b BerryDunn

Independent Review

*Unemployment Insurance Modernization (System Project)*
For the
State of Vermont
*Department of Labor*

**Submitted to the**
**State of Vermont, Agency of Digital Services**
**September 29, 2023**

**FINAL DRAFT**

**Prepared b**y:
Michael Mahar, Engagement Manager
Charlie Leadbetter, Engagement Principal
Berry Dunn McNeil & Parker, LLC (BerryDunn)
2211 Congress Street
Portland, ME 04102-1955
207-842-1152, mmahar@berrydunn.com
207-541-2249, cleadbetter@berrydunn.com

berrydunn.com

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## 1.0 Executive Summary

For all Information Technology (IT) activities over $1 million, State of Vermont (VT) statute (or at the discretion of the Chief Information Officer [CIO]) requires an Independent Review by the Office of the CIO before the project can begin. VT Agency of Digital Services (ADS) engaged BerryDunn to perform an Independent Review of the previously bid Unemployment Insurance Modernization Project System (Project). This Independent Review began on February 27, 2023, and the presentation of findings is tentatively planned for the week of July 10, 2023. The extended timeline for this Independent Review was due to extended contract discussions between VT and FAST.

The State of Vermont Department of Labor (VDOL) seeks to implement a modern, integrated unemployment information (UI) system to replace its current standalone mainframe systems which were developed in the 1980s and 1990s. These systems no longer have contractor support and are difficult to maintain. VDOL expects these modernization efforts to improve overall department operational efficiency, increase the accuracy of the system, and improve customer satisfaction. VDOL requires a system that:

- Supports primary functionality

- Provides real-time web functions

- Improves ad-hoc reporting capabilities

- Provides a unified system of data tracking

- Integrates with other departments/agencies and reporting tools

- Provides a user-friendly interface for constituents

- Meets all VT and Federal compliance laws and regulations

With the completion of the Project, VT expects to no longer need to support the mainframe system and that it will free up IT resources and reduce the risk of system outages.

In August 2022, VDOL released a Request for Proposal (RFP) to establish contracts with one or more vendors that could provide and implement a UI system. VDOL received bids from six vendors and invited three vendors (FAST Enterprises, LLC [FAST], Geographic Solutions [GeoSol], and Tata Consultancy Services) to provide a best and final offer (BAFO). Upon conclusion of proposal and BAFO evaluations, VT selected FAST as its preferred vendor.

This report is based on a single point in time and does not include information on progress made on the Project after June 30, 2023. While conducting the Independent Review, BerryDunn identified five risks, with one being of high impact and/or high likelihood of occurrence. This risk is listed in summary form in Section 1.3, and in detail in Attachment 2 – Risk Register.

## 1.1 Cost Summary

Table 1.1 includes a summary of the costs. More detail can be found in Section 5: Acquisition Cost Assessment and Section 10: Impact Analysis on Net Operating Costs.

**Table 0.1: Cost Summary**

| IT Activity Life Cycle | Cost and Funding Source |
|---|---|
| Total Life Cycle Costs (Five Years) | $40,898,177 |
| Total Implementation Costs | $28,230,177 |
| New Annual Operating Costs (Five Years) | $12,668,000 |
| Current Annual Operating Costs (Five Years) | $4,935,105 |
| Difference Between Current and New Operating Costs | $7,732,895 |
| Funding Source(s) and Percentage Breakdown of Multiple Sources | 100% State – which includes $3.5M of American Rescue Plan Act (ARPA) funding |

## 1.2 Disposition of Independent Review Deliverables

Table 1.2 includes a summary of the Independent Review findings as elaborated later in the report.

**Table 0.2: Independent Review Deliverables**

| Deliverable | Highlights From the Independent Review Include Explanations of Any Significant Concerns |
|---|---|
| Acquisition Cost Assessment | The proposed solution includes a one-time acquisition cost of $28,230,177. The vast majority acquisition costs on this project are for hardware, licenses, hosting, and vendor implementation services totaling $27,231,248. The remaining costs are for ADS services (e.g., Enterprise Project Management Office [EPMO], Enterprise Architect [EA], and security), and BerryDunn's Independent Review services totaling $998,929. <br><br> Based on research that BerryDunn conducted using GovWin—a government contracting intelligence platform from Deltek—to examine what other state government agencies have paid for similar solutions and services. BerryDunn believes the anticipated cost for the UI system is comparable to what peer states agencies have paid for similar systems and those available in the market. |
| Technology Architecture and Standards Review | Based on documents reviewed and interviews with FAST and VT's IT staff, BerryDunn learned that FAST's proposed solution (FAST Unemployment Insurance [FASTUI]) is based on the same core architecture as GenTax, which has been in production for administration of tax and revenue for VT since 2014. Rather than requiring integration with third-party applications, it contains built-in features and functionality for processes that are critical to the administration of modern UI programs. This includes integrated reporting, accounting, analytics, key-performance indicators (KPIs), correspondence, document management, security, data warehousing, and more. Virtually every aspect of FASTUI is configurable, from small items such as tax-rate changes, to more complicated activities such as business transfers. Code sets, calculations, lookups, edits, validations, user interfaces, window flows, and security structures are some of the features that can be implemented and maintained without programming. This configurable FASTUI architecture minimizes development time and allows project resources to focus on providing business processes that meet individual agency goals and requirements. The technical architecture of the production environment does not contain any single points of failure. All servers, services, and components in the FASTUI production environment are configured in a redundant manner so that a failure in any one |

| Deliverable | Highlights From the Independent Review<br>Include Explanations of Any Significant Concerns |
|---|---|
| | component is extremely unlikely to result in unplanned downtime.<br><br>BerryDunn has confidence that the FAST architecture and standards should help facilitate VT with a smooth implementation. However, there are unknown complexities of required for multiple system integrations that might adversely impact the Project's timeline. See Attachment 2 – Risk Register for more information. Furthermore, BerryDunn has recommendations for VT's consideration regarding the service level agreements (SLAs), as provided in Section: 1.4 Other Key Issues. |
| Implementation Plan Assessment | Based on documents reviewed and interviews with VT and FAST, BerryDunn learned that FAST proposed 24-month implementation plan comprised of a two-phase rollout. BerryDunn believes that this approach should reduce overall risk while aligning with VDOL's priorities.<br><br>However, BerryDunn identified two risks, at this time, that could impact the implementation timeline should they not be mitigated. The VDOL IT lead is no longer available to the Project, so there is now a lack of UI and IT institutional knowledge. Additionally, data clean-up and migration are expected to be complex and potentially time-consuming processes requiring both technical and business resources that might not be fully available due to conflicting priorities (e.g., day-to-day operations, other projects, etc.). More information on these risks can be found in Attachment 2 – Risk Register. |
| Cost-Benefit Analysis | While the tangible benefits appear negligible, BerryDunn's opinion is that the intangible benefits for VT outweigh the one-time costs for implementation and ongoing operating costs. |
| Analysis of Alternatives | A team of business and IT representatives from VT evaluated and scored various aspects of the six vendors' proposals they received. Based on the evaluation scores, the VT representatives chose FAST as the preferred vendor due to a greater return on investment as the proposed solution is best positioned to meet VT's functional and non-functional requirements.<br><br>BerryDunn believes the competitive bid process was a sound approach to understanding VT's options for procuring the new UI system and required services. |
| Impact Analysis on Net Operating Costs | There is a net annual increase in operational costs with no break-even point. |

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| Deliverable | Highlights From the Independent Review<br>Include Explanations of Any Significant Concerns |
|---|---|
| Security Assessment | Based on our assessment of the proposed security plan in FAST's proposal and information collected during interviews with FAST and VT IT, BerryDunn does not have any concerns with FAST's ability to comply with VT and federal security requirements. |

## 1.3 Risks Identified as High Impact and/or Having High Likelihood of Occurrence

Table 1.3 provides a summary of each risk, including risk probability, impact, and overall rating. A complete Risk Register is included in Attachment 2.

**Table 0.3: Project Risk Summaries and Ratings**

| Risk ID | Risk Description | Risk Likelihood/ Probability | Risk Impact | Overall Risk Rating |
|---|---|---|---|---|
| 1 | The annual cost to administer the new system, post go-live, might exceed funding allocations and the administrative budget for additional cost. | Medium | High | High |
| 2 | VDOL and ADS might not have the necessary resource availability to address project requirements within the expected Project timeline. | Medium | High | High |

## 1.4 Other Key Issues

The draft contract between VT and FAST does not have final schedules for project phases/milestones or deliverable/milestone payments. BerryDunn recommends that VT addresses this issue as soon as possible so VT makes progress on finalizing the contract and adjusts the budget across State fiscal years, if needed.

Additionally, the draft contract does not have all the terms and conditions that are typically in an IT contract (e.g., Attachment D – Information Technology System Implementation Terms and Conditions), including the exceptions and/or proposed alternate language to the terms and conditions as outlined in FAST's BAFO response. BerryDunn recommends that VT update the draft contract accordingly to assist with internal review and contract negotiation discussions with FAST.

Finally, there is no financial model (e.g., liquidated damages, penalties, service level credits) in the draft contract for VT to hold FAST accountable to meeting the SLAs. BerryDunn recommends that VT consider including service level credits in the final contract to hold FAST accountable to adhering to the mutually agreed upon SLAs.

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## 1.5 Recommendation

Based on the assessment as provided in this report, and if VDOL and ADS execute the mitigation strategies as defined in Attachment 2, BerryDunn recommends VT proceed with contract negotiations.

## 1.6 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 BerryDunn by VT.

DocuSigned by:

*Charlie Leadbetter*

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10/3/2023

_____     _____
**Independent Reviewer Signature**                          **Date**

## 1.7 Report Acceptance

The electronic signature below represents the acceptance of this document as the final completed Independent Review Report.

DocuSigned by:

*Alex Ibey*

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10/3/2023

_____     _____
**ADS Oversight Project Manager**                          **Date**

DocuSigned by:

*Denise Reilly-Hughes*

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10/9/2023

_____     _____
**State of Vermont Chief Information Officer**              **Date**

## 2.0   Scope of This Independent Review

### 2.1   In Scope

The scope of this document is fulfilling the requirements of VT Statute, Title 3, Chapter 56, §3303(d).

The Independent Review Report includes:

- An acquisition cost assessment

- A technology architecture review and standards review

- An implementation plan assessment

- A cost analysis and model for benefit analysis

- An analysis of alternatives

- An impact analysis on net operating costs for the agency carrying out the activity

- A security assessment.

This Independent Review used the following schedule:

- Week of February 27, 2023: Conduct project initiation; develop participation memos; schedule interviews; review documentation

- Week of March 6, 2023: Conduct interviews with VT

- Weeks of March 27 and April 3, 2023: Conduct vendor interview; review documentation

- Week of April 10, 2023: Document findings; conduct additional research

- Week of June 26, 2023: Provide the preliminary Independent Review Report to VT

- Week of July 4, 2023: Collect feedback; update the Independent Review Report; submit the proposed final draft Independent Review Report to VT

- Week of September 12, 2023: Present the Independent Review Report to the CIO; complete any follow-up work and updates to the Independent Review Report; obtain CIO sign-off via the Oversight Project Manager on the Independent Review Report; facilitate the closeout meeting.

*Please note: The extended timeline for this Independent Review was due to extended contract discussions between VT and FAST.*

### 2.2   Out of Scope

No items from VT Statute, Title 3, Chapter 56, §3303(d) are out of scope for this Independent Review.

## 3.0 Sources of Information

### 3.1 Independent Review Participants

Table 3.1 includes a list of stakeholders who participated in fact-finding meetings and/or communications.

**Table 3.1: Independent Review Participants**

| Name | Employer and Title | Participation Topic(s) |
|---|---|---|
| Drew Elwood | State Enterprise Project Manager, ADS | • General Project Information<br>• Implementation Plan Review<br>• Acquisition Cost<br>• Risk Assessment |
| Jeff Demers | State Enterprise Business Analyst, ADS | • General Project Information<br>• Implementation Plan Review<br>• Acquisition Cost<br>• Risk Assessment |
| Hunter Thompson | State IT Lead, ADS | • General Project Information<br>• Implementation Plan Review<br>• Technology Architecture and Standards Review<br>• Security Assessment<br>• Risk Assessment |
| Tracy Delphia | State IT Lead, ADS | • General Project Information<br>• Implementation Plan Review<br>• Technology Architecture and Standards Review<br>• Security Assessment<br>• Risk Assessment |
| Ron Dickinson | State Security Analyst, ADS | • General Project Information<br>• Implementation Plan Review<br>• Technology Architecture and Standards Review<br>• Security Assessment<br>• Risk Assessment |
| John Hunt | State Enterprise Architect, ADS | • General Project Information<br>• Implementation Plan Review |

| Name | Employer and Title | Participation Topic(s) |
|------|--------------------|------------------------|
| | | • Technology Architecture and Standards Review<br>• Security Assessment<br>• Risk Assessment |
| Cameron Wood | State Unemployment Director for Department of Labor, Policy and Legislative Director | • General Project Information<br>• Implementation Plan Review<br>• Cost-Benefit Analysis<br>• Risk Assessment |
| Kristine Murphy | State Associate Director, Unemployment Insurance and Wages Division | • General Project Information<br>• Implementation Plan Review<br>• Cost-Benefit Analysis<br>• Risk Assessment |
| Natalie Lindhorst-Ballast | Testing and Training Manage, FAST | • General Project Information<br>• Implementation Plan Review<br>• Risk Assessment |
| Brian Frazee | Project Manager (Production Support Manager after Go Live), FAST | • General Project Information<br>• Implementation Plan Review<br>• Risk Assessment |
| Meaghan Karaffa | Development Manager, FAST | • General Project Information<br>• Implementation Plan Review<br>• Risk Assessment |
| Lucas Bremseth | Project Manager/Hosting Services, FAST | • General Project Information<br>• Implementation Plan Review<br>• Risk Assessment |
| James Harrison | Founding Partner, FAST | • General Project Information<br>• Implementation Plan Review<br>• Risk Assessment |
| Jennifer Tuvell | Founding Partner, FAST (not on the proposed Project Team) | • General Project Information<br>• Implementation Plan Review<br>• Risk Assessment |
| Jason Sharitt | Solution Architect, FAST | • General Project Information<br>• Implementation Plan Review<br>• Risk Assessment |

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## 3.2   Independent Review Documentation

Table 3.2 below includes a list of the documentation utilized to compile this Independent Review.

**Table 3.2: Independent Review Documentation**

| Document Name | Description | Source |
|---|---|---|
| IT ABC Form | IT ABC Form | VDOL Project SharePoint site: here. |
| UIM Full Project RFP_Final.pdf | RFP | VDOL Project SharePoint site: here |
| FAST.pdf | Bidder Response | VDOL Project SharePoint site: here |
| FAST Response/BAFO | FAST Response/BAFO | VDOL Project SharePoint site: here |
| TCS Response to the VDOL UIM RFP | Non-awarded Bidder Response/BAFO | VDOL Project SharePoint site: here |
| Geo Response to the VDOL UIM RFP | Non-awarded Bidder Response/BAFO | VDOL Project SharePoint site: here |
| Letter of Intent | Letter of Intent to Award Contract to FAST | VDOL Project SharePoint site: here |
| VDOL UIM FAST CONTRACT v1 | Draft FAST Contract Version 1 | VDOL Project SharePoint site: here |
| VDOL UIM RFP Evaluation Workbook – v2 | VDOL UIM RFP Evaluation Workbook Version 2 | VDOL Project SharePoint site: here |
| VDOL_UIM_RFP_Comparisons | Comparison of VDOL RFP Proposals | VDOL Project SharePoint site: here |

## 4.0 Project Information

### 4.1　Historical Background

VDOL seeks to implement a modern, integrated UI system to replace their current standalone mainframe systems which were developed in the 1980s and 1990s, no longer have contractor support, and are difficult to maintain. VDOL expects these modernization efforts to improve overall department operational efficiency, increase the accuracy of the system, and improve customer satisfaction. VDOL requires a system that:

- Supports primary functionality

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- Meets all VT and Federal compliance laws and regulations

With the completion of the Project, VT expects to no longer need to support the mainframe system and that it will free up IT resources and reduce the risk of system outages.

In August 2022, VDOL released an RFP to establish contracts with one or more vendors that could provide and implement a UI system. VDOL received bids from six vendors and invited three vendors (FAST, Geo Sol, and Tata Consultancy Services) to provide a BAFO and selected FAST as its preferred vendor.

### 4.2　Project Goals

The successful outcome of the Project is defined by meeting the following goals:

- Completion of the Project in accordance with the Contract and applicable project management planning documentation

- Resolution of all material functional and operational deficiencies prior to deployment in the production environment

- Completion of the Project within budget

- Configuration to meet all specified requirements and needs of VT

- Implementation of all requirements and completion of timeframes set forth in service level terms

- Completion of documentation, including but not limited to requirements specifications, architecture, design, and configuration

## 4.3    Project Scope

VT's scope for the Project seeks the development and implementation of a cloud-hosted solution that meets the tools and functionality requirements of VT. FAST shall use the system development and configuration control methodologies and the desirable sequence of project phases as described herein.

The Project's scope is comprised of the following non-functional areas:

- Hosting

- Application solution

- Security

- Service desk

The Project's scope is comprised of the following functional areas:

- General (e.g., form, work management, appointments, etc.)

- Accounting

- Appeals

- Benefits

- Special Program

- Finance

- Program Integrity and Fraud

- Performance and Compliance

- Reemployment Eligibility

- Tax

## 4.4    Major Deliverables

Table 4.1 provides a summary of the deliverables, descriptions, and frequency, as articulated in the draft contract with FAST. Not all deliverables in the table below have a frequency, but BerryDunn assumes that VT will finalize the frequency for all deliverables before contract execution.

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**Table 4.1: Project Deliverables and Frequency**

| Deliverable | Description | Frequency |
|---|---|---|
| Project Charter | The Project Charter provides basic information about the project. It includes<br><br>• Scope Statement (what is in and out of scope)<br>• A List of Project Deliverables<br>• A High-level Project Timeline<br>• Key Roles and Responsibilities<br>• Known Risks, Assumptions and/or Constraints.<br><br>It should be signed off on by the State. | Once unless there are changes |
| Project Management Plan | The Project Management Plan will dictate specifics on how the Contractor Project Manager will administer the project. | |
| Formal Acceptance Criteria | Criteria to establish the acceptance and rejection for each document on this list. | |
| Formal Acceptance Sign Off | Sign-off at the completion of each project deliverable as defined by the formal acceptance criteria. | |
| Change Requests | Formal documents that outline any changes to the contract scope, schedule, budget, and resources. | |
| Change Requests Log | A log that will track the specific change requests approved and their impact to the project scope, budget, and schedule. | |
| Risks Log | A log of all risks and issues (opened or closed/resolved) that could impact the project. Risks should be outlined by their impact and their potential to occur. All risks should have an owner. | |
| Issue/Action Items/Decision Log | A log of all open and resolved issues. Issues should be outlined by their impact, owner, and date of occurrence, and remediation strategy. | |
| Requirements Documents | Azure Dev Ops: State projects are administered using Microsoft Azure DevOps (ADO) to record and manage requirements (primarily user stories). ADO practices align business goals with Agile processes to plan | |

| Deliverable | Description | Frequency |
|---|---|---|
| | and manage the Software Development Lifecycle (SDLC). The State's ADO environment enables project teams to collaborate and coordinate application lifecycle phases. The phases are:<br>• Plan<br>• Develop<br>• Deliver<br>• Operate | |
| Test Plans | A plan describing the testing approach, participants, sequence of testing, and testing preparations. | Once |
| Test Cases & Results | The specific test cases to be tested and the testing results. Test cases tie back to the project requirements (to help ensure each one has been met). | Create once then update with results |
| Implementation Master Schedule (IMS) | The IMS outlines how the project will go-live and will include a mini-project plan for the exact events that need to occur assigned to the resources that need to do them and the timeframe for when they need to get done. | Updated as needed |
| Project Status Reports | Report that will provide an update on the project health, accomplishments, upcoming tasks, risks, and significant issues. The Project Status Report shall be developed in consultation with the State business lead and State project manager. | Weekly |
| Project Sprint Audit/Gate Check | At the end of each phase, the vendor Project Manager shall submit an audit of all deliverables and milestones achieved during the phase to the State project manager for review. | Once per sprint |
| Meeting Agendas/Minutes | All scheduled meetings will have an agenda and minutes. The minutes shall contain risk issues, action items, and decision logs. Minutes shall be transcribed over to the main logs. | Per occurrence |
| End of Project Metrics | Metrics that reflect how well the project was performed. Metrics will be outlined in the Quality Management Plan. | |

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| Deliverable | Description | Frequency |
|---|---|---|
| Lessons Learned | A compilation of the lessons learned having 20/20 hindsight. Lessons learned shall be delivered in an Excel template and collected from each of the State and vendor project team members to get a full 360-degree view of the project in retrospect. | Once |
| Closeout Report | This report will include final acceptance, all the lessons learned, project metrics, and a summary of the project's implementation and outcome in operation. | Once |

## 4.5    Project Phases and Schedule

Table 4.2 is a summary of the proposed project phases, dates, and phase descriptions as articulated in FAST's proposal.

**Table 4.2: Proposed Project Phases, Dates, and Phase Descriptions**

| Project Phase | Date(s) | Phase Description |
|---|---|---|
| **Rollout One: UI Tax** | | |
| Preparation Phase | 4/3/23 – 6/2/23 | FAST installs FAST software, identified project objectives, and develops project plans and schedules. |
| Definition Phase | 5/1/23 – 9/29/23 | FAST develops resource plan, defines business requirements, performs developer technical training, and provides infrastructure recommendations, |
| Base Configuration Phase | 5/8/23 – 7/28/23 | FAST defines scope of base configuration, performs base configuration and verification. |
| Development Phase | 7/17/23 – 12/1/23 | FAST performs development tasks regarding correspondence, reports, and interfaces. FAST reviews configuration, defines application security plan, performs change impact analysis, and develops architecture plan. |
| Conversion Phase | 5/1/23 – 3/8/24 | FAST inventories data resources, defines conversion, purifies data, performs extracts, develops conversion, runs mock conversions, and verifies conversions. |

| Project Phase | Date(s) | Phase Description |
|---|---|---|
| Testing Phase | 7/31/23 – 3/8/24 | FAST creates test plan, performs business testing, converted data testing, conducts performance testing, end-to-end testing, and application security testing. |
| User Training Phase | 9/25/23 – 3/8/24 | FAST creates training plan, localizes training materials and user documentation, and trains trainers and users. |
| Rollout Phase | 2/12/24 – 3/25/24 | FAST prepares installation report, and operations support plan, performs operations training, updates disaster recovery plan, creates cutover checklist, sets up help desk, and runs conversion and production cutover. |
| Production Support Phase | 3/25/24 – 4/5/24 | FAST performs desk side support, production support, and operations support. |
| **Rollout Two: UI Benefits** | | |
| Preparation Phase | 4/8/24 – 5/17/24 | FAST installs FAST software, identified project objectives, and develops project plans and schedules. |
| Definition Phase | 4/22/24 – 8/9/24 | FAST develops resource plan, defines business requirements, performs developer technical training, and provides infrastructure recommendations, |
| Base Configuration Phase | 5/20/24 – 8/9/24 | FAST defines scope of base configuration, performs base configuration and verification. |
| Development Phase | 8/12/24 – 2/14/25 | FAST performs development tasks regarding correspondence, reports, and interfaces. FAST reviews configuration, defines application security plan, performs change impact analysis, and develops architecture plan. |
| Conversion Phase | 5/6/24 – 3/28/25 | FAST inventories data resources, defines conversion, purifies data, performs extracts, develops conversion, runs mock conversions, and verifies conversions. |
| Testing Phase | 9/23/24 – 3/21/25 | FAST creates test plan, performs business testing, converted data testing, |

| Project Phase | Date(s) | Phase Description |
|---|---|---|
| | | conducts performance testing, end-to-end testing, and application security testing. |
| User Training Phase | 10/28/24 – 4/4/25 | FAST creates training plan, localizes training materials and user documentation, and trains trainers and users. |
| Rollout Phase | 1/20/25 – 4/7/25 | FAST prepares installation report, and operations support plan, performs operations training, updates disaster recovery plan, creates cutover checklist, sets up help desk, and runs conversion and production cutover. |
| Production Support Phase | 4/7/25 – 4/18/25 | FAST performs desk side support, production support, and operations support. |

## 5.0 Acquisition Cost Assessment

Table 5.1 includes a summary of acquisition costs reported to BerryDunn during this Independent Review.

**Table 0.1: Acquisition Cost Assessment**

| Acquisition Costs | Cost | Comments |
|---|---|---|
| **Hardware** | $82,248 | For laptops and monitors, as provided in the IT ABC form |
| **Initial Software/License Installation** | $5,000,000 | |
| **Hosting** | $749,000 | Provided in the draft contract |
| **Implementation Services** | $21,400,000 | Provided in the draft contract |
| **ADS EPMO Project Oversight** | $64,790 | Provided on the IT ABC form |
| **ADS EPMO Project Manager** | $311,431 | Provided on the IT ABC form |
| **ADS EPMO Business Analyst (BA)** | $127,512 | Provided on the IT ABC form |
| **ADS Enterprise Architect (EA)** | $59,400 | Provided on the IT ABC form |
| **ADS Security Staff** | $39,776 | Provided on the IT ABC form |
| **Other ADS Labor** | $371,520 | Provided on the IT ABC form |
| **Independent Review** | $24,500 | This cost was obtained from the BerryDunn Independent Review contract. |
| **Total One-Time Acquisition Costs** | **$28,230,177** | |

1. **Cost Validation:** Describe how you validated the acquisition costs.

   BerryDunn validated acquisition costs during documentation review, an interview with ADS' project manager, and follow-up communications with ADS via email.

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

   BerryDunn researched GovWin—a government contracting intelligence platform from Deltek—to research what other state government agencies have paid for similar solutions and services. In Table 5.2 below, BerryDunn compared the anticipated cost for statewide assessments to peer states agencies.

**Table 5.2: Cost Comparison for Peer State Agencies**

| State Agency | Cost/Year | Vendor |
|---|---|---|
| Oregon Employment Department | $60,043,000 (2021) | FAST Enterprises |

| State Agency | Cost/Year | Vendor |
|---|---|---|
| Colorado Department of Labor and Employment | $49,520,000 (2013) | HCL America |
| Tennessee Department of Labor and Workforce Development | $40,000,000 (2014) | Geographic Solutions, Inc. |
| New York Department of Labor | $56,692,000 (2019) | Tata Consulting Services |
| Missouri Department of Labor and Industrial Relations | $27,195,000 (2012) | Tata Consulting Services |
| Michigan Unemployment Insurance Agency | $47,026,000 (2011) | FAST Enterprises |

Given potential differences in solutions and services procured by other states, this analysis is intended to be informational in nature and should not serve as a basis for what Vermont should be paying.

3. **Cost Assessment:** Are the acquisition costs valid and appropriate in your professional opinion? List any concerns or issues with the costs.

In addition to our market research, we based our cost assessment on the work we have performed in other states during the planning and implementation of similar solutions.

Based on BerryDunn's analysis experience, we believe VT is paying comparable costs to similar solutions and services in the market.

## 6.0 Technology Architecture and Standards Review

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

    a. **Assess how well the technology solution aligns with the business direction**

    This project aims to support the Governor's goals of making VT affordable by modernizing VT State government and protecting the vulnerable by efficiently providing UI benefits to VT families in need.

    b. **Assess how well the technology solution maximizes benefits for VT**

    Primary benefits to VT provided by the solution will be those articulated in the IT ABC Form and the RFP:

    - **Customer Service Improvement:** The current legacy systems are aging and has experienced several outages when UI benefits were critically needed by Vermonters. A new system will provide an easier application and reporting process and status process, less downtime impacting end users and provide continuous communication to customers.

    - **Risk Reduction:** The legacy systems will continue to have critical failures and limitations. It is becoming harder and harder to find resources with the technical skills to support and maintain the aging infrastructure of this system.

    - **Compliance:** A new system will allow the achievement of UI program metrics (i.e., time to process claims and time to fully adjudicate a claim)

    c. **Assess if the technology solution will optimize process**

    The solution offered by FAST has the advantage of being a fully developed, stable platform deployed in other states that is configurable and customizable to VT's needs.

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

    The proposed solution is described as a commercial-off-the-shelf (COTS) solution that can be configured, not programmed, to meet specific business and technical needs. In its proposal, FAST noted that its solution aligns with VT's enterprise architecture requirements (e.g., service-oriented architecture [SOA], modular by separation of business rules from workflow, etc.). Based on this information, the proposed solution appears to be sustainable.

3. **How does the solution comply with the ADS Strategic Goals enumerated in the ADS Strategic Plan of January 2021?**

   The FAST solution complies with the following ADS strategic goals, enumerated in the ADS Strategic Plan of January 2021:

   - Vermonter experience: Well-designed online UI system will reduce complexities, frustrations, and time expended by Vermonters obtaining the services to which they are entitled.

     o This will be achieved through a more modern solution, with more customer self-service functionality than the past solution.

4. **Compliance with the Section 508 Amendment to the Rehabilitation Act of 1973, as amended in 1998:** Comment on the solution's compliance with accessibility standards as outlined in this amendment. Reference: http://www.section508.gov/content/learn.

   The solution will adhere to all Federal and Vermont accessibility requirements, or their successors: Section 508 of the Rehabilitation Act. Section 1194.22 of the Code of Federal Regulations, Web-based intranet and internet information and applications.

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 improving the plan?

   It is BerryDunn's belief that the proposed Disaster Recovery (DR) Plan, as outlined below, meets industry best practices and technical standards.

   - Disaster Recovery replication services will be provided for production systems only. FAST Hosting Services (FHS) will work with VT to bring additional environments on-line at the DR data center facility if the primary data center is offline or unusable for more than twenty-one consecutive days.

   - Redundant network paths are maintained between the primary data center facility and the secondary data center facility.

   - Data will be replicated between primary and secondary data center facilities.

   - Annual DR fail-over verification testing of the production environment of the FHS Business Service.

     o Verification will not include all interface inputs or outputs.

     o Backup restoration verifications are not in scope for annual DR verification.

     o During verification exercises, the system at the primary site may be offline. Data modification during the verification exercise will not be replicated from secondary DR site back to primary site. A scheduled downtime window may

be required for the verification exercise and is in addition to the standard monthly maintenance window.

- FHS will maintain a DR Plan that:
  - o Defines the FHS Business Service production environment and any dependencies that will be in scope for the DR protection
  - o Defines the criteria, as mutually agreed between FHS and VT, for declaration of a disaster triggering execution of the DR Plan
  - o Lists cutover steps necessary to execute cutover of the production system to the DR facility
- Service Level commitments may be suspended for up to forty-five days following the execution of the DR Plan.

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

VT did not include specific data retention requirements or policies as part of the RFP, but in its proposal, FAST attested that the solution that will comply with laws, regulations, and external policies regarding the collection, retention, and management of data.

7. **Service Level Agreement (SLA):** What are the post-implementation services and service levels required by VT? Is the vendor-proposed SLA adequate to meet these needs, in your judgment?

At the time of this review, the final SLA plan was not available for BerryDunn to evaluate. However, in the draft contract, FAST confirmed that their SLAs include mutual agreements for system and application performance, incident reporting, and maintenance. FAST agrees to engage with VT to finalize the SLAs if invited to negotiations. It is BerryDunn's belief that the vendor's proposed SLAs will be adequate to meet VT's needs; however, there is no financial model (e.g., liquidated damages, penalties, service level credits) that can help hold FAST accountable to meeting the SLAs.

BerryDunn recommends that VT consider including service level credits in the contract to hold FAST accountable to adhering to the mutually agreed upon SLAs.

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

As depicted in Figure 6.1 on the following page, the new system is expected to interface a considerable number of internal and external systems, including but not limited to:

- OnBase
- VISION

- VT Tax System

- clear2there

- State Identification Inquiry systems (SIDI)

- Systematic Alien Verification for Entitlements (SAVE)

**Figure 6.1: Future State Architecture Diagram**
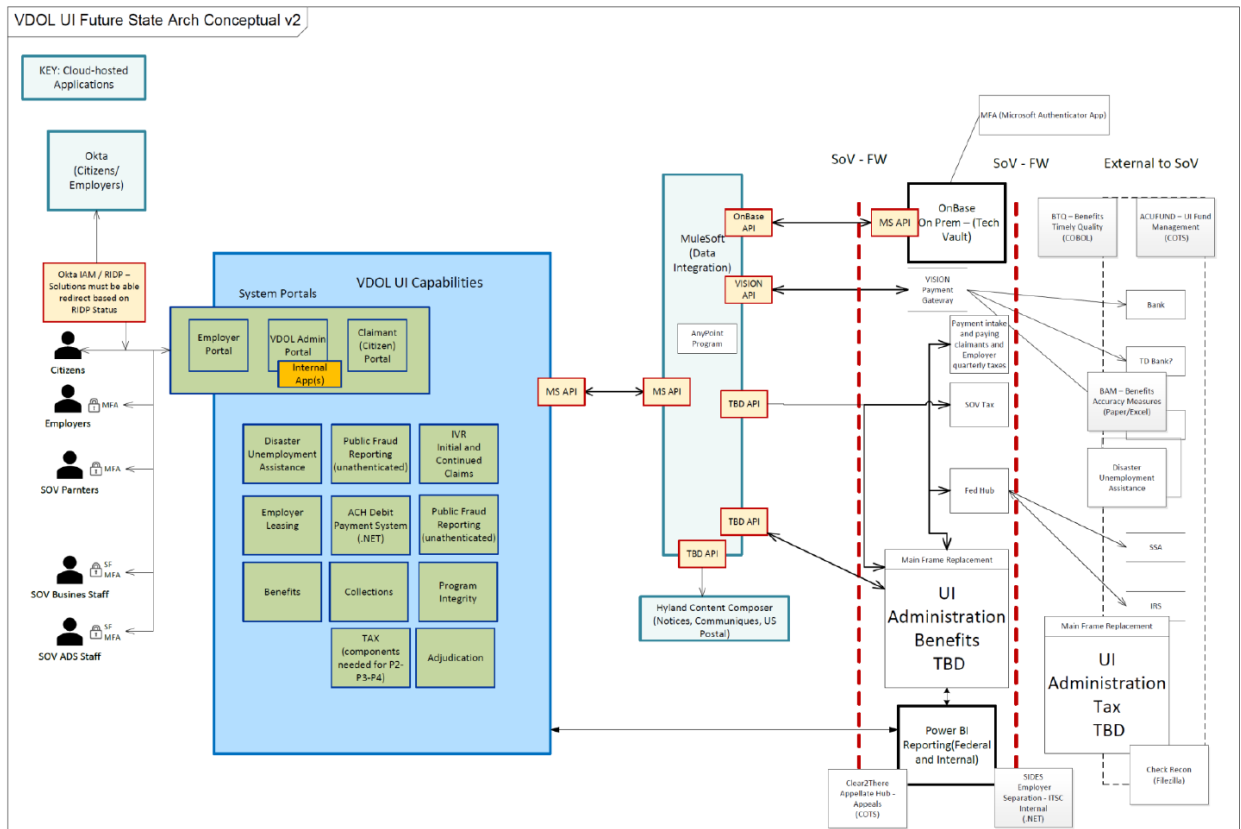
## 7.0 Assessment of Implementation Plan

1. **The reality of the implementation timetable.**

   The draft contract includes the following implementation timetable. As of the time of this review, a final contract with an up-to-date timetable does not exist. In FAST's proposal, the implementation timeline is grouped into the following project phases/milestones:

   | Key Project Phase/Milestone | Start | Completion | Duration |
   |---|---|---|---|
   | Project Start | April 3, 2023 | April 3, 2023 | 1 day |
   | Rollout 1: UI Tax | April 3, 2023 | March 25, 2024 | 12 months |
   | Rollout 2: UI Benefits | April 8, 2024 | April 7, 2025 | 12 months |
   | Warranty Period | April 7, 2025 | October 6, 2025 | 6 months |

   Based on our analysis, BerryDunn believes that the 24-month timetable is an appropriate amount of time to implement the FAST solution. However, BerryDunn identified risks that could impact the implementation timeline. More detail on these risks is provided in Attachment 2 – Risk Register.

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

   Generally, staff are usually excited about a new system, as it will provide new and improved functionality. However, BerryDunn learned through an interview with VDOL leadership that there are some concerns key individuals will be resistant to change and might not fully adopt the new system and adapt to expected process changes. Please see Risk 4 for VT's planned mitigation strategy for this risk.

3. **Do the milestones and deliverables proposed by the vendor provide enough detail to hold the vendor accountable for meeting the business needs in these areas?**

   a. **Project Management**

      In its proposal, FAST notes that its project manager shall be responsible for the successful delivery of all FAST tasks and subtasks defined in the Project Management Plan. Progress will be monitored, and plans adjusted, as necessary, in project status meetings. The project management deliverables (e.g., project management plan, project management logs, etc.) in the draft contract appear to be sufficient for holding FAST accountable in this area.

### b. Training

FAST's training phase focuses on preparing users to use the system by using a variety of training methods including classroom training, computer-based training, on-the-job training, and peer learning. FAST has proposed a testing and training manager as part of its key personnel, and recommends VT identify two to three trainers to:

- Attend train-the-trainer sessions

- Work with FAST to create job-specific training materials

- Deliver job-specific user training

- Perform rollout support

### c. Testing

In its proposal, FAST notes that its Testing Preparation Complete milestone is achieved when the project is positioned to begin the Testing Phase as outlined in the FAST Implementation Methodology. This includes preparing the Test Plan, building out a testing facility, setting up the test environment software and data, and identifying the following: testers, business test scenarios, approach to executing business. The draft contract includes testing deliverables (e.g., test plan and test results) that should be sufficient for holding FAST accountable in this area.

### d. Design

FAST's implementation methodology includes a definition phase, where the FAST team will facilitate business requirements and definition meetings with VT. The work products developed during this phase include business requirements and definition items, technical training material, and inventories of letters, reports, interfaces, etc. as defined in Section 7.2 of the draft contract.

### e. Conversion

FAST's implementation methodology includes the following activities as part of data conversion:

- Prepare Conversion Plan

- Inventory data resources

- Define conversion

- Purify data

- Perform extracts

- Develop conversion

- Run mock conversions

- Verify conversion

The outputs of the data conversion phase include the Conversion Plan, conversion definition items and a conversion reconciliation report, as described in Section 7.2 of the draft contract.

**f. Implementation Planning**

FAST noted that FASTUI includes multiple environments used to test the system before anything is moved into the production environment. The process will be documented in the test plan, which is created in collaboration with VT as part of the testing phase. The rollout phase of the implementation includes creating a cutover checklist, system acceptance, and production cutover.

**g. Implementation**

In its proposal, FAST described that its implementation methodology includes support immediately after deployment to the production environment. This includes a rollout support team to answer any questions that might arise when system users start using the system and a manager to organize, execute, and monitor nightly batch processes.

**4. Does VT 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 judgment? Please explain.**

Based on our interactions with the VDOL UI project manager during this Independent Review, BerryDunn has confidence that the individual has the skills and experience necessary for the role.

## 8.0 Cost Analysis and Model for Benefit Analysis

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 VT in the IT ABC Form, the draft contract, and financial information provided by VT's project manager. These costs were verified in an interview with the VT project manager.

   BerryDunn discussed the benefits of the Project during interviews with VT and are incorporated in this report.

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

   The cost-benefit analysis was performed using the following assumptions:

   - There is a five-year life cycle, with implementation activities beginning in September 2023.

   - VT will use FAST's optional infrastructure hosting services during fiscal year (FY) 2024.

   - All payments to FAST will be made in VT FY 2024 and FY 2025.

   - VT labor costs are for implementation only, and not for time spent during previous project phases before contract execution (e.g., exploration, planning).

3. **Funding:** Provide the funding source(s). If multiple sources, indicate the percentage of each source for both acquisition costs and ongoing operational costs over the duration of the system/service life cycle.

   VDOL will pay 100% of implementation and operating costs with VT funds, which includes $3.5M of ARPA funding.

4. **Tangible Costs and Benefits:** Provide a list and description of the tangible costs and benefits of this project. It is "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 Costs*

   - Implementation services: $21,400,000 (one-time cost)

   - Maintenance, support, hardware, hosting, and licenses costs include:

     o FAST software/license installation: $5,000,000 (one-time cost)

     o Vendor optional hosting services for implementation: $749,000 (one-time cost)

- - Annual maintenance fees: $5,417,000 (total cost)

  - Annual hosting services: $2,151,000 (total cost)

  - Annual application support fees: $5,100,000 (total cost)

- State Labor costs include:

  - ADS EPMO Project Oversight: $64,790

  - ADS EPMO Project Manager: $311,431

  - ADS EPMO BA: $127,512

  - ADS EA: $59,400

  - ADS Security Staff: $39,776

  - Other ADS Labor: $371,520

*Tangible Benefits*

Based on interviews with VT, there does not appear to be tangible benefits resulting from this project. If there are any cost savings, they are likely negligible.

5. **Intangible Costs and Benefits:** Provide a list and descriptions of the intangible costs and benefits. It is "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).

   Intangible costs and benefits for implementing a comprehensive benefits administrative system include:

   - Increased work proficiency by reducing manual processes

   - Increased value for claimants, employers, and third-party administrators by decreasing claims processing time

   - Reduced potential claimant overpayment and fraud

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.

   While the tangible benefits appear negligible, BerryDunn's opinion is that the intangible benefits outweigh the costs.

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 life cycle that was used appropriate for the technology being proposed? If not, please explain.

The draft IT ABC form includes Vendor Annual Maintenance/Service Costs in the implementation costs; however, BerryDunn believes this is an annual operating cost, so there is a difference of approximately $1,000,000 between the implementation cost in the IT ABC form and the results of our analysis. Also, the costs allocated for each fiscal year begins in FY 2023, but due to delays in finalizing and executing the contract with FAST, we assume that costs will not be incurred until FY 2024.

BerryDunn recommends that VT update the IT ABC to align with the results of our analysis—where applicable—before it is routed for review and approval.

**Additional Comments on the Cost Analysis and Model for Benefit Analysis:**

BerryDunn identified a risk related to the annual cost to administer the new system, post go-live. At this time, any additional costs might exceed funding allocations and the administrative budget for the Project. See Risk 1 in Attachment 2 – Risk Register for more information on this risk and the VT's planned mitigation strategy.

## 9.0 Analysis of Alternatives

1. **Provide a brief analysis of alternative solutions that were deemed financially unfeasible.**

   BerryDunn has learned from documentation reviews that none of the six vendors were deemed financially unfeasible.

2. **Provide a brief analysis of alternative technical solutions that were deemed unsustainable.**

   BerryDunn has learned from documentation reviews that VT deemed three solution providers unsustainable: Infosys Public Services (IPS), Strategic Comm (Strat Comm), and CGI.

3. **Provide a brief analysis of alternative technical solutions where the costs for operations and maintenance were unfeasible.**

   A team of business and IT representatives from VT evaluated and scored various aspects of the vendors' proposals. Table 9.1 below shows the evaluated vendors' weighted scores with totals.

**Table 9.1: Summary of Proposal Scores**

| Proposal Evaluation | | | | | | |
|---|---|---|---|---|---|---|
| **Rating Criteria** | **FAST** | **GeoSol** | **IPS** | **Strat Comm** | **Tata** | **CGI** |
| **Qualifications** | 195.83 | 181.25 | 104.17 | 75.00 | 200.00 | 93.75 |
| **Proposed Solution** | 408.33 | 391.67 | 216.67 | 116.67 | 400.00 | 241.67 |
| **Pricing** | 33.33 | 120.83 | 141.67 | 125.00 | 66.67 | 100.00 |
| **Total** | **637.50** | **693.75** | **462.50** | **316.67** | **666.67** | **435.42** |

Based on the scores for program cost, the VT evaluation team deemed FAST, Geo Sol, and Tata appropriate. While FAST's overall score slightly lower than Geo Sol's and Tata's score, VT's evaluation team chose FAST as the preferred vendor because VT believes it will have a greater return on investment.

BerryDunn believes the competitive bid process (e.g., proposal evaluations, vendor demonstrations, and BAFOs) was a sound approach to understanding VT's options for procuring a new UI system and applicable services.

# 10.0 Impact on Analysis of Net Operating Costs

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

   Table 10.1, on the following page, illustrates the impact on net operating costs over five years.

**Table 10.1: Life Cycle Costs by Year**

| Impact on Operating Costs | FY2024 | FY2025 | FY2026 | FY2027 | FY2028 | Five-Year Totals |
|---|---|---|---|---|---|---|
| **Professional Services (Non-Software Costs)** | | | | | | |
| Current Costs | $183,089 | $183,089 | $183,089 | $183,089 | $183,089 | **$915,445** |
| Projected Costs | $8,524,500 | $12,900,000 | $0 | $0 | $0 | **$21,424,500** |
| **Maintenance, Support, and Licenses Costs** | | | | | | |
| Current Costs | $314,332 | $314,332 | $314,332 | $314,332 | $314,332 | **$1,571,660** |
| Projected Costs | $9,761,448 | $2,470,200 | $2,312,200 | $2,055,200 | $1,900,200 | **$18,499,248** |
| **Other Costs (VT Labor)** | | | | | | |
| Current Costs | $489,600 | $489,600 | $489,600 | $489,600 | $489,600 | **$2,448,000** |
| Projected Costs | $487,215 | $487,214 | $0 | $0 | $0 | **$974,429** |
| **Baseline Annual Current Costs** | $987,021 | $987,021 | $987,021 | $987,021 | $987,021 | **$4,935,105** |
| **Baseline Annual Projected Costs** | $18,773,563 | $15,857,414 | $2,312,200 | $2,055,200 | $1,900,200 | **$40,898,577** |
| **Cumulative Current Costs** | $987,021 | $1,974,042 | $2,961,063 | $3,948,084 | $4,935,105 | **$4,935,105** |
| **Cumulative Projected Costs** | $18,773,563 | $34,630,977 | $36,943,177 | $38,998,377 | $40,898,577 | **$40,898,177** |
| **Net Impact on Professional Services** | ($8,341,411) | ($12,716,911) | $183,089 | $183,089 | $183,089 | **($20,509,455)** |
| **Net Impact on Maintenance, Support, and Licenses Costs** | ($9,444,731) | ($2,153,482) | ($1,508,268) | ($1,251,268) | ($1,096,268) | **($15,454,017)** |
| **Net Impact on Operating Costs** | ($17,786,142) | ($14,870,393) | ($1,325,179) | ($1,068,179) | ($913,179) | **($35,963,072)** |

**BerryDunn**

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

   BerryDunn conducted an impact analysis on net operating costs using the costs validated and verified in the acquisition cost assessment and cost benefit analysis sections in this report. The following assumptions were used during this analysis:

   - There is a five-year life cycle, with implementation activities beginning in September 2023.

   - All payments to the vendor will be made in State FY 2024 and FY 2025.

   - VT staff will allocate equal time to the project in both FY 2024 and FY 2025.

   The calculations used in performing the analysis include the following:

   - The projected costs for FY 2024 Professional Services (Non-software Costs) includes:

     o FAST's Implementation Services: $8,500,000

     o Independent Review Services: $24,500

   - The projected costs for FY 2024 Maintenance, Support, and Licenses Costs includes:

     o Initial Software/License Installation: $5,000,000

     o Installation Hosting Services: $749,000

     o Annual Maintenance Fees: $1,000,000

     o Annual Hosting: $430,200

     o Annual Application Support Fees: $2,500,000

     o Equipment and Supplies (e.g., laptops, monitors): $82,248

   - The projected cost for Other Costs (VT Labor) includes the following for each year of implementation (i.e., FY 2024 and FY 2025):

     o ADS EPMO Project Oversight: $32,395

     o ADS EPMO Project Manager: $155,716

     o ADS EPMO BA: $63,756

     o ADS EA: $29,700

     o ADS Security Staff: $19,888

     o Other ADS Labor: $185,760

- The projected costs for FY 2025 Professional Services (Non-software Costs) includes:

    o FAST's Implementation Services: $12,900,000

- The projected costs for FY 2025 Maintenance, Support, Hardware, Hosting, and Licenses Costs includes:

    o Annual Maintenance Fees: $1,040,000

    o Annual Hosting: $430,200

    o Annual Application Support Fees: $1,000,000

- The projected costs for FY 2026 Maintenance, Support, Hardware, Hosting, and Licenses includes:

    o Annual Maintenance Fees: $1,082,000

    o Annual Hosting: $430,200

    o Annual Application Support Fees: $800,000

- The projected costs for FY 2027 Maintenance, Support, Hardware, Hosting, and Licenses includes:

    o Annual Maintenance Fees: $1,125,000

    o Annual Hosting: $430,200

    o Annual Application Support Fees: $500,000

- The projected costs for FY 2028 Maintenance, Support, Hardware, Hosting, and Licenses includes:

    o Annual Maintenance Fees: $1,170,000

    o Annual Hosting: $430,200

    o Annual Application Support Fees: $300,000

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

100% of all net operating costs will be covered by VT funding.

4. **What is the break-even point for this IT activity (considering implementation and ongoing operating costs)?**

Based on the costs in the draft contract and IT ABC form, there is a net annual increase in operational costs, with no break-even point as shown in Figure 10.1 below.

**Figure 10.1: Baseline Current and Baseline Projected Costs**
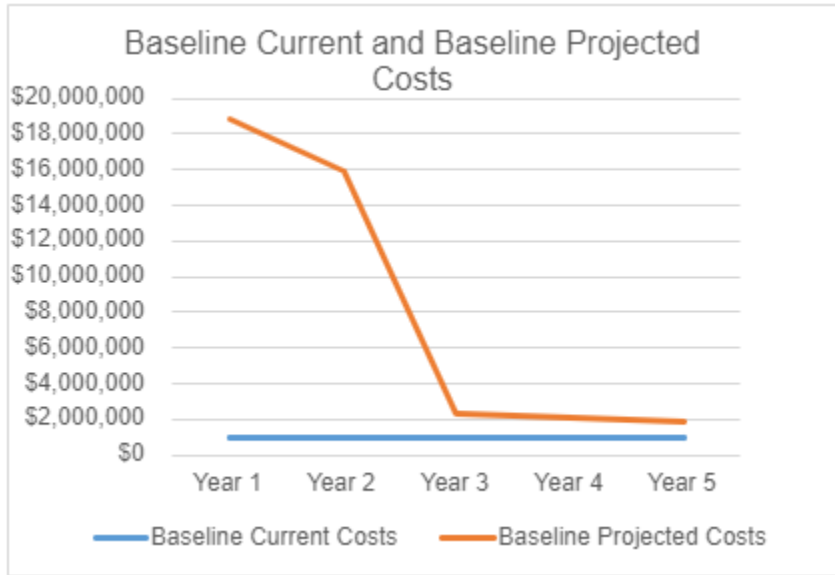
## 11.0 Security Assessment

1. **Will the new system have its own information security controls, rely on VT's controls, or incorporate both?**

   FAST has its own information security controls, to include the following:

   - Code review standards and vulnerability scans

   - A third-party assurance program that annually evaluates the adequacy of the solution provider security controls

   - Data validation and sanitation to prevent SQL injection attacks

   - 256-bit SSL, HTTPS, and SCP encryptions

   - SOC 2 Type II Certification controls and policies for user authentication, password management, cryptography, error handling and logging, data protection, risk assessments, and incident response team

   - Session management using JWT tokens

   - Enterprise monitoring tools of network operations in real-time

   - Information Security Policy that governs with the following basic principles:

       o Network access should be controlled

       o Networks should be segregated based on criticality

   - System configuration via unique environment variables

   - Vulnerability assessment and penetration testing.

2. **What method does the system use for data classification?**

   In its proposal, FAST noted that its solutions will adhere to applicable data governance polices, principles, standards, and requirements to include data classification models.

   It also noted that VT's solution will ensure that data is protected from unauthorized use and disclosure. In addition to the traditional aspects of national security classification, this includes, but is not limited to, protection of pre-decisional, sensitive, source selection-sensitive, and proprietary information.

3. **What is the vendor's breach notification and incident response process?**

   In the draft contract, it states that in the event of any actual security breach or reasonable belief of an actual security breach FAST either suffers or learns of that either compromises or could compromise VT data (a "Security Breach"), FAST shall notify VT within 24 hours of its discovery.

In FAST's BAFO, it is proposing to include "To the extent FAST caused the security breach and to the extent determined necessary by FAST, FAST shall use best efforts to (versus immediately as stated in VT's standard contract terms) determine the nature and extent of the security breach, contain the incident by stopping the unauthorized practice, recover records, shut down the system that was breached, revoke access and/or correct weaknesses in physical security".

4. **Does the vendor have a risk management program that specifically addresses information security risks?**

In the draft contract, it states, to the extent FAST or its subcontractors, affiliates or agents handles, collects, stores, disseminates or otherwise deals with VT data, FAST will have an information security policy that protects its systems and processes and media that may contain VT data from internal and external security threats and VT data from unauthorized disclosure, and will upon request and subject to confidentiality requirements have provided a description of such policy to VT.

5. **What format does the vendor use for continuous vulnerability management, what process is used for remediation, and how do they report vulnerabilities to customers?**

As stated in Part 9: Terms and Conditions of FAST's BAFO, FAST is proposing that it runs regular—versus quarterly—vulnerability assessments. FAST will remediate all critical issues in accordance with its standard hosting practices. Once remediation is complete, FAST will confirm remediation with VT.

**Additional Comments on the Security Assessment:**

After interviews with VT and FAST and during additional documentation review after delivery of the risk register, BerryDunn identified in the BAFO that FAST proposed revised verbiage for security-related contract terms and conditions. BerryDunn assumes that VT agrees with the proposed language or will negotiate the identified exceptions accordingly and add the finalized terms and conditions into the draft and final contract.

## 12.0 Risk Assessment and Risk Register

*This section describes the process for development of a Risk Register, including 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 VT 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 VT 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.)*
- ***Reviewer's Assessment of State's Planned Response:*** *Indicate if the planned response is adequate/appropriate in your judgment, and if not, what you would recommend*

**Additional Comments on Risks:**

The risks identified during this Independent Review can be found in Attachment 2 – Risk Register.

# Attachment 1 – Life Cycle Cost-Benefit Analysis

Table A.1, on the following page, reflects a five-year life cycle cost analysis.

**Table A.1: Life Cycle Analysis**

| Description | Implementation FY2024 | Implementation FY2025 | Maintenance FY2026 | Maintenance FY2027 | Maintenance FY2028 | Total |
|---|---|---|---|---|---|---|
| Initial Software/License | $5,000,000 | $0 | $0 | $0 | $0 | **$5,000,000** |
| Implementation Services | $8,500,000 | $12,900,000 | $0 | $0 | $0 | **$21,400,000** |
| Installation Hosting Services | $749,000 | $0 | $0 | $0 | $0 | **$749,000** |
| **Other Professional Services** | | | | | | |
| Annual Hosting Services | $430,200 | $430,200 | $430,200 | $430,200 | $430,200 | **$2,151,000** |
| Annual Maintenance Fees | $1,000,000 | $1,040,000 | $1,082,000 | $1,125,000 | $1,170,000 | **$5,417,000** |
| Annual Application Support | $2,500,000 | $1,000,000 | $800,000 | $500,000 | $300,000 | **$5,100,000** |
| **State Labor Costs** | | | | | | |
| ADS EPMO Project Oversight | $32,395 | $32,395 | $0 | $0 | $0 | **$64,790** |
| ADS EPMO Project Manager | $155,716 | $155,715 | $0 | $0 | $0 | **$311,431** |
| ADS EPMO BA | $63,756 | $63,756 | $0 | $0 | $0 | **$127,512** |
| ADS EA | $29,700 | $29,700 | $0 | $0 | $0 | **$59,400** |
| ADS Security Staff | $19,888 | $19,888 | $0 | $0 | $0 | **$39,776** |
| Other ADS Labor | $185,760 | $185,760 | $0 | $0 | $0 | **$371,520** |
| Other State Labor to Operate and Maintain the Solution | $0 | $0 | $0 | $0 | $0 | **$0** |
| **Totals** | | | | | | |
| Implementation Costs & State Labor Costs | $14,818,463 | $13,387,214 | | | | **$28,205,677** |
| BerryDunn IR | $24,500 | | | | | **$24,500** |
| Total Implementation | **$14,842,963** | **$13,387,214** | | | | **$28,230,177** |

| Description | Implementation FY2024 | Implementation FY2025 | Maintenance FY2026 | Maintenance FY2027 | Maintenance FY2028 | Total |
|---|---|---|---|---|---|---|
| Total Life Cycle Operating Costs | $3,930,200 | $2,470,200 | $2,312,200 | $2,055,200 | $1,900,200 | $13,417,000 |
| Total Life Cycle Costs to be Paid with State Funds | $18,773,563 | $15,857,414 | $2,312,200 | $2,055,200 | $1,900,200 | $40,898,577 |
| Total Life Cycle Costs to be Paid with Federal Funds | $0 | $0 | $0 | $0 | $0 | $0 |

## Attachment 2 – Risk Register

| Data Element | Description |
|---|---|
| Risk # | Sequential number assigned to a risk to be used when referring to the risk. |
| Risk Likelihood/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 might be interviews with VT, project documentation review, or vendor interview. |
| Risk Description | Brief narrative description of the identified risk. |
| State's Planned Risk Strategy | Strategy VT plans to take to address the risk. Assigned values are Avoid, Mitigate, Transfer, or Accept. |
| State's Planned Risk Response | Risk response VT 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 might 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 Rating Criteria | | | |
|---|---|---|---|
| Scale | Low | Medium | High |
| Impact | Condition does not impact quality and is unlikely to impact achievement of project objectives. -OR- Condition might be mitigated through adjustment in effort to avoid impacts to project objectives. | Condition might be mitigated through reduction or deferral of baseline scope to avoid impact to quality and/or moving date of key milestone. -OR- Condition might be mitigated by focused corrective actions to help ensure achievement of project objectives. | Condition might require acceptance of agreed-upon modifications to avoid impact(s) to key project objectives. -OR- Conditions might introduce risk to project scope, quality of work products, system solution and/or user experience. |
| Likelihood | 1 – 39% | 40 – 89% | 90 – 100% |

| Risk #: | Risk Likelihood/Probability: | Risk Impact: | Overall Risk Rating: |
|---|---|---|---|
| 1 | Medium | High | High |

**Source of Risk:** Leadership interview

**Risk Description: The annual cost to administer the new system, post go-live, might exceed funding allocations and the administrative budget for additional cost.**

BerryDunn learned through an interview with VDOL Leadership that the new system will be more costly to administer than the legacy system and that there is a chance the cost might exceed allocated federal funding and State administrative budget allocations.

**State's Planned Risk Strategy:** Mitigate.

**State's Planned Risk Response:** VDOL leadership is currently working with the Administration and Legislative leaders to ensure sufficient annual funding for the UI program including the increased costs associated with the new system.

**Timing of Risk Response:** Ongoing

**Reviewer's Assessment of State's Planned Response:** VT's planned response is acceptable.

**Updates Discussed During Final Presentation:** VDOL explained that there are current operational costs that will be shifted to fund new system operations and that this risk will be used to inform budget conversations to advocate for securing additional funding needed. VDOL has started work to acquire VT funding for the UI program but is unsure of the conclusion as there are many options VT can take for UI program funding.

| Risk #: | Risk Likelihood/Probability: | Risk Impact: | Overall Risk Rating: |
|---|---|---|---|
| 2 | Medium | High | High |

**Source of Risk:** IT and Project Management Interviews

**Risk Description: VDOL and ADS might not have the necessary resource availability to address Project requirements within the expected Project timeline.**

BerryDunn learned through interviews with ADS that data clean-up and migration is expected to be a complex and potentially time-consuming process requiring both technical and business resources. IT support will focus on the actual migration of data, but business resources must first validate and clean-up the data. Business resources will also be required for user acceptance testing. BerryDunn believes the following might be factors in resource availability issues potentially adversely affecting the Project timeline:

- The quantity of data to be migrated has not yet been contractually agreed upon.
- Data clean-up will be especially complex due to potential data integrity issues with pandemic program data.
- ADS is prepared to participate in data migration tasks, as needed, however day-to-day maintenance of the legacy system will constrain ADS resources.
- Business resources might not have the time necessary to support data clean-up, data validation, and user acceptance testing.
- Staff augmentation resources (to supplement business resources during data clean-up, data validation, and user acceptance testing) are not included in the current Project budget.

| Risk #: | Risk Likelihood/Probability: | Risk Impact: | Overall Risk Rating: |
|---|---|---|---|
| 2 | Medium | High | High |

**State's Planned Risk Strategy:** Mitigate.

**State's Planned Risk Response:** VDOL and ADS have discussed demands of their departments on this Project. Each has conducted a review and determined we have resources in place to begin. As the Project progresses to new phases, staffing should again be reevaluated, and this repeated as we progress. VT has recently executed a contract for resources to provide mainframe support, and additional staff augmentation may be necessary.

**Timing of Risk Response:** Beginning with data cleanup and continuing throughout the Project.

**Reviewer's Assessment of State's Planned Response:** VT's planned response is acceptable.

**Updates Discussed During Final Presentation:** VDOL and ADS explained that three positions have been secured from the VT Legislature to backfill positions and that they are also exploring rehiring recently retired staff to support the Project. The business office has also secured three positions, which means that 5-6 positions could be available to support the Project.

ADS is also currently hiring two positions that will be allocated to VDOL; the goal is to have dedicated staff allocated to the new operating model. AOE and VDOL IT resources have also been consolidated to expand capacity.

Furthermore, VDOL's and ADS' plan is to have a full-time project manager and business analyst assigned to the Project. VDOL and ADS are also reassigning printing responsibilities to the Bureau of General Services, which will free up 4–8 hours per day of additional resource availability.

VT has also had discussions with FAST to better understand VT's resource expectations.

| Risk #: | Risk Likelihood/Probability: | Risk Impact: | Overall Risk Rating: |
|---|---|---|---|
| 3 | Medium | Low | Low |

**Source of Risk:** IT interview

**Risk Description: The unknown plan for bridging between the new system and legacy system, to provide the wage information needed for tax rate calculations (between post phase one go-live and phase two go-live) might adversely affect the Project timeline and/or related efforts.**

BerryDunn learned through an interview with ADS that, should the Project occur in two phases as planned, bridging between the new system and legacy system will be required to provide the wage information needed for tax rate calculations. The plan for this bridging has not yet been fully defined and therefore, the related implications remain unknown.

**State's Planned Risk Strategy:** Mitigate

**State's Planned Risk Response:** VDOL and ADS will work with FAST prior to contract execution to understand (at a high level) best practice approaches to system bridging and subsequently develop a detailed plan prior to phase 1 go-live to implement the most viable approach (and consider incorporating this requirement into the phase 1 acceptance criteria in the contract).

**Timing of Risk Response:** Prior to contract execution and phase 1 go-live.

**Reviewer's Assessment of State's Planned Response:** VT's planned response is acceptable.

| Risk #: | Risk Likelihood/Probability: | Risk Impact: | Overall Risk Rating: |
|---|---|---|---|
| 3 | Medium | Low | Low |

**Updates Discussed During Final Presentation:** The ADS Secretary requested that ADS and BerryDunn revisit this risk after the final report-out meeting. The changes to the original risk are now reflected in the final version above.

| Risk #: | Risk Likelihood/Probability: | Risk Impact: | Overall Risk Rating: |
|---|---|---|---|
| 4 | Medium | Low | Low |

**Source of Risk:** Leadership interview

**Risk Description: Individuals who are key to the successful implementation and/or adoption of a new system might be resistant to change.**
BerryDunn learned through an interview with VDOL leadership that there are some concerns key individuals will be resistant to change and might not fully adopt the new system and adapt to expected process changes.

**State's Planned Risk Strategy:** Mitigate

**State's Planned Risk Response:** VDOL to ensure key individuals are engaged in system development/testing and that Organizational Change Management efforts are focused on this expected resistance.

**Timing of Risk Response:** During Project planning and throughout the Project.

**Reviewer's Assessment of State's Planned Response:** VT's planned response is acceptable.

**Updates Discussed During Final Presentation:** VDOL explained that they are mindful of the importance of messaging and engaging staff throughout the Project to help improve adoption of the new system.

| Risk #: | Risk Likelihood/Probability: | Risk Impact: | Overall Risk Rating: |
|---|---|---|---|
| 5 | Low | Low | Low |

**Source of Risk:** IT, Leadership, and Project Management Interviews

**Risk Description: With the transition to a new IT Lead, the Project might be slowed by the loss of UI and IT institutional knowledge.**
BerryDunn learned that the long-time IT lead supporting VDOL has left the Project but is remaining with VT. The Project has transitioned to a new IT lead. The new lead is an established State employee, which is a mitigating factor, however the previous lead's knowledge of the mainframe and the UI programs is no longer available to the Project.

**State's Planned Risk Strategy:** Mitigate.

**State's Planned Risk Response:** VT will work to leverage existing ADS and VDOL resources to analyze and help fill knowledge gaps created by the staff departure.

| Risk #: 5 | Risk Likelihood/Probability: Low | Risk Impact: Low | Overall Risk Rating: Low |
|---|---|---|---|
| **Timing of Risk Response:** During Project planning and throughout the Project. | | | |
| **Reviewer's Assessment of State's Planned Response:** VT's planned response is acceptable. | | | |
| **Updates Discussed During Final Presentation:** VT is working to execute staffing mitigation strategies (as stated in Risk # 2) to help ensure all staffing positions for supporting the Project are filled. | | | |