

**State of Vermont
Joint Fiscal Office**

**Independent Review
of
State Information Technology Projects,
Operations, and Organizations
(Act 74 of 2021, Sec. E.127.1)**

**Unemployment Insurance
Modernization Project**

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Prepared by: Lisa M. Gauvin, IT Consultant

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A. Executive Summary

The Joint Information Technology Committee is meeting to consider the release of \$30 million dollars appropriated in the FY23 budget. This release is required so the State may execute a contract for a new unemployment insurance information system (UI System). Note: Because the State has not signed a contract with the vendor, the vendor is not named in this document.

This system is one component of the VDOL Unemployment Insurance Modernization Project (UIM). This review looks at both business and technical costs related to this project.

The UIM contains the following components:

- The Unemployment Insurance System (UI System) (replacing existing application and mainframe)
- Support for required business changes:
 - Business Process Redesign Project
 - Staff Augmentation (add staff to fill in for those reassigned to the project)

The contract term for the selected vendor for the Unemployment Insurance System (UI System) is five years. This includes a 25-month implementation period and 3 additional years of ongoing management and operations.

The UIM Project has known and unknown costs. The **total cost for the UI System's** 25-month implementation period and three years of management and operations is **\$45.3 million**. The cost of the components related to the Business Process Redesign and Staff Augmentation are unknown.

The **funds available for this project are \$52.3 million** from appropriations in FY22, FY23, an increase in VDOL operating budget to support this project, and savings from costs used to support the old system.

The difference between the total funds available (\$52.3 million) and the known costs (\$45.3 million) is **\$7 million, which is available for Business Process Redesign and Staff Augmentation**. See "Financial Considerations" at the beginning of page 10 for detailed information.

I recommend this project be approved, and this document lays out the evidence supporting this conclusion. There are a few outstanding items that need clarity. I recommend that the legislature request notification as each issue is resolved. These items will be outlined in Section G, Risks Informing Future Reviews.

Additional Information

1. The current UI system's applications were developed in COBOL, and the application and mainframe components are 40 to 50 years old. Recently, the system has experienced unexpected outages, and state technical staff have been working to stabilize it.
2. The selected UI system has been successfully implemented in six other states. This vendor has also successfully implemented multiple systems for the State, and these systems were delivered on time and within budget.
3. The technical plan for the approach is sound. The contract written by ADS and VDOL has detailed requirements and clear objectives.
4. The costs of this project are comparable to UI system implementations in other states.

B. Ratings by Review Area

1. Overall status:



The selected vendor has implemented UI systems on time and within budget in six states. This vendor has worked with this State, delivering other solutions – on time and budget. The implementation plan is of high quality. The ADS/VDOL team wrote a solid contract with clear objectives and deliverables. There are sufficient funds. JFO recommends this project proceed.

2. Project Justification: (Why are we doing this? Is the project necessary and beneficial?)



There is a strong justification for this project. A modern, secure information system should replace the current Vermont Department of Labor 50-year-old mainframe and 30 to 40-year-old applications.

3. Clarity of Purpose: (Is the definition of success established?)



The contract has clear objectives which are supported by detailed system and business requirements. The evolution in the clarity of the objectives between the initial RFP and the contract indicates an effective feedback loop informed by the vendor evaluation process.

4. Organizational support: (Does the business fully support the project?)



The named project team is qualified. Commissioner Harrington is seeking a vendor to assist in business process redesign, which is critical for system success. Although the Project Manager has not been named, the RFP to secure this resource is under consideration. I believe the effort to secure the contracted resource will not delay the project.

5. Project Leadership: (Does the project have strong and effective leadership?)



The assigned project leadership is qualified. Commissioner Harrington and Secretary Reilly are supportive and engaged.

6. Project Management: (Is the project management staff appropriate, and will project management conform to State of Vermont standards?)



A contract Project Manager has not been assigned to the project. A contractor will be selected to serve in this role. The Director of the State EMPO office will oversee all project management and ensure it is performed to State standards. Secretary Reilly-Hughes ensures a qualified PM will be in place for the project kickoff.

7. Financial Considerations: (Is funding secure and sufficient for the anticipated life of the system?)



Although the costs related to VDOL staff augmentation and VDOL business process redesign efforts are unknown at this time, the appropriations in place for VDOL for these expenditures and ongoing operations. Prior appropriations cover all technical costs.

8. Technical Approach (Are the proposed technical solutions achievable, realistic, and appropriate for this project?)



At the time of the bid submission, the vendor successfully implemented UI systems in 6 states on time and budget. The vendor has also delivered other systems to Vermont on time and budget. The implementation methodology is familiar to State staff, and its effectiveness has been proven. The vendor successfully delivered integrations with other state systems in previous projects. The proposed approach is achievable, realistic, and appropriate.

C. Review Process

This analysis was conducted using the existing methodology for an IT project review on behalf of the Joint Fiscal Office (JFO) and the Vermont Legislature. The project review focused on seven key subject areas:

1. Project Justification
 - Does the project need to be done?
2. Clarity of Purpose
 - Is there a clear definition of success so all participants know when the project is completed correctly?
3. Organizational Support
 - Is the affected organizational entity ("the business") fully supportive of the project, and is the business willing and able to adapt where required?
4. Project Leadership
 - Will there be strong and effective leadership to guide the project?
5. Project Management
 - Will there be qualified and effective project management to assist project leadership?
6. Financial Considerations
 - Are costs through the system lifecycle adequately estimated, and is there funding?
7. Technical Approach
 - Are the proposed technical solutions achievable, realistic, and appropriate for this project?

Projects are reviewed using available information based on the project's current phase. The Agency of Digital Services (ADS) indicates this project is at the end of the planning stage. (See Appendix 1 for a description of the phases of a project.) Typically, a vendor is not identified until a contract is signed, so I will not name the vendor in this document.

The information analyzed for this review was gathered from the following sources:

- Documentation from the Enterprise Project Management Office ADS. (See Appendix 3 for a listing of EMPO documentation by project phase.)
- Conversations, emails, and testimony with the Commissioner of VDOL, Michael Harrington.
- Conversations and emails with the ADS Secretary, Denise Reilly-Hughes.
- Emails and discussions with other ADS staff.
- The CIO's independent review for this project.

Note: In this document, the term "independent review" refers to a review described in 3 VSA § 3303(d). This is a requirement for ADS to obtain an independent expert review of any new information technology projects with a total cost of \$1,000,000.00 or greater or when required by the Chief Information Officer. This independent review has a different scope than the JFO IT Review, and a vendor selected by ADS conducts it.

D. Project Description

The Vermont Department of Labor (VDOL) seeks to implement a modern cloud-hosted UI system to replace the aging, standalone mainframe UI system. This project is named the VDOL Unemployment Insurance Modernization (UIM).

The UIM contains the following components:

- The Unemployment Insurance System (UI System) (replacing existing application and mainframe)
- Support for required business changes:
 - Business Process Redesign Project
 - Staff Augmentation (add staff to fill in for those reassigned to the project)

The vendor will implement the UI System in two phases over the course of 25 months.

- Phase 1: Tax Module
This phase includes employer registration, wage/tax processing, tax rate calculation, audit, etc.
- Phase 2: Benefits Module
This phase includes initial, continued/weekly claims, benefit payments and charging, determinations, adjudications, etc.

These phases will be supported by the following modules included in the vendor-delivered solution:

- Financial Modules (for payment /refunds, etc.),
- Compliance Module (fraud prevention, identity verification, benefit overpayment identification, collections, bankruptcy)
- Business Intelligence Module (reporting, etc.)
- System Management Module (business rule management, help, security, etc.)
- Support Functions Module (workflow, case management, appeals, appointments, etc.)

The services required by the UI system vendor during the implementation and ongoing support and hosting are detailed in the contract. These services include development and design, project and operations management, support and maintenance, consulting, training, hosting, backup and recovery, technology updates and upgrades, and other professional services.

Details and costs related to the support required for business change (Business Process Redesign and Staff Augmentation) are currently unknown. An RFP is planned to identify a Business Process Redesign contractor. The staff augmentation will be informed by the planning completed with the UI System vendor at the project's onset.

The financial analysis for this project is based on the 5-year life cycle that is aligned with the 5-year term of the vendor contract.

The available funds to support this project over five years include:

- **Appropriation 1:** \$3.5 million (funded via FY22 Big Bill) for outward-facing claimant and employer portals.
- **Appropriation 2:** \$30 million (funded via FY23 Big Bill) for mainframe replacement.
- **\$15 million (calculated from \$3 million per year increase in the VDOL annual operating budget beginning in FY24 to support the UIM.**
- **\$3.8 million in savings from decommissioning the old system after year 3.**

The total funds available for this project are \$52.3 million.

E. Assessment by Project Review Area

1. Project Justification

The current UI system's applications were developed in COBOL, and the application and mainframe components range from 40 to 50 years old. While the system has been functional over the years, it is at end-of-life. The system failed because of the surge of users during the COVID-19 pandemic. Recently, the system experienced unexpected outages, and state technical staff have been working to stabilize the environment.

A previous effort to modernize the system began in 2016. This was an effort by a multi-state consortium based on Idaho's UI system. This project failed due to the inability to reach consensus on requirements and was terminated in January 2020.

In addition, the federal government has changed the unemployment insurance program over the years, and changes are challenging to make in this aging system. The State has contracts for COBOL programmers that cost the State approximately \$520,000 per year.

Two years ago, JFO reviewed the risks associated with making changes to the mainframe and its applications. JFO concluded that changes to the State's mainframe unemployment insurance program pose a high degree of risk and should be avoided due to high risks. These risks include, but are not limited to:

- the inability of citizens, employers, or state staff to access the unemployment insurance program for an unpredictable amount of time,
- corrupt data,
- data loss,
- incorrect calculations.

In addition, there is little to no documentation of the unemployment insurance program to inform code changes. This lack of documentation means that a change in program code could have unpredictable results, including system failure.

The current UI system has experienced recent disruptions, and stabilizing the environment has been a challenge for State staff.

Assessment of Project Justification

The age, risk, and instability of the current VDOL UI mainframe and the interface present a significant risk to Vermonters' continued services, which is sufficient justification for UI modernization. In addition, the current system has limited quality control, fraud prevention, and identity verification mechanisms. The State relies on external contractors to maintain/update the COBOL code. This project is justified and long overdue.

Summary: The current VDOL UI system, which consists of the old mainframe, COBOL programming, and manual processes, should be replaced by a modern, secure information system.

2. Clarity of Purpose

The Project Description states that the State seeks to replace the current aging mainframe, COBOL applications, and manual processes with a modern hosted UI system. The contract outlines explicit deliverables for a two-phased approach to implement Tax and Benefits Modules and supporting modules that allow security, configuration, reporting, etc.

The contract describes services, functional, and business requirements in detail. Objectives are clear, define successful project completion, and are supported by extensive explicit requirements. The vendors' implementation plan is reflected in the contract and aligned with the State's requirements. The scope of work includes project management services and artifacts, adherence to budget, resolution of any deficiencies (functional, material, or operational), configuration per requirements, alignment of solution to requirements, timeframe, documentation, and training.

Assessment of Clarity of Purpose

The State has clear project objectives aligned with requirements that outline the criteria for successful project completion. The objectives support the specific list of deliverables and the development of project management artifacts that navigate a project to a successful conclusion.

The contractor delivered the same project modules on time and on budget in six states. The contractor's implementation methodology is reflected in the contract. The State has wisely aligned its work with this successful process while ensuring the State's interests are protected by the contract.

Summary: The State has demonstrated clarity of purpose within the details of the contract. The State has aligned with the selected vendor's implementation methodology that has resulted in on-time/on-budget implementations in six other states. Implementing the new system will transform how the VDOL operates and improve services to Vermonters.

3. Organizational Support

Organizational support is assessed by examining key indicators that communicate leadership in the organization supports the project. This support is reflected by assigning qualified staff, supporting change management, understanding the need for business process redesign, and providing appropriate training.

Both Commissioner Harrington and Secretary Reilly-Hughes have demonstrated support for the project. There are, however, challenges impacting all areas of state government. Due to the low unemployment and short supply of housing, it isn't easy to hire staff. In addition, ADS has over 100 projects in some stage of planning or development. Commissioner Harrington wisely secured funding for staff augmentation to support the UI system modernization, but it is unclear how difficult it may be to secure staff.

The following key Business Leads representing VDOL have been assigned to the project.

- Business Sponsor: Commissioner Harrington
- Business Lead: Kristine Murphy
- Assistant Business Lead: Sanchita Banerjee

Here is Commissioner Harrington's description of his selected team.

"Kristine has worked for the Department going on 20 years. She started as a front-line staff person and has held a variety of lead positions across the UI Division over her tenure. When I started with the Department, she was the UI Tax Chief. She then became an assistant director and eventually was hired as the Associate Director. She is arguably the most knowledgeable person about VT UI and the various systems that support the administration of the program. I cannot imagine building a new system and not having her spearhead that effort. She will be supported in this role by UI's Business Application Support Manager Sanchita Banerjee. Sanchita has worked on the Department's modernization work since before I started in 2017. At the time, she was a contracted Business Analyst. She stayed on even after we cancelled the project with Idaho and provided ongoing modernization and analyst work for ADS and the Department during this time and especially during the Pandemic. She was hired by the Department in early 2023 as a full-time staff member. She has intimate knowledge of the current system, as well as what it will take to move us to a new, modern system. – Commissioner Harrington"

Additional Subject Matter Experts will be identified and assigned to the project team as the project kickoff activities begin.

The Agency of Digital Services has assigned the following staff to the project:

- IT Sponsor: Secretary Reilly-Hughes
- IT Lead: Tracey Delphia
- Enterprise Architect: John Hunt
- Business Analyst: yet to be named, will be identified by start of project.
- Project Manager: will be a contractor under oversight of EPMO Office Director Stacy Gibson-Grandfield; RFP is underway to find contractor.

Secretary Reilly-Hughes has said the Business Analyst will be identified by the time the of the project begins. The Project Manager will be contracted, and the RFP selection process for this vendor is underway. This resource will be under the oversight of EPMO Office Director Stacy Gibson-Grandfield.

The implementation process includes developing a project plan containing sub-plans for resourcing (identifying project staff) and determining roles and responsibilities at the project's onset. This process will ensure the project team understands their roles and responsibilities. In addition, the development

of the resource and change management plans also involves identifying the project stakeholders. This ensures the community impacted by the new system is included in project communications.

The VDOL team will contract for business process redesign after conducting a competitive bid. They are using the same format/scope of work that was used by the business team on the Enterprise Resource Planning project, which also has a recognized need for business process change. This approach taken by the State is a best practice when implementing significant organizational change. Using a common approach enables the State to assess/adapt its own operations as new technology emerges. This approach to process redesign also includes change management components because the new system will require significant changes to how employees work.

The project implementation plan developed by the vendor includes a training component. Although the contract covers the scope of the training that the vendor will deliver, the details of the training phase will be outlined during the training plan development deliverable. This training development process will allow stakeholders to see which training they will receive and understand what they are responsible for learning about the new system based on their role. The State has opted to use the "Train the Trainer" option. This means the vendor trains specific staff to conduct training on the system, so the State has the materials and ability to train new employees over time.

Assessment of Organizational Support

The State has assigned most key project staff to the project while the ADS Business Analyst and Project Manager have not yet been identified. The vendor implementation plan includes developing the project and resource plan and identifying roles and responsibilities as one of the earliest project activities. The full project team needs to be identified for this work to begin.

The State has committed to contracting for assistance with Business Process Redesign which addresses the changes that VDOL will have to make as it uses the new software. Business Process redesign is critical to the project's success. The JFO will monitor this effort, in addition to the implementation of the system. Because it is closely tied to the system, the business process redesign project should be managed by a qualified Project Manager (not the implementation project manager) and coordinated with the larger implementation project. Change management services should be used to ensure stakeholders and employees are informed about the project. Training is included in the vendor's scope of work, which is another indication of organizational support.

Summary: Although the lack of assignment of the key project manager and Business Analyst roles is a concern, the Project Manager's selection process is underway, and ADS is clear it must name a Business Analyst to the project to commence. Vendors on State retainer contracts can be used to fill both roles if needed. The fact that other key team members have been identified and there is a plan for securing business process redesign is another positive factor. A plan for training is also in place. Because I feel the staff will be assigned for the start of the project, I do not think this current deficit should impact on the approval process.

4. Project Leadership

Commissioner Harrington will serve as Project Sponsor. Secretary Reilly-Hughes is the IT Sponsor. Project Sponsors approve and support the project goals, appropriate resources, and monitor progress. Project leaders assume active responsibility and accountability for success. The project leaders for this

project have been named. Kristine Murphy has been named Business Lead. Tracey Delphia has been named IT Lead. The Project Manager will be contracted but has not yet been identified. The Business Analyst has not yet been identified. Additional team members and subject matter experts will be named during the vendor's preparation phase of the project implementation.

Assessment of Project Leadership

The project leaders are empowered to make day-to-day business decisions during the project implementation. The project sponsors will set the tone and the example of how staff support and respond to the project team as they work through the implementation. Project leadership is qualified, and Secretary Reilly-Hughes has been clear a qualified Project Manager and Business Analyst will be assigned to the team by project kickoff.

Summary: Project leadership is qualified. Commissioner Harrington is supportive. As stated in the Organizational Support, although the Project Manager has not been named, I believe the effort to secure the contracted resource will not delay the project.

5. Project Management

A Project Manager (PM) has NOT been assigned to this project as discussed above. ADS has indicated a contractor will provide the project management. Stacy Gibson-Grandfield, Director of the Enterprise Project Management Office (EMPO), will oversee the contract and ensure all activities are conducted according to EMPO standards or the hybrid standard agreed to by the State and the vendor.

Assessment of Project Management

There is a plan to contract for project management services. This Project Manager will work with the Business Lead and the vendor Project Manager to ensure the project management methodologies are aligned, and the State PM can report status updates to the State dashboard.

Summary: A contractor serving as State Project Manager has not been assigned to the project. The Director of the EMPO office will oversee all project management and ensure it is performed to standards. JFO will request that ADS notifies the JFO IT Consultant when these roles are filled.

6. Financial Considerations

Assessing the cost of the system

The winning bid for the UI System Modernization project was \$28,149,000, which includes the implementation, hosting, licenses, and support for five years.

The CIO's independent reviewer compared the bid received from the winning vendor to recent UI implementations in six states (Colorado, Tennessee, New York, Missouri, and Michigan). Four of these states used vendors other than the winning bidder in Vermont. Although acknowledging the potential differences in solutions, the independent reviewer determined the winning bid was comparable in costs to other states.

UIM Project Expenses

The following budget information is from the ADS IT Activity Business Case & Cost Analysis spreadsheet and the draft vendor contract provided on January 3, 2024. This information will be updated after the vendor contracts have been signed.

Line #	Activity	Cost	Notes
Expenses			
Implementation Costs			
1	UI System Vendor Costs		
2	Implementation/Installation/Configuration	\$21,400,000	Includes Tax and Benefits Modules - and modules needed to administer and secure the system.
3	Initial Software and Licenses	\$6,000,000	
4	Hosting	\$749,000	
5	<i>Total UI System Vendor Implementation Costs</i>		\$28,149,000
6	Other Contractor Costs		
7	Total Contracted Services for Project Management	\$832,000	1 FTE for 3 Years
8	ADS Costs		
9	Total ADS Costs	\$1,808,942	ADS Services, Hardware, and Other Costs
10	Other Costs		
11	Total CIO's Independent Review	\$25,000	
12	Total Technical Implementation Costs	\$30,814,942	

Year 1	Year 2	Year 3	Year 4	Year 5	5 Year Total
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\$21,400,000					\$21,400,000
\$6,000,000					\$6,000,000
\$749,000					\$749,000
\$277,333	\$277,333	\$277,333			\$832,000
\$1,808,942					\$1,808,942
\$25,000					\$25,000
\$30,260,275	\$277,333	\$277,333			\$30,814,942

13	Unknown VDOL Implementation Costs		
14	Contracted Business Process Redesign	TBD	RFP Pending
15	Staff Augmentation During Implementation	TBD	Status Unknown
16	Other?	TBD	
17	Total VDOL Implementation Costs	TBD	

TBD	TBD	TBD	TBD	TBD	TBD
TBD	TBD	TBD	TBD	TBD	TBD
TBD	TBD	TBD	TBD	TBD	TBD
TBD	TBD	TBD	TBD	TBD	TBD

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*Precise cost per year unknown but will be spread across yrs 1&2

UIM Project Expenses (Continued)

The following budget information is from the ADS IT Activity Business Case & Cost Analysis spreadsheet and the draft vendor contract provided on January 3, 2024. This information will be updated after the vendor contracts have been signed.

Line #	Activity	Cost	Notes	Year 1	Year 2	Year 3	Year 4	Year 5	5 Year Total
	Ongoing Costs								
18	Hosting by UI Vendor	\$2,151,000	Based on the average cost from the vendor over a five-year contract.	\$430,200	\$430,200	\$430,200	\$430,200	\$430,200	\$2,151,000
19	Annual Software Maintenance Fee	\$5,417,000	Based on the average cost from the vendor over a five-year contract.	\$1,000,000	\$1,040,000	\$1,082,000	\$1,125,000	\$1,170,000	\$5,417,000
20	Application Support Services	\$5,100,000	Based on the average cost from the vendor over a five-year contract.	* \$2,500,000	\$1,000,000	\$800,000	\$500,000	\$300,000	\$5,100,000
21	ADS Services Cost	\$1,830,400	2 FTEs @ \$84 estimate per ADS	\$366,080	\$366,080	\$366,080	\$366,080	\$366,080	\$1,830,400
22	<i>Total 5 Yr Operating Cost</i>	\$14,498,400		\$4,296,280	\$2,836,280	\$2,678,280	\$2,421,280	\$2,266,280	\$14,498,400
23	Total 5 Year Expenses	\$45,313,342	Plus, VDOL Expenses TBD	\$34,556,555	\$3,113,613	\$2,955,613	\$2,421,280	\$2,266,280	\$45,313,342

See Revenues on Next Page

* Application support costs decrease after high demand in early years.

Revenues Available to UIM Project

Line #	Activity	Cost	Notes	Year 1	Year 2	Year 3	Year 4	Year 5	5 Year Total
	Funding								
24	Total appropriated by GA for this project in FY22 and FY23	\$33,500,000	\$3.5 million (funded via FY22 Big Bill) \$30 million (funded via FY23 Big Bill)	\$33,500,000					\$33,500,000
25	VDOL Appropriation to Support Modernization for this 5yr Life Cycle	\$15,000,000	\$3Million added to VDOL operating budget beginning in FY24	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$15,000,000
26	Savings from shutting down current system after 3 years	\$3,820,130	Source: ADS ABC Form				\$1,910,065	\$1,910,065	\$3,820,130
27	Total Appropriations/Savings	\$52,320,130		\$36,500,000	\$3,000,000	\$3,000,000	\$4,910,065	\$4,910,065	\$52,320,130

See next page for Assessment of Financial Considerations

Assessment of Financial Considerations

The independent review for this project determined the cost of this project is comparable to UI System implementations in other states.

The examination of the project costs finds the project has received sufficient funding for implementation and ongoing operations of the UI System. However, there are still business costs of this project that have not been identified. These costs are related to VDOL staff augmentation, business process redesign services, and other unidentified costs that VDOL may incur. Section H "Risks Informing Future Reviews," includes recommendations for monitoring these activities.

Summary: The costs of this project are comparable to implementations of the same products in other states. Sufficient funds are available for the UI System implementation, ongoing costs. JFO asks the State to report back to the GA when Business Process Redesign, Staff Augmentation, and other VDOL business-related modernization work are known.

7. Technical Approach

The methodology proposed by the vendor for this project has been used to implement the UI System in at least six states successfully. These projects were delivered on time and budget. This vendor has used this approach when delivering systems to other Vermont agencies and departments on time and within budget. Vermont is familiar with the methodology and trusts the vendor's process.

This implementation is complex. According to the independent reviewer, the system must integrate with at least six separate systems. However, the vendor has successfully integrated with some of the same Vermont systems in other projects.

This project includes a data migration and conversion component. This is a common requirement in system modernizations. The complexities related to data conversion and migration are explained in Appendix 4 of this document. This vendor has successfully navigated this process in other projects in Vermont. See Section H, "Risks Informing Future Reviews," for more information on how we will monitor this risk.

The State has chosen to have the vendor host the new UI System, and the contract has sufficient requirements for providing security for the system. The State has also chosen to purchase the premium support, which includes vendor assistance during system upgrades. This is an appropriate choice for Vermont.

Lastly, the implementation plan describes a "go-live" for the Tax module of the system at the end of the first year, followed by a "go-live" for the Benefits module of the system a year later. Although I believe the vendor can produce a system in this timeframe, I have serious concerns about whether the current UI application will function properly if the benefits portion of the old system is decoupled from the Tax components.

The State is aware of this concern and will assess this plan as the project progresses.

This issue does not impact the vendor's ability to deliver the system in the two-phase approach they proposed in their bid. The State can still test and accept the Tax module but delay the "go-live" until the Benefits module has been completed. This concern is based on the lack of stability of the old system and has nothing to do with the new system or the implementation process used by the vendor.

Assessment of Technical Approach

The vendor's implementation methodology has a proven track record in Vermont and other states. This methodology consistently brings projects to completion on time and within budget.

The data conversion and migration are complex for this project, and JFO will monitor this work throughout the life of this project.

JFO has concerns about the plan to go live with the Tax Module after phase 1. The concern has nothing to do with the new solution but is related to whether the current UI legacy system can function if the tax portion of the application is detached from the mainframe. The State will assess this risk as it moves toward completion of the tax module.

Summary: The technical approach proposed by the vendor is sound and has successfully brought other projects in Vermont and other states to completion on time and within budget. JFO has concerns about decoupling the tax portion of the current UI system to go live with the new Tax module at the completion of phase 1. ADS will assess this risk during phase 1 of the project.

F. Additional Information

Although not part of the technical implementation, the redesign of the VDOL business process is critical to UIM and VDOL operations. JFO will monitor the progress of this work along with the progress of the system implementation.

G. Risks Informing Future Reviews

All projects have risks. The key is to mitigate and monitor these risks. JFO routinely monitors the same areas in each project but identifies project-specific risks and follows up on these risks during the monitoring process.

General Areas to Monitor

1. Are milestone dates being met?
2. Is the project adequately staffed?
3. Has the State team identified any function or process that cannot be achieved using the system? If so, what was the outcome? Did they eliminate the function/process or find a workaround?
4. Have there been any change orders?

Additional Areas to Monitor

5. Follow-up on information that was unknown during the UIM Project Review
 During the JFO Review Process, the following information was not available to inform the review:
 - Personnel/Contractor assigned to Project Manager and Business Analyst Roles
 - The Costs related to VDOL Staff Augmentation, Business Process Redesign Project, and Other Costs required to support the business side of the UIM.
 JFO requests the State provide this information to the JFO IT Consultant when it becomes available.

6. Business Process Redesign
 VDOL will contract with a qualified vendor to assist in redesigning the business process to support the incorporation of the new UI system into VDOL operations. The UI system will be transformative for VDOL, and this redesign must be aligned with the UI system. This is a complicated process that must be aligned with new UI system. As in other complex projects, a qualified Project Manager should guide this effort. JFO will monitor the progress of this work.

7. Data Migration/Data Conversion (AKA Extract Transform Load)
 This project will require a complex data migration and data conversion process. This is called Extract, Transform, and Load (ETL) process. Data migration refers to moving data from one system to another (Extract and Load). Data conversion refers to changing the data while moving it into a new system (Transform). JFO will monitor this effort in future reviews because it has been known to cause considerable difficulties if not appropriately planned. (See Appendix 4 for detailed examples of this issue.)

8. Integration Points
 The independent review identified six system integrations for the project. The integration requirements are included in the contract, and this vendor has live projects in other Vermont agencies/departments, so they are accustomed to working with the State's applications. JFO will monitor the status of all integration activities. The implementation plan must also address how VISION's (current state financial system) integration points are coordinated with the planned migration of VISION PeopleSoft to the WorkDay Financial Management Module.

H. Conclusion

Based on the review of this project, JFO recommends this project be approved. The current system is unstable and must be replaced with a modern, secure information system. The selected vendor has successfully implemented this system in other states. The contract is sound and has clear objectives and deliverables. Commissioner Harrington and Secretary Reilly-Hughes have assigned qualified key staff to the project. VDOL has secured funding to augment staff as they are assigned to the project team throughout the project. Commissioner Harrington has committed to hiring a qualified vendor to assist in redesigning the business processes. This project will be transformational for the Department, and a key

challenge will be documenting the new business processes and ensuring staff are adequately trained, classified, and prepared to perform their new roles. Provisions are in place to support this work.

Secretary Reilly-Hughes has stated a process is underway to select the Project Manager whose work will be overseen by the Director of the ADS Enterprise Project Management office. The Secretary will assign a qualified Business Analyst by the project kickoff.

JFO has analyzed the technical costs and gathered information about the funds available for VDOL for this project. There are sufficient funds to cover the UI System implementation and operations costs for the contract term. The cost of the Business Process Redesign is unknown, as is the cost of the required staff augmentation. This is a risk to staff augmentation and business process redesign activities. However, the UI System contract is sound, and the existing system is unstable. The successful track record of the vendor in six other states and with other projects in Vermont is critical. JFO recommends releasing the \$30 million appropriation so the State may execute the contract for the UI System.

Appendix 1: Phases of a Project

Initiating Phase: During this phase, the project is proposed, initially defined, and approved. The Initiating Phase is considered complete when a Project Charter has been accepted that defines what is going to be accomplished, why it is necessary, when it is going to be completed, and who is responsible and accountable for the project's success.

Planning Phase: In the planning phase, the groundwork is laid for the executing phase. This includes developing project plans and defining the specifics of scope, requirements, schedule, and cost. The procurement process is started (RFPs), and risk management is planned. Communications between stakeholders (status reports, etc.) are established.

Executing Phase: During this phase, the actual work required to meet project goals is performed in accordance with the project plans. This includes the execution of contracts, the performance of project work, and the management of communications between project participants and stakeholders.

Closing Phase: In the closing phase, the project is determined to be complete, and for most projects, the transition is made from a project mode to an operations mode. Procurements are closed, project teams are released to other tasks, and lessons learned are documented.

Throughout: During all phases, the project team monitors project status and controls scope, schedule, work, costs, quality, communications, risks, procurements, and stakeholder engagement.

Appendix 2: JFO IT Project Review Areas

The JFO review areas with high-level questions are as follows:

1. Project justification - Is the project justified?
2. Clarity of purpose - Is the definition of success established and realistic?
3. Organizational Support - Does the business fully support the project?
4. Project leadership - Is there strong and effective leadership?
5. Project management - Is there a plan for effective project management?
6. Financial considerations - Is funding secure and sufficient for the anticipated life of the system?
7. Technical approach - Is the project technically feasible, and is the proposed technical approach the right one?
8. Risk management - Are the major project risks identified and properly mitigated?

Appendix 3: EMPO Documentation by Project Phase

Phase 1: Exploration

- Initial project backlog
- Request for Information (RFI)
- IT Business Case/Cost Analysis (IT ABC form)
- Finance codes

Phase 2: Initiation

- Stakeholder List
- Project charter
- Prioritized product backlog
- Release plan roadmap

Phase 3: Planning

- RFP
- Independent Review Report (for projects >\$1 million in lifecycle costs)
- Contract
- Updated IT ABC form

Phase 4: Execution

- Release schedule
- Product backlog
- Sprint backlog
- Product

Closing Phase

- Deliverables acceptance
- Lessons Learned
- Final IT ABC Form

Appendix 4: Data Conversion and Migration (AKA ETL) Risks Described

ETL stands for Extract, Transform, and Load.

Here are some examples of data conversions (transformations) of data that may be required for this implementation:

- The new system may use different code values. If so, old values must be changed to new values. For example, a "gender field" in the old system may have used the value of "01" for males, but the new system uses "M" for males.
- The field type in the new system might be different. For example, the mainframe database used by the VDOL may use three fields for month, day, and year for a date. The new system likely uses a single date field. When moved into a new system, these fields must be combined into one.

A process must be set up to make these changes as the data is migrated (loaded) to the new system.

This ETL process is complicated because the old system will be used until the new one goes online. It's not as simple as throwing a switch because the old systems probably did not have as many controls to prevent mistakes when entering data as the new system will have.

In the example of the date field set up in the legacy mainframe database as three separate fields, the person who set it up didn't add rules to make sure April didn't have more than 30 days. This means there might be a typo in the system that includes a day 31 for April. If data coming in from this old database violates the business rules of a new system, the new system could reject the entire record associated with that one wrong field. This could cause other records associated with that one bad field to be rejected too. Multiply a problem like this by the number of date fields in the old mainframe and you will understand what this could be a daunting problem.

This issue could be handled in multiple ways. A process could be developed to review data before import and correct errors in the old system, so the records are clean and ready to load on the day the State switches to the new system.

Another way to handle it would be to allow these "bad" records to be loaded into the system and have business rules enforced on new data only and gradually fix the data for current records as renewals are issued. This issue is common in system implementations but requires careful planning.

Note: Data conversion is within the task list in the vendor's SOW, so it is definitely on the vendor's radar.