Strategy

#### Activity

Solicitation Development

**Responsible**

(check all that apply)

- |                                                               |                                                |
|---------------------------------------------------------------|------------------------------------------------|
| <input checked="" type="checkbox"/> Agency/State Entity Staff | <input type="checkbox"/> ITPOD Staff           |
| <input type="checkbox"/> DGS Staff                            | <input type="checkbox"/> CA-PMO Staff          |
| <input checked="" type="checkbox"/> STPD Staff                | <input checked="" type="checkbox"/> Contractor |
| <input type="checkbox"/> Other, specify:                      |                                                |

**When Needed**

(check all that apply)

- Stage 3 Solution Development
- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**

(check all that apply)

- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DGSCCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

Request for Offer/California Multiple Award Schedules (RFO/CMAS)

If "Other," specify:

**Contract Type**

Fixed Price (FP)

If "Other," specify:

#### Activity

Requirements Elicitation

**Responsible**

(check all that apply)

- |                                                               |                                                |
|---------------------------------------------------------------|------------------------------------------------|
| <input checked="" type="checkbox"/> Agency/State Entity Staff | <input type="checkbox"/> ITPOD Staff           |
| <input type="checkbox"/> DGS Staff                            | <input type="checkbox"/> CA-PMO Staff          |
| <input type="checkbox"/> STPD Staff                           | <input checked="" type="checkbox"/> Contractor |
| <input type="checkbox"/> Other, specify:                      |                                                |

**When Needed**  
(check all that apply)

- Stage 3 Solution Development
- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**  
(check all that apply)

- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DGSCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

**Contract Type**

Other

Fixed Price (FP)

If "Other," specify:

If "Other," specify:

Agile Developers Pre-Qualified Pool (ADPQ)

**Activity**

Cost Estimating

**Responsible**  
(check all that apply)

- Agency/State Entity Staff
- DGS Staff
- STPD Staff
- ITPOD Staff
- CA-PMO Staff
- Contractor
- Other, specify:

**When Needed**  
(check all that apply)

- Stage 3 Solution Development
- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**  
(check all that apply)

- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DGSCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

**Contract Type**

Select...

Select...

If "Other," specify:

If "Other," specify:

**Activity**

Business Analysis

**Responsible**

- Agency/State Entity Staff
- ITPOD Staff

(check all that apply)

- DGS Staff
- STPD Staff
- Other, specify:
- CA-PMO Staff
- Contractor

**When Needed**

(check all that apply)

- Stage 3 Solution Development
- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**

(check all that apply)

- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DG SCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

Request for Offer/California Multiple Award Schedules (RFO/CMAS)

If "Other," specify:

**Contract Type**

Fixed Price (FP)

If "Other," specify:

**Activity**

Technical Analysis

**Responsible**

(check all that apply)

- Agency/State Entity Staff
- DGS Staff
- STPD Staff
- Other, specify:
- ITPOD Staff
- CA-PMO Staff
- Contractor

CDT Strike Team

**When Needed**

(check all that apply)

- Stage 3 Solution Development
- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**

(check all that apply)

- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DG SCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

Request for Offer/California Multiple Award Schedules (RFO/CMAS)

If "Other," specify:

ADPQ and Service Request

**Contract Type**

Fixed Price (FP)

If "Other," specify:

Fixed Price (FP)

**Activity**

Project Management

**Responsible**

(check all that apply)

- Agency/State Entity Staff
- DGS Staff
- STPD Staff
- Other, specify:
- ITPOD Staff
- CA-PMO Staff
- Contractor

**When Needed**

(check all that apply)

- Stage 3 Solution Development
- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**

(check all that apply)

- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DGSCCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

Other

If "Other," specify:

ADPQ

**Contract Type**

Fixed Price (FP)

If "Other," specify:

**Activity**

Conduct Procurement

**Responsible**

(check all that apply)

- Agency/State Entity Staff
- DGS Staff
- STPD Staff
- Other, specify:
- ITPOD Staff
- CA-PMO Staff
- Contractor

**When Needed**

(check all that apply)

- Stage 3 Solution Development
- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**

(check all that apply)

- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DGSCCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

**Contract Type**

Select...

If "Other," specify:

Select...

If "Other," specify:

### Activity

Testing

#### Responsible

(check all that apply)

Agency/State Entity Staff

ITPOD Staff

DGS Staff

CA-PMO Staff

STPD Staff

Contractor

Other, specify:

CDT Strike Team

#### When Needed

(check all that apply)

Stage 3 Solution Development

Stage 4 Project Readiness and Approval

After project is approved (after Stage 4 Project Readiness and Approval)

#### Cost Estimate Verification

(check all that apply)

Market research conducted (MR)

Cost estimate provided (CE)

Department of Technology CE

DGSCE

Request For Information conducted (RFI)

Comparable vendor services have been used on previous contracts (CV)

Leveraged Procurement Agreement (LPA)

### Complete Only if Contractor Responsible for Activity

#### Procurement Vehicle

Request for Offer/California Multiple Award Schedules (RFO/CMAS)

If "Other," specify:

Service Request

#### Contract Type

Fixed Price (FP)

If "Other," specify:

### Activity

Project Oversight

#### Responsible

(check all that apply)

Agency/State Entity Staff

ITPOD Staff

DGS Staff

CA-PMO Staff

STPD Staff

Contractor

Other, specify:

#### When Needed

(check all that apply)

Stage 3 Solution Development

Stage 4 Project Readiness and Approval

After project is approved (after Stage 4 Project Readiness and Approval)

#### Cost Estimate Verification

(check all that apply)

Market research conducted (MR)

Cost estimate provided (CE)

Department of Technology CE

DGSCE

Request For Information conducted (RFI)

- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

**Contract Type**

Select...

Select...

If "Other," specify:

If "Other," specify:

**Activity**

Organizational Change Management

**Responsible**

(check all that apply)

- Agency/State Entity Staff
- DGS Staff
- STPD Staff
- ITPOD Staff
- CA-PMO Staff
- Contractor

Other, specify:

CDT Strike Team

**When Needed**

(check all that apply)

- Stage 3 Solution Development
- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**

(check all that apply)

- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DGSCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

**Contract Type**

Other

Fixed Price (FP)

If "Other," specify:

If "Other," specify:

ADPQ & Service Request

**Activity**

Testing

**Responsible**

(check all that apply)

- Agency/State Entity Staff
- DGS Staff
- STPD Staff
- ITPOD Staff
- CA-PMO Staff
- Contractor

Other, specify:

CDT Strike Team

**When Needed**

(check all that apply)

- Stage 3 Solution Development
- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**

(check all that apply)

- Market research conducted (MR)

- Cost estimate provided (CE)
- Department of Technology CE
- DGSCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

**Contract Type**

Other

Fixed Price (FP)

If "Other," specify:

If "Other," specify:

ADPQ; RFO/CMAS and Service Request

Fixed Price (FP)

**Activity**

Design

**Responsible**

(check all that apply)

- Agency/State Entity Staff
- DGS Staff
- STPD Staff
- ITPOD Staff
- CA-PMO Staff
- Contractor

Other, specify:

CDT Strike Team

**When Needed**

(check all that apply)

- Stage 3 Solution Development
- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**

(check all that apply)

- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DGSCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

**Contract Type**

Other

Fixed Price (FP)

If "Other," specify:

If "Other," specify:

ADPQ & Service Request

**Activity**

Training

**Responsible**

(check all that apply)

- Agency/State Entity Staff
- DGS Staff
- STPD Staff
- ITPOD Staff
- CA-PMO Staff
- Contractor

Other, specify:

**When Needed**

- Stage 3 Solution Development

(check all that apply)

- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)
- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DGSCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Cost Estimate Verification**

(check all that apply)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

**Contract Type**

Request for Offer/California Multiple Award Schedules (RFO/CMAS)

Fixed Price (FP)

If "Other," specify:

If "Other," specify:

**Activity**

Integration/Development

**Responsible**

(check all that apply)

- Agency/State Entity Staff
- DGS Staff
- STPD Staff
- ITPOD Staff
- CA-PMO Staff
- Contractor

Other, specify:

CDT Strike Team

**When Needed**

(check all that apply)

- Stage 3 Solution Development
- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**

(check all that apply)

- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DGSCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

**Contract Type**

Other

Fixed Price (FP)

If "Other," specify:

If "Other," specify:

ADPQ& Service Request

**Activity**

Contract Management

**Responsible**

(check all that apply)

- Agency/State Entity Staff
- DGS Staff
- STPD Staff
- ITPOD Staff
- CA-PMO Staff
- Contractor

Other, specify:

**When Needed**  
 (check all that apply)

- Stage 3 Solution Development
- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**  
 (check all that apply)

- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DGSCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

Procurement Vehicle	Contract Type
Select...	Select...
If "Other," specify:	If "Other," specify:
<input type="text"/>	<input type="text"/>

**Activity**

Enterprise Architecture

**Responsible**  
 (check all that apply)

- Agency/State Entity Staff
- DGS Staff
- STPD Staff
- Other, specify:
- ITPOD Staff
- CA-PMO Staff
- Contractor

**When Needed**  
 (check all that apply)

- Stage 3 Solution Development
- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**  
 (check all that apply)

- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DGSCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

Procurement Vehicle	Contract Type
Select...	Select...
If "Other," specify:	If "Other," specify:
<input type="text"/>	<input type="text"/>

**Activity**

Quality Assurance

**Responsible**  
(check all that apply)

- Agency/State Entity Staff
- DGS Staff
- STPD Staff
- ITPOD Staff
- CA-PMO Staff
- Contractor

Other, specify:

CDT Strike Team

**When Needed**  
(check all that apply)

- Stage 3 Solution Development
- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**  
(check all that apply)

- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DGSCCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

**Contract Type**

Request for Offer/California Multiple Award Schedules (RFO/CMAS)

Fixed Price (FP)

If "Other," specify:

If "Other," specify:

ADPQ & Service Request

Fixed Price (FP)

**Activity**

Technical Installation of Hardware

**Responsible**  
(check all that apply)

- Agency/State Entity Staff
- DGS Staff
- STPD Staff
- ITPOD Staff
- CA-PMO Staff
- Contractor

Other, specify:

Otech

**When Needed**  
(check all that apply)

- Stage 3 Solution Development
- Stage 4 Project Readiness and Approval
- After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**  
(check all that apply)

- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DGSCCE
- Request For Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

**Contract Type**

Select...

Select...

If "Other," specify:

If "Other," specify:

--	--

**Activity**

Technical Installation of Software

<b>Responsible</b> (check all that apply)	<input type="checkbox"/> Agency/State Entity Staff	<input type="checkbox"/> ITPOD Staff
	<input type="checkbox"/> DGS Staff	<input type="checkbox"/> CA-PMO Staff
	<input type="checkbox"/> STPD Staff	<input type="checkbox"/> Contractor
	<input checked="" type="checkbox"/> Other, specify: Otech	
<b>When Needed</b> (check all that apply)	<input type="checkbox"/> Stage 3 Solution Development	
	<input type="checkbox"/> Stage 4 Project Readiness and Approval	
	<input checked="" type="checkbox"/> After project is approved (after Stage 4 Project Readiness and Approval)	
<b>Cost Estimate Verification</b> (check all that apply)	<input type="checkbox"/> Market research conducted (MR)	
	<input type="checkbox"/> Cost estimate provided (CE)	
	<input checked="" type="checkbox"/> Department of Technology CE	
	<input type="checkbox"/> DGSC	
	<input type="checkbox"/> Request For Information conducted (RFI)	
	<input type="checkbox"/> Comparable vendor services have been used on previous contracts (CV)	
	<input type="checkbox"/> Leveraged Procurement Agreement (LPA)	

**Complete Only if Contractor Responsible for Activity**

<b>Procurement Vehicle</b>	<b>Contract Type</b>
Select...	Select...
If "Other," specify:	If "Other," specify:

**Activity**

Maintenance

<b>Responsible</b> (check all that apply)	<input checked="" type="checkbox"/> Agency/State Entity Staff	<input type="checkbox"/> ITPOD Staff
	<input type="checkbox"/> DGS Staff	<input type="checkbox"/> CA-PMO Staff
	<input type="checkbox"/> STPD Staff	<input checked="" type="checkbox"/> Contractor
	<input checked="" type="checkbox"/> Other, specify: Otech	
<b>When Needed</b> (check all that apply)	<input type="checkbox"/> Stage 3 Solution Development	
	<input type="checkbox"/> Stage 4 Project Readiness and Approval	
	<input checked="" type="checkbox"/> After project is approved (after Stage 4 Project Readiness and Approval)	
<b>Cost Estimate Verification</b> (check all that apply)	<input type="checkbox"/> Market research conducted (MR)	
	<input checked="" type="checkbox"/> Cost estimate provided (CE)	
	<input checked="" type="checkbox"/> Department of Technology CE	
	<input type="checkbox"/> DGSC	
	<input type="checkbox"/> Request For Information conducted (RFI)	
	<input checked="" type="checkbox"/> Comparable vendor services have been used on previous contracts (CV)	
	<input type="checkbox"/> Leveraged Procurement Agreement (LPA)	

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

**Contract Type**

Other

Fixed Price (FP)

If "Other," specify:

If "Other," specify:

ADPQ

**Activity**

Operations

**Responsible**

(check all that apply)

Agency/State Entity Staff

ITPOD Staff

DGS Staff

CA-PMO Staff

STPD Staff

Contractor

Other, specify:

Otech

**When Needed**

(check all that apply)

Stage 3 Solution Development

Stage 4 Project Readiness and Approval

After project is approved (after Stage 4 Project Readiness and Approval)

**Cost Estimate Verification**

(check all that apply)

Market research conducted (MR)

Cost estimate provided (CE)

Department of Technology CE

DGSCE

Request For Information conducted (RFI)

Comparable vendor services have been used on previous contracts (CV)

Leveraged Procurement Agreement (LPA)

**Complete Only if Contractor Responsible for Activity**

**Procurement Vehicle**

**Contract Type**

Other

Fixed Price (FP)

If "Other," specify:

If "Other," specify:

ADPQ

Yes No

Will any of the activities identified above result in a competitive or non-competitive solicitation that will be over the Agency/state entity's DGS delegated purchasing authority?

**2.11.4 Enterprise Architecture Alignment**

DMV's project and architecture roadmap uses different projects and efforts as building blocks to reach the target architecture. The vision is to leverage the technologies and infrastructure built in other efforts to maximize our investment. This proposal is consistent with DMV's target enterprise architecture.

**Information Technology Capability Table**

Information Technology Capability	Existing Enterprise Capability to be Leveraged	New Enterprise Capability Needed
Public or Internal Portal/Website	<input checked="" type="radio"/>	<input type="radio"/>
Public or Internal Mobile Application	<input checked="" type="radio"/>	<input type="radio"/>
Enterprise Service Bus	<input checked="" type="radio"/>	<input type="radio"/>
Identity and Access Management	<input checked="" type="radio"/>	<input type="radio"/>
Enterprise Content Management (including document	<input type="radio"/>	<input type="radio"/>

scanning and eForms capabilities)

Business Intelligence and Data Warehousing



Master Data Management



Big Data Analytics



### 2.11.5 Project Phases

#### Phase

Phase 1

#### Description

The first phase will migrate the VR and CC functions for BPs. The BPs can perform a subset of the VR and CC transactions as part of their business offerings to their customers as opposed to the DMV Field Offices. This makes them an ideal starting point for EASE VR, because the BP's volume represents a small fraction of the total transactions. Additionally, since BPs represent a smaller pool of transactions and users, the application development and testing will be limited to a smaller user base without affecting the greater public.

#### Phase Deliverable

Conversion and deployment of all transactions offered by BPs to the new EASE VR/CC, including all associated screens and cashing capabilities.

#### Phase

Phase 2

#### Description

After the BPs set the foundation for VR and CC system in the EASE environment, this phase will develop and implement the AC/FO/HQ into EASE VR system. The ACs have significantly more transactions they provide and would be the next step to the fully implemented EASE VR/CC. The CC function for AC's will be developed and implemented at the same time. Additionally, the last step of this phase will convert the rest of the system used exclusively by DMV FO & HQ.

#### Phase Deliverable

Conversion and deployment of the remaining transactions offered by AC, DMV FO and DMV HQ to the new EASE VR/CC, including all associated screens and cashing capabilities.

### 2.11.6 High Level Proposed Project Schedule

Project Planning Start Date: 5/4/2016

Project Start Date: 1/3/2019

Project Planning End Date: 1/2/2019

Project End Date: 12/30/2022

Activity Name	Start Date	End Date
<u>Stage 3 Solution Development</u>	2/22/2017	4/23/2018
<u>Solicitation Development</u>	1/16/2018	3/13/2018
<u>Solicitation Package Review</u>	2/12/2018	4/23/2018
<u>Stage 4 Project Readiness and Approval</u>	5/7/2018	1/2/2019
<u>Solicitation Release</u>	5/7/2018	5/7/2018
<u>Solicitation Protest Period</u>	5/8/2018	7/11/2018
<u>Solicitation Negotiations</u>	7/12/2018	8/8/2018
<u>Solicitation Award</u>	1/2/2019	1/2/2019

<u>Requirements</u>	7/1/2019	4/29/2022
<u>Design</u>	7/1/2019	4/29/2022
<u>Development</u>	7/1/2019	4/29/2022
<u>Testing</u>	7/1/2019	4/29/2022
<u>Training</u>	8/27/2019	12/30/2022
<u>Deployment</u>	8/27/2019	12/30/2022
<u>Go Live</u>	12/30/2022	12/30/2022
<u>Maintenance and Operations</u>	12/31/2022	

### 2.11.7 Cost Summary

<b>Total Proposed Planning Cost:</b>	\$4,859,169
<b>Total Proposed Project Cost:</b>	\$138,291,858
<b>Average Proposed Operations Cost:</b>	\$249,868,815

## 2.12 Staffing Plan

### 2.12.1 Administrative

The DMV Administrative sections have the capacity and capability of providing the project support necessary for this project.

#### DMV's Budget Fiscal Analysis Branch (BFAB)

The proposed project workload is part of the existing duties of the Budget Office staff. An analyst from the Budget and Fiscal Analysis Branch, with the support of the Budget Office management team, will provide budget-related assistance and guidance to the proposed Information Technology project team. Responsibilities include consulting with the program areas in determining the costs associated with staffing and operational needs for the project and acting as a liaison between the DOF and other control agencies in preparing and submitting the Budget Change Proposal. The Budget Office staff has from 1 to 20 years of budgeting experience.

#### DMV's IT Acquisitions Office

The DMV IT Acquisitions supports the project with procuring a contract by assisting with:

- Solicitations
- Contacting prospective contractor
- Developing or reviewing the solicitation packages (including the Statement of Work)
- Coordinating the encumbrance of funds for the contract
- Distributing copies of the signed executed contract to the appropriate parties

The DMV IT Acquisitions Official coordinates final approval of the contracts with the Director or designee and advises the project of new or modified state procurement policies and regulations. Throughout the project life cycle, the DMV IT Acquisitions Official continues to serve the project with contract amendments and staff replacement and must work with the Department of Technology PO as required.

The DMV Acquisitions Official is a subject matter expert on the State of California's Solicitation process and acts as an advisor to members of the Evaluation Team.

Specific duties related to the evaluation and selection process include:

- Coordinating with the CDT PO on a regular basis
- Assisting the CDT PO with training the Evaluators on the review process and the use of the evaluation materials such as worksheets and evaluation sheets.
- Assisting the CDT PO in preparation of the Evaluation and Selection Report

This position is the primary point of contact for the CDT PO, Project Team and Evaluation Team in regard to the solicitation.

### **Contract Management**

The Project team consists of a Contract Management Team. The team's duties will include:

- Providing oversight and tracking for the solution vendor contract and other project-related contracts.
- Participating in negotiations
- Facilitating amendments.
- Reviewing work authorizations and invoices.
- Monitoring contract compliance.

The contract management team includes two Senior Information Systems Analysts, one Associate Information Systems Analyst and one Office Technician assisted by a consultant.

### **2.12.2 Business Program**

The business programs do not have the capacity to absorb the substantial workload this project is anticipated to generate. Therefore, the business programs most impacted by the project (ROD, FOD, LOD & CPD) have requested additional temporary resources (at the same level as those expected to participate in the project) to augment the existing staff. This will alleviate any resource contention created by the project and allow selected staff to participate fully. Once the project is implemented, the business program workload will return to the normal levels.

### **2.12.3 Information Technology (IT)**

DMV's Information Systems Division has conducted a thorough analysis of the current resource capacity and determined DMV does not have the capacity to absorb the additional workload without assistance. Contract resources, along with temporary State staff, will augment the current ISD staff. This augmentation is outlined in the project organizational layout.

**A CDT Strike Team will provide leadership and strategy around product, design, engineering, and user research.**

**The strike team is comprised of:**

**Product Strategist (2) will lead product strategy for multiple digital service products, integrating design and user research inputs into engineering products.**

**Engineering Strategists (2) will lead engineering/architecture strategy and oversight for multiple engineering teams.**

**Design & User Research Strategists (2) will lead design and user research strategy and practice for multiple designers and user researchers.**

### **2.12.4 Testing**

DMV's PQA Section will assign a Test Manager to provide guidance for the overall testing. Responsibilities for the Test Manager include review and approval of a strategy and scope of testing, review and approval of the test approach, defining a defect management plan, providing the defect severity classification, providing the pass/fail criteria for test cases, identifying and raising any risks related to testing throughout the effort and monitoring all test phases (e.g. – Unit, Integration, System, etc.) and types of testing (e.g. – Black Box, White Box, Regression, Stress, etc.) throughout the Front-end Applications Sustainability effort. The PQA Test Manager to the Front-end Applications Sustainability effort will also have responsibility for reviewing and approving the overall Test Strategy and Test Plan for the project. The PQA Test Manager, with over five years of experience acting as Test Manager on multiple types of projects, will accomplish this by eliciting guidance if necessary from other PQA resources. In addition to Test Management Services, PQA will receive staff augmentation to ensure DMV's PQA testing standards and methodologies are adhered to as well as providing an expert test tool support and technical expert with our test tools (Service Virtualization, Test Data Management, etc.). Additional staff augmentation will also be needed to provision new test environments for the project.

### **2.12.5 Data Conversion/Migration**

This effort focuses on the front-end applications. It does not include transforming or modifying the database. Therefore, it will not involve data conversion and migration from source system to target system.

### **2.12.6 Training and Organizational Change Management**

The DMV plans to prepare their stakeholders for the upcoming project by establishing the Organization Change Management (OCM) and Training team. The Department also plans to leverage consultant services for OCM and the Department's existing Training branch. This team will work in conjunction with the FES Project for the stakeholders of the new modernized DMVA system so that they are satisfactorily educated about the changes, are given the opportunity to buy-in to the vision and structure of the change, and are able to adopt the change. Even though the team does not expect business disruption, the team will seek to prepare staff and the DMV organization to the new processes and technology through services that educate the people about the change and how they will successfully perform their responsibilities in the new environment. The formation of this team of consultants and state staff, along with leveraging prior project experiences, will ensure that the project's OCM activities are managed successfully through project completion.

### **2.12.7 Resource Capacity/Skills/Knowledge for Stage 3 Solution Development**

DMV's Enterprise Governance Council (EGC) is a deliberative body established to advise the Directorate. The EGC takes an enterprise view of DMV projects to ensure alignment with DMV's Strategic Plan. It provides a forum and structure for furthering DMV initiatives, portfolio projects, and other enterprise efforts.

The EGC consists of eight members (Deputy Directors), five advisors (Deputy Directors and Branch Chiefs), and a facilitator. These members represent the various program and support areas within DMV. The council meets twice a month, but can be called to convene off-cycle if needed.

The EGC makes informed decisions regarding DMV's technology direction and technology investment strategies. The governance framework includes procurement related decision-making in addition to project decision making.

The DMV IT Acquisitions Official assists with procuring a contract by assisting with:

- Solicitations
- Contacting prospective contractor
- Developing or reviewing the solicitation packages (including the Statement of Work)
- Coordinating the encumbrance of funds for the contract
- Distributing copies of the signed executed contract to the appropriate parties

The DMV IT Acquisitions Official coordinates final approval of the contracts with the Director or designee and advises the project of new or modified state procurement policies and regulations. Throughout the project life cycle, the DMV IT Acquisitions Official continues to serve the project with contract amendments and staff replacement and must work with the CDT PO as required.

The DMV Acquisitions Official is a subject matter expert on the State of California's Solicitation process and acts as an advisor to members of the Evaluation Team.

Specific duties related to the evaluation and selection process include:

- Coordinating with the CDT PO on a regular basis
- Assisting the CDT PO with training the Evaluators on the review process and the use of the evaluation materials such as worksheets and evaluation sheets.
- Assisting the CDT PO in preparation of the Evaluation and Selection Report

This position is the primary point of contact for the CDT PO, Project Team and Evaluation Team in regard to the solicitation.

The DMV's procurement official, assigned to this project, has experience using the proposed procurement methodologies identified in Section 2.11.3 Procurement and Staffing Strategy. Additionally, the DMV procurement official has worked with STPD on various contracts using the STPD Streamlined Template, is familiar with protest types or use of Public Contract Code (PCC) 6611, and has participated with STPD in the negotiation of various contracts.

### **2.12.8 Project Management**

#### **2.12.8.1 Project Management Risk Assessment**

0.5

Attach file:



2740-218 revised Front End  
Risk Score.pdf  
Adobe Acrobat Document  
98.6 KB

### 2.12.8.2 Project Management Planning

Are the following project management plans or project artifacts complete, approved by the designated Agency/state entity authority, and available for Department of Technology review?

Project Charter	<u>No</u>	In Development
Scope Management Plan	<u>No</u>	In Development
Risk Management Plan	<u>No</u>	In Development
Issue and Action Item Management Plan	<u>No</u>	In Development
Communication Management Plan	<u>No</u>	In Development
Schedule Management Plan	<u>No</u>	In Development
Human Resource Management Plan	<u>No</u>	In Development
Staff Management Plan	<u>No</u>	In Development
Stakeholder Management Plan	<u>No</u>	In Development
Governance Plan	<u>No</u>	In Development

### 2.12.9 Organization Charts



FES Org Chart Dec 2017.pdf  
Adobe Acrobat Document  
108 KB

 <p>2740-218 PAL org.pdf Adobe Acrobat Document 99.6 KB</p>	
 <p>2740-218 FES Procurement Org.pdf Adobe Acrobat Document 65.5 KB</p>	
 <p>2740-218 ASD org.pdf Adobe Acrobat Document 65.7 KB</p>	
 <p>2740-218 CPD org.pdf Adobe Acrobat Document 63.5 KB</p>	
 <p>2740-218 OL org.pdf Adobe Acrobat Document 96.8 KB</p>	
 <p>2740-218 FOD org.pdf Adobe Acrobat Document 99.3 KB</p>	
 <p>2740-218 IT Org Chart.pdf Adobe Acrobat Document 178 KB</p>	
 <p>2740-218 ROD org.pdf Adobe Acrobat Document 219 KB</p>	
 <p>2740-218 DMV org.pdf Adobe Acrobat Document 34.7 KB</p>	

## 2.13 Data Conversion/Migration

Identify the status of each of the following data conversion/migration activities:

Data Conversion/Migration Planning	<u>Not Applicable</u>
Data Conversion/Migration Requirements	<u>Not Applicable</u>
Current Environment Analysis	<u>Not Applicable</u>
Data Profiling	<u>Not Applicable</u>
Data Quality Assessment	<u>Not Applicable</u>
Data Quality Business Rules	<u>Not Applicable</u>
Data Dictionaries	<u>Completed</u>
Data Cleansing and Correction	<u>Not Applicable</u>

This effort focuses on the front-end applications. DMV is not planning to transform or modify the database, thus the project will not involve data conversion and migration from the source system to the target system.



2740-218 Data Dict  
redacted.pdf  
Adobe Acrobat Document  
410 KB

## 2.14 Financial Analysis Worksheets



2740-218 FES FAW v3.10.xlsx  
Microsoft Excel Worksheet  
3.95 MB

## Department of Technology Use Only

### Preliminary Assessment – Department of Technology Use Only

Original "New Submission" Date	<input type="text"/>
Form Received Date	<input type="text"/>
Form Accepted Date	<input type="text"/>
Form Status	<u>Select...</u>
Form Status Date	<input type="text"/>

### Main Form - Department of Technology Use Only

Original "New Submission" Date	<u>7/26/2017</u>
Form Received Date	<u>12/20/2017</u>
Form Accepted Date	<u>12/20/2017</u>
Form Status	<u>Completed</u>
Form Status Date	<u>1/9/2018</u>
Form Disposition	<u>Approved</u>
Form Disposition Date	<u>1/9/2018</u>