

Independent Review

Commercial Vehicle Operations System Replacement

For the
State of Vermont
Vermont Department of Motor Vehicles



**Submitted to the
State of Vermont, Agency of Digital Services
February 6, 2019**

FINAL

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1.0 Executive Summary

Provide an introduction that includes a brief overview of the technology project and selected vendor(s) as well as any significant findings or conclusions. Ensure any significant findings or conclusions are supported by data in the report.

1.1 Introduction

This Independent Review (IR) was undertaken to evaluate the viability of a Commercial Operations Project – FAST Enterprises (herein referred to as “Fast”) for the State of Vermont’s (State’s) Agency of Digital Services (ADS) and Department of Motor Vehicles (DMV), and provide a recommendation to the State on whether to proceed or not proceed. For all Information Technology (IT) activities over \$1,000,000, Vermont statute (or at the discretion of the Chief Information Officer [CIO]) requires an IR by the Office of the CIO before the project can begin. This IR began on December 10, 2018 and is projected to conclude on or about February 6, 2019.

The subject of review is the planned acquisition of a proposed Commercial Vehicle Operations System Replacement. According to the statement of work for this IR, the scope of the project is:

- Acquisition Cost Assessment
- Technology Architecture Review
- Implementation Plan Assessment
- Cost Analysis and Model for Benefit Analysis
- Impact Analysis on Net Operating Costs

The Vermont Agency of Transportation, Department of Motor Vehicles through the Office of Procurement and Contracting is drafting a Statewide Master Contract to encompass both (1) and (2) below, and also future potential Solution deployments at other agencies. DMV will implement Fast’s solutions for International Registration Plan (IRP), International Fuel Tax Agreement (IFTA), Motor Vehicle Fuel taxes, vehicle rental tax, railroad fuel tax, and aviation fuel tax, herein referred to as IRP/IFTA/Motor Vehicle Fuel for brevity.

BerryDunn finds that the State should proceed with the procurement pending determination by contract reviewers that the master agreement planned with Fast is consistent with Bulletin 3.5 provisions. There is ample justification for a new IRP/IFTA/Motor Vehicle Fuel solution. The planned costs to the State over six years are not insignificant and could arguably have been reduced if the planned SOW was procured competitively. However, there are well-documented business needs supporting the project. The State has identified risks and reasonable responses to said risks. Notable among the risks are the risk of using the current IRP/IFTA/Motor Vehicle Fuel system and lack of an identified State project manager.

1.2 Cost Summary

Table 1.1: Cost Summary

IT Activity Lifecycle:	6 years
Total Lifecycle Costs:	\$12,999,439.82
Total Implementation Costs:	\$5,675,366.95
New Annual Operating Costs:	\$ 255,000.00 in year 1 \$1,877,570 in year 2 \$1,526,004 in year 3 \$1,207,027 in year 4 \$1,213,217 in year 5 \$1,245,254 in year 6
Current Annual Operating Costs:	\$280,678
Difference Between Current and New Costs:	The State expects to spend more each year to acquire the new solution. The annual increase is listed below. Please note that these figures are represented as negative numbers in corresponding calculation sheets but as positives in this table. \$1,489,683.28 in year 1 \$5,789,368.20 in year 2 \$1,526,004.38 in year 3 \$1,207,027.11 in year 4 \$1,213,217.29 in year 5 \$1,245,254.09 in year 6
Funding Source(s) and Percentage Breakdown if Multiple Sources:	100% State Funds

1.3 Disposition of Independent Review Deliverables

Table 1.2 – IR Deliverables

Deliverable	Highlights from the Review Include explanations of any significant concerns
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Deliverable	Highlights from the Review Include explanations of any significant concerns
Acquisition Cost Assessment	The acquisition of the new system will cost \$5,675,366.95. It is planned to be paid entirely by State funds.
Technology Architecture Review	The new system aligns with the eight principles listed in the State's Strategic Plan.
Implementation Plan Assessment	An implementation of this project size is typically about a year. BerryDunn finds the time table proposed in the plan to be realistic, especially based on the history of implementation in other jurisdictions. There are concerns over the readiness of the hosting environment and the risk around the State not identifying a Project Director.
Cost Analysis and Model for Benefit Analysis	BerryDunn's lifecycle cost projection exceeds the State's IT ABC business case by about \$2,700,000. However, the business case did not include costs for state labor to maintain the new solution. There are meaningful, realistic, and compelling benefits documented for this system acquisition. Compared to the current Conduent system, which lacks fuel tax collection functionality, is no longer supported, is reportedly off-line or unavailable at increased rates, the new solution has key advantages. Although the product may be more expensive than what competitors offer, BerryDunn believes there will be realizable benefits for the State.
Impact Analysis on Net Operating Costs	The acquisition of the system will create an increase of \$12,470,554.35 in operating costs over six years. The State has documented expected increases in functionality.

1.4 Identified High Impact &/or High Likelihood of Occurrence Risks

Table 1.3 – Impact/Likelihood of Occurrence Risks

Risk Description	State's Planned Risk Response	Reviewer's Assessment of Planned Response
Risk that the current system (Conduent) will become unavailable due to 1) expired contract between the	The State plans to continue to negotiate with Conduent to	The State's strategy for mitigating this risk is reasonable. This approach, and

Risk Description	State's Planned Risk Response	Reviewer's Assessment of Planned Response
<p>State of Vermont and solution provider, and 2) imminent departure of solution provider from the IFTA/IRP/Motor Vehicle Fuel Tax system market.</p> <p>The State indicates that Conduent does not want to support a two-year contract extension (until September 2020). Currently, the State is working with Conduent on a subscription/ basis—the State does not own any of the software. The company offered to help the State exit the system as soon as possible. The State is still using the Conduent system primarily because of a negotiated settlement to extend its subscription.</p> <p>There is concern about the stability of the system. Reported system downtime has been significant. A reported 90% of Conduent staff have left employment and the support response time has recently increased. The State of Vermont will be the last jurisdiction on the solution as of July 2019.</p>	<p>secure the contract extension while moving forward with the system replacement with the preferred vendor.</p>	<p>using a single-phase implementation, helps minimize the project timeline. As a last resort, the State also suggested participation in a consortium of states using the Kentucky IFTA Processing Consortium (IPC) System as a mitigation tool. IPC is an online IFTA compliance tool. This does not address IRP or other components of the services the State may lose. The State reports that at least one other jurisdiction, Nevada, joined the IPC within a period of 30 days of suddenly needing a new system.</p>
<p>Competing business and project priorities combined with the potential unavailability of appropriate DMV resources required from the State risks project success.</p> <p>The State emphasized the need for filling project roles with the right staff. While the business focus of this project is IRP/IFTA/Motor Fuel Tax, the Project Director and Implementation Coordinators do not need to be strong in daily business functions, such as data entry. Rather, the right team and leadership should possess broader skills in technology and business process improvement.</p> <p>Fast's methodology demands significant participation from key DMV staff and not</p>	<p>Leadership at DMV and ADS have met with the Fast PM to better understand what skills and qualities will be necessary for the implementation coordinators and the project director. The State contemplates use of temporary staff to backfill operations positions so that more seasoned staff can be freed up to participate on the project. A staffing decision is</p>	<p>The State's mitigation strategy is reasonable.</p>

Risk Description	State's Planned Risk Response	Reviewer's Assessment of Planned Response
<p>all staff have been identified. This includes the Project Director and Implementation Coordinators. ADS stated that having the appropriate people in the necessary roles is critical. Without a suitable project team, this project assumes significant risk.</p>	<p>expected prior to March and the State is planning to identify a project manager no later than March 1 to provide those who may not have as much subject matter expertise time to acquire additional knowledge prior to starting the project.</p>	
<p>The absence of the amendment to elevate the current VDT contract to a master service agreement precludes use of the planned IRP/IFTA/Motor Fuel Tax Statement of Work (SOW) with Fast.</p> <p>The State will rely on a master contract for FAST's services. In the absence of the execution of a master service agreement, no scope of work may proceed. The risk is primarily around the timeline of the project, as a long finalization of the master services agreement delays the commencement of the implementation. The Department of Buildings and General Services (BGS) and the Office of Purchasing and Contracting will draft a FAST justification circulation memo. The Procurement Advisory Team (PAT) will consider the memo, contract, State of Vermont Contract Summary and Certification (AA-14), and other related forms. The PAT will then send an approval memo to the Secretary of ADS for signature. The planned master contract is not yet in place and needs to be signed by the Secretary.</p>	<p>ADS is collaborating with the Agency of Administration (AOA) and BGS to secure the master contract.</p>	<p>The result of this collaboration effort is unclear, though if successful, will result in securing the master contract. After speaking with ADS, they are making efforts to assure the PAT is able to review the relevant forms.</p>

1.5 Other Key Issues

Recap any key issues or concerns identified in the body of the report.

The key concerns are lack of support of the existing Conduent system and the contingency of finalizing a master agreement to begin implementation of a new solution. Another key concern is the lack of an identified State project director. Concerns of lower probability or impact are risk of paying more for a solution and willingness of DMV staff to adopt the planned solution.

1.6 Recommendation

Provide your independent review recommendation on whether or not to proceed with this technology project and vendor(s).

BerryDunn recommends that the DMV and ADS proceed with the master agreement and SOW.

There are solid reasons to acquire a new system. The risk of the incumbent system discontinuing and its lack of key fuel tax functionality makes the case to replace compelling. Planned gains in productivity are documented, though not easily quantified. The planned modernization of the IRP/IFTA/Motor Fuel Tax collection systems is supported by the business case.

1.7 Independent Reviewer Certification

I certify that this Independent Review Report is an independent and unbiased assessment of the proposed solution's acquisition costs, technical architecture, implementation plan, cost-benefit analysis, and impact on net operating costs, based on the information made available to me by the State.

Independent Reviewer Signature

Date

1.8 Report Acceptance

The electronic signatures below represent the acceptance of this document as the final completed Independent Review Report.

ADS Oversight Project Manager

Date

State of Vermont Chief Information Officer

Date

2.0 Scope of this Independent Review

Add or change this section as applicable.

2.1 In Scope

The scope of this document is fulfilling the requirements of Vermont Statute, Title 3, Chapter 45, §2222(g):

The Secretary of Administration shall obtain independent expert review of any recommendation for any information technology initiated after July 1, 1996, as information technology activity is defined by subdivision (a)(10), when its total cost is \$1,000,000 or greater or when required by the State Chief Information Officer.

The independent review report includes:

- An acquisition cost assessment
- A technology architecture review
- An implementation plan assessment
- A cost analysis and model for benefit analysis
- An impact analysis on net operating costs for the Agency carrying out the activity
- An overall risk assessment of the proposed solution

2.2 Out of Scope

If applicable, describe any limits of this review and any area of the project or proposal that you did not review.

A separate deliverable contracted as part of this Independent Review may be procurement negotiation advisory services, but documentation related to those services are not part of this report.

3.0 Sources of Information

3.1 Independent Review Participants

List the individuals that participated in this Independent Review.

Table 3.1 – IR Participants

Name	Employer and Title	Participation Topic(s)
Nick Andersen	ADS, Chief Information Security Officer	Project Information, Technology Architecture
Renea Bordeau	DMV, Future Director of Finance and Logistics	Project Information, Implementation Plan, Technology Architecture, Cost Analysis, Risk Assessment
Chris Brynga	ADS, Database Administrator Supervisor	Project Information, Implementation Plan, Technology Architecture, Kick-off
Tom Buonomo	ADS, Agency Director of Digital Services for AOT	Kick-off, Project Information, Implementation Plan, Technology Architecture, Cost Analysis, Risk Assessment
Christina Burt	DMV, Commercial Vehicle Operations Specialist	Project Information, Implementation Plan
Scott Carbee	ADS, Deputy Chief Information Security Officer	Project Information, Technology Architecture
Donna Earle	DMV, Chief of Records and Motor Carrier Services	Kick-off
Colonel William "Jake" Elovirta	DMV, Director of Enforcement & Safety	Kick-off, Project Information, Implementation Plan
Alex Geller	ADS, Enterprise Project Management Office, IT Business Analyst Supervisor	Project Information
Jayna Guilford	ADS, IT Portfolio Manager	Project Information, Implementation Plan, Technology Architecture, Cost Analysis, Risk Assessment

Name	Employer and Title	Participation Topic(s)
Brad Hanscom	BerryDunn, IR Manager	Kick-off, Project Information, Implementation Plan, Technology Architecture, Cost Analysis, Risk Assessment
Carol Harrison	DMV, Director of Finance and Logistics	Kick-off
Cathy Hilgendorf	AOT, Audit Chief	Risk Assessment
John Hunt	ADS, Enterprise Architect	Project Information, Implementation Plan, Technology Architecture
Leonard LeBlanc	AOT, Chief Financial Officer	Project Information, Implementation Plan, Cost Analysis, Risk Assessment
Wanda Minoli	DMV, Commissioner	Kick-off, Project Information, Implementation Plan, Risk Assessment
Gina Occhipinti	BerryDunn, Business Analyst	Kick-off, Project Information, Implementation Plan, Technology Architecture, Cost Analysis, Risk Assessment
Jennifer Pittsley	DMV, Special Programs Director	Kick-off, Project Information, Implementation Plan, Cost Analysis, Risk Assessment
Kelly Reagan	ADS, IT Manager for DMV	Kick-off, Project Information, Implementation Plan, Technology Architecture, Cost Analysis, Risk Assessment
Michael Smith	DMV, Director of Operations	Kick-off, Project Information, Implementation Plan, Risk Assessment
Lori Stiles	DMV, Commercial Vehicle Operations Specialist	Kick-off, Project Information, Implementation Plan
Adam Schaffer	Fast Enterprises	Project Information, Implementation Plan, Technology Architecture

3.2 Independent Review Documentation

Complete the chart below to list the documentation utilized to compile this independent review.

Table 3.2 – IR Documentation

Document Name	Description	Source
Stakeholder Contact List	Stakeholder contact list for scheduling interviews (e.g., ADS staff, DMV resources, proposing Vendor resources)	ADS
IT Activity Business Case and Cost Analysis (IT ABC Form)	Provides general information, security information, business justification, and cost analysis for this project	ADS
Market Research Results	Includes RFI vendor responses (Fast, Explore, Tech Mahindra) and relevant research on other vendor contracts	ADS
VT ADS 2018 Strategic Plan	Gives direction for the development and deployment of IT services and solutions for VT	ADS
Attachment D	IT System Implementation Terms and Conditions	ADS
CVO DMV Project Charter	Project Charter to replace the current Commercial Vehicles Operation (CVO), IFTA, IRP, and Motor Fuel Tax (rental, diesel, gas, aviation) administrative system	ADS
CVO RFI	Initial RFI of VT DMV for this project	ADS
CVO SOW Attachment A	Statement of work between VT DMV and proposing Vendor	ADS
CVO SOW Attachment B – Payment Provisions	Lists invoice amounts for proposing Vendor deliverables, annual maintenance, system support, and provides labor rates by category	ADS
CVO SOW Attachment A – State Response	SOW including State response	ADS
CVO SOW Attachment B – State Response	SOW costs including State response	ADS
Fast Justification Memo	Justifies the State elevating the contract with Fast to a master agreement	ADS
Lifecycle Cost Analysis	Current and implementation cost sheet	ADS
Master Contract with Fast	Amendment establishing master software	ADS

Document Name	Description	Source
	publisher/services provider terms and conditions	
Requirements	CVO replacement system requirements	ADS
Non-Functional Requirements	CVO replacement system non-functional requirements	ADS
VT DMV CVO System Replacement Project Schedule	High-level Microsoft Project schedule for CVO system replacement	ADS
VT Continuity of Operations Plan (COOP)	Establishes policy guidance to ensure the execution of the mission-essential functions for VDT in event of emergency or relocation of selected personnel	ADS
VT CVO Replacement Project Status Report	Project health assessment for the reporting period 11/10/2018 – 11/30/2018	ADS

4.0 Project Information

Provide any relevant background that has resulted in this project.

4.1 Historical Background

The State plans to acquire a new IT system that includes two major business areas – IFTA and IRP, to a system with planned support and improved functionality in these areas. Additional obligations of the DMV include collecting and reporting motor fuel and diesel taxes, rental vehicle, railroad, and aviation fuel taxes. These programs constitute the scope of the solution.

The State’s business case lists two key reasons for undertaking this project. First, it plans for the establishment of a master statewide services agreement to provide a basis for use of an existing contract to procure an IRP/IFTA/Motor Fuel Tax solution. Second, it plans for a specific scope of work for Fast to integrate components of its GenTax solution in the DMV to fulfill the IFTA/IRP/Motor Fuel Tax needs. The SOW for this independent review provides the following background for this project:

“The Vermont Agency of Transportation, Department of Motor Vehicles through the Office of Procurement and Contracting is drafting a Statewide Master Contract to encompass both (1) and (2) below, and also future potential Solution deployments at other agencies. DMV will have the implementation of Fast Enterprises’ solutions for DMV’s programs for IRP and IFTA. This Contract draft will be a Sole Source procurement of proprietary, enterprise software licenses, implementations services, and ongoing support and maintenance that are only available (in a manner to support Enterprise integration with Vermont’s existing infrastructure and potential future needs) from Fast Enterprises, LLC (hereinafter ‘Fast’), for the purpose of enterprise-integrated tax administration and revenue collection software. Fast’s GenTax solution has already been successfully used, since 2014, by the Vermont Department of Taxes, as VTax. Other Fast offerings can suit imminent and urgent present needs of the Department of Motor Vehicles, as well as potential future needs of diverse agencies ranging from Labor to the Department of Liquor Control, and also possible future, broader, modernization efforts at DMV.

The goals of the amended Fast contract is to:

- 1) Put in place a State-wide master contract under which individual agency/program solution deployments can take place (subject to appropriate ADS and Administration review and approval of any such future particular solution deployments); and
- 2) Authorize DMV to acquire and implement Fast’s solutions for DMV’s revenue-collection programs for International Registration Plan (IRP) and International Fuel Tax Agreement (IFTA), as well as taxes on motor fuels, vehicle rentals, railroad fuel tax, and aviation fuel

tax. These are major funding streams, and DMV is currently operating under a very old contract with a vendor that has chosen to exit the market of supporting IRP/IFTA functionality.”

The State has not pursued a sole source procurement as stated in the SOW for this IR. Rather, the State has pursued an amendment to the existing Fast contract so that the contract is now available statewide, rather than available only to the Department of Taxes.

This incumbent IRP/IFTA solution vendor is provided by Conduent, Inc. Conduent is a digital platform and services provider for business and government. The current contract that the DMV has with Conduent has expired and the planned contract extension between Conduent and the DMV is not signed, as of December 31, 2018. By July 2019, Vermont will be the only jurisdiction using the Conduent platform. While Conduent is performing fixes in the short term for performance problems that arise in the system, the DMV has noticed an increasing amount of performance issues since August 2018. After the contract ends, Conduent will no longer provide these short fixes to maintain the system.

The project business case and interviews with the State also document use of an Access97 database to record and report fuel sales by motor fuel distributors within the state and rental vehicle taxes paid within the state. The DMV also records, railroad tax and aviation fuel in standalone spreadsheets. It is difficult to fix the Access97 database as the State needs someone who has knowledge of this old technology. The DMV tries not to touch the database unless necessary.

Explain why the project is being undertaken.

4.2 Project Goals

There are a number of goals supporting this project. Implementing this new system would be a small step in modernization for Vermont’s state agencies, in particular the DMV. The DMV cites the possibility of using Fast software in the future to modernize portions of its business, such as license, registration and title issuance. The VDT recently went through a modernization using the broader GenTax system from Fast and this implementation project builds off that endeavor.

The Commercial Vehicle Operations (COV) system business case, dated February 8, 2018, provides justification for undertaking the project. Some examples it lists of where the system would provide business value include compliance, risk reduction, and customer service. The following passages include information referenced in the business case.

Compliance: A modernized system will allow the State to meet the United States Department of Transportation (US DOT) Innovative Technology Deployment (ITD) Core requirements by

including an Electronic Credentialing Administration, which allows carriers to register online. It also includes online remittance of fuel taxes.

The new system will also increase the State's participation in the Commercial Vehicle Information Exchange Window (CVIEW). The USDOT defines CVIEW as "a state system that collects information from the commercial vehicle credentialing and tax systems to generate portions of the interstate carrier, vehicle, and driver snapshots and reports for exchange within the state (e.g., to roadside sites) and within the SAFER system." CVIEW is an important mechanism for agencies within a state to share this valuable data. The new system provides a dashboard to show the State all IFTA and IRP data of motor carriers at roadside, sending the DMV better CVIEW data from even out-of-state carriers. This is a key benefit of the proposed solution.

The implementation of this new system also enhances compliance efforts for Performance Registration Information Systems and Management (PRISM). The State is currently within PRISM compliance. The new system will maintain what the State currently has for PRISM compliance specifications.

Process Improvement: There is a risk around the use of two separate systems for Motor Fuel Tax collection. The reliance on the time-consuming process of manually re-entering tax and audit information into a separate system, Microsoft Access, increases the risk of data errors. With functionality to support Motor Fuel Tax collection and distribution and the collection of audit information in the new system, this data is processed timely and accurately.

The Project Charter and State of Vermont Strategic Plan reference a goal to "reduce the amount of manual labor associated with IFTA, IRP, and Motor Fuel transactions." Specifically, this goal speaks to the "Number of Online Transactions" Breakthrough Indicator, which involves the replacement of over 15,000 paper transactions per year. The Charter quantifies this goal in the following timeline: achieve 15% of transactions conducted online within the first quarter after implementation, 60% within the first year, and 85% within the second year, assuming all forms are available online. This goal was also reiterated during on-site interviews and was stated that the new system would be able to reach the 15,000 transactions goal.

There is also a risk around unrealized revenue due to poor audit features and missing data analytics capabilities. The Project Charter mentions a goal to "enhance auditing through analysis of structured data and automation". The new system increases the ability to manipulate and analyze tax data using audit criteria, increasing the effectiveness of audit selection and streamlining processes. It does this by eliminating suspect data entry (i.e., non-contiguous states, rounded numbers, and clerical errors) and creates targeted audit lists by isolating suspect Motor Fuel Tax returns through queries. This will allow the DMV staff to increase the number of audits they perform each quarter, aligning with the Project Charter. The Charter

quantifies this goal by aiming to increase the number of IFTA and IRP audits per auditor from four per quarter to nine per quarter by the end of year one. The DMV and CVO also aims to increase the number of Motor Fuel audits from 4 per year to 8 per year by the end of year two. This increased automation also allows for the review of all tax returns for each month and quarter and refocuses desk audits on specified concerns. The Project Charter addresses this concern with a goal to “reduce the number of returns (incomplete/inaccurate applications) by 50% for any given quarter as compared to the previous quarter, with a target goal of less than 2% of return letters per quarter by the end of year two.” This would be an improvement as it was stated during on-site interviews that an average of 10% of IRP and IFTA applications are returned per quarter.

There is another risk around continuing with an unsupported, therefore unsustainable, solution. The new system is a COTS solution with a current, supported platform.

Customer Service: There are little to no online DMV services available within the COV program. For example, there is no online capacity to fill out an original or renewal application (for certificates, tags, etc.). The DMV credit card processor for non-IFTA and non-IRP transactions is frequently down, making it inconvenient for staff and customers who prefer to pay through credit card. The new processing system will include a web portal, allowing customers to apply and renew credentials online. This improves customer service by offering an additional, convenient input channel. The addition of online Motor Fuel Tax collection services allows for online tax filing and payments, enhancing customer service provided to motor fuel distributors. The removal of duplicate data entry reduces the return of incorrectly prepared tax reports to customers, also enhancing service.

The Vermont DMV will be limited in its ability to fulfill demands of tax collection and registration processing of other states without a modernized system. Collaboration among states for revenue collection is inherent in IRP and IFTA. If other states are using more advanced systems incompatible with Vermont’s legacy system, Vermont’s partnership with other states is put at risk. DMV leadership’s goal is to keep up with national IRP and IFTA technology to continue to support Vermont businesses who need to travel across state lines and are affected by IRP and IFTA.

Workflow enhancements: Workflow enhancements, as a result of the new system, include reduced downtime of the PayPort system for over-the-counter transactions, as mentioned above. There are no point-of-sale and revenue recording functions in the Conduent system.

The GenTax system is expected to record collection of aviation fuel tax. Aviation, gas, and rental tax are all currently collected in Microsoft Access and Excel. A new Vermont law states that aviation tax will need to be reported separately beginning January 2019. The business

requirements state that the GenTax system must support the processing of aviation fuel tax application types and forms.

Another improvement the new system brings is better revenue accounting, including the ability to split disbursements. Where otherwise DMV staff would have to manually separate disbursements, the system provides this functionality.

Describe the project scope and list the major deliverables. Add or delete lines as needed.

4.3 Project Scope

There are two agreements planned with Fast: a master agreement and a SOW specific to IRP/IFTA/Motor Fuel Tax. The master agreement includes the following available products and services:

- Software products
- Services (including provide licenses, configure and deploy IT systems, provide training, software updates and work with State staff)
- Annual maintenance (specifically Level 1 support to service their solution)

The scope of the SOW for the IRP/IFTA/Motor Fuel Tax is “implementation, maintenance and operations of the Contractor’s GenTax IFTA/IRP/Motor Fuel/ Car Rental software (hereafter called “Software”) and the maintenance and support of the System.” (See page 5 of the file CVO_SOW_AttachmentA1_StateResponse 120718.)

The State indicated during interviews and in the Project Charter that the following system functionality is out of scope:

- Cash payments over counter with end of day reconciliation
- Limited scanning and storing solution. The State plans to use a desktop scanner and attach files
- Garnishing wages and assets
- oversize/overweight permits and CVIEW

4.3.1 Major Deliverables

As of December 17, 2018, the following are the planned deliverables for the IRP/IFTA/Motor Fuel Tax SOW.

Table 4.1: Major Deliverables within the SOW

Deliverable	Description
Definition Complete	The activities substantially completed at the Definition Complete milestone include the tasks in the Preparation and Definition phases of the Fast Implementation Methodology. In addition, the Project Plan will be substantially completed.
Base Configuration Complete	The activities substantially completed at the Base Configuration Complete milestone include the tasks in the Base Configuration phase of the FAST Implementation Methodology.
Testing Preparation Complete	The activities substantially completed at the Testing Preparation Complete milestone include: definition of approach for business testing; identification of test scenarios; identification of testers; training of testers; scheduling of testing; setup of office space for testing; setup of technical environment(s) for testing; migration of software and configurations from development environment to test environment(s); definition and setup of tools and approaches for managing and tracking progress of testing; definition and setup of tools and approaches for managing and resolving defects identified during testing. In addition, the Test Plan will be substantially completed.
System Acceptance, Production Rollout	The activities substantially completed at the System Acceptance, Production Rollout milestone include the tasks in the Development, Conversion, Testing, User Training, and Rollout phases and the following documents: Conversion Plan, Training Plan, User Documentation, Technical Documents, and Rollout Plan.

4.4 Project Phases, Milestones and Schedule

Provide a list of the major project phases, milestones and high level schedule. You may elect to include it as an attachment to the report instead of within the body.

Table 4.2: High Level Project Schedule

Services	Estimated Completion Date
GenTax Installation (IFTA, IRP, Motor Fuel, Car Rental)	4/19/2019
Rollout One	

Services	Estimated Completion Date
Base Configuration Complete	6/21/2019
Testing Preparation	8/30/2019
Development Complete	9/27/2019
System Acceptance, Production Rollout	3/30/2020
Annual Maintenance	
Year 1	Above + 1 year
Year 2	Above + 1 year
Year 3	Above + 1 year
Year 4	Above + 1 year
Year 5	Above + 1 year
Year 6	Above + 1 year

Table 4.3: Major Project Phases and Milestones

Phase No.	Phase Name	Phase Description	Deliverable/Milestone
1	Preparation Phase	Develops the roadmap that defines how the implementation is executed.	Definition Complete
2	Definition Phase	Defines the work that will be performed to deliver the functionality for the line of business.	Definition Complete
3	Base Configuration Phase	Structures and implements the starting point for the rollout. Once the baseline is in place, the system supports basic navigation and business function processing.	Base Configuration Complete
4	Development Phase	Gathered requirements are used to produce work packages for developers specifying parameters, select options, thresholds, and other types of configuration,	System Acceptance, Production Rollout

Phase No.	Phase Name	Phase Description	Deliverable/Milestone
		enhancements, or programming.	
5	Conversion Phase	Provides the new system with a base set of data against which the business functions operate.	System Acceptance, Production Rollout
6	Testing Phase	Ensures that the production system is able to meet the business needs in a robust and stable manner.	System Acceptance, Production Rollout
7	User Training Phase	User documentation is prepared, and users are trained to use the new system.	System Acceptance, Production Rollout
8	Rollout Phase	Delivers the lines of business to production.	System Acceptance, Production Rollout
9	Production Support Phase	Provides desk-side support and solution-specific help-desk support during the initial production period, and operates and maintains the solution in production over the long term.	N/A

5.0 Acquisition Cost Assessment

List all acquisition costs in the table below (i.e. the comprehensive list of the one-time costs to acquire the proposed system/service). Do not include any costs that reoccur during the system/service lifecycle. Add or delete lines as appropriate. Based on your assessment of Acquisition Costs, please answer the questions listed below in this section.

Table 5.1 – Acquisition Cost Assessment

Acquisition Costs	Cost	Comments
Hardware Costs	\$20,550	This includes developer desktops and dual monitors
Software Costs	\$860,125	This includes: <ul style="list-style-type: none"> Cost for GenTax Installation (IFTA, IRP, Motor Fuel, Car Rental) Level 1 Support/Annual Maintenance Office 365 – G3 Licenses Visual Studio Licenses
Professional Services	\$4,408,840	This is all Fast configuration, installation, implementation services (other than GenTax Installation), State labor for implementation costs, and other contract implementation costs <ul style="list-style-type: none"> Base configuration complete Testing preparation Development complete System acceptance, product rollout Contracted services for penetration testing Penetration testing
Other Costs	\$385,851	This includes: <ul style="list-style-type: none"> State of Vermont (SOV) Cloud services Independent Review
Total Acquisition Costs	\$5,675,366.95	

1. Cost Validation: Describe how you validated the Acquisition Costs.

Costs were validated through interviews and document analysis. Some specifics of cost validation include:

- Hardware costs came from a cost sheet provided by the State, called “Lifecycle Cost Analysis DMV CVO GenTax”
- Software costs came from the draft SOW between the State and Fast Attachment B
- Costs for professional services came from the phase payments in the draft SOW between the State and Fast Attachment B
- Costs for State Professional Services came from the cost analysis on-site visit. For implementation coordinators, the cost is calculated by multiplying six staff working 2,080 hours per year for \$55 per hour at 75% of their full time. For the Project Director, the cost is calculated by multiplying one staff person working 2,080 hours per year for \$88 per hour at 100% of their full time.
- Costs for the independent review came from the SOW between BerryDunn and the State
- Costs for ADS estimated charge for EA and project oversight came from calculating 3% of total implementation costs

2. Cost Comparison: How do the Acquisition Costs of the proposed solution compare to what others have paid for similar solutions? Will the State be paying more, less or about the same?

The services requested by the State are offered by other providers. BerryDunn conducted research of costs that other jurisdictions are paying for similar systems. The findings are not exhaustive. Below is a table that shows general total contract values for similar systems paid by other states to other solution providers. This table is not meant to be conclusive as there are several factors that prevent a full “apples to apples” comparison between the Fast proposal and those of other jurisdictions. First, out of the states below, only Wyoming and South Dakota are comparable to Vermont by population size, so a larger state might intrinsically pay more. Second, some contracts were effective in 2008, including the contract for South Dakota, and are thus dated. Finally, not all of the contracts below cover the same services within the system implementation of the Vermont DMV. It would make sense that an implementation for an IRP system only would be less expensive than a system that includes IRP, IFTA, and Motor Fuel Tax.

After analyzing the RFI responses to the RFI the State issued in 2015, it shows that when estimating costs, Fast’s initial cost response is highest out of the three vendors that responded, including TechMahindra and Explore.

Table 5.2: Vendor Solution Contract Cost Comparison

Vendor	State	System	Estimated Contract Amount, Year, Duration	Source
Fast	Vermont	<ul style="list-style-type: none"> IRP/IFTA/Motor Fuel Tax, rental tax, railroad fuel tax and aviation fuel tax 	<ul style="list-style-type: none"> \$8,300,000 2015 6 year duration (assumed) 	Fast VT DMV RFI response
Tech Mahindra	Vermont	<ul style="list-style-type: none"> CRM Customer Service Motor Carrier (IFTA, Audit, IRP, Motor Fuel, Carrier Paradox) Interfaces Permits 	<ul style="list-style-type: none"> \$6,400,000 (includes implementation, annual maintenance and support, software and hardware) 2015 6 year duration (assumed) 	TechMahindra VT DMV RFI Response
Explore	Vermont	<ul style="list-style-type: none"> IRP/IFTA 	<ul style="list-style-type: none"> \$3,250,000 (includes hardware) 2015 6 year duration (assumed) 	Explore VT DMV RFI Response
Explore	South Dakota	<ul style="list-style-type: none"> IRP/IFTA/PRISM/CVISN 	<ul style="list-style-type: none"> \$1,767,964 (implementation) \$260,000 (annual maintenance) 2008 Duration unknown 	Contract between Explore and South Dakota Dept. of Revenue (GovWin)
Explore	Kentucky	<ul style="list-style-type: none"> IPC IFTA processing hosted vendor solution 	<ul style="list-style-type: none"> \$7,170,000 (includes implementation, data conversion, maintenance, licensing software) 	Explore Cost Response to Kentucky (GovWin)



Vendor	State	System	Estimated Contract Amount, Year, Duration	Source
			<ul style="list-style-type: none"> 5 year duration 	
Explore	Michigan	<ul style="list-style-type: none"> IRP Commercial Vehicle System 	<ul style="list-style-type: none"> \$3,083,490 2008 Duration unknown 	Contract between Explore and Michigan Dept. of Management and Budget
Celtic	Wyoming	<ul style="list-style-type: none"> IFTA/IRP 	<ul style="list-style-type: none"> \$1,400,000 2017 2 year duration 	Wyoming DOT Staff, Celtic Systems website
Celtic	Kansas	<ul style="list-style-type: none"> Intrastate Commercial Motor Vehicles Registration IRP with title component CVIEW and T&R interface Financial and inventory Celtic In-line document management system 	<ul style="list-style-type: none"> \$3,000,000 2013 5 year duration 	References made in Celtic's RFP response to West Virginia
Celtic	Alabama	<ul style="list-style-type: none"> Commercial motor vehicle registrations (IRP)/IFTA/CVIEW with T&R interface Financial and inventory 	<ul style="list-style-type: none"> \$3,000,000 2007 Duration unknown 	References made in Celtic's RFP response to West Virginia
Celtic	Georgia	<ul style="list-style-type: none"> CMV registrations (IRP)/CVIEW/PRIISM with T&R interface 	<ul style="list-style-type: none"> \$2,000,000 2014 3 year duration 	References made in Celtic's RFP response to West Virginia
Celtic	Iowa	<ul style="list-style-type: none"> CMV registrations (IRP)/IFTA/CVIEW/PRI 	<ul style="list-style-type: none"> \$3,000,000 2009 	References made in

Vendor	State	System	Estimated Contract Amount, Year, Duration	Source
		SM with T&R interface and permitting/routing interface	<ul style="list-style-type: none"> 7 year duration 	Celtic's RFP response to West Virginia
Celtic	South Carolina	<ul style="list-style-type: none"> CMV registrations (IRP)/IFTA/CVIEW interface Integration of COTS motor carrier products with T&R and driver's license system 	<ul style="list-style-type: none"> \$4,000,000 2010 6 year duration 	References made in Celtic's RFP response to West Virginia
Celtic	New York	<ul style="list-style-type: none"> IRP 	<ul style="list-style-type: none"> \$2,389,780 2012 6 year duration 	GovWin

1. Cost Assessment: Are the Acquisition Costs valid and appropriate in your professional opinion? List any concerns or issues with the costs.

Research of similar solutions in other jurisdictions and evaluation of RFI responses related to this acquisition suggest that the State could have paid less for a solution. RFI results from 2015 show that Fast's projected costs were higher than competitors. Research of existing contracts in other jurisdictions show, for example, that Wyoming signed a two year contract with Celtic for an IRP and IFTA solution for \$1,400,000 in 2017. It is not known if the scope is the same of the SOW in Vermont, so the comparison with this state and others researched is suggestive.

Additional Comments on Acquisition Costs:

BerryDunn has no additional comments on acquisitions costs.

6.0 Technology Architecture Review

After performing an independent technology architecture review of the proposed solution, please respond to the following.

1. State's IT Strategic Plan: Describe how the proposed solution aligns with each of the State's IT Strategic Principles:

1) Leverage successes of others, learning best practices from outside Vermont

The IFTA/IRP/Motor Fuel Tax portions of GenTax have been implemented in 28 jurisdictions. This software has also been successfully proven in the state of Vermont as well, using GenTax portions for the VDT.

2) Leverage shared services and cloud-based IT, taking advantage of IT economies of scale

The solution will be available via SOV private cloud. The solution will not be connected to VTax (the GenTax system implemented at the VDT), but will use separate instances in a shared environment. The DMV can also use enterprise architecture available from VDT/ADS.

3) Adapt the Vermont workforce to the evolving needs of state government

The State has programmatic need to undertake projects that will help them fulfill its mission. This GenTax system would free up the time of DMV staff to do new tasks instead of data entry and scanning work. The planned system essentially positions the DMV to take a "work smarter" approach. Staff who have been alleviated of duplicate data entry and scanning tasks could help with overweight permits in the summer when the season is busier, for example. Additionally, there are only six people working at the counter at the central DMV office in Montpelier, and staff with time available as a result of the system implementation could help at the central DMV office counters as well. Audit staff would also have more time to focus on desk audits, with the reduction in time spent fixing data entry errors. There are a myriad of projects at DMV that could use attention and this system implementation would better position the DMV to allocate resources to these areas.

4) Apply enterprise architecture principles to drive digital transformation based on business needs

The State replied that the solution fulfills enterprise architecture principles by using COTS software and using Application Program Interfaces (APIs) and web services for integration. The State's Enterprise Architecture Office uses Guiding Principles to inform and support how the State assesses and chooses technology. For example, one principle speaks to valuing configuration over customization. Choosing a COTS software

aligns with this principle as it generally decreases customizations and system complexity.

- 5) Couple IT with business process optimization, to improve overall productivity and customer service

The State expects to improve business processes with a modern software solution. For example, the new system has better revenue accounting and can split disbursements. The State also expects that they will no longer need to manually enter revenue into multiple systems.

For returned IFTA and IRP applications, it's expected that carriers themselves do financial calculations on what they owe to the State. In this situation, it's easy for carriers to make mistakes, causing more work for the DMV staff to fix miscalculations. The current mode of business also uses paper-based returns, which need to be mailed back, causing an inconvenience for customers who prefer to file electronically and delays the time until the DMV receives the return. About 10% of filings are returned every quarter, which could be reduced in the new system as there would be no more manual calculations.

Another useful feature of the new system is cross-referencing mileage reported between IFTA and IRP.

- 6) Optimize IT investments via sound Project Management

The State believes that their project management practices align with Fast's practices. The State emphasized that they expect to keep project management reporting and development of reports to a minimum, which is consistent with the GenTax implementation at VDT.

- 7) Manage data commensurate with risk

The IRP/IFTA/Motor Fuel Tax software will have the same standards as VDT and will be held to the IRS Publication 1075 environment. DMV expects a Social Security Audience (SSA) audit on January 30, 2019.

- 8) Incorporate metrics to measure outcomes

The State offered improved time to refund and improved time to receive bills as two immediate improvements. The new system will allow users to generate a data query rather than relying on manual processes to locate data. Project Goals and Objective Criteria are found in the Project Charter, which is included in the following table.

Table 6.1: Project Goals and Objective Criteria

#	Goal	Objectives
1	Reduce amount of manual labor associated with IFTA, IRP and Motor Fuel transactions	1. Assuming all forms are available online, achieve 15% of transactions conducted

#	Goal	Objectives
		<p>online within the first quarter after implementation, 60% within the first year, and 85% within the second year.</p> <p>2. Reduce the number of returns (incomplete/ inaccurate applications) by 50% for any given quarter as compared to the previous quarter, with a target goal of less than 2% of return letters per quarter by end of year two. Currently the average is 10% per quarter.</p>
2	Reduce delinquency and improve cash flow	<p>1. Assuming all forms are available online, achieve 15% of electronic IFTA, IRP, Motor Fuel financial transactions (ACH, Credit Cards) within the first quarter after implementation, 60% within the first year, 85% within the second year.</p>
3	Enhance auditing through analysis of structured data and automation	<p>1. Increase number of IFTA/IRP audits per auditor from 4 per quarter to 9 per quarter by end of year one.</p> <p>2. Increase number of Motor Fuel Audits from 4 per year to 8 per year by end of year two.</p>

2. Sustainability: Comment on the sustainability of the solution’s technical architecture (i.e., is it sustainable?).

The solution is sustainable in that it is used by a number of other jurisdictions. The State has opted for a support, maintenance, and operations portion of the contract that provides for on-site support from Fast. There is a documented plan to use the system for implementation plus five years.

3. Security: Does the proposed solution have the appropriate level of security for the proposed activity it will perform (including any applicable State or Federal standards)? Please describe.

The system is IRS Publication 1075 compliant. In its response to a nonfunctional requirement about presence of a System Security Plan and compliance with NIST (National Institute of Standards and Technology) standard 800-53, Fast replied “GenTax is designed to meet or exceed National Institute of Standards and Technology (NIST) 800-53 Rev 4 and U.S. Internal Revenue Service (IRS) Publication 1075 for regulatory compliance and best practices. GenTax has an approved IRS Safeguard Computer Security Evaluation Matrix (SCSEM), which agencies can use to certify the system as being compliant with IRS

confidentiality and data safeguarding requirements outlined by IRS Publication 1075. Fast maintains a formal system security plan for BerryDunn's hosted clients. For clients where GenTax is hosted by the client, Fast provides the relevant information so the client can update their existing system security plan to include the new GenTax implementation."

4. Compliance with the principles enumerated in the ADS Strategic Plan of Jan 12, 2018. Comment on the solution's compliance with accessibility standards as outlined in this SOW. For reference, please visit:
digitalservices.vermont.gov/sites/digitalservices/files/documents/ADS%20Strategy%202018.pdf.

Fast stated that, "GenTax is designed for ADA compliance by allowing easy navigation using keyboard shortcuts and can be configured for use with screen readers, such as JAWS® for Windows®, to provide accessibility for visually impaired persons. Since the solution is browser-based, it can be displayed using ADA-compliant features incorporated into the latest versions of major web browsers".

5. **Disaster Recovery:** What is your assessment of the proposed solution's disaster recovery plan; do you think it is adequate? How might it be improved? Are there specific actions that you would recommend to improve the plan?

The State furnished a Continuity of Operations Plan (COOP) used by VDT, but not a disaster recovery plan. Fast expects to create or update the ADS/DMV disaster recovery plan as described in section 7.8.5 of the SOW: "The agency's existing Disaster Recovery Plan is upgraded to cover the new application and its platform or, alternatively, a new plan is developed collaboratively with the agency. The plan details which strategies the agency has or will implement to mitigate the impact of unforeseen events".

The State included a non-functional requirement in their requirements listing that read, "Any solutions vendor must provide for the backup/recover, data retention and disaster recovery of a contracted/hosted application solution." Fast responded that this is not applicable to a state-hosted solution. Fast states it will work with the State to ensure the proposed solution works with the State's existing backup, recovery and retention policies.

6. **Data Retention:** Describe the relevant data retention needs and how they will be satisfied for or by the proposed solution.

The State has no designated specific records retention schedules on the Secretary of State's web page. The State indicated that documents in the GenTax system are not purged unless requested.

- 7. Service Level Agreement:** What are the post implementation services and service levels required by the State? Is the vendor proposed service level agreement adequate to meet these needs in your judgement?

The State does expect Level One (first point of contact when a system issue or problem is discovered) service levels. The DMV will have three full time employees (FTE) from Fast on site for support. Support provided will be for the central DMV office in Montpelier. There may be a need for support for auditing functions in the future.

During interviews, the State reported that there is no separate Service Level Agreement (SLA) document for this SOW. The State suggested that the GenTax SLA could serve as guidance. The State suggests in the nonfunctional requirements that it expects the vendor (Fast) to "...engage the State of Vermont using Service Level Agreements for system and application performance, incident reporting and maintenance."

- 8. System Integration:** Is the data export reporting capability of the proposed solution consumable by the State? What data is exchanged and what systems (State and non-State) will the solution integrate/interface with?

The planned interfaces and data exchanges are:

- Financial institutions – These interfaces will be used for DMV communication with an Automated Clearing House (ACH), direct debit, and direct credits.
- The VTtrans Enterprise Data Environment (EDE)
- VISION (The State's financial system)
- The DMV's online filing systems hosted by the Vermont Information Consortium (current web interface)
- IFTA & IRP clearinghouses
- Mainframe DMV systems
- DMV cashing system

Section 8 of the SOW states, with respect to interfaces, that "The content and layout of the file would not be changed." If the goal is to preserve file layout and content, BerryDunn believes that data will be consumable by the State.

Additional Comments on Architecture:

BerryDunn has no additional comments on Architecture.

7.0 Assessment of Implementation Plan

After assessing the Implementation Plan, please comment on each of the following.

1. The reality of the implementation timetable

The State accepted the implementation plan from Fast, a copy of which is found in Attachment B of the Fast SOW. A representative from Fast Enterprises stated that an implementation the size of the one contemplated by Vermont is typically about a year. A year timeframe is typical for a Fast rollout of tax software, and since the company can cite integration of some combination of an IFTA/IRP/Motor Fuel Tax solution, BerryDunn finds the timetable to be realistic.

The following table represents the implementation plan as stated in Attachment B (and as similarly found in Table 4.2 of this report):

Table 7.1. Implementation Plan

Phase and Task	Duration
GenTax Installation (IFTA, IRP, Motor Fuel, Car Rental)	Start Date + 2 Weeks
Rollout One	
Definition Complete	Start Date + 2 Months
Base Configuration Complete	Start Date + 3 Months
Testing Preparation	Start Date + 5.5 Months
System Acceptance, Production Rollout	Start Date + 12 Months

The State did voice some concerns over readiness of the hosting environment. A disaster recovery solution was not decided on as of mid-December 2018. There was uncertainty about the solution architecture design. A list of data center equipment needed to host the solution was not available as of mid-December and there was still a need to discuss solution storage with the State of Vermont Data Center. Some technical details needed to be discussed with Fast, as well. The State plans for a March or April 2019 kick off.

2. Readiness of impacted divisions/departments to participate in this solution/project (consider current culture, staff buy-in, organizational changes needed, and leadership readiness).

The DMV and ADS state they are prepared for a new solution. The Commissioner of the DMV cited the readiness of the staff to improve IRP/IFTA/Motor Fuel Tax processing and reduce the amount of current system down time. DMV is in a difficult position as the last or nearly the last jurisdiction on the Conduent platform and support is minimal. BerryDunn received a short demonstration of the current system, including the Access97 databases used for motor fuel processing. The interviewees spoke to the manual labor that is required in the existing system and that manual process was demonstrated during our interview and on-site visits.

The DMV and ADS are aware of the staff obligations of the integration. The State plans for six staff (integration coordinators) to dedicate 75% of their time to the initiative. A project director is a full time job, and there is possible involvement from another staff member as a testing lead.

The DMV stated that funds for fiscal year 2019 are appropriated, covering the implementation through June 30, 2019. There was no concern expressed about funding the remainder of the project implementation, but that annual ongoing costs have not been budgeted.

3. Do the milestones and deliverables proposed by the vendor provide enough detail to hold them accountable for meeting the Business needs in these areas:

The SOW for this project states that the “Fast Implementation Methodology” will drive the project. Milestones for this project are found on pages 10-13 of the SOW. Project Phases are found in Section 7 of the SOW. BerryDunn believes that there is enough detail to hold the vendor accountable.

A. Project Management

Fast’s overall project management obligation is found on page 14 of the SOW. The language states that, “The Contractor’s PM has overall responsibility for the Project deliverables, schedule, and successful implementation of the System as defined in the Project Management Plan (as defined herein.) Progress will be monitored, and plans adjusted, as necessary, in Project status meetings.” The passage also explains that the Fast PM and State PM shall work closely and collaboratively.

There is project management language in the SOW that speaks to the following: “Section 11.2 Acceptance Criteria: Contractor shall perform the Services and deliver each of the deliverables and payment milestones on or before the respective dates set forth in the Project Management Plan.”

B. Training

Training services are found primarily in section 7.7, User Training Phase. Steps in the training phase include:

- Create Training Plan
- Localize Training Material
- Localize User Documentation
- Train Trainers
- Train Users

A training plan is a Fast deliverable. A sample copy of a training plan is not available. Developer technical training occurs in the Design Phase (Phase 2).

C. Testing

Testing is described in SOW Section 6. As with training, a test plan is expected. Specific test steps are:

- Create Test Plan
- Perform Business Testing
- Perform Converted Data Testing
- Conduct Performance Testing
- Perform End-to-End Testing
- Perform Application Security Testing

Fast states that Business Testing and End-to-End Testing serve as User Acceptance Testing.

D. Design

Design is plausibly covered by Phase 2 (Definition), Phase 3 (Base Configuration), and Phase 4 (Development). Design includes some project management work, such as developing a resource plan, but also includes requirements definitions and making infrastructure recommendations. Base Configuration follows, and is a modification of the base software. The Development Phase consists of tailoring the solution to the specific customer, and includes, as stated in the SOW, “developing correspondence, reports, interfaces, and site-specific programming, as well as reviewing configurations and establishing application security requirements and configuration”.

E. Conversion (if applicable)

There is a dedicated Phase 5 (Conversion) devoted to preparing legacy system data for use in the new system.” Conversion steps include:

- Inventory Data Resources
- Define Conversion
- Purify Data
- Perform Extracts
- Develop Conversion
- Run Mock Conversion
- Verify Conversion

The SOW states that conversion begins early in the project to “allow a fully converted database to be used during End-to-End Testing.”

F. Implementation Planning

BerryDunn considers Implementation Planning to be synonymous with deployment planning. Accordingly, this phase ties with Phase 8 (Rollout). There is no implementation plan, but there is a task in Phase 8 called “Prepare Installation Documentation”. This is a technical document. The full list of Phase 8 activities includes:

- Procure/Install Hardware & Software
- Prepare Installation Documentation
- Prepare Operations and Support Plan
- Perform Operations Training
- Update Disaster Recovery Plan
- Cutover Checklist
- Setup Help Desk
- Run Conversion
- Production Cutover

A cutover checklist and expected disaster recovery plan also provide documentation related to implementation.

G. Implementation

Also part of Phase 8 is system go-live. BerryDunn considers this to be synonymous with implementation.

- 4. Does the State have a resource lined up to be the Project Manager on the project? If so, does this person possess the skills and experience to be successful in this role in your judgement? Please explain.**

The State has not identified a project director/manager. This concern is documented in the risk register (see Risk 2, competing business and project priorities combined with the

potential unavailability of appropriate DMV resources required from the State risks project success).

Additional Comments on Implementation Plan:

BerryDunn finds the detailed description of implementation in Section 7 of the SOW to be satisfactory.

8.0 Cost Benefit Analysis

This section involves four tasks:

- 1) Perform an independent Cost Benefit Analysis. Information provided by the State may be used, but the reviewer must validate it for accuracy and completeness.
- 2) Provide a Lifecycle Cost Benefit Analysis spreadsheet as an **Attachment 1** to this report. A sample format is provided at the end of this report template.
 - A. The cost component of the cost/benefit analysis will include all one-time acquisition costs, on-going operational costs (licensing, maintenance, refresh, etc.) plus internal costs of staffing and “other costs”. “Other costs” include the cost of personnel or contractors required for this solution, enhancements/upgrades planned for the lifecycle, consumables, costs associated with system interfaces, and any costs of upgrading the current environment to accept the proposed solution (new facilities, etc.).
 - B. The benefit side of the cost/benefit will include:
 1. Intangible items for which an actual cost cannot be attributed.
 2. Tangible savings/benefit such as actual savings in personnel, contractors, or operating expense associated with existing methods of accomplishing the work which will be performed by the proposed solution. Tangible benefits also include additional revenue which may result from the proposed solution.
 - C. The cost benefit analysis will be for the IT activity’s lifecycle.
 - D. The format will be a column spreadsheet with one column for each year in the lifecycle. The rows will contain the itemized costs with totals followed by the itemized benefits with totals.
 - E. Identify the source of funds (federal, state, one-time vs. ongoing). For example, implementation may be covered by federal dollars but operations will be paid by State funds.
- 3) Perform an analysis of the IT ABC form (Business Case/Cost Analysis) completed by the Business.
- 4) Respond to the questions/items listed below.

1. **Analysis Description:** Provide a narrative summary of the cost benefit analysis conducted. Be sure to indicate how the costs were independently validated.

BerryDunn evaluated the costs provided by the State. Costs were included in the IT-ABC Business Case and a lifecycle cost evaluation sheet completed by the State. During the on-site interview, the firm reviewed the lifecycle cost sheet and asked questions about the business case. BerryDunn verified the costs provided by the State in its own lifecycle cost sheet and adjusted numbers as appropriate, including costs for ADS enterprise architecture

and project management, the independent review cost, and adjustment of some initially projected state labor costs included in the business case. BerryDunn relied on annual hour estimates (2080 hours for State staff, except for 1440 hour annually for ADS technical staff) provided by the State. The State offered the Consumer Price Index multiplier to calculate the increased cost of living for annual maintenance at roughly 2.5. BerryDunn conducted some calculations based on formulas or percentages provided by the U.S. Bureau of Labor Statistics and feels that the 2.5% multiplier is reasonable.

The benefits of the solution are documented. There are no planned staff reductions. There was discussion of planned improvement in federal reporting requirements but no certain documentation that it will materialize if a new solution is acquired. There are many intangible benefits, or benefits that can only be speculatively quantified, such as improved processing times. Those benefits are acknowledged and included in this report.

2. Assumptions: List any assumptions made in your analysis.

- There is a six-year life cycle.
- The implementation period is separate from maintenance and support life cycle for the purposes of cost calculating.
- Though some implementation costs occur in 2020, BerryDunn assumes they all occur in 2019 for the purposes of cost calculating.
- The cost for the Project Director is estimated at \$183,040. The position is needed for a year. Hourly cost is stated \$88 with an estimated 2080 work hours in a year.
- The cost for State implementation coordinators is \$514,800. This includes six employees at 75% of full time. Hourly cost is stated \$55 with an estimated 2080 work hours per year.
- The cost for State labor to operate and maintain the solution is \$355,520. This figure is calculated by applying hourly rates and estimated hours to a State estimated three FTEs for system maintenance in all post implementation years.
- The cost to maintain the Conduent solution are planned for two additional years (through FY2020), and then will end with the termination of service following implementation of the Fast product.
- Certain costs from the business case were not used:
 - Current Operating Costs by FY: \$490,600.47
 - Current Staff Costs to Operate the Program: \$206,689
- Current costs for Conduent do not extend past FY 2020.
- Designated testing staff from the State has been excluded. It is unclear how many hours said person would devote.

- BerryDunn has removed the projected \$42,000 identified in the business case at “State Labor for Project Management” as it is covered by other categories of State labor.
- 3. Funding:** Provide the funding source(s). If multiple sources, indicate the percentage of each source for both Acquisition Costs and on-going Operational costs over the duration of the system/service lifecycle. DMV plans to pay for the system implementation with 100% State funds.
- 4. Tangible Costs & Benefits:** Provide a list and description of the tangible costs and benefits of this project. Its “tangible” if it has a direct impact on implementation or operating costs (an increase = a tangible cost and a decrease = a tangible benefit). The cost of software licenses is an example of a tangible cost. Projected annual operating cost savings is an example of a tangible benefit.

Tangible benefits are speculative or planned. They appear as planned efficiencies. There are no planned tangible benefits that will occur right away, such as the release of grant funds or reduction of temporary staff.

The largest tangible cost of the new system is the professional services needed for its configuration, installation, and implementation in the first year (about \$1.5 million). This is a cost the State would not have to pay if it were to stay with the current system. The technical cost of supporting the new system is also higher (for example, starting at \$1,050,000 in year two for vendor annual maintenance and operations costs) than maintaining the current system (\$496,414 for years one and two). There is a large tangible cost for software as well compared to the current situation, where the State doesn’t pay for the software licenses.

A tangible benefit is the cost of hardware. Currently the State pays \$32,471 annually for hardware, equipment, and supplies. With the new system, the cost is only \$20,550.

- 5. Intangible Costs & Benefits:** Provide a list and descriptions of the intangible costs and benefits. Its “intangible” if it has a positive or negative impact but is not cost related. Examples: Customer Service is expected to improve (intangible benefit) or Employee Morale is expected to decline (intangible cost).

A key intangible benefit is improved processing times and reduced system downtime. During interview, the State cited downtime as a significant pain point and attributed it to lack of support by the incumbent solution provider.

A table of planned benefits is included in Section 6 (Technology Architecture) of this report and abbreviated here:

- Reduce amount of manual labor associated with IFTA, IRP and Motor Fuel Tax transactions
- Reduce the number of returns (incomplete / inaccurate applications) by 50% for any given quarter as compared to the previous quarter, with a target goal of less than 2% of return letters per quarter by end of year two
- Reduce delinquency and improve cash flow
- Enhance auditing through analysis of structured data and automation
- Increase number of Motor Fuel Audits from four per year to eight per year by end of year two

6. Costs vs. Benefits: Do the benefits of this project (consider both tangible and intangible) outweigh the costs in your opinion? Please elaborate on your response.

The State would pay about \$528,885 in the next two years to maintain the current solution. It is unclear how much the state would pay to maintain the Conduent solution on its own and any such speculative numbers are excluded from this analysis. The State is projected to pay \$12,999,439.82 over 6 years. Although the 6-year lifecycle cost of the new solution is substantially higher, the State would likely realize many intangible benefits. The improvements in processes will free up the time of State staff fixing data entry errors and doing manual scanning to allow them to prioritize more valuable work for the DMV, such as new projects or an increased number of desk audits. The new solution would also be an improvement for the customer experience, where customers would be able to file applications and renewals online. This avoids slow paper processing. This implementation solution is not inexpensive, but there are many projected benefits.

7. IT ABC Form Review: Review the IT ABC form (Business Case/Cost Analysis) created by the Business for this project. Is the information consistent with your independent review and analysis? If not, please describe. Is the lifecycle that was used appropriate for the technology being proposed? If not, please explain.

The projected six year solution lifecycle is shorter than typical for an independent review. However, this is the period of support proposed. Given Fast's position in the marketplace, it is unlikely that the solution will sunset or require replacement in six years. Despite being nearly a year old, the overall lifecycle costs in the IT-ABC form are consistent with the projection stated in this report: about \$10,297,760 for five years, or about \$2.7 million short of BerryDunn's projection, but with one lifecycle year less and without projected State labor cost to maintain the new solution.

Some figures in the business case were excluded from the lifecycle cost benefit calculations. Specifically, a figure of \$206,689 for staff costs to operate the IRP/IFTA/Motor Fuel Tax program was excluded as the numbers represent staff costs to operate the

program and do not represent any potential drop or increase in staff. Staff costs to maintain the solution are included and are estimated at \$11,440.

Additional Comments on the Cost Benefit Analysis:

BerryDunn has no additional comments on Cost Benefit Analysis

9.0 /Impact Analysis on Net Operating Costs

- 1.) Perform a lifecycle cost impact analysis on net operating costs for the agency carrying out the activity, minimally including the following:
 - a) Estimated future-state ongoing annual operating costs, and estimated lifecycle operating costs. Consider also if the project will yield additional revenue generation that may offset any increase in operating costs.
 - b) Current-state annual operating costs; assess total current costs over span of new IT activity lifecycle
 - c) Provide a breakdown of funding sources (federal, state, one-time vs. ongoing)
- 2.) Create a table to illustrate the net operating cost impact.
- 3.) Respond to the items below.

1. Insert a table to illustrate the Net Operating Cost Impact.

The life cycle cost analysis is included in the table on the next page. It includes both current- and future-state costs. The figures were obtained from BerryDunn's analysis of documents provided.

Table 9.1: Life Cycle Cost Analysis

Impact on Operating Costs	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Six-Year Totals
Hardware							
Hardware	\$8,068.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Equipment or Supplies	\$24,403.47	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Current	\$32,471.47	\$ -	\$32,471.47				
Developer Desktops and Dual Monitors	\$20,550.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Projected	\$20,550.00	\$ -	\$20,550.00				
Software							
Software Licenses/Hosting Provider	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Current	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
GenTax Installation (IFTA, IRP, Motor Fuel, Car Rental)	\$850,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Level 1 Support/Annual Maintenance	\$255,000.00	\$261,375.00	\$267,909.38	\$274,607.11	\$281,472.29	\$288,509.09	\$ -
Office 365 - G3 Licenses	\$4,950.00	\$4,950.00	\$990.00	\$660.00	\$330.00	\$330.00	\$ -
Visual Studio Licenses	\$5,175.00	\$5,175.00	\$1,035.00	\$690.00	\$345.00	\$345.00	\$ -

Impact on Operating Costs	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Six-Year Totals
Total Projected	\$1,115,125.00	\$271,500.00	\$269,934.38	\$275,957.11	\$282,147.29	\$289,184.09	\$2,503,847.87
Professional Services							
State Labor to Operate & Maintain	\$11,440.00	\$11,440.00	\$ -	\$ -	\$ -	\$ -	\$ -
Vendor (Conduent) Annual Maintenance	\$236,767.00	\$236,767.00	\$ -	\$ -	\$ -	\$ -	\$ -
Total Current	\$248,207.00	\$248,207.00	\$ -	\$ -	\$ -	\$ -	\$496,414.00
Definition Complete	\$370,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Base Configuration Complete	\$ -	\$1,295,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
Testing Preparation	\$ -	\$555,000.00	\$-	\$-	\$ -	\$ -	\$ -
System Acceptance, Production Rollout	\$ -	\$1,480,000.00	\$-	\$-	\$-	\$ -	\$ -
Contracted Services for Project Management	\$ -	\$ -	\$ -	\$ -	\$-	\$ -	\$ -
Other Contracted Professional Services for Implementation (Penetration Testing)	\$ -	\$11,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
Vendor Annual Maintenance/Operation	\$ -	\$1,050,000.00	\$700,000.00	\$375,000.00	\$375,000.00	\$400,000.00	\$ -

Impact on Operating Costs	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Six-Year Totals
Additional Costs (Optional System Support)							
State Project Director	\$ -	\$183,040.00	\$ -	\$ -	\$ -	\$ -	\$ -
6 State Implementation Coordinators	\$ -	\$514,800.00	\$ -	\$ -	\$ -	\$ -	\$ -
State Labor to Operate & Maintain the Solution	\$ -	\$355,520.00	\$355,520.00	\$355,520.00	\$355,520.00	\$355,520.00	\$ -
Total Projected	\$370,000.00	\$5,444,360.00	\$1,055,520.00	\$730,520.00	\$730,520.00	\$755,520.00	\$9,086,440.00
Other Costs							
None	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Current	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Independent Review	\$20,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SOV Cloud Services	\$200,550.00	\$200,550.00	\$200,550.00	\$200,550.00	\$200,550.00	\$200,550.00	\$ -
Equipment or Supplies (Non-Hardware)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Add 3% ADS Estimated Charge for EA and Project Oversight	\$44,136.75	\$121,165.20	\$ -	\$ -	\$ -	\$ -	\$ -
Total Projected	\$264,686.75	\$321,715.20	\$200,550.00	\$200,550.00	\$200,550.00	\$200,550.00	\$1,388,601.95
Totals							

Impact on Operating Costs	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Six-Year Totals
Baseline Current Costs	\$280,678.47	\$248,207.00	\$ -	\$ -	\$ -	\$ -	\$ -
Baseline Projected Costs	\$1,770,361.75	\$6,037,575.20	\$1,526,004.38	\$1,207,027.11	\$1,213,217.29	\$1,245,254.09	\$ -
Cumulative Current Costs	\$280,678.47	\$528,885.47	\$ -	\$ -	\$ -	\$ -	\$528,885.47
Cumulative Projected Costs	\$1,770,361.75	\$7,807,936.95	\$9,333,941.33	\$10,540,968.43	\$11,754,185.72	\$12,999,439.82	\$12,999,439.82
Net Impact on Hardware	\$11,921.47	\$-	\$ -	\$ -	\$ -	\$ -	\$11,921.47
Net Impact on Software	\$1,115,125.00	\$271,500.00	\$269,934.38	\$275,957.11	\$282,147.29	\$289,184.09	\$2,503,847.87
Net Impact on Professional Services	\$121,793.00	\$5,196,153.00	\$1,055,520.00	\$730,520.00	\$730,520.00	\$755,520.00	\$8,590,026.00
Net Impact on Other Costs	\$264,686.75	\$321,715.20	\$200,550.00	\$200,550.00	\$200,550.00	\$200,550.00	\$1,388,601.95
Net Impact on Operating Costs	\$1,489,683.28	\$5,789,368.20	\$1,526,004.38	\$1,207,027.11	\$1,213,217.29	\$1,245,254.09	\$12,470,554.35

2. Provide a narrative summary of the analysis conducted and include a list of any assumptions.

The solution will cost the State \$12,999,439.82 over six years. The analysis was conducted through interviews and analysis of state projections of costs and costs offered by Fast. For the purpose of impact analysis of net operating costs, and in addition to the assumptions in Section 8.0, 2 of this report, BerryDunn assumed that costs for Conduent ownership will end effective FY 2021 and that projected State staff levels of three FTE for maintenance and support of the planned solution is correct.

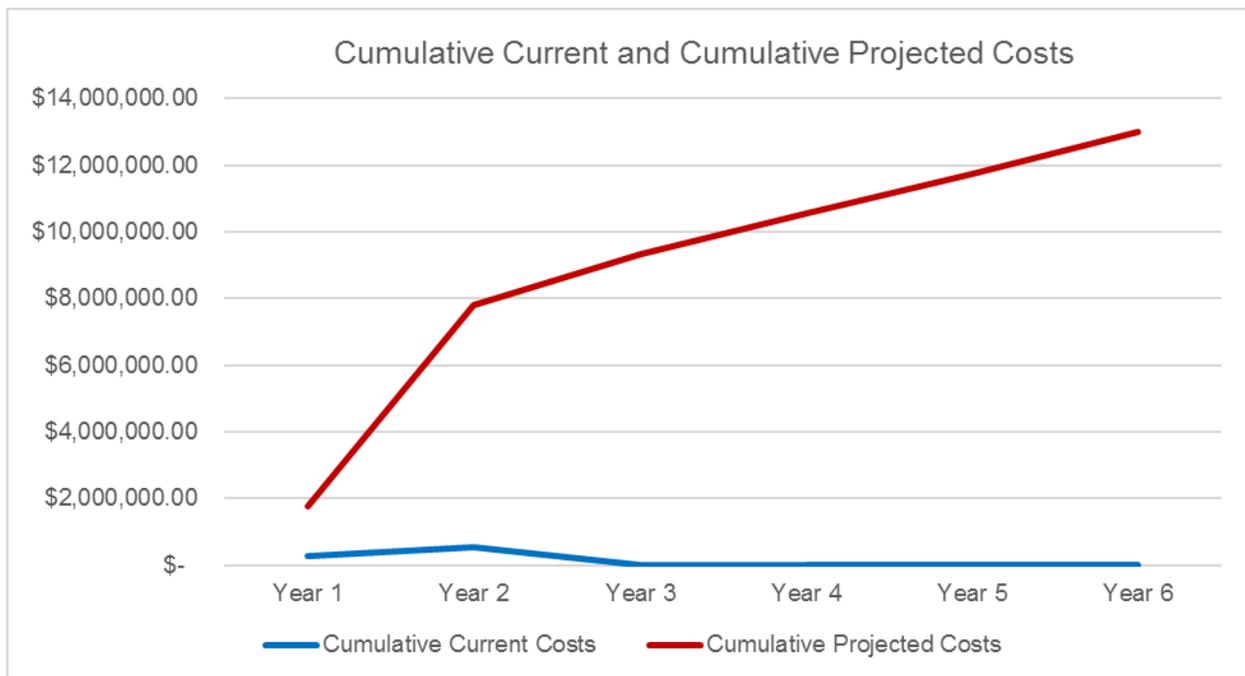
3. Explain any net operating increases that will be covered by federal funding. Will this funding cover the entire lifecycle? If not, please provide the breakouts by year.

There is no federal funding for this solution.

4. What is the break-even point for this IT Activity (considering implementation and on-going operating costs)?

There is no break-even point for this solution. See the table below for a graphic representation of current and projected costs.

Figure 9.2: Cumulative Current and Projected Costs



10.0 Risk Assessment & Risk Register

Perform an independent risk assessment and complete a Risk Register. The assessment process will include performing the following activities:

- A. Ask the independent review participants to provide a list of the risks that they have identified and their strategies for addressing those risks.*
- B. Independently validate the risk information provided by the State and/or vendor and assess their risk strategies.*
- C. Identify any additional risks.*
- D. Ask the Business to respond to your identified risks, as well as provide strategies to address them.*
- E. Assess the risks strategies provided by the Business for the additional risks you identified.*
- F. Document all this information in a Risk Register and label it Attachment 2. The Risk Register should include the following:*
 - **Source of Risk:** *Project, Proposed Solution, Vendor or Other*
 - **Risk Description:** *Provide a description of what the risk entails*
 - **Risk ratings to indicate:** *Likelihood and probability of risk occurrence; Impact should risk occur; and Overall risk rating (high, medium or low priority)*
 - **State's Planned Risk Strategy:** *Avoid, Mitigate, Transfer or Accept*
 - **State's Planned Risk Response:** *Describe what the State plans to do (if anything) to address the risk*
 - **Timing of Risk Response:** *Describe the planned timing for carrying out the risk response (e.g. prior to the start of the project, during the Planning Phase, prior to implementation, etc.)*
- 1. **Reviewer's Assessment of State's Planned Response:** Indicate if the planned response is adequate/appropriate in your judgment and if not what would you recommend.*

Additional Comments on Risks:

BerryDunn's comprehensive risk assessment is found in 12.0, Attachment 2 of this report. BerryDunn has no additional comments on Risk.

11.0 Attachment 1 – Lifecycle Cost Benefit Analysis

Table 11.1 Life Cycle Cost Analysis

Description	Implementation	Implementation	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance	Six-Year Lifecycle
Fiscal Year	FY 2019	FY 2020	FY 2019	FY2020	FY 2021	FY 2022	FY2023	FY2024	Total
Hardware									
Developer Desktops & Dual Monitors	\$20,550.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$20,550.00
Software									
GenTax Installation (IFTA, IRP, Motor Fuel, Car Rental)	\$850,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$850,000.00
Level 1 Support/Annual Maintenance	\$ -	\$ -	\$255,000.00	\$261,375.00	\$267,909.38	\$274,607.11	\$281,472.29	\$288,509.09	\$1,628,872.87
Office 365 - G3 Licenses	\$4,950.00	\$ -	\$ -	\$4,950.00	\$990.00	\$660.00	\$330.00	\$330.00	\$12,210.00
Visual Studio Licenses	\$5,175.00	\$ -	\$ -	\$5,175.00	\$1,035.00	\$690.00	\$345.00	\$345.00	\$12,765.00
Professional Services									
Definition Complete	\$370,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$370,000.00
Base Configuration Complete	\$ -	\$1,295,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$1,295,000.00
Testing Preparation	\$ -	\$555,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$555,000.00
System Acceptance, Production Rollout	\$ -	\$1,480,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$1,480,000.00
Contracted Services for Project Management	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Contracted Professional Services for Implementation (Penetration Testing)	\$ -	\$11,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$11,000.00

Description	Implementation	Implementation	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance	Six-Year Lifecycle
Fiscal Year	FY 2019	FY 2020	FY 2019	FY2020	FY 2021	FY 2022	FY2023	FY2024	Total
State Project Director	\$ -	\$183,040.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$183,040.00
6 State Implementation Coordinators	\$ -	\$514,800.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$514,800.00
State Labor to Operate & Maintain the Solution	\$ -	\$ -	\$ -	\$355,520.00	\$355,520.00	\$355,520.00	\$355,520.00	\$355,520.00	\$1,777,600.00
Vendor Annual Maintenance/Operations Costs	\$ -	\$ -	\$ -	\$1,050,000.00	\$700,000.00	\$375,000.00	\$375,000.00	\$400,000.00	\$2,900,000.00
Other Costs									0
Equipment or Supplies (Non-Hardware)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SOV Cloud Services	\$200,550.00	\$ -	\$ -	\$200,550.00	\$200,550.00	\$200,550.00	\$200,550.00	\$200,550.00	\$1,203,300.00
Independent Review	\$20,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$20,000.00
Totals									
Sub-Total	\$1,471,225.00	\$4,038,840.00	\$255,000.00	\$1,877,570.00	\$1,526,004.38	\$1,207,027.11	\$1,213,217.29	\$1,245,254.09	\$12,834,137.87
Add 3% ADS Estimated Charge for EA and Project Oversight	\$44,136.75	\$121,165.20	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$165,301.95

Description	Implementation	Implementation	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance	Six-Year Lifecycle
Fiscal Year	FY 2019	FY 2020	FY 2019	FY2020	FY 2021	FY 2022	FY2023	FY2024	Total
Revised Sub-Total (Implementation Costs with ADS estimated costs)	\$1,515,361.75	\$4,160,005.20	\$255,000.00	\$1,877,570.00	\$1,526,004.38	\$1,207,027.11	\$1,213,217.29	\$1,245,254.09	\$12,999,439.82
Total Implementation Costs to be paid with State Funds	\$1,515,361.75	\$4,160,005.20	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$5,675,366.95
Total Lifecycle Operating Costs to be paid with State Funds	\$ -	\$ -	\$255,000.00	\$1,877,570.00	\$1,526,004.38	\$1,207,027.11	\$1,213,217.29	\$1,245,254.09	\$7,324,072.87
Total Lifecycle Costs to be paid with State funds	\$1,515,361.75	\$4,160,005.20	\$255,000.00	\$1,877,570.00	\$1,526,004.38	\$1,207,027.11	\$1,213,217.29	\$1,245,254.09	\$12,999,439.82

12.0 Attachment 2 - Risk Register

Table 12.1: Risk Register Legend

Data Element	Description
Risk #	Sequential number assigned to each risk to be used when referring to the risk.
Risk Probability/Impact/Overall Rating	Two-value indicator of the potential impact of the risk if it were to occur, along with an indicator of the probability of the risk occurring. Assigned values are high, medium, or low.
Source of Risk	Source of the risk, which may be the Project, Proposed Solution, Vendor, or Other.
Risk Description	Brief narrative description of the identified risk.
State's Planned Risk Strategy	Strategy the State plans to take to address the risk. Assigned values are Avoid, Mitigate, Transfer, or Accept.
State's Planned Risk Response	Risk response the State plans to adopt based on discussions between State staff and BerryDunn reviewers.
Timing of Risk Response	Planned timing for carrying out the risk response, which may be Prior to Contract Execution or Subsequent to Contract Execution.
Reviewer's Assessment of State's Planned Response	Indication of whether BerryDunn reviewers feel the planned response is adequate and appropriate, and recommendations if not.

Risk #: R1	Risk Likelihood/Probability: High	Risk Impact: Very High	Overall Risk Rating: High
Source of Risk: IT-ABC Business Case and interviews with the State.			
<p>Risk Description: Risk that the current system (Conduent) will become unavailable due to 1) expired contract between the State of Vermont and solution provider, and 2) imminent departure of solution provider from the IFTA/IRP/Motor Vehicle Fuel Tax system market.</p> <p>The State indicates that Conduent does not want to support a two-year contract extension (until September 2020). Currently, the State is working with Conduent on a subscription/ basis—the State does not own any of the software. The company offered to help the State exit the system as soon as possible. The State is still using the Conduent system primarily because of a negotiated settlement to extend its subscription.</p> <p>There is concern about the stability of the system. Reported system downtime has been significant. A reported 90% of Conduent staff have left employment and the support response time has recently increased. The State of Vermont will be the last jurisdiction on the solution as of July 2019.</p>			
State's Planned Risk Strategy: Mitigate			
State's Planned Risk Response: The State plans to continue to negotiate with Conduent to secure the contract extension in parallel with moving forward with the system replacement with the preferred vendor.			

Risk #: R1	Risk Likelihood/Probability: High	Risk Impact: Very High	Overall Risk Rating: High
<p>Timing of Risk Response: DMV is communicating with Conduent bi-weekly. The system replacement's contract is out with the preferred vendor and the Statement of Work (SOW) is almost ready for signature. The State plans to have both the Master contract and the DMV SOW executed prior to March 1, 2019.</p>			
<p>Reviewer's Assessment of State's Planned Response: The State's strategy for mitigating this risk is reasonable in the attempt to maintain current system support, while also seeking system replacement. This approach and using a single-phase implementation helps minimize the project timeline. As a last resort, the State also cited a consortium of states using the Kentucky IFTA Processing Consortium (IPC) System as a mitigation tool. IPC is an online IFTA compliance tool. This does not address IRP or other components of the services the State may lose. The State reports that at least one other jurisdiction, Nevada, joined the IPC within a period of 30 days of suddenly needing a new system. While the State could conceivably make a request to join, the State has declared that it is not considering this option.</p>			

Risk #: R2	Risk Likelihood/Probability: Medium	Risk Impact: High	Overall Risk Rating: High
<p>Source of Risk: IT-ABC Business Case and interviews with the State.</p>			
<p>Risk Description: Competing business and project priorities combined with the potential unavailability of appropriate DMV resources required from the State risks project success. The State emphasized the need for filling project roles with the right staff. While the business focus of this project is IRP/IFTA/Motor Fuel Tax, the Project Director and Implementation Coordinators do not need a deep understanding of daily business functions, such as data entry. Rather, the right team and leadership should possess broader skills in technology and business process improvement.</p> <p>Fast's methodology demands significant participation from key DMV staff and not all staff have been identified. This includes the Project Director and Implementation Coordinators. ADS stated that having the appropriate people in the necessary roles is critical. Without a suitable project team, this project assumes significant risk.</p> <p>During the on-site interviews, we learned that there are key staff who will be 100% on the project. This presents a risk around day-to-day processing and business functions. Those staff dedicated 100% to this project will not be able to perform their daily roles. There is currently no decision made on who and for how long they will backfill the implementation coordinators. We learned on-site that the State does have coverage for backfilling IFTA staff, but not IRP.</p>			
<p>State's Planned Risk Strategy: Mitigate</p>			
<p>State's Planned Risk Response:</p> <p>Leadership at DMV and ADS have meet with the FAST PM to better understand what skills and qualities will be necessary for the implementation coordinators and the project director. A staffing decision is expected prior to March and the State is planning to identify a project manager no later than February 1 to provide those who may not have as much subject matter expertise time to acquire additional knowledge prior to starting the project.</p>			
<p>Timing of Risk Response: By the time the SOW is signed, but no later than March 1, 2019.</p>			
<p>Reviewer's Assessment of State's Planned Response: The State's mitigation strategy is reasonable.</p>			

Risk #: R3	Risk Likelihood/Probability: Low	Risk Impact: Low	Overall Risk Rating: Low
Source of Risk: IT-ABC Business Case and interviews with the State.			
Risk Description: The State has a resource limitation that may affect the ability to maintain current operation performance metrics. The State must primarily run the revenue generating business of the DMV. Allocating resources normally assigned to DMV operational tasks could negatively affect the business, leaving a resource gap. This could cause longer customer lines and a delayed revenue collection from typical transactions.			
State's Planned Risk Strategy: Accept			
State's Planned Risk Response: The Department plans to accept this risk and recognizes that there may be operational impacts including longer wait times for customers. The Department plans to address this risk as part of operations management for resourcing the project and the backfills required as part of Risk #2.			
Timing of Risk Response: This is affecting the State now, and the risk has been accepted as of January 3, 2019.			
Reviewer's Assessment of State's Planned Response: The State is aware of the resource limitations before them and is managing to them to the best of the State's capacity. The State may also hire temporary workers to support business operations.			

Risk #: R4	Risk Likelihood/Probability: Medium	Risk Impact: Medium	Overall Risk Rating: Medium
Source of Risk: IT-ABC Business Case and interviews with the State.			
Risk Description: Unwillingness to change/improve business processes in order to use the out-of-the-box features of a commercial off the shelf (COTS) solution. The State has selected a COTS product, and such solutions are available in the IFTA/IRP/Motor Fuel Tax Software marketplace. Processes in this industry are uniform across jurisdictions and the State hopes to improve processing times and its IRP/IFTA/Motor Fuel Tax program by adopting a solution that is based on standardization across multiple jurisdictions. Despite the value that COTS solution brings, staff are accustomed to incumbent software and will likely resist the change that will inevitably come with a new solution. The risk is that processing times could suffer, staff retention could suffer, and the investment in the new software could suffer.			
State's Planned Risk Strategy: Mitigate			
State's Planned Risk Response: The State plans to leverage leadership support to encourage out-of-the-box thinking and promote change in business processes to take the most advantage of the new solution. The State plans to rely on FAST's resistance to customization requests and leverage industry best practice. The company has a well-documented history of resisting software customizations, and ADS staff who participated in the GenTax implementation at the Vermont Department of Taxes have			

Risk #: R4	Risk Likelihood/Probability: Medium	Risk Impact: Medium	Overall Risk Rating: Medium
<p>corroborated that stance.</p> <p>The State also plans to use training to facilitate adoption of a new system. This includes level one (first response) change management training and readiness training for the full project team. The State may retain a change management consultant beyond the level one training if the team determines it is necessary.</p> <p>The State acknowledges it may have to work to change certain language in statutes to stay closer to a COTS solution.</p>			
<p>Timing of Risk Response: Ongoing throughout the project.</p>			
<p>Reviewer's Assessment of State's Planned Response: Given the well-documented history of the avoidance of software customizations in Fast projects, this mitigation strategy is reasonable.</p>			

Risk #: R5	Risk Likelihood/Probability: Low	Risk Impact: High	Overall Risk Rating: Medium
<p>Source of Risk: Interviews with the State and Fast</p>			
<p>Risk Description: The absence of the amendment to elevate the current VDT contract to a master service agreement precludes use of the planned IRP/IFTA/Motor Fuel Tax SOW with FAST. The State plans to rely on a master contract for FAST's services. In the absence of the execution of a master service agreement, no scope of work may proceed. The risk is primarily around the timeline of the project, as a long finalization of the master services agreement delays the commencement of the implementation. BGS and the Office of Purchasing and Contracting will draft a FAST justification circulation memo. The Procurement Advisory Team (PAT) will consider the memo, contract, State of Vermont Contract Summary and Certification (AA-14), and other related forms. The PAT will then send an approval memo to the Secretary of ADS for signature. The planned master contract is not yet in place and needs to be signed by the Secretary.</p>			
<p>State's Planned Risk Strategy: Avoid</p>			
<p>State's Planned Risk Response: ADS is collaborating with the Agency of Administration (AOA) and the BGS to secure the master contract.</p>			
<p>Timing of Risk Response: Mid-February, 2019</p>			
<p>Reviewer's Assessment of State's Planned Response: The result of this collaboration effort is unclear, though if successful, will result in securing the master contract. After speaking with ADS, they are making efforts to assure the PAT is able to review the relevant forms.</p>			

Risk #: R6	Risk Likelihood/Probability: Medium	Risk Impact: Low	Overall Risk Rating: Low
<p>Source of Risk: Draft Master Agreement, Draft SOW and RFI responses</p>			
<p>Risk Description: The State could pay more for the solution Fast as a result of an essentially no-compete scenario. This is a two-part risk. The first part stems from awareness of market options to</p>			

Risk #: R6	Risk Likelihood/Probability: Medium	Risk Impact: Low	Overall Risk Rating: Low
<p>acquire solutions that may cost the State less over time. BerryDunn’s research and evaluation of what other states pay for similar solutions is documented in Table 5.2 Vendor Solution Contract Cost Comparison. 2015 RFI results show Fast as the highest <i>suggested</i> cost based on data provided by the State. It is understood that RFI costs are informational only. The closest cost to the planned Fast IRP/IFTA/Motor Fuel Tax SOW in Vermont (about \$9,078,000, which includes lifecycle costs for Fast implementation and maintenance and operation but excludes costs for State labor and other costs that would be borne no matter the selected solution) is a five-year Commonwealth of Kentucky contract with Explore worth \$7,170,000. That contract is for an IPC IFTA processing hosted vendor solution. The market for IRP/IFTA solutions has a number of potential offerors, making competition in an open procurement likely to offer varying costs. Contracts in other jurisdictions are not a full apples to apples comparison to Vermont’s needs, but the size of the market and representative costs from other jurisdictions suggest Vermont may pay more than others.</p> <p>The second part of the risk is the inability of other providers to bid on the proposed master agreement. There are a number of master agreements, or retainer contracts, on the BGS web page driven by open procurements. The VDT issued an RFP in April 2013 titled Integrated Tax Solution (ITS). An integrated tax solution could include IRP and IFTA. However, although ITS was competitively bid, it was not identified as an avenue to a master agreement. The 2013 RFP stated that it would, “...result in a deliverables-based, three-phase approach contract for a commercial off the shelf (COTS) product that will replace all three current systems.” The three current systems at the time were a mainframe program, Advantage Revenue Systems Tax, and CGI’s ETM product (none of which host the IRP/IFTA/Motor Fuel Tax programs). The RFP did not mention a master agreement, although it did mention “one or more contracts” could have been created to achieve an integrated tax system. The ITS RFP was issued over five years ago and costs and markets have changed.</p>			
<p>State’s Planned Risk Strategy: Accept</p>			
<p>State’s Planned Risk Response: The Amendment to State Contract # 25993 with FAST Enterprises, LLC is being pursued for the purposes of establishing terms and conditions and elevating the contract to a Master Agreement under which an agency or department of the State of Vermont may engage with Fast Enterprises for eligible products and services.</p> <p>This effort is consistent with Executive Order 06-17 which created the Agency of Digital Services (ADS) to accomplish a number of improvements related to the delivery of technology in VT state government. One of those was for the improvement of IT contracts and procurement, another was for better utilization of technology resources. BGS Office of Purchasing and Contracting, in collaboration with the Agency of Digital Services, has created a path to elevate and make available across the Executive Branch existing technology and contracts that are serving Vermonters well and have applicability for other programs. The first example of this is to use the competitively selected solution from FAST and currently utilized by the Tax Department, for managing taxes collected by the Department of Motor Vehicles (DMV). Elevating the Tax contract to a master agreement under the Office of Purchasing and Contracting allowing other departments to issue scopes of work from this contract will allow ADS to directly realize the benefits of the Executive Order and meet the justification outlined above.</p> <p>The DMV plans to implement a separate instance of the GenTax solution currently utilized by the Tax Department. The taxes that will be implemented include various motor fuel taxes and car rental tax in</p>			

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<p>addition to International Fuel Tax Agreements and International Registration Plans. The primary market candidates that offer COTS solutions to manage the full spectrum of tax types that DMV intends to implement did bid on the Tax Department RFP.</p>			
<p>It is imperative that the solution DMV implements has capabilities to manage all of the taxes mentioned above. Based on FY18, annual revenues generated from these taxes are approximately:</p>			
<ul style="list-style-type: none"> • Motor Fuel: \$97 Million • Diesel Fuel: \$20.5 Million • International Registration Plan: \$10.8 Million • International Fuel Tax Agreements: \$1.5 Million 			
<p>The pricing proposal submitted by FAST indicates a \$4.550M implementation and approximately \$1M annual operating costs, ensuring that DMV will continue to be able to collect revenues that support both AOT and DMV operations long term. This pricing is consistent with the initial bid.</p>			
<p>Timing of Risk Response: Realized at time of this report.</p>			
<p>Reviewer’s Assessment of State’s Planned Response: BerryDunn acknowledges that the State has provided a justification memorandum for amending the Fast contract to statewide contract status. BerryDunn accepts this risk response assuming that ADS, BGS and DMV are satisfied that they have established sufficient grounds and authority to amend the existing Fast contract and issue the subsequent SOW. We further assume the State is satisfied that said grounds and authority are consistent with the provisions of Bulletin 3.5, Procurement and Contracting Procedures, and, specifically, provisions found in Section XI, D. (Statewide and Retainer Contracts).</p>			